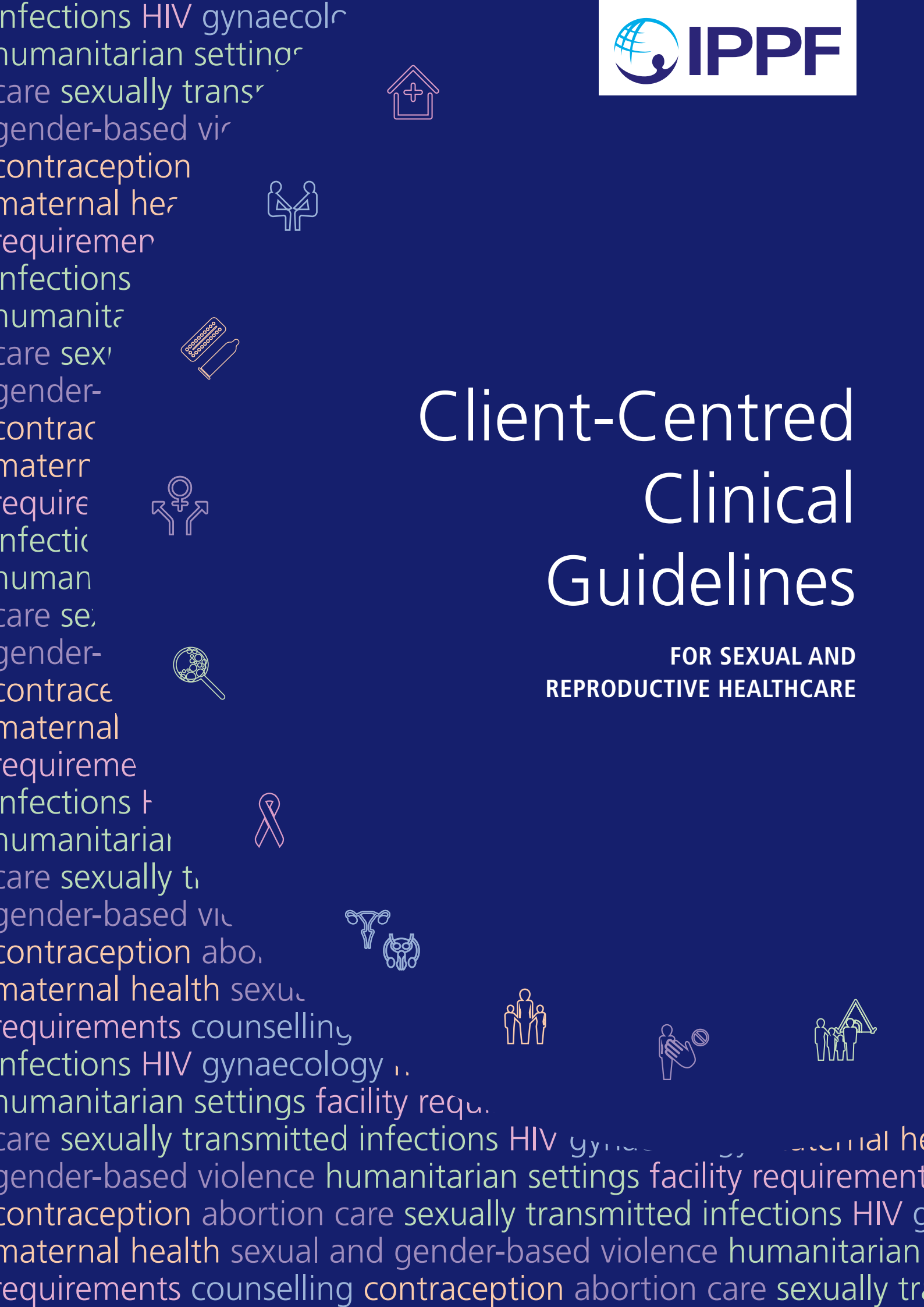

Client-Centred Clinical Guidelines

FOR SEXUAL AND REPRODUCTIVE HEALTHCARE

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Foreword

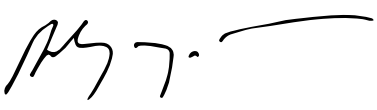
A comprehensive approach to sexual and reproductive health and rights is critical to ensuring sexual and reproductive well-being and bodily autonomy. The full continuum of care must be accessible across a life cycle. Sexual and reproductive health includes not only prevention and treatment of disease, but promotion of healthy and satisfying sexuality and reproduction. This means going beyond contraception, abortion, and treatment of sexually transmitted infections including HIV, to inclusion of sexual health, assisted reproductive care, and recognition of the range of gender expression.

A new International Planned Parenthood Federation (IPPF) strategy 2022–2028 is being developed to guide the collective work of IPPF and its Member Associations. It prioritizes person-centred care and recommends investments in self-care and new healthcare delivery models that are adapted to clients' needs in different circumstances and contexts, especially reaching those who are excluded and marginalized.

It feels like the perfect time to launch these Client-Centred Clinical Guidelines. They equip healthcare staff with recommendations for clinical management, including treatment and prevention, based on sound scientific evidence.

With its global network of over 40,000 healthcare delivery points and its strong advocacy voice, IPPF is in a unique position to bring together evidence in support of sexual and reproductive health and rights. Regardless, I know that revising clinical guidelines is an enormous project, which includes identifying key questions and topics, evidence retrieval and synthesis, appraisal of evidence quality and existing recommendations from international bodies (such as the World Health Organization), and assessing relevance to the settings in which we work. Thank you to everyone involved.

My biggest thanks, however, go to you – the healthcare worker or program manager about to read these guidelines – because through your daily work, you are directly contributing to building a world where people, in all their diversity, are free to make choices about their sexuality and well-being. **Thank you.**



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main contents

Part 1
Overview and Cross-cutting Issues

MAIN CONTENTS

Chapter 1: Guiding principles and approaches

contents

1. Quality of care

1.1 Introduction

Access to quality client-centred and rights-based care for all people is critical to sexual and reproductive healthcare delivery and programming.

The International Planned Parenthood Federation's (IPPF) quality of care framework [1] provides guidance for ensuring quality of care in delivery of sexual and reproductive healthcare by IPPF Member Associations and partners. The framework underpins IPPF's guiding principles and values, and identifies key elements and components that are essential for ensuring quality of care. It incorporates IPPF's Charter of Client Rights and Provider Needs, which requires that all Member Associations:

- Ensure the rights of clients to accurate and up-to-date information; easy access to healthcare; choice of healthcare and methods; privacy, safety, comfort, and dignity when receiving healthcare; confidentiality; continuity of healthcare; and right of opinion.
- Ensure healthcare providers have access to continuous learning and training; accurate and up-to-date information; proper infrastructure to provide high-quality healthcare; guidance and backup from managers and supervisors; and support, respect, and encouragement.

Additionally, IPPF has standards and principles that all IPPF Member Associations need to uphold and promote to be part of the Federation, including an overarching assessment of an association's quality-of-care practices [2]. These new Client-Centred Clinical Guidelines update the previous guidance from IPPF published in 2004 – the Medical Service Delivery Guidelines [3].

1.2 Guiding principles and values

1.2.1 Client-centred approach

Clients are at the centre of IPPF's approach to quality of care and have the right to receive the highest quality of healthcare. Clients should be empowered to make decisions about their health and well-being, the care and treatments they choose and receive, and to access the health system.

A client-centred approach means that healthcare providers are aware of the clients' needs and meet and respect their rights. This includes providing options for healthcare and models of care relevant to an individual's needs, preferences, and lived experiences; for example, by providing options for care through digital health interventions or support for self-care, respectful interaction with clients, and provision of accurate information. Managers and supervisors should also ensure that the rights of clients are fulfilled, as are the needs of healthcare providers.

Healthcare delivery points should provide information and education to all, regardless of age, sex, gender, marital status, ability to pay, ethnic origin, political and religious beliefs, disability, sexual orientation, or any other characteristics.

1.2.2 Rights-based approach

The rights-based approach is informed by various global treaties and declarations. Building on the 1948 Universal Declaration of Human Rights [4], which includes the right to health, and the 1994 International Conference on Population and Development (ICPD), which recognizes: "*the basic right of all couples and individuals to decide freely and responsibly the number, spacing and timing of their children and to have the information and means to do so, and the right to attain the highest standard of sexual and reproductive health*" [5], the current integrated definition of sexual and reproductive health and rights is that: "*Sexual and reproductive health is a state of physical, emotional, mental, and social wellbeing in relation to all aspects of sexuality and reproduction, not merely the absence of disease, dysfunction, or infirmity. Therefore, a positive approach to sexuality and reproduction*

should recognize the part played by pleasurable sexual relationships, trust, and communication in promoting self-esteem and overall wellbeing. All individuals have a right to make decisions governing their bodies and to access services that support that right" [6].

By placing an individual's dignity and needs at the centre of the design, implementation, monitoring, and evaluation of healthcare and healthcare delivery, IPPF aims to ensure the respect, protection, and fulfilment of every individual's human rights and protect full, free, and informed choice for sexual and reproductive health.

The rights of clients can be outlined as follows:

Right to information: All individuals have a right to know about the benefits and availability of sexual and reproductive healthcare for themselves and their families. They also have a right to know where and how to obtain information and sexual and reproductive healthcare. All sexual and reproductive health programmes should disseminate information about sexual and reproductive health, not only at healthcare delivery sites, but also at the community level.

Right to access: All individuals have a right to obtain sexual and reproductive healthcare, regardless of their race, sex, gender identity, sexual orientation, marital status, age, religious or political beliefs, ethnicity, disability, or any other characteristics that could make individuals at risk of discrimination. Fulfilment of this right requires ensuring access through various healthcare providers as well as healthcare delivery systems.

Sexual and reproductive health programmes should take the necessary steps to ensure that healthcare will reach all individuals in need, especially those for whom healthcare is not yet easily accessible. Special focus should be given to young people, under-served and marginalized populations such as sex workers, men who have sex with men, people who use drugs, sexually diverse populations, those with disabilities, and prisoners.

Right to choose: Individuals and couples have the right to decide freely whether to have children including which contraceptive methods to use and the decision to opt out of a pregnancy. Respect for the choices of clients encompasses all sexual and reproductive healthcare throughout a client's full life cycle, and includes decisions where informed consent is critical (e.g. HIV testing, adoption of pre- or post-exposure prophylaxis for HIV, contraception, and abortion care). The information and education provided should be unbiased and enable clients to make informed, free choices and decisions concerning their fertility and other sexual and reproductive health matters in a non-coercive manner, without incentives or disincentives for clients or healthcare providers, and without clients being prevented from accessing a healthcare option if another option has been accepted.

When seeking sexual and reproductive healthcare, clients should be given the freedom to choose between methods or treatments whenever possible, such as between methods of abortion or contraception. Sexual and reproductive health programmes should assist individuals in the practice of informed, free choice by providing an adequate range of contraceptive methods and between surgical and medical methods of abortion. Clients should be able to obtain the method that they have decided to use – provided that there are no contraindications to its use – free from judgement or stigma.

A client's concept of acceptability and appropriateness changes with their circumstances. Therefore, the right of choice also involves a client's decisions about method switching or discontinuation, adoption of pre-exposure prophylaxis treatment for HIV, or pursuit of assisted reproductive care, for example.

As far as is practical, clients have a right to choose where to go for sexual and reproductive healthcare, and the type of healthcare provider with whom they feel most comfortable. Choosing where to go may involve a choice of physical location or a choice of healthcare delivery model (e.g. community-based care, pharmacy, tele-health, home-based care, hospital, health centre, or sexual and reproductive health clinic). Governmental, non-governmental, and private sector providers should welcome the establishment of alternative healthcare outlets.

Right to safety: Clients have a right to be protected from unintended pregnancy, disease, and sexual violence and,

when receiving sexual and reproductive healthcare, this right to safety implies the following:

- Although the benefits to health from contraception generally outweigh any risks, clients have a right to protection against any possible negative effect on their physical and mental health.
- Since unintended pregnancies may represent a risk to health, the right of the client to safety also includes the right to effective safe abortion care and contraception.
- When receiving healthcare, clients also have a right to protection against other health risks that are not related to a method of contraception (e.g. protection against the possibility of acquiring an infection through contaminated instruments).

Safety relates to the quality-of-care provision, including both the adequacy of the healthcare delivery facility itself, and the technical competence of the healthcare providers. Ensuring the client's right to safety includes assisting the client in making informed choices about their sexual and reproductive healthcare, screening for contraindications, use of the appropriate techniques to provide care, counselling the client about use of contraceptive methods and reproductive healthcare treatments, and ensuring proper follow-up. The conditions in healthcare delivery facilities, together with the materials and instruments, should be adequate for the provision of safe care. Any complications or serious side effects should receive appropriate treatment. If treatment is not available at a particular healthcare facility, the client should be referred to another facility.

Safety also includes provision of healthcare in a setting free of discrimination, harassment/abuse, or other harmful behaviours from providers, staff, or other clients [7]. All individuals have the right to be protected from all forms of harm, neglect, and exploitation, regardless of age, sex, race, sexual orientation, gender identity, ethnicity/origin, religion, partnership status, pregnancy or parental status, disability, health, or any analogous personal status.

Right to privacy: Clients have a right to discuss their needs or concerns in a private environment. Clients should know that their conversation with the counsellor or healthcare provider is private.

When a client is undergoing a physical examination, it should be carried out in an environment in which their right to bodily privacy is respected. The client's right to privacy also involves the following aspects related to quality of care:

- When receiving counselling or undergoing a physical examination, the client has the right to be informed about the role of everyone in the room (e.g. individuals undergoing training, supervisors, instructors, researchers, etc). Where the presence of individuals undergoing training is necessary, prior permission from the client should be obtained.
- A client has a right to know in advance the type of physical examination that is going to be undertaken. The client also has a right to refuse any examination if they do not feel comfortable with it or to request that this examination is done by another healthcare provider.
- Any case-related discussions held in the presence of the client (particularly in training facilities) should involve and acknowledge the client.

Right to confidentiality: Clients should be assured that any information they provide or any details of the healthcare received will not be communicated to third parties without their consent. The right to confidentiality is protected under the Hippocratic oath. As such, sexual and reproductive healthcare should be performed in conformity with local legal requirements and in accordance with ethical values.

A breach of confidentiality could cause the client to be shunned by the community, negatively affect the relationship status of the client, result in sexual and gender-based violence from a partner, spouse, or family member, or put the client at risk of police harassment where sexual orientation and/or some healthcare is criminalized. It may also decrease a community's confidence and trust in the staff of a healthcare delivery programme. In accordance with the principle of confidentiality, healthcare providers should refrain from talking about clients by name or in the presence of other clients. Clients should not be discussed outside of

healthcare facilities. Client records should be kept closed and filed immediately after use. Similarly, access to client records should be restricted.

Right to dignity: Clients have a right to be treated with empathy, courtesy, consideration, attentiveness, and with full respect of their dignity regardless of their level of education, social status, race, ethnicity, marital status, gender identity, sexual orientation, or any other characteristics that could single them out or put them at risk. In recognition of this right, healthcare providers must put aside any personal prejudices while providing healthcare.

Right to comfort: Clients have the right to feel comfortable when receiving care. This right is intimately related to adequacy and organization of healthcare delivery facilities (e.g. healthcare facilities should have proper ventilation, appropriate cleanliness, lighting, seating, and toilet facilities). Clients should spend only a reasonable amount of time at the premises to receive the required care. The environment in which the care is provided should be in keeping with the cultural values, characteristics, and demands of the community.

Right to continuity: Clients have a right to receive sexual and reproductive healthcare and supplies, such as contraceptives, for as long as needed. The care provided to a particular client should not be discontinued unless a decision is made jointly between the healthcare provider and the client. A client's access to other sexual and reproductive healthcare should not depend on whether they continue with contraception (or another care option) or not. The client has a right to request transfer of their clinical record to another clinical facility and, in response to that request, the clinical record, or a copy of it, should be sent to that facility or given to the client. Referral and follow-up are two other important aspects of a client's right to continuity of care.

Right to opinion: Clients have the right to freely express their views on the healthcare that they receive. Clients' opinions on the quality of care, be it in the form of thanks or complaint, together with their suggestions for changes in care provision, should be viewed positively in a programme's ongoing effort to monitor, evaluate, and improve its healthcare.

Any new programme or healthcare delivery facility should ideally involve clients at the planning stage. The aim is to satisfy would-be clients' needs and preferences in ways that are appropriate and acceptable to them.

Programme managers and healthcare providers should achieve fulfilment of all clients' rights. This goal is directly related to the availability and quality of sexual and reproductive health information and care.

1.2.3 Inclusivity

All individuals who may need healthcare must have access to care that considers their unique needs, irrespective of visible or invisible differences. Some groups are more likely to face barriers to accessing care or to be excluded from care than others; for example, people with disabilities, sex workers, transgender and non-binary people, and young people. All efforts should be made to design healthcare and models of care to directly address barriers to accessing care for these groups.

Healthcare and the language used to describe care should be gender-inclusive of women and girls, intersex people, transgender people, and people with other gender identities or non-binary identities. IPPF recognizes that individuals who have the capacity to become pregnant may not identify as women or girls and, in this vein, accessible and inclusive healthcare requires explicit recognition of this. Concerning maternal healthcare, contraception, and abortion care, healthcare should be inclusive of all people who may have the reproductive capacity to become pregnant. The aim of these Client-Centred Clinical Guidelines is gender inclusivity; however, for the purposes of language agility, where the term 'women and girls' has been used on occasion, it refers to all people who have the capacity to become pregnant.

1.2.4 Gender-transformative approach

IPPF is committed to achieving gender equality as a human right to advance women's and girls' empowerment, closely interlinked with sexual and reproductive health and rights. IPPF embeds a gender-transformative approach in healthcare delivery, ensuring that every woman and girl is provided with healthcare

that enhances their decision-making and control over their lives, and thereby challenging gender norms, roles, and stereotypes that stigmatize women's reproductive autonomy. IPPF seeks to ensure that overcoming sexual and gender-based violence is a key component of integrated and comprehensive programming. This includes screening and counselling healthcare related to sexual and gender-based violence (see *Chapter 3: Counselling* and *Chapter 10: Sexual and gender-based violence* for more details).

1.2.5 Youth-centred approach

IPPF is committed to ensuring that the needs of adolescents and young people are acknowledged, respected, and fulfilled. This can be achieved through integrating a youth-centred approach at all levels of the organization and supporting youth leadership both inside and outside IPPF. A youth-centred approach promotes sexual rights as human rights. Youth programming enhances an understanding of respect, equity, sexual expression, and freedom from stigma and discrimination, not only among young people, but among their parents, other adults, and the communities they live in. Promoting these values will enable young people to take action to secure their own well-being and happiness, as well as show solidarity with those whose rights are being violated. This approach has implications for the way healthcare delivery programmes are designed and implemented [8].

1.3 Key elements and essential components

The key elements and essential components of IPPF's quality of care framework [1] provide practical approaches to ensure that sexual and reproductive healthcare meets the needs of the client.

1.3.1 Safe and confidential environment

Ensuring a safe and confidential environment is essential to providing quality sexual and reproductive healthcare. Sexual and reproductive health programmes should aim to create healthcare delivery points that are safe spaces where clients can receive care, fully self-expressed, without fear of being made to feel uncomfortable, unwelcome, or challenged on account of sex, race, ethnicity, sexual orientation, gender identity or expression, cultural background, age, or physical or mental ability. Individuals' self-respect, dignity, and feelings should be acknowledged and respected.

Healthcare delivery points should be set up at appropriate locations that are secure for both clients and healthcare providers. In addition, facilities should ensure privacy and confidentiality. The healthcare delivery point should have adequate space requirements and adequate set-up for the category of sexual and reproductive healthcare being delivered. Client information and data should also be maintained and kept confidential (see *Chapter 2: Facility requirements and client history/examination* for more details).

1.3.2 Comprehensive integrated healthcare

A wide range of sexual and reproductive healthcare should be available at the healthcare delivery point to meet the needs of clients. IPPF's recommended package of healthcare includes a strong referral system and feedback mechanisms (see *Section 2*) and ensures that a client receives comprehensive integrated healthcare, preferably at a single location [9].

Providers must offer comprehensible, medically accurate, and comprehensive information about the healthcare available. Healthcare delivery should be informed by medically accurate and up-to-date healthcare delivery standards and protocols and/or nationally agreed best practices and guidelines.

1.3.3 Well-managed healthcare

Well-managed healthcare combines professional competency with outstanding personal attention and care. The care must be compatible with the needs and demands of clients, including follow-up, and safe and reliable referral for healthcare not offered at the delivery point.

The systems (such as staffing, equipment, and drug supply) should be sufficiently resourced and have adequate distribution to enable the delivery of appropriate and quality healthcare. Furthermore, collected data should be accurate, complete, and inform necessary improvements or changes to healthcare

delivery. This involves clear planning, implementation, monitoring and evaluation, and effective management of staff, income, finances, equipment, supplies, and time.

1.3.4 Highly skilled and respectful personnel

To ensure high-quality healthcare for clients, healthcare delivery points must be equipped with an appropriate number of staff required to support the listed functions defined by the level of healthcare provision.

All staff members (including healthcare providers and support staff) must adhere to IPPF's mission and core values. They must be respectful and non-judgemental to all clients, including young people and other marginalized groups.

Healthcare providers should receive support, in the form of training, coaching, mentoring, supervision, and motivation, to provide a wide range of quality sexual and reproductive healthcare, including a range of contraceptive methods. They must have the technical and interpersonal skills to provide such care and meet the needs of all clients. Healthcare providers should be trained in youth-friendly healthcare provision and be supportive of the rights of young people and other marginalized and under-served groups, such as transgender people and people living with HIV and AIDS. Healthcare providers must feel comfortable providing healthcare to unmarried young people and other marginalized groups. They should also be comfortable providing the full range of sexual and reproductive healthcare including abortion care, regardless of personal beliefs or religion.

Staff members should be able to jointly review clinic performance and make changes and improvements when necessary. They must also be able to assess their own performance, in part based on feedback on their competence and attitude as assessed by clients and staff. Feedback is necessary from all involved in the healthcare delivery system, including managers, supervisors, colleagues, and clients.

1.3.5 Secured supply chain management system

Healthcare delivery points need effective supply chain management to ensure a continuous supply of sufficient quantities of quality commodities. The supply chain should ensure that the client receives the right product (that is, the range of products necessary to meet the diverse needs of users), in the right quantities and in the right condition (products of good quality, intact and in date), to the right place at the right time for the right cost (including the cost of the commodities and indirect costs such as transportation, loss of income, etc).

1.3.6 Adequate financial resources

Sufficient resources are needed to effectively deliver high-quality sexual and reproductive healthcare that includes the right team, with the right training, a good infrastructure, the right equipment, and the right commodities. These resources must be forecasted, planned, and administered using healthcare data and a value-for-money approach, with a view to ensuring healthcare delivery points become financially sustainable over a period of time.

Financial health and sustainability can be gauged by the availability of adequate financial resources to ensure continuance of healthcare delivery, which can be assessed by zero stock-outs, growing net revenue (adequacy of revenues to cover expenses), and diversity of funding streams to enable contingency if any stream of funding is negatively affected by any events.

1.3.7 Effective communication and feedback system

Healthcare delivery points must be client focused and should have well-functioning monitoring and evaluation systems, in which both client and community are empowered to take an active part in achieving and ensuring the highest quality of care and continuous quality improvement. Accordingly, there should be a mechanism to receive client feedback at the healthcare delivery point and within the community, and to respond to it in a timely and appropriate manner. At IPPF, anyone can report a concern, including clients, members of the public, and anyone working or volunteering for the IPPF Secretariat, Member Associations, etc, through SafeReport [10].

Assessment mechanisms that use performance data and obtain feedback from healthcare providers so that

improvements can be made are also essential, including for adverse events reporting and learning mechanisms, generally via clinical governance systems. Community engagement ensures that healthcare is responsive to community needs, which fosters quality assurance and improvement, responsive planning and programming, creates demand and empowerment, and promotes rights.

1.3.8 Meeting healthcare provider needs

The needs of healthcare providers must also be addressed to make clients' rights a reality, or it may be impossible for healthcare providers to truly uphold clients' rights. The needs of healthcare providers include training, information and guidance, appropriate infrastructure and supplies, respect and recognition, encouragement and feedback, and self-expression. Healthcare providers also need to be reassured that whatever the environment in which they are working – from the community level to the most comprehensive clinical healthcare delivery site – they are members of a wider community and network of support.

Working tirelessly, often in difficult legal, economic, and social environments, healthcare providers can be at risk of harassment, abuse, discrimination, and stigmatization for delivering healthcare to clients. This is especially true for those who provide stigmatized healthcare, such as abortion care, or work with marginalized groups such as sex workers. Healthcare providers and clinic staff must have their right to safety, dignity, and well-being protected to enable them to carry out their work. This means providing a safe working environment and ensuring policies and procedures are in place to prevent and mitigate risk, and to assist and support healthcare providers when needed.

2. Integrated package of essential healthcare

2.1 Background

IPPF is committed to delivery of comprehensive, integrated, quality sexual and reproductive healthcare to all clients. A package of healthcare should address the minimum sexual and reproductive health needs of the population that IPPF has committed to deliver. The package of care places the client at the centre of healthcare delivery and ensures that quality, integrated healthcare is delivered to all.

The range of included healthcare reflects IPPF's commitment to ensure universal access to sexual and reproductive healthcare and takes a life-course approach that emphasizes a continuum to sexual and reproductive health, framed in a rights-based approach. The package of healthcare can be used as a framework to support the achievement of IPPF's organizational and programmatic goals.

These Client-Centred Clinical Guidelines have been designed to reflect a package of essential sexual and reproductive healthcare. Healthcare providers and other users of the guidelines can refer to relevant chapters for general information and healthcare delivery guidance on the components of essential sexual and reproductive healthcare, complete with relevant links and references to support holistic and comprehensive provision of care.

A package of essential healthcare can serve as the entry point for further integration of other health and support services, minimizing missed opportunities for care. For example, if a client seeks abortion care, the client may have had unprotected sex and been exposed to sexually transmitted infections including HIV, or sexual and gender-based violence. It may provide a good opportunity to offer additional healthcare, ensuring that the client receives all of the required care in a single visit.

Providing a package of integrated healthcare not only benefits the individual by ensuring access to a wide range of care, but also contributes to strengthening the health system:

- **A client-centred framework for healthcare provision.** IPPF promotes client-centred healthcare delivery by addressing the most pressing sexual and reproductive health needs of the individual, resulting in improved health outcomes for the client by providing a holistic approach to healthcare delivery.
- **A framework for prioritization of resources.** Defining core healthcare enables Member Associations to prioritize a comprehensive range of sexual and reproductive healthcare.
- **A framework for programming.** At the global and regional level, integrated healthcare provides a framework for the IPPF Secretariat to define its technical priorities allowing effective and efficient support within IPPF.
- **A framework for developing systems.** Integrated healthcare can be used as a framework for developing and refining systems, including health management information systems, supply chain management, quality of care, and performance measurement and governance to support the strengthening of integrated sexual and reproductive healthcare delivery.

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Part 2
Sexual and Reproductive Healthcare

MAIN CONTENTS

Chapter 2:

Facility requirements and client history/examination

contents

Contents

contents (continued)

1. Introduction

This chapter provides guidance on the requirements for comprehensive sexual and reproductive healthcare facilities (including design and infrastructure) and how to take a client's medical history and conduct physical examinations. It intersects with several chapters, including *Chapter 3: Counselling*, *Chapter 8: Gynaecology and other reproductive healthcare*, and *Chapter 11: Sexual and reproductive healthcare delivery in humanitarian settings*.

What are the facility requirements and clinical guidance for sexual and reproductive healthcare in humanitarian settings?

For detailed guidance, programme managers and frontline healthcare providers should refer to *Chapter 11: Sexual and reproductive healthcare delivery in humanitarian settings* and various guidance tools:

- Minimum Initial Service Package (MISP) for Sexual and Reproductive Health in Crisis Situations [1]
- Inter-Agency Field Manual on Reproductive Health in Humanitarian Settings [2]
- Inter-Agency Reproductive Health Kits [3]
- Adolescent Sexual and Reproductive Health (ASRH) Toolkit for Humanitarian Settings [4]
- MISP process evalation tools [5]
- Reproductive health kits calculator [6]

2. Facility requirements for comprehensive sexual and reproductive healthcare

To ensure the sustainability, quality, and uptake of healthcare, programme/clinic managers should implement standard requirements for sexual and reproductive healthcare facilities for the following: clinic infrastructure (*Section 2.1*); supply chain management (*Section 2.2*); health facility finance (*Section 2.3*); health workforce competency (*Section 2.4*); infection prevention and control (*Section 2.5*), quality improvement mechanisms (*Section 2.6*); and referrals, community partnerships, and linkages (*Section 2.7*). As a general recommendation, facility requirements should follow international standards that consider accessibility, to ensure that disability inclusion is considered standard quality criteria [7,8]. Furthermore, issues related to infrastructure should also follow accessibility criteria to ensure inclusion of people with disabilities, although national regulations and frameworks may differ. All clients benefit from accessible infrastructure.

2.1 Clinic infrastructure

It is essential to consider infrastructure and design when setting up a static sexual and reproductive health clinic or integrating sexual and reproductive healthcare into existing facilities. The space required will depend on the healthcare being provided, the client population, and plans for scaling up or introducing additional services in the future.

2.1.1 Sexual and reproductive healthcare

Comprehensive sexual and reproductive healthcare delivery includes sexual and reproductive health and rights counselling, abortion care, maternal and newborn health, contraception, sexual and gender-based violence prevention and response services, screening and treatment for sexually transmitted infections (STIs) including HIV, cervical cancer screening and treatment, laboratory testing, and general gynaecological care for all population groups. However, the level of sexual and reproductive healthcare may vary and will depend on the designated facility level. The minimum standard for most sexual and reproductive healthcare, including basic emergency obstetric and newborn care (BEmONC) can generally be provided in primary health clinics with space between 700 and 1,500 ft^2 (65–139 m^2), whereas healthcare for permanent contraceptive methods, abortion care at or after 13 weeks, and comprehensive emergency obstetric and newborn care (CEmONC) can be provided with clinic space between 1,500 and 2,000 ft^2 (139–186 m^2). A summary of comprehensive sexual and reproductive health facility requirements is provided in *Appendix 1*.

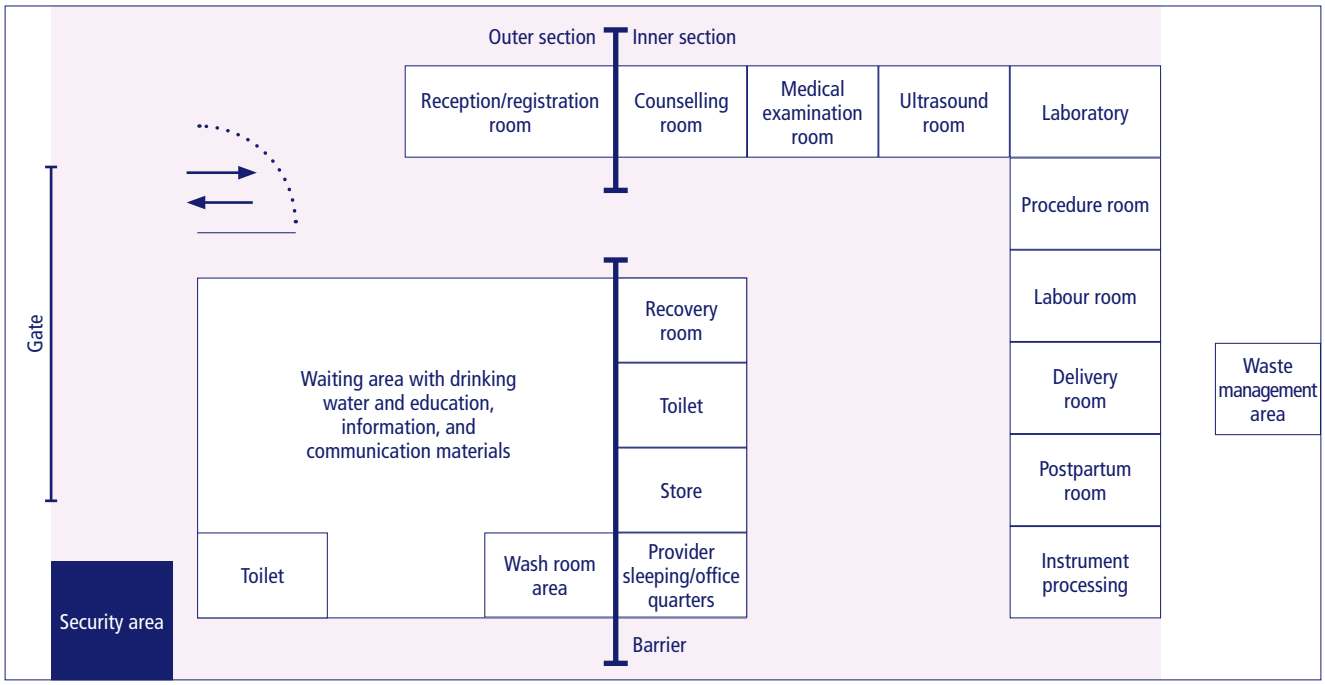
2.1.2 Location

When selecting a location, the clinic should be easily accessible, safe from environmental factors such as heavy air/water pollution and natural disaster-prone areas, and within distance of referral sites. The clinic should be close to public transport, preferably less than a 20-minute walk from the nearest bus stop, train station, or other public transport. Clinic opening hours should be convenient for everyone – especially those traveling long distances and marginalized groups, such as people with disabilities – with specialized clinic hours. The clinic should be secure and safe for both clients and healthcare providers during clinic hours and security measures should be in place to prevent unwanted people from entering the clinic and for clients' easy and safe passage into and out of the clinic.

2.1.3 Infrastructure and design

Clinic infrastructure and design must reflect the provision of current and future healthcare and the needs and safety of clients. The clinic infrastructure should have access to reliable water and electricity supplies and be accessible for all clients, including people with different impairments or physical disabilities (see *Box 1*: *Accessibility of clinic infrastructure and information* – next page). The clinic should be designed to include an outer and inner section to help ensure safety, privacy, confidentiality, and prevention of infection. Client flow should be one way to avoid clients going back to the waiting area, except to exit the clinic. A separate exit is preferable if the clinic provides abortion care and/or healthcare for young and marginalized people. It is preferable that separate procedure and recovery rooms are provided for pregnant and labouring clients, abortion clients, survivors of sexual and gender-based violence, and clients seeking permanent sterilization. The design of the facility outlined in *Figure 1* should be adapted based on the designated level of the facility and intention to scale up integrated sexual and reproductive healthcare. *Figure 1* illustrates the two main sections of static sexual and reproductive healthcare facilities. The *outer section* includes the reception/registration, waiting areas, toilets, and handwashing station. The *inner section* includes counselling, examination, laboratory, ultrasound, and procedure rooms, recovery room, and toilet for clients. The barrier/wall between the outer and inner sections of the facility is the permanent partition that ensures audiovisual privacy and prevents non-essential movement into the inner section of the clinic (see *Appendix 1*).

FIGURE 1. Example of an ideal setup for a sexual and reproductive healthcare facility



BOX 1: Accessibility of clinic infrastructure and information

Entrances/doors

- Paved street
- Signage in accessible format
- Tactile markings
- Adequate door width at the gate for pedestrians
- Dedicated parking spaces for people with disabilities

Facility areas

- Adequate facility area
- Cemented pathway
- No obstacles to impede movement through facility areas
- Orientation signs
- Tactile markings on the floor to orient people with visual impairments
- Drainage system
- Ramps follow international standards
- Stairs follow international standards
- Handles, grips, and handrails for support on the stairs and ramps
- Tactile markings at the bottom and top of stairs and ramps
- Furniture arrangement does not obstruct movement
- Reception counter is an appropriate height
- Floor of the stairs is not slippery

Outpatient department rooms

- Secure cupboards with doors that close
- Space for wheelchair users to move freely
- Adequate door width
- No difference in level to enter rooms or ramps available
- Up-to-date and adjustable equipment (e.g. examination and delivery beds)
- Accessible beds
- Accessibility of information
- Good ventilation
- Bathroom and toilets
- Cemented pathways leading to toilets
- Dedicated toilet for people with disabilities
- Toilet seats available
- Handles and handrails are sufficient and in the right position to enable people with mobility impairments and wheelchair users to use the toilet
- Sink inside the toilet room

Visible and accessible signage

- Signs and information in accessible formats
- Good lighting

Communication

- A focal person trained in sign language

2.2 Supply chain management

Sexual and reproductive healthcare delivery requires supplies, equipment, and infrastructure. Supply chain management focuses on people having access to a consistent supply of essential medicines and consumables. A functional supply chain requires the availability of the right medicine in the right quantity for the right client at the right time and the right condition (quality), and for the right price (in the most efficient, safest, and least costly way possible). As a result, essential supply chain management functions consist of product selection, forecasting/quantification, procurement, storage, inventory management, transportation, resupply, and serving beneficiaries. A key indicator is to ensure adequate stock, preferably a 3-month supply of essential equipment, commodities, and medicines for all sexual and reproductive healthcare provided at the facility. To ensure quality medicines and equipment are procured, dispensed, and utilized, health facility managers should select based on their country's essential drug and equipment lists and/or the international prequalification standards set by the World Health Organization (WHO)/UNFPA [9]. These instruments and medications must be routinely included in the planning, budget procurement, distribution, and management systems. *Appendix 2* outlines the essential drugs, equipment, and supplies required for the sexual and reproductive healthcare described. See *Section 5.1: Resources* for guidance tools related to supply chain management.

2.3 Health facility finance

Health facility budgets must include sufficient funds for the following types of costs: administration costs and equipment, drugs, and supplies required to provide sexual and reproductive healthcare and infection prevention and control; personal protective equipment; budget lines for reasonable adjustments for people with disabilities; staff time; community and stakeholder outreach activities, training programmes, and supervisions; infrastructure upgrades; record-keeping; and monitoring and evaluation. Health facility managers should develop yearly budget projections and conduct quarterly health facility assessments and analyses to inform any necessary budget amendments.

2.4 Health workforce competency

Within the health system, a health workforce consists of support staff, healthcare providers of all cadres, and community health workers. Where possible, the health workforce should reflect the diversity of the local population, including under-represented groups such as people with disabilities. All staff working in a health facility should be trained on the facility's clinical standard operating procedures and healthcare delivery guidelines. Healthcare providers must be trained, technically competent, and use appropriate clinical technologies to provide high-quality sexual and reproductive healthcare. Community health workers must be trained and demonstrate competency to provide evidence-based information, basic healthcare (dependent on legal context), and referrals along the sexual and reproductive health and maternal, neonatal, child, and adolescent health continuum of care. Support staff within the health facility must be trained to provide a welcoming and safe environment, even when conducting administrative tasks, infection prevention and control, security measures, finance, and supply chain management. Where there are gaps in competence, the health workforce should receive staff development training to ensure that competencies in skills, knowledge, and attitudes essential for providing quality sexual and reproductive healthcare are maintained. Regardless, clinic managers should ensure that the health workforce receive periodic updates of their skills.

2.5 Infection prevention and control

All staff, clinical and non-clinical, must be trained to apply universal precautions for infection prevention and control. These efforts must be performed in every situation and reinforced further in public health outbreaks and pandemics where healthcare providers are in contact with blood, body fluids, non-intact skin, and mucous membranes. Infection prevention precautions must be taken, regardless of the infection status or diagnosis of the client, to reduce the risk of disease transmission for clients and healthcare providers in the facility. Infection prevention and control protocols and information, education, and communication materials should be available, displayed, and implemented. If staff are exposed to any bodily fluid, the procedure for occupational exposures as indicated in facility standard operating procedures should be followed. The essential elements of infection prevention and control include handwashing, personal protective barriers, utilization of aseptic technique, facility cleanliness and waste management of infectious waste, and proper handling and processing of sharp instruments and materials. See *Section 5.1: Resources* for guidance tools related to infection prevention and control.

2.6 Quality improvement mechanisms

Programme and clinic managers should ensure the effectiveness, equity, efficiency, and quality of their health system by implementing systematic quality improvement mechanisms at both individual and organizational levels of healthcare delivery. The core objective of quality improvement is to improve care and client safety through non-punitive learning. All quality improvement activities must be systematically planned and integrated into facility operations by utilizing simple indicators, performed ethically, and be participatory and transparent for staff, clients, and community stakeholders. Regular data collection and analysis of client health records, collected manually or electronically through a clinic management information system, and healthcare statistics are needed to improve or maintain quality standards for healthcare delivery. This may include institutionalizing a data reporting

system for data entry on all sexual and reproductive healthcare, equipment, drugs, and supplies; supportive supervision and mentoring; review and analysis of all sexual and reproductive healthcare statistics and policies through logbook reviews; client management information system checklist; self-assessment tools; observations using checklists, clinic audit tools, case reviews, serious adverse events and near-miss audits; client exit interviews; feedback from staff and inclusive of all members of the community (including youth and people with disabilities); and outreach healthcare assessment tools. Collected data should allow for disaggregation by marginalized groups (e.g. age, disability status, immigration status). The International Planned Parenthood Federation's (IPPF) quality of care framework provides detailed guidance on sexual and reproductive health quality improvement frameworks and indicators [10]. See *Section 5.1: Resources* for other relevant information on quality of care.

2.7 Referrals, community partnerships, and linkages

Facility–community partnerships across sectors enhance the quality of healthcare delivery, including referrals and the sexual and reproductive health-seeking behaviours of individuals in the community. The location of referral points (e.g. higher-level facilities, rehabilitation centres), as well as referral pathway protocols must be prearranged, established, and clearly displayed and communicated to all staff and community health workers. Health facility staff play an important role as local leaders in their communities and community health workers play an important role in building linkages between community members, their local facilities, civil society organizations (e.g. women's groups, youth groups), and social services. Together these partnerships help empower individuals to access sexual and reproductive healthcare and help people recognize signs and symptoms to access care in a timely manner. See *Chapter 3: Counselling* for guidance on creating an enabling environment along the continuum of care.

3. Medical history

In addition to counselling clients, taking a detailed medical history is an important component of the client–healthcare provider relationship. Topics discussed during counselling may be relevant when taking a medical history. The core rights-based principles and guidance provided in *Chapter 3: Counselling* apply to all healthcare providers taking a client's medical history.

3.1 What to include in a medical history

After welcoming a client to the facility and introducing the provider(s), taking a medical history is the next step in the client–healthcare provider relationship and underpins the reasons behind subsequent physical examinations and decisions about diagnostic testing and sexual and reproductive healthcare options. *Table 1* (next page) outlines what to include when taking a medical history to help identify and assess risk factors. See *Chapter 3: Counselling* for details on client-centred counselling and informed consent, including maintenance of confidentiality and privacy. Clients should only answer questions that they feel comfortable addressing.

3.2 Communication techniques for obtaining sexual history

Healthcare providers should maintain positive and non-judgemental communication when setting the stage for questions about a client's sexual history. The healthcare provider–client interaction is a two-way communication process and this section provides step-by-step communication techniques for healthcare providers enquiring about a client's sexual history. If the client has an accompanying person with them in the examination room, the healthcare provider must ensure that the client consents for that person to remain in the room when discussing issues related to sexual and reproductive health.

1. **Set the stage for sexual history questions.** Before asking questions about sexual history, the healthcare provider should make the client aware that questions surrounding sexual history are asked of all clients as part of routine care. Questions are only asked

TABLE 1: What to include in a medical history

Category	Information to document
Personal data	• Name, age, gender identity, race, religion, language, occupation, education level, and contact information, if clients feel comfortable to share
Social history	• Partner status (married, single) • Family environment • Violence or coercion • History and current use of alcohol and illegal drugs • Assessment of functioning [11] • Other social issues that could impact care
Medications and allergies	• Daily medications, e.g. prenatal vitamins, non-steroidal anti-inflammatory drugs, anti-tuberculosis, anti-epilepsy, antiretroviral drugs • Use of herbal remedies and details of their use (dose, route, timing) • Any known allergies to medications
Medical history	• Communicable diseases e.g. tuberculosis, malaria, Zika virus disease, Ebola virus disease • Non-communicable/chronic diseases: diabetes mellitus, hypertension, heart disease, blood-clotting disorders, liver disease • Cancers: breast cancer, cervical cancer, prostate cancer • Neuropsychology issues: anxiety, depression, eating disorders, sleep disorders, substance abuse (alcohol and drugs) • Tobacco history, including number of cigarettes smoked per day • Urinary, gastrointestinal, musculoskeletal, endocrine, skin issues • Details of past hospitalizations (reason why, date, location)
Surgical history	• Type, date, location of surgery
Gynaecological history	• First date of last menstrual period and menstrual cycle pattern, bleeding pattern, discharge • Number of live births, stillbirths, miscarriages, and abortions • Contraceptive history and current use • Current symptoms and previous diagnosis of STIs including HIV • Pelvic tuberculosis • Eligibility for particular screening or treatment
Sexual history	• Relationship status and concurrent sexual partnerships • Individual risk for STIs including HIV, human papillomavirus (HPV)

when relevant to the client's healthcare, to enable an accurate diagnosis and ensure provision of the most effective treatment. This may begin with a statement such as: "I would like to talk with you about your sexual health. I talk to all my clients about sexual health because it is a very important part of overall health. Everything you tell me is confidential. Do you have any questions before we start?"

2. **Respond to the client's questions.** The client may be hesitant and unsure of why these questions are important for their health. Healthcare providers should reassure the client that their information will remain confidential and begin the process of destigmatizing sexuality and sexual health matters. Providers should also understand that the client may decline to complete a sexual history and should not be forced to answer any questions. At this point the healthcare provider can ask if the client would prefer to speak to someone of the same gender. Statements to destigmatize the conversation may include:

   - "We ask everyone these questions because it is common for sexual behaviours and partners to change over time."
   - "Some clients have concerns about their sexual health, so I want to make sure I understand what your questions or concerns might be and provide whatever information you might need."
   - "As you may know, sexual activity without protection (such as condoms) can lead to STIs. These kinds of infections are very common and often there is no way to know if you have them without testing. If we do not find and treat these infections, you may be at risk for longer-term problems."
   - "This is a conversation about ways to protect yourself against the risk of unintended pregnancy, STIs including HIV, or other things that may concern you. This is also an opportunity to talk about problems with, or changes in, your sexual desire and functioning."

3. **Ask an initial screening question about sexual activity and follow the screening procedure outlined in *Figure 2*** (next page)**.** Screening for a client's sexual behaviours and nature of their relationships helps inform if a further risk assessment should be conducted and the type of referrals for general health, mental health, and social services that may be needed. For guidance on conducting further risk assessments see *Chapter 6: Sexually transmitted infections* and *Chapter 10: Sexual and gender-based violence*.

4. Physical examination

Physical examination of the client is guided by their history and should begin with a general routine clinical examination. Components of a physical examination may include general examination (*Section 4.1*), abdominal examination (*Section 4.2*), gynaecological examination (*Section 4.3*), breast examination (*Section 4.4*), and examination of male genitalia (*Section 4.5*).

Key overarching points to integrate into a physical examination include:

- Obtain consent from the client before proceeding with any part of the examination. Refer to *Chapter 3: Counselling* for informed consent/assent guidelines.
- Summarize all examination procedures in terms that the client will understand and utilize pictorial job aids as appropriate. Ensure that the client has enough time to understand and ask questions.
- Ensure infection prevention and control protocols for physical examinations are followed, including hand washing at the start and end of each examination.
- Inform the client that the examination(s) can stop at any point, reinforcing that the client is in control of their healthcare.
- Position the client correctly, or instruct them to position themselves, for each exam. Ask people with disabilities if they need assistance with positioning and adopt examination procedures to accommodate, if needed.

FIGURE 2: Essential sexual health questions to ask adults and adolescents

Adults

ASK AT LEAST ANNUALLY

Have you been sexually active in the last year?

NO → **Have you ever been sexually active?**

YES → **What types of sex do you have (oral, vaginal, anal, other)?**

With men, women, both, or another gender identity?

YES → **What types of sex do you have (oral, vaginal, anal, other)?**

With men, women, both, or another gender identity?

NO → **Continue with medical history**

Ask Older Adults

Has sex changed for you? If so, how?

Conversational Tips

- **Ensure confidentiality and emphasize this is routine for all patients**
- **Ask open-ended questions, for example, "Are there any sexual concerns or questions you'd like to discuss?"**
- **Be non-judgmental (verbal and non-verbal)**

Ask at least once and update as needed. Gender identity and sexual orientation can be fluid

1. What do you consider yourself to be?
   - A. Lesbian or gay
   - B. Straight or heterosexual
   - C. Bisexual
   - D. Another (please specify)
   - E. Don't know
2. What is your current gender identity?
   - A. Male
   - B. Female
   - C. Transgender man
   - D. Transgender woman
   - E. Neither exclusively male nor female (e.g. non-binary or nonconforming)
   - F. Another (please specify)
   - G. Decline to answer
3. What sex were you assigned at birth?
   - A. Male
   - B. Female
   - C. Decline to answer

Adolescents

Ask at least annually

1. What questions do you have about your body and/or sex?
2. Your body changes a lot during adolescence, and although this is normal, it can also be confusing. Some of my patients feel as though they're more of a boy or a girl, or even something else, while their body changes in another way. How has this been for you?
3. Some patients your age are exploring new relationships. Who do you find yourself attracted to? (Or, you could ask, "How would you describe your sexual orientation?")
4. Have you ever had sex with someone? By "sex," I mean vaginal, oral, or anal sex. (If sexual activity has already been established, ask about sex in the past year.)

If the adolescent has had sex, ask about

- ✔ Number of lifetime partners
- ✔ Number of partners in the past year
- ✔ Gender of those partners (men, women, both, or another gender identity)
- ✔ Types of sex (vaginal, oral, anal, other)
- ✔ Use of protection (condoms and contraception)
- ✔ Coercion or rape

Prepare for the sexual history interview

- ✔ Explain to a parent or caregiver that you spend a portion of each visit alone with the adolescent.
- ✔ Put your patient at ease. Ensure confidentiality except if the adolescent intends to inflict harm or reports being abused. Know your state's laws that affect minor consent and patient confidentiality.
- ✔ Incorporate the four essential sexual health questions into a broader psychosocial history.
- ✔ Start with less threatening topics, such as school or activities, before progressing to more sensitive topics, such as drugs and sexuality.
- ✔ Use open-ended questions, rather than closed-ended, to better facilitate conversation.
- ✔ Listen for strengths and positive behaviors and for opportunities to give praise where praise is due.

Source: Reuse with permission from The National Coalition for Sexual Health. Essential Sexual Health Questions to Ask Adults and Adolescents. Altarum Institute. 2022. See the same link for details of recommended preventive sexual healthcare for adults and adolescents.

- Explain each step of an examination (e.g. "I'm going to place the speculum outside your vagina, and you will feel it. Let me know how you feel. I am now going to insert the speculum into your vagina."
- Only expose the relevant parts of the body to maintain the client's dignity as much as possible.
- Thank the client at the end of the examination and help them back into a comfortable position.
- Give the client some privacy to dress again before discussing the findings of the examination.
- Based on findings from the medical history and physical examination, and with the client's informed consent, provide the appropriate referrals. Ask the client to sign a release of information form.

4.1 General examination

A general health examination includes:

- Vital signs including pulse and blood pressure, body weight, height, body mass index, temperature, and, if clinically indicated, heart sounds, respiratory rate, and breath sounds.
- General condition such as build, gait, posture, speech pattern.
- Signs of physical or sensory disability.
- Signs of weakness, lethargy, anaemia, or malnourishments.
- Signs or marks of physical violence.
- Presence of pallor, jaundice, leg varicosities, ankle oedema, abnormal skin pigmentation and markings.
- Presence of enlargement or tenderness of the liver, spleen, or kidneys, and any other abdominal mass (e.g. gravid uterus).
- Exclude the possibility of thyroid enlargement; palpate the cervical and supraclavicular lymph nodes; check presence of inguinal lymph nodes.

4.2 Abdominal examination

The four steps for abdominal examination are outlined below. Ask the client to lie flat on their back with their legs uncrossed and arms by their side and begin the evaluation by:

1. Inspecting

Check for presence of abdominal scars, specifically for midline laparotomy, Pfannenstiel incision scar (gynaecological/obstetric procedure), appendectomy (right iliac fossa). Check for abdominal distension or masses and their possible causes – the five F's: fluid, fat, fetus, flatus, faeces. Check for abnormal distribution of body hair.

2. Palpating

Palpate for any mass or enlarged uterus, noting the size, shape, and whether any tenderness is present. Observe the client's face for signs of pain and tenderness and ask if they experience pain when palpating (deep and light palpations) each abdominal quadrant and the left and right groin for signs of lymphadenopathy.

3. Percussing

Percuss the liver and spleen limits to exclude enlargement and, where suspected, assess the level of free fluid in the abdominal cavity.

4. Auscultation

For abdominal distension and suspected bowel obstruction, listen (auscultate) for 'tinkling' or absence of bowel sounds.

4.3 Gynaecological examination

A gynaecological examination includes gynaecologic history and gynaecologic examination of a client's reproductive organs. The gynaecological examination includes examining the external genitalia, speculum examination, bimanual pelvic examination, and assessment of ovarian masses. Not all components of a gynaecological examination need to be conducted, only those indicated depending on the client's history, symptoms and signs, and general examination findings. *Box 2* provides information on examining clients with physical disabilities.

4.3.1 Examination of external genitalia

This includes inspection of the labia, prepuce, clitoris, urethral opening, perineum, and anal opening. Inspect the vulva for scars from previous surgery (e.g. episiotomy, female genital mutilation); STIs such as genital herpes, HPV (warts), etc; abnormal discharge/bleeding; atrophy (post-menopausal); masses (e.g. Bartholin's cyst); varicosities (varicose veins); and abnormal hair distribution. Palpate the vulva for tenderness and/or masses, particularly around the Bartholin's glands. If there is a history of pelvic organ prolapse or urinary stress incontinence, ask the client to cough with a full bladder to observe whether cystocele, rectocele, or urine leakage is present. The client can also change posture to standing for further evaluation of prolapse.

4.3.2 Speculum examination

Speculum examination helps healthcare providers observe the vaginal walls and cervix. Providers should use a speculum of the appropriate size, such as a larger speculum for a multiparous client with lax vaginal walls and a narrow speculum for a nulliparous client. The most commonly used instruments are the bivalve Cusco or Graves speculum, or the Sims speculum. If a speculum examination is clinically indicated for a client who has never been sexually active, a small-size speculum is required, and the client should be informed that the hymen will likely be damaged. Water or a water-soluble lubricant should be used to assist insertion of the speculum. Inspect the cervix and vaginal canal for foreign bodies, rugae, discharge (noting colour, amount, consistency, and odour), and protruding masses. Examine the cervix for the presence of ectropion, ulceration, growths, blood, polyps, cancer, or contact bleeding. If indicated (e.g. in a client with suspected pelvic inflammatory disease, STI or at high risk of STIs), take an endocervical swab to use for diagnosis.

BOX 2: Examining clients with physical disabilities

- If the clinic does not provide accessible beds or the client is more comfortable lying on the floor, examine them on the floor after ensuring the area is clean and they are comfortable. To examine a person on the floor, place a folded cloth under the client's hips to raise them slightly, and turn the speculum handle up (or it will be difficult to open).
- Clients with spinal cord injuries or cerebral palsy may have stiff muscles during an exam. This can happen if they are in an uncomfortable position, or if a speculum or any other instrument is inserted without due care. Adjust the position and be gentle when placing.
- Proceed slowly during the exam and ask the client to communicate if they have a spasm or if the exam is painful.
- Do not massage or rub the spastic muscles as it may result in tightening.
- To help the client relax, ask them to practice pushing down into their bottom. Deep breathing at each push can help the client relax.
- Autonomic dysreflexia is a medical emergency and is common in people with spinal cord injuries. A sudden hypertensive peak is caused by a reaction to a possible pain that could not be felt because of neurological damage. To prevent dysreflexia, be careful to avoid hard or cold examination surfaces, cold temperature in the exam room, and strong pressures on the perineum during the exam, especially while using the speculum.

4.3.3 Bimanual pelvic examination

A bimanual examination helps inform the healthcare provider about the client's pain and comfort levels, pregnancy status, gestational age, presence of infection, anatomical abnormalities, and uterine position. Except for post-partum clients, bimanual pelvic examination must be performed for all clients before any procedure in which instruments are placed inside the uterus. Therefore, any client requesting an intrauterine device, diaphragm, surgical sterilization, or surgical abortion should undergo bimanual examination by the healthcare provider performing the procedure. Furthermore, bimanual pelvic examination should always be performed in the presence of pelvic symptoms such as abnormal vaginal bleeding, urinary symptoms, abdominal swelling, lower abdominal pain or discomfort, or pain during sex (see *Chapter 8: Gynaecology and other reproductive healthcare, Section 3*). Healthcare providers should document the various characteristics of the uterus, specifically size (approximately pear-sized in a healthy client), shape (may be distorted by masses such as fibroids), position (anteverted versus retroverted), surface characteristics (smooth versus nodular), and tenderness during palpation or cervical motion tenderness (if any).

4.3.4 Assessment of ovarian masses

Differentiating between benign and malignant ovarian masses on clinical examination alone is difficult. Palpate each lateral fornix for abnormal masses or tenderness and assess any masses detected for size, consistency, position, and mobility. Suspicion of advanced cancer can be raised in the presence of other symptoms and signs such as dyspepsia, bloating and abdominal distention, or weight loss, especially in a post-menopausal client. In these cases, the adnexa may be difficult to palpate by vaginal examination due to the volume of peritoneal fluid. Perform or refer the client for an ultrasound if ovarian pathology is suspected.

A rectovaginal examination is not routinely carried out but may be indicated if the client has symptoms and/or signs of pelvic tumour, advanced cervical cancer, or endometriosis. With the index finger in the vagina and the middle finger of the same hand in the rectum, palpate the uterosacral ligaments and rectovaginal septum for nodularity and other lesions.

4.4 Clinical breast examination

Clinical breast examinations are a low-cost method for detecting an abnormality suggestive of breast cancer. Clinical breast examinations should be conducted once a year and when a client presents with breast symptoms or concerns from 25 years of age. Healthcare providers should proceed with the examination by comparing both breasts visually and then palpating each breast in turn, using the three steps described below.

1. Inspection

Ask the client to lie supine or to sit leaning back at a 45° angle. Visually inspect both breasts at the same time (see *Table 2* – next page).

2. Palpation

Palpation includes examination of each breast and the axillary and supraclavicular lymph nodes. The full area of each breast for the examination should be understood as the rectangular area bordered by the clavicle (top), sternum (centre), bra-strap line (bottom), and the mid-axillary line (left and right) with a 'tail' extending into the axilla, which must also be examined. The axillary lymph nodes fall in a triangular area, with the apex at the narrow gap between the first rib and the axillary vessels.

TABLE 2: What to observe on visual inspection

Size and shape of breasts	The size and shape of the breasts vary in healthy clients, and it is common for one breast to be larger than the other. Document any marked asymmetry in the size or contour of the breasts
Colour changes	May be a sign of imminent ulceration
Skin changes	Lumps and associated skin changes (e.g. inflammation, ulceration, and skin retraction) may indicate severe pathology such as cancer
Visible dimpling	An 'orange peel' appearance is a sign of skin oedema caused by obstruction of lymphatics, which can be caused by tumour cells, infection, or radiotherapy
Nipples and areolae	Nipple or areolar changes not associated with congenital features, such as inverted or retracted nipples; abnormal discharge (milky or greenish-yellow colour or thick/sticky, grey and green tint); nipple lumps and bumps (blisters, abscess, ductal carcinoma in situ); changes in skin texture and colour (not associated with pregnancy); pain (not associated with pregnancy or menstrual cycle)
Tethering	Use movements to accentuate subtle masses in the breast. Asking the client to raise their arms above their head makes skin tethering more apparent. If the client presses their hands against their hips to tense the pectoral muscles, this will accentuate the presence of tethering to the chest wall. Demonstrate and ask the client to copy

Tips for performing a breast exam

For clients with large or pendulous breasts, use the following positions to aid examination:

- To examine the right lateral breast, the client can roll onto their left hip keeping their shoulders flat on the couch and with their right hand on their forehead; in this way, the lateral part of the breast is flattened and easier to examine. Do the same on the other side to examine the left lateral breast
- To examine the right medial breast, the client can lie supine and move their right elbow up until it is level with their shoulder. Do the same with the left elbow to examine the left medial breast

a. Breast examination steps:

- Positioning the client: Ask the client to lie supine or to sit leaning back at a 45° angle. Ask the client to put their right hand behind their head to examine the right breast and vice versa for the left breast.
- Use the three-finger technique to palpate the breast using the pads of the middle three fingers (not the fingertips); two hands can be used in clients with larger breasts. The healthcare provider should select one of the three palpation methods described below that they feel most confident with and ensure that they have thoroughly examined all important areas:
  - *Vertical stripe pattern:* Start palpation at one corner of the breast area for each breast, moving vertically upwards and downwards between the clavicle and the bra-strap line, moving across the whole area until all breast tissue has been palpated, including the axillary tail. The small circular movement pressure can be varied in three grades: light for the superficial layer, moderate for the middle layer, and firm for deep layers.
  - *Concentric circles pattern*: Palpate in a spiral, moving outwards from the nipple.
  - *Radial spokes pattern*: Palpate in lines moving outwards from the nipple, as if along the hands of a clock face or the spokes of a bicycle.

b. Axillary and supraclavicular lymph node examination steps:

- Ensure that the client's pectoral muscles are relaxed to feel the lymph nodes. The provider can either hold the client's elbow (right elbow held in provider's right hand when examining the right breast, and vice versa for the left breast) to take the weight off their arm while palpating with the other hand or the client can rest their hand on the provider's shoulder.
- The provider should place their hand into the axilla and palpate as for the breast (using the three-finger technique, in small circles), moving upwards from the base of the axilla palpating along the lateral chest wall.
- Ensure that the entire area of the axilla is covered and push the fingertips upwards and inwards to palpate at the apex of the axilla.
- The provider can examine the supraclavicular fossae from in front of the client by placing their fingers into them (first one side, then the other), moving in small circles to try and identify any enlarged lymph nodes.

3. Documentation

Utilizing the clock system, document the location of any concern and abnormality, the distance from the areola, and size of the mass.

Breast self-examination

Encourage clients of reproductive age to conduct breast self-examination at least once a month to become familiar with how their breasts feel and look to detect any changes, and when to visit a healthcare provider. Provide a breast self-exam information, education, and communication handout and describe the self-examination instructions. Ask the client if they have any questions. See *Chapter 8: Gynaecology and other reproductive healthcare, Appendix 5* for steps on how to perform breast self-examination

4.5 Examination of clients with male genitalia

Male reproductive organs consist of the penis, testes, spermatic cord, epididymis, scrotum and perineum, and the prostate. Physical examination involves visual inspection and palpitation of these organs and the anus when indicated from the medical history and general examination. Physical examinations should be normalized as an essential part of staying healthy for adolescents and adults, and clients should be taught to self-examine their reproductive organs.

General examination includes vital signs and overall appearance that is focused on the client's weight, signs of anaemia or other illnesses, and the health of the skin, specifically skin lesions and keloids on and around the penis, testes, scrotum, and perineum. Before starting a physical examination, healthcare providers should wash their hands and ensure that they are warm, as the testicles may react to cold by retracting.

When and how to perform a digital rectal examination

Digital rectal examination of the prostate is indicated when a client complains of problems with:

- urination (frequency, urgency, terminal dribbling, or overactive bladder)
- blood in the urine or ejaculate, bone pain/lower back pain, and/or erectile dysfunction possibly combined with weight loss and/or lethargy

Steps for performing digital rectal examination:

1. Wear gloves.
2. Ask the client to lie on their left side with their knees up to the chest.
3. Place the index finger anteriorly, putting pressure on the midline of the anus, and insert the finger into the anus.
4. Sweep the finger clockwise and anti-clockwise and make a systematic assessment of any masses and impacted faeces.

5. The prostate lies anteriorly – check its size, smoothness, and midline groove.

6. Check glove for blood.

The healthcare provider should ask the client to cough to examine for hernia and tumour. For hernias, check for weakness in the abdominal wall between the scrotum and the intestines. For tumours, the provider should check for growths throughout the body and the testicles.

Medical concerns and/or abnormalities detected during physical and general examinations and medical history should be documented and, when appropriate, clients should be treated or referred to specialized care.

When should healthcare providers consider conducting diagnostic tests?

The following tests may be performed based on individual risk factors identified during the counselling session and from the client's history, findings on physical examination, and available resources:

- Pregnancy test if pregnancy is unconfirmed
- Diagnostic ultrasound, if indicated, to confirm pregnancy dating or the location of the pregnancy
- Haemoglobin or haematocrit for suspected anaemia
- Rhesus (Rh)-testing, where Rh-immunoglobulin is available for Rh-negative clients
- HIV testing/counselling
- STI screening (usually performed during the pelvic examination)
- Cervical cancer screening (performed during the pelvic examination)
- Semen analysis for non-scalpel vasectomy procedure
- Other laboratory tests as indicated by the medical history (e.g. kidney or liver function tests)

Note: Routine laboratory testing and ultrasound are not prerequisites for abortion care

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Supply chain management

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Outer service area	Size*	Fixtures and furniture	Equipment	Supplies
Reception, client registration, and waiting areas	120–240 ft²	• Spacious, well-ventilated, and covered waiting area – 60 per cent covered • Chairs or benches to seat at least 10 clients at a time • Reception desk with chair • Filing cabinet	• Display screen and equipment for audiovisual IEC materials • Display shelves or racks for paper and IEC materials • Computer • Printer	• Registration materials • Drinking water • Newspapers and magazines • Posters and pamphlets for IEC materials • Direction boards • Clinic map
Toilets	60–90 ft²	• Toilet fixtures • Sink with tap	N/A	• Washing soap • Detergent • Toilet paper • Sanitary towels • Waste buckets for general and medical waste
Wash area	60 ft²	• Sink with tap	N/A	• Washing soap
Inner service area	**Size***	**Fixtures and furniture**	**Equipment**	**Supplies**
Counselling/ consultation room	60–120 ft²	• Small desk with three chairs • Small storage cabinet or cupboard	• Contraceptive models e.g uterus • Contraceptive samples • MVA sample	• Contraceptives (condoms and pills, including emergency contraception) • Posters, flip charts on different sexual and reproductive health topics • Tissues

Appendices

Appendix 1: Summary of clinic requirements for comprehensive sexual and reproductive healthcare

This table complements *Figure 1* and provides a brief overview of each type of room, including requirements for size, general facility fixtures, equipment, and supplies.

Inner service area	Size*	Fixtures and furniture	Equipment	Supplies
Examination and injection room (Physical exams and screenings)	60–150 ft²	• Small desk with three chairs • Examination table • Sink with running water (washing hands)	• Blood pressure machine • Stethoscope, thermometer • Focus light • Examination instruments • Surgical drum • Trolly	• Disposable surgical gloves • Sterile cotton wool and gauze • Alcohol hand rub • Antiseptics • Contraceptives • Medical abortion pills • NSAIDs
Procedure room for minor procedures (LARC, MVA, VIA, etc)	120–200 ft²	• Procedure table • Stool for healthcare provider • Foot stool for client • Job aids displayed on the walls	• Focus light • Two instrument trolleys: one for procedure instruments, the other for surgical drums containing extra sterile instruments and the emergency tray • 1–3 surgical drums • MVA and cannula set and products of conception examination equipment (see Appendix 2) • Implant insertion and removal equipment set (see Appendix 2) • IUD insertion and removal equipment set (see Appendix 2) • Emergency equipment (see Appendix 2) • Buckets and waste bins	• Disposable surgical gloves • Sterile cotton wool and gauze • Alcohol hand rub • Antiseptics • Emergency drugs (see Appendix 2) • Sterile instruments
Recovery room (medical abortion, MVA clients)	120–300 ft²	• Sufficient beds or recliners to allow adequate recovery time for each client • Screen dividers for privacy • Small table and two chairs	• Blood pressure machine • Stethoscope • Thermometer	• Drinking water • IEC materials

Inner service area	Size*	Fixtures and furniture	Equipment	Supplies
Labour and delivery rooms	180–250 ft²	• Bed, table, foot stool for primary healthcare provider, focus light, job aids displayed on the walls	• Thermometer • Autoclave • Vital signs instruments • Doppler • Delivery set (see Appendix 2)	• Drinking water • IEC materials • Clean pads • Clean towel • See Appendix 2
Recovery room for labour and delivery clients	120–300 ft²	• Sufficient beds or recliners to allow adequate recovery time for each client • Screen dividers for privacy • Small table and two chairs	• Blood pressure machine • Stethoscope • Thermometer	• Drinking water • IEC materials
Minor operating theatre (if required for tubal ligation and/or non-scalpel vasectomy	180–250 ft²	• Operating table • Foot stool for primary healthcare provider • Focus light • Job aids displayed on the walls	• Blood pressure machine • Two instrument trolleys (same as procedure room) • 1–2 surgical drums • Tubal ligation and non-scalpel vasectomy equipment and instruments (see Appendix 2) • Emergency equipment (same as procedure room)	• Drinking water • IEC materials
Recovery room (permanent methods)	120–300 ft²	• Sufficient beds or recliners to allow adequate recovery time for each client • Screen dividers for privacy • Small table and two chairs	• Blood pressure machine • Stethoscope • Thermometer	• Drinking water • IEC materials
Instrument processing room/ area	60–120 ft²	• Two tables • Two cabinets for storing clean and sterile instruments • Running water	• Autoclave • Surgical drums • Buckets for cleaning • Equipment for drying instruments and linen	• Detergent • Disinfectants: bleaching powder/solution • Scrubbing brushes

CHAPTER 2 CONTENTS
MAIN CONTENTS

Inner service area	Size*	Fixtures and furniture	Equipment	Supplies
Storage (well ventilated)	80–200 ft²	• Shelves • Cabinet with lock	N/A	• Medical supplies • Contraceptives • Spare equipment • Non-clinical supplies
Client toilets (easily accessible to those in recovery)	60–90 ft²	• Toilet fixtures • Sink with tap	N/A	• Washing soap • Detergents • Toilet paper • Sanitary towels • Waste buckets for general and medical waste
Corridors	20–80 ft²	• Sexual and reproductive health and rights IEC materials displayed on the walls	N/A	N/A
Staff room	80–150 ft²	• 4–6 chairs • One small table • Two beds • Locker	N/A	• Clinical protocols, healthcare delivery and referral guidelines • Training manuals and educational tools
Admin/clinic support room	100–150 ft²	• Desk • Three chairs • One filing cabinet	• Computer and printer	• Clinical protocols, healthcare delivery and referral guidelines • Training manuals and educational tools

Abbreviations: IEC: information, education, and communication; MVA, manual vacuum aspiration; NSAIDs, non-steroidal anti-inflammatory drugs; LARC, long-acting reversible contraceptives; VIA, visual inspection with acetic acid.

* 1 square foot = 0.0929 square meters.

Appendix 2: Essential drugs, equipment, and supplies required for sexual and reproductive healthcare

Comprehensive abortion care

These tables provide clinic managers and trained abortion healthcare providers with a comprehensive list of the essential drugs, equipment, and supplies for quality abortion care before and after 13 weeks of gestation.

Facility	Equipment/supplies/drugs	Medications
• Private area for counselling (ideally both visual and auditory privacy) • Restrooms with toilets should be easily accessible for all clients receiving abortion-related care • Handwashing stations* • Potable water for drinking/cups • Emergency transport/referral capability • Procedure room (MVA only) • Recovery area (MVA only) • Safe box for sharps* • Coloured bins for waste segregation • Stool for exam/procedure room • Lockable cupboards for medications • Emergency transport/referral capability • Service delivery logbook • Consent forms for abortion care and contraception • Referral forms • Pamphlets, educational materials (for adult and younger clients) • Job aids for comprehensive abortion care: MA regimen card, instrument processing wallchart*, MA/MVA supply guidance, MA wheel, etc. • Job aids for postabortion contraception counselling, contraceptive efficacy chart, MEC wheel, etc. • Clinical service delivery guidelines and protocol and referral pathways	• Available contraceptive methods, including IUD/IUS, implants • Blood pressure cuff • Thermometer • Stethoscope • Sanitary pads • Disinfectants* • Instrument trolley, instrument tray, drums/containers for storage of autoclaved MVA packs*, kidney dishes (large and medium), gulli pot • Pelvic exam table • Lamp for pelvic exams • Cover/drape to cover client's legs **Laboratory supplies** • (optional) Ultrasound and its accessories • (optional) Urine ß-hCG tests and urine cups • (country-dependent) Rh testing and anti-D immunoglobulin • Not required for abortion care but optional if other preventative health testing is provided: cervical cancer screening, STI testing, HIV testing, anaemia screening, immunizations	• Mifepristone, depending on availability, or combipack • Misoprostol • Antibiotics (prophylaxis and treatment dosing) • Side-effect medications (e.g. anti-nausea medicine) • Pain medication • NSAIDs • Narcotic/anxiolytics and reversal agents

* Items with an asterisk are required for infection prevention.

continued

continued

Surgical	Complication Management	Instrument Processing

MVA
• Atraumatic tenaculum or vulsellum forceps
• Sponge/ring forceps (Foerster)
• Gauze
• Betadine (povidone-iodine) and cup*
• Ipas MVA Plus aspirator
• Ipas EasyGrip cannulae
• Self-retaining speculums of varying sizes
• Denniston or Pratt dilators
• Container for POC, lamp, clear basin, sieve
• Bucket with soaking fluid*
• Paracervical block supplies and local anesthetic
• 10-20 ml syringe, 21-23 gauge needle at least 3 cm (1 in) Lidocaine 1.0 per cent
 	
D&E
• Non-perforated stainless steel instrument tray
• Stainless-steel instrument tray without cover
• Vaginal speculum – Klopfer
• Atraumatic angled tenaculum
• Ipas EasyGrip cannulae
• Set of Pratt and Ipas Denniston dilators
• Sponge-holding forceps
• Bierer forceps 13" size small and large slightly curved
• Sopher uterine evacuation forceps 11" size small and large, slightly curved
• Sopher Ovum Forceps
• PCB, local anaesthetic, needle, syringe
• Ipas MVA Plus aspirator
• Antiseptic
• 60 cc foley catheter
• Cheshire medical vacuum curette straight,14 mm
• Supplies needed:
  ◦ Alcohol or povidone-iodine
  ◦ Gloves (sterile or clean)
  ◦ Two 5 ml syringes
  ◦ 22-gauge spinal needle and needle holder
  ◦ Digoxin 1.0-1.5 mg
• 4x4 gauze
• Small dressing or adhesive bandage (optional)
	Emergency
	• Blood glucose monitor with test strips
	• Blanket
	• Instruments for assessment/ vital signs as listed under Clinical Assessment
	• IV cannulation equipment - a range of large bore cannula (sizes 16-22), syringes, saline flush, tape, cannula fixing dressing, tourniquet, sharps box
	• Oxygen cylinder size D/E with non-rebreathe mask (with oxygen reservoir) or portable oxygen kit
	• Pocket mask
	• Portable pulse oximeter
	• IV infusion sets
	• Syringes (2, 5, 10 ml)
	• Needles – 21 G
	• Clean and sterile gloves – different sizes*
	• Sterile gauze pack
	• Urine catheter (Foley) and bag (adult size catheter)
	• Large scissors
	• Crepe bandage
	• IV fluids – normal saline (0.9%), ringer lactate solution
	• Sterile water for injection/IV flush
	• Inj. hypertonic glucose solution, 25%, 50%,
	• Inj. adrenaline, 1:1000
	• Inj. atropine, 1 mg/ml
	• Salbutamol inhaler
	• Inj. chlorpheniramine
	• Inj. oxytocin
	• Inj. antibiotics (IV/IM)
	• Inj. tetanus toxoid/tetanus antitoxin
	• Aspirin tablets (81 mg)
		• Personal protective barriers (for instrument processing: heavy duty gloves, boot/ shoe covers, face protection, gown/apron; for procedure/exam: clean and sterile gloves, gown/ apron, boot/ shoe covers, eye protection)*
		• Sterile forceps (optional)
		• 3 buckets (soak, HLD/sterilizer, rinse)*
		• Small brush*
		• Tap water, sterile or boiled water, detergent, HLD (0.5 per cent chlorine) or sterilizer (glutaraldehyde)*
		• If HLD with boiling water, large metal pot and heat source
		• If sterilizing with autoclave, paper or linen, autoclave
		• Covered containers to store instruments*

* Items with an asterisk are required for infection prevention.

Abbreviations: MVA, manual vacuum aspiration; MA, medical abortion; MEC, medical eligibility criteria; IUD, intrauterine device; IUS, intrauterine system; STI, sexually transmitted infection; POC, products of conception; D&E, dilatation and evacuation; IV, intravenous; IM, intramuscular; HLD, high-level disinfection.

Source: Adapted from Ipas. Woman-Centered, Comprehensive Abortion Care Reference Manual. Chapel Hill, NC: Ipas; 2013; Edelman A, Kapp N. Dilatation & Evacuation (D&E) Reference Guide: Induced abortion and postabortion care at or after 13 weeks' gestation ('second trimester'). Chapel Hill, NC: Ipas; 2018; International Planned Parenthood Federation. Comprehensive abortion care: Guidelines and tools. London: IPPF; 2021. Available at: https://ippfmaforum.org/2021/10/06/abortion-care-guidelines/. Accessed 22 April 2022.

Cervical cancer prevention, screening, and treatment

This table provides clinic managers and trained sexual and reproductive healthcare providers with a comprehensive list of the essential drugs, equipment, and supplies for cervical cancer prevention, screening, and treatment procedures for primary health facilities.

Procedure	Medical devices category	Equipment	Accessories/hardware/software/ consumables/single use devices
HPV vaccine	Personal protective equipment		• Gloves, examination, non-sterile, single use (various sizes)
	Single use devices/ disposables/medical supplies		• Safety box for used syringes/needles; cotton wool, 500 g roll; non-sterile syringes, auto-disable (various capacities)
Gynaecological examination and procedures†	Medical equipment	• Bright light source • Gynaecological examination/ treatment table	
	Instruments	• Forceps tissue-long • Cheron forceps • Long needle holders • Cervical punch biopsy forceps • Ring forceps • Vaginal sidewall retractors • Vaginal speculum, reusable	• Compress, gauze, sterile and non-sterile, single use • Specimen container • Absorbent tipped applicator/large • Tongue depressor, single use (wooden or plastic spatula) • Examination table paper cover
	Personal protective equipment and clothing	---	• Gloves, examination, non-sterile, single use (various sizes)
	Solutions and reagents	---	• Formalin 10 per cent, or tissue fixation reagents, phosphate buffered • Lubricating jelly • Monsel's paste • Saline solution • Lugol iodine, bottle/acetic acid solution 3–5 per cent • 0.5 per cent chlorine solution for decontaminating instruments
	Other	---	• Container for warm water • Bag for contaminated disposable supplies

continued

† The devices listed in this procedure should be considered in addition to the equipment enlisted for the following procedures: colposcopy, cryotherapy, visual inspection with acetic acid, endocervical curettage, and Pap smear.

continued

Procedure	Medical devices category	Equipment	Accessories/hardware/software/ consumables/single use devices
Colposcopy	Medical equipment	Colposcope	---
Cryotherapy	Medical equipment	• Cryosurgery unit with all parts and accessories listed • Colposcope	• Probe, trigger, handle grip, yoke, inlet of gas cylinder, tightening knob, pressure gauge showing cylinder pressure, silencer outlet, gas-conveying tube probe tip
Papanicolaou test (Pap smear)	Instruments	Vaginal speculum, reusable	• Local anaesthetic, syringes
	Personal protective equipment and clothing	---	• Gloves, examination, non-sterile, single use (various sizes)
	Single use devices/ disposables/medical supplies	---	• Microscope slides frosted or liquid-based container (tube containing a special preservative solution) • Tongue depressor, single use (wooden or plastic spatula) • Cervical cytology brush or cervical cytology scraper (optional) • Examination table paper cover
	Solutions and reagents	---	• 0.5 per cent chlorine solution for decontaminating instruments • Fixative spray or solution for Pap smear (if slides are used)
	Other	---	• Container for warm water • Bags for contaminated disposable supplies

continued

continued

Procedure	Medical devices category	Equipment	Accessories/hardware/software/ consumables/single use devices
Visual inspection with acetic acid (VIA)	Instruments	Vaginal speculum, reusable	---
	Single use devices/ disposables/medical supplies	---	• Examination table paper cover • Absorbent tipped applicator/large
	Personal protective equipment and clothing	---	• Gloves, examination, non-sterile, single use (various sizes)
	Solutions and reagents	---	• Lugol iodine, bottle/acetic acid solution 3–5 per cent • 0.5 per cent chlorine solution for decontaminating instruments
	Other	---	• Container for warm water • Bags for contaminated disposable supplies

Source: Adapted from World Health Organization. WHO list of priority medical devices for cancer management. Geneva: WHO; 2017. Licence: CC BY-NC-SA 3.0 IGO. Available at: https://apps.who.int/iris/handle/10665/255262. Accessed 10 September 2021.

Clinical management of rape

This table informs clinic and programme managers and trained healthcare providers on the important infrastructure required to set up safe and quality healthcare for rape survivors at primary health and tertiary centres.

Furniture/setting	Supplies

• Clean, quiet, child-friendly, accessible consultation room with direct access to a toilet or latrine, and with a door, curtain, or screen for visual privacy
• Examination table
• Light, preferably fixed (a torch may be threatening for children)
• Magnifying glass (or colposcope). Access to an autoclave to sterilize equipment
• Access to laboratory facilities/microscope with a trained technician
• Weighing scales and a height chart for children
	• Available speculums†† (only adult sizes)
	• Tape measure for measuring the size of bruises, lacerations, etc.††
	• Syringes/needles†† (butterfly type for children) and tubes for collecting blood
	• Supplies for universal precautions (gloves, box for safe disposal of contaminated and sharp materials, soap)††
	• Resuscitation equipment††
	• Sterile medical instruments (kit) for repair of tears, and suture material††
	• Tongue depressor (for inspection of oral frenulum and injury)
	• Cover (gown, cloth, sheet) to cover the survivor during the examination††
	• Spare items of clothing to replace those that are torn or taken for evidence
	• Sanitary supplies (disposable or cloth pads)††
	• Pregnancy tests
	• Pregnancy calculator disk to determine the age of a pregnancy
	• Additional supplies that may be needed for forensic evidence collection/documentation:
	  ◦ Comb for collecting foreign matter in pubic hair
	  ◦ Cotton-tipped swabs/applicators/gauze compresses for collecting samples
	  ◦ Glass slides for preparing wet and/or dry mounts (for sperm)
	  ◦ Laboratory containers for transporting swabs, paper sheet for collecting debris as the survivor undresses
	  ◦ Paper bags for collection of evidence
	  ◦ Paper tape for sealing and labelling containers/bags

†† Indicates the minimum requirements for examination and treatment of a rape survivor.

continued

continued

Medications with age-appropriate dosages	Administrative supplies
• For treatment of sexually transmitted infections (STIs) as per country protocol[††] • For post-exposure prophylaxis (PEP) at HIV transmission[††] • Emergency contraceptive pills[††] and/or intrauterine device (IUD) • Tetanus toxoid tetanus immunoglobulin[††] • Hepatitis B vaccine[††] • Pain relief[††] (e.g. paracetamol) • Anxiolytic (e.g. diazepam) • Sedative for children (e.g. diazepam) • Local anaesthetic for use when suturing[††] • Antibiotics for wound care[††]	• Available medical history and examination form including chart with pictograms[††] • Medical certificate/medico-legal forms • Referral directory • Job aids in the language of the provider (e.g. care/treatment algorithm, referral flow chart) • Consent forms[††] • Information pamphlets for post-rape care (for the survivor) • Safe and locked filing space to keep records confidential, or password-protected computer for electronic files[††]

[††]Indicates the minimum requirements for examination and treatment of a rape survivor.

Source: World Health Organization. Clinical management of rape and intimate partner violence survivors: Developing protocols for use in humanitarian settings. Geneva: WHO; 2020. Licence: CC BY-NC-SA 3.0 IGO. Available at: https://apps.who.int/iris/handle/10665/331535. Accessed 9 June 2022.

Contraceptives

These tables provide lists of the essential drugs, equipment, and supply information to set up facilities for short-acting methods, long-acting reversible methods, and sterilization methods.

1. Short-acting methods

Basic furniture, equipment, and supplies	Commodities	Supplies
• Examination couch • Stepping stool • Blood pressure machine • Stethoscope • Weighing scale • Chairs • Table • Storage cupboard/cabinet • Waste disposal bins **Administrative items** • Log book • Information, education, communication materials • Job aids • Consent forms • Clinical protocols/standard operating procedures • Client face sheet • Instrument processing chart	• Male condoms • Female condoms • Emergency contraception • Oral contraceptive pills (COC, POC) • DMPA vials (POI) • DMPLA POI (NET-EN) • Combined injectible (CIC)	For DMPA • Cotton • Syringe • DMPA vials containing sterile aqueous suspension: 150 mg per ml • Needles or with 22-gauge x 1.5-inch long or 3.5 cm SafetyGlide™ needles • 5 ml syringe

2. Implant

Basic furniture and equipment	Equipment (no. in brackets = quantity)	Supplies
• Examination couch • Stepping stool • Blood pressure machine • Stethoscope • Weighing scale • Chairs • Table • Storage cupboard/cabinet • Waste disposal bins **Administrative items** • Log book • Information, education, communication materials • Job aids • Consent forms • Clinical protocols/standard operating procedures • Client face sheet • Instrument processing chart	**Insertion** • (1) Cup/bowl/gallipot • Optional: (1) Forceps, sponge-holding, straight, 5.5 inches (14 cm) for cleaning **Removal** • (1) Cup/bowl/gallipot • (1) Scalpel with corresponding handle or a disposable scalpel with handle • (1) Forceps, mosquito, straight, 5 inches (12.7 cm) • (1) Forceps, mosquito, curved, 5 inches (12.7 cm) **Additional instruments for difficult implant removal:** This is deeply inserted implants and non-palpable implants using modified U technique • (1) Kidney dish • (1) Standard artery forceps 5.5 inches (14 cm) • (1) Modified vasectomy straight blunt • 12.5 cm forceps (also known as "U clamp", NSV ringed clamp or "Norgrasp" with a diameter of 2.2 mm)	• Alcohol-based hand rub AND soap and water or antiseptic soap and water (for hand hygiene) • Small towel (for hand drying if soap and water were used) • Sterile gloves (powder-free) • Exam gloves only required for Nexplanon and Implanon • Povidone iodine (preferred as an antiseptic) • Sterile gauze sponges • Local anaesthetic such as lidocaine (without epinephrine, 1 per cent or 2 per cent) • Distilled water to dilute lidocaine (if 2 per cent lidocaine is used) • 5 ml syringe with 1.5 inch and 21-gauge needle • Scalpel blade #11 with handle or disposable scalpel #11 with handle) • Adhesive tape • Arm bandage (to apply pressure to the incision) • Sterile small drape (to rest the client's arm on) (24 inches square) • Sterile fenestrated drape (24 inches square) • Material for packing instruments (drapes or disposable material) • Safety box

Source: EngenderHealth. Basic furniture, equipment, instruments, and expendable supplies needed to provide long-acting reversible and permanent methods of contraception. 2017. Available at: https://toolkits.knowledgesuccess.org/sites/default/files/larc-pm_equipment_instruments_and_supplies_list_-_12212017.pdf. Accessed 21 April 2022.

3. Intrauterine device

Basic furniture and equipment	Equipment (no. in brackets = quantity)	Supplies
• Examination couch (Gynae—with stirrups and Macintosh or rubber sheet) • Stepping stool • Light source • Auxiliary table • Chairs • Table • Storage cupboard/cabinet • Waste disposal bins **Administrative items** • Log book • Information, education, communication materials • Job aids • Consent forms • Clinical protocols/standard operating procedures • Client face sheet • Instrument processing chart	**Interval insertion** • (1) Cup/bowl/gallipot • (1) Forceps, Schroeder-Braun uterine tenaculum, 9.75 inches (24.8 cm) • (1) Sound, uterine, Sims, 13 inches (33 cm) • (1) Scissors, suture, Mayo-Clinic OR Littauer, curved, 6.75 inches (17.1 cm) • (1) Speculum (Graves or any self-retaining speculum), vaginal, Graves, medium (1.38 inches [3.5 cm] x 4 inches [10.2 cm]) **Postpartum insertion** • (1) Forceps ringed 9.5 inches (24.1 cms) • (1) Forceps Kelly placental 12 inches (30 cm) • (1) Speculum (Graves or any self-retaining speculum) Sims or any vaginal **Removal** • (1) Cup/bowl/gallipot • (1) Forceps, sponge, Foerster, straight, 9.5 inches (24.1 cm) • (1) Speculum, vaginal, Graves, medium (1.38 inches [3.5 cm] x 4 inches [10.2 cm]) • (1) Forceps, Bozeman uterine dressing, straight, 10.5 inches (26.7 cm) • (1) IUD removal forceps, alligator jaw, 8 inches • (1) IUD string retriever	• Cup/bowl/gallipot • The IUD (TCu 380A or Multiload or LNG-IUS) • Alcohol-based handrub AND soap and water or antiseptic soap and water (for hand hygiene) • Small towel (for hand drying if soap and water were used) • Exam gloves • Povidone iodine (preferred as an antiseptic) • Sterile gauze sponges • Drapes (to cover client's thighs, pubic area, and to put underneath their buttocks) • Drapes (for packing instruments) • Sanitary pad

Source: EngenderHealth. Basic furniture, equipment, instruments, and expendable supplies needed to provide long-acting reversible and permanent methods of contraception. 2017. Available at: https://toolkits.knowledgesuccess.org/sites/default/files/larc-pm_equipment_instruments_and_supplies_list_-_12212017.pdf. Accessed 21 April 2022.

4.Tubal ligation (female sterilization)

Equipment and basic furniture	Instruments no. in brackets = quantity)	Supplies
Preprocedure room • Examination couch • Light source • Auxiliary table • Blood pressure machine • Stethoscope • Weighing scale • Thermometer • Table and chairs • Storage cupboard/cabinet • Waste disposal bins • Procedure area/operating theater • Operating table (with reclining capabilities) • Stepping stool • Source of light (theater lamp) • Auxiliary table (anaesthesia) • Instrument trolleys • Blood pressure machine • Stethoscope • Emergency tray • IV stand • Waste disposal bin **Adminsitrative items** • Log book • Information, education, communication materials • Job aids • Consent forms • Clinical Protocols/standard opearting procedures • Client face sheet • Instrument processing chart	**Abdominal instruments** • (1) Cup/bowl/gallipot • (1) Forceps, sponge, Foerster, straight, 9.5 inches (24.1 cm) • (1) Forceps, dressing, standard pattern, 5 inches (12.7 cm) • (1) Forceps, tissue, delicate pattern, 5.5 inches (14 cm) • (2) Forceps, artery, Kelly, straight, 5.5 inches (14 cm) • (2) Forceps, intestinal, Allis, delicate, (5x6 teeth) 6 inches (15.2 cm) • (2) Forceps, intestinal, baby Babcock, 5.5 inches (14 cm) • (1) Needle holder, Mayo Hegar, 7 inches (17.8 cm) • (2) Richardson-Eastman retractor, small or (1 set- 2 pieces) Army-Navy retractor, double-ended • (1) Scissors, tonsil, Metzenbaum, 7 inches (17.8 cm) • (1) Scissors, operating, Mayo, curved, 6.75 inches (17.1 cm) • (1) Scalpel, handle, #3, graduated in cm • (1) Hook, tubal, Ramathibodi **Vaginal instruments** • (1) Cup/bowl/gallipot • (1) Forceps, sponge, Foerster, curved, 9.5 inches (24.1 cm) • (1) Speculum, vaginal, Graves, medium (1.38 inches [3.5 cm] x 4 inches [10.2 cm]) or (1) Jackson vaginal retractor (deep blade) 1.5 inches (3.8 cm) x 3 inches (7.6 cm) • (1) Forceps, Schroeder-Braun uterine tenaculum, 9.75 inches (24.8 cm) • (1) Elevator, uterine, Ramathibodi **Emergency equipment and supplies**[¶]	**Pain management supplies** • Local anaesthetic such as lidocaine, (without epinephrine, 1 per cent or 2 per cent) • Distilled water to dilute lidocaine (if 2 per cent is used) • 10–20 ml syringe with a 1.5 inch and 21-gauge needle • Pain management drugs • Sedatives such as diazepam or midazolam or promethazine • Analgesics such as diclofenac or ibuprofen • Narcotic analgesics such as fentanyl or pentazocine or meperidine (pethidine) or nalbuphine **Surgical procedure supplies** • Scalpel blade • Absorbable suture (on an atraumatic needle) **Infection prevention supplies** • Soap and water and alcohol-based hand rub OR antiseptic soap and water • Small sterile towel • Sterile gloves • Iodine • Sterile gauze sponges • Surgical adhesive tape • Sterile surgical drapes (4 drapes or one fenestrated drape to cover client) • Sterile gowns for surgeon and surgeon's assistant • Cap and face mask • Client's gown • Drape to cover surgical cushion table • Drapes (for packing instruments) • Safety box

[¶] For a list of emergency supplies and equipment for tubal ligation, see table on tubal ligation.

Source: EngenderHealth. Basic furniture, equipment, instruments, and expendable supplies needed to provide long-acting reversible and permanent methods of contraception. 2017. Available at: https://toolkits.knowledgesuccess.org/sites/default/files/larc-pm_equipment_instruments_and_supplies_list_-_12212017.pdf. Accessed 21 April 2022.

5. Non-scalpel vasectomy (male sterilization)

Basic furniture and equipment	Instruments (no. in brackets = quantity)	Supplies
• Examination couch • Auxiliary table • Blood pressure machine • Stethoscope • Thermometer • Weighing scale • Stepping stool • Light source • Chairs • Table • Storage cupboard • Waste disposal bin • Emergency tray • IV stand **Adminstrative items** • Log book • Information, education, communication materials • Job aids • Consent forms • Clinical protocols/standard operating procedures • Client face sheet • Instrument processing chart	• (1) Cup/bowl/gallipot • (1) Forceps, sponge-holding, straight, 5.5 inches (14 cm) • (1) Scissors, suture, Mayo Clinic OR Littauer straight, 5.5 inches (14 cm) • (1) NSV ringed clamp (forceps), 4 mm • (1) NSV dissecting forceps **Emergency equipment and supplies**[¶]	• Ordinary soap (or antiseptic soap) • Sterile hand towels • Running water • Alcohol-based hand rub • Antiseptic solution (iodine) • Examination gloves • Sterile gloves • Sterile gauze • Sterile surgical drapes • One fenestrated drape • Sterile surgeon's gown • Cap • Face mask • Boots • Client's gown • Chromic cat gut or non-absorbable silk or cotton • Lidocaine solution (2 per cent strength) • Syringe 5 ml or 10 ml with needle (21 G) • Waste disposal lining • Safety box • Analgesics • Adhesive tape • Basic emergency drugs

[¶] For a list of emergency equipment, drugs, and supplies for vasectomy, see table on vasectomy.

Source: EngenderHealth. Basic furniture, equipment, instruments, and expendable supplies needed to provide long-acting reversible and permanent methods of contraception. 2017. Available at: https://toolkits.knowledgesuccess.org/sites/default/files/larc-pm_equipment_instruments_and_supplies_list_-_12212017.pdf. Accessed 21 April 2022.

Safe delivery equipment, medicines, and supplies list for BEmONC and CEmONC

A. Primary healthcare BEmONC level

General supplies and equipment	Supplies in the delivery room	Medications/injections/drips
• Power supply • Clean water • Soap and alcohol hand rub • Disinfectant • Autoclave • Clean gloves • Stethoscope • Thermometer • Blood pressure instrument • Partograph • Fetoscope/Doppler • Consent and referral forms • Job aids • Information, education, communication materials • Standard operating procedures/ clinical protocols • Safety box	• Suction machine • Mucus extractor • Neonatal bag and mask • Oxygen cylinder/concentrator • Baby scale • Needle/syringe • Urine dip sticks • Sterilized blade scissor • Cord tie/clamp • Clean pads for mother • Clean towel • Vaccum extractor, Bird, manual, complete set • Intrauterine device • Delivery set: plastic bags, sheets, towels, sterile gloves, scissors, cord clamps x2, PPE (mask and personal cover) • Perineal repair set	• Bag of intravenous fluids • Injectable oxytocin • Injectable magnesium sulfate • Antibiotics for mother • Anitbiotics for infant • Antihypertensives • Misoprostol for post-abortion care

Source: Adapted from World Health Organization. WHO safe childbirth checklist implementation guide: improving the quality of facility-based delivery for mothers and newborns. Geneva: WHO; 2015. License: CC BY-NC-SA 3.0 IGO. Available at: https://apps.who.int/iris/handle/10665/199177. Accessed 10 September 2021; Inter-Agency Working Group on Reproductive Health in Crises. Inter-Agency Reproductive Health Kits 6th Edition – Manual. Available at: https://iawg.net/resources/inter-agency-reproductive-health-kits-6th-edition-manual. Accessed 1 October 2021.

B. Tertiary centre/hospital CEmONC performing caesarean delivery and blood transfusion

Requires all the essential supplies and medications mentioned above and the following:

- Blood transfusion kit
- Caesarean delivery kit
- Embryotomy set

Sexually transmitted infections including HIV

These tables provide clinic managers and trained clinical healthcare providers with a comprehensive list of the essential drugs, equipment, and supplies to screen for sexually transmitted infections (STIs), and syndromic and prophylactic management of STI/HIV healthcare delivery at primary health centres.

Equipment: Outpatient clinic	Equipment: Pharmacy	Equipment and tests: Laboratory	Guidelines and IEC materials
• Examining beds • Chairs for patients • Tables for doctors • X-ray reading machine • Scale/weighing machine • Scale to measure height • Tape measure to measure head circumference • Thermometer • Stethoscope • Torch • Medical scissors • Ear/nose/throat equipment set • Opthalmoscope • Tendon hammer • Medical record storage cupboard • Specialized test request forms/records • Ambu bag for ventilation	• Pill-counting trays • Lockable cabinet • Dispensing trays • Dispensing containers, envelopes, bags • Refrigerator and temperature chart • Air conditioning/and or fans • White coats • Gloves, face masks	• Phlebotomy chair • Dedicated toilet for stool and urine collection • Space for sputum selection • Rapid HIV antibody test • Full blood count • Liver function test • Hepatitis B and C serology • Renal function and electrolytes • Sputum smear microscopy • Pregnancy test • CD4 counts • STI tests (syphilis, urethral, cervical, and vaginal infection) • PEP kit for staff and clients	• National MoH HIV care and treatment guidelines • SOPs, patient flow charts, and job aids for HIV management, adherence counselling and assisted reproductive care available for adults and paediatric clients • Paediatric files include growth monitoring charts • Dosing charts for paediatric patients (OI drugs and assisted reproductive care drugs) are available • Infection control SOPs • Daily and monthly dispensing records and stock report templates • Procedure manual for safe specimen collection (blood, sputum, vaginal and urethral swab, body fluid, urine, and stool) available in specimen reception area • STI/HIV IEC materials for all age groups, genders, etc. • Counselling materials

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General medicines and OI drugs	Dispensing of pharmaceutical supplies (ARV and OI drugs)	Emergency drugs
• Acyclovir 200 mg • Ceftriaxone 1 g • Azithromycin 500 mg • Doxycycline 100 mg • Cephalexin 500 mg • Amoxicillin 250, 500 mg • Penicillin, Benzathine 2.4. MU • Co-trimoxazole syrup • Co-trimoxazole 480 mg and 960 mg tablets • Ciprofloxacin 500 mg • Dapsone 100 mg • Metronidazole 250 mg • Erythromycin 500 mg • Itraconazole 200 mg tablets • Mebendazole 100 mg • Fluconazole 150 mg tablets • Fluconazole syrup 2 mg/ml-100 ml • Primperan 10 mg tablets • Primperan 10 mg/2ml injection • Promethazine • Folic acid • Miconazole gel • Benzyl benzoate lotion	• Diclofenac 50 mg • Cimetidine 300 mg • Paracetamol 500 mg/codeine 30 mg • Oral morphine • Paracetamol 120 mg/5ml 60ml • Loratadine • Clotrimazole 1 per cent • Hydrocortisone 1 per cent • Vitamin B6 250 mg • Multivitamin tablet and syrup • Loperamide • Ibuprofen 200 mg tablets **First-line ARV drugs for adults and paediatric clients if applicable** • Zidovudine • Lamivudine • Stavudine • Nevirapine • Efavirenz **Second-line ARV drugs for adults and paediatric clients if applicable** • Abacavir • Didanosine • Tenofovir • Nelfinavir • Kaletra	• Adrenalin • Antihistamines • Hydrocortisone • Oxygen

Abbreviations: IEC, information, education, and communication; STI, sexually transmitted infection; PEP, post-exposure prophylaxis; MoH, Ministry of Health; SOPs, standard operating procedures; OI, opportunistic infection; ARV, antiretroviral.

Source: Adapted from FHI 360. HIV Clinical Care and Treatment (Outpatient) Facility QA/QI checklist. Available at: https://www.fhi360.org/sites/default/files/media/documents/HIV%20Clinical%20Care%20and%20Treatment%20%28Outpatient%29%20Facility%20QAQI%20Checklist.pdf. Accessed 21 April 2022.

Tubal ligation (female sterilization): Emergency supplies and equipment

Basic drugs and indication	Administration and dosages
Epinephrine (adrenaline) Indicated for: • Low blood pressure • Acute asthma • Anaphylaxis • Heart arrhythmias (ventricular fibrillation; pulseless ventricular tachycardia; asystole; pulseless electrical activity)	**Low blood pressure:** 2–16 μg IV; then 0.05–0.3 μg/kg/min (mix 4 mg in 500 ml; 1 ml = 8 μg/ml) **Acute asthma and anaphylaxis:** 0.3–0.5 mg (0.3–0.5 ml of a 1:1000 solution) SQ every 10–20 minutes, as needed **Heart arrhythmias:** 1 mg IV bolus (10 ml of 1:10,000 solution) followed by 20 ml saline flush q 3–5 minutes. (If only 1:1000 is available, dilute 1 ml of adrenaline into 10 ml of normal saline) **WARNING—1:1000** solution should never be used for IV administration. (Ensure 1:10,000 dilution)
Aminophylline (when albuterol and terbutaline are not available) Indicated for: • Acute asthma • Anaphylaxis with inadequate breathing	5–6 mg/kg IV over 20 minutes; then 0.5–0.7 mg/kg/hour
Atropine Indicated for: • Vasovagal reaction • Asystole • Pulseless electrical activity	**Vasovagal reaction:** 0.4–0.6 mg IV **Asystole and pulseless electrical activity:** 1.0 mg IV bolus; repeat as needed every 3–5 minutes, to a maximum of 0.04 mg/kg
Diazepam Indicated for: • Seizure activity	5–10 mg (0.15–0.25 mg/kg) IV at rate of 5 mg per 5 min; may repeat at 10–15 minute intervals, with careful monitoring to maximum dose of 30 mg. May repeat in 2–4 hours. Do not overdose **Note:** If IV cannot be started, give 10–20 mg per rectum, using a syringe
Diphenhydramine Indicated for: • Anaphylaxis	50 mg IV or IM every 6–8 hours (if severe anaphylaxis, give 100 mg IV initially)
Ephedrine (when spinal/epidural anaesthesia is used) Indicated for: • Low blood pressure after spinal/epidural	10–15 mg IV or 25–50 mg IM

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Basic drugs and indication	Administration and dosages
Hydrocortisone Indicated for: • Acute asthma • Anaphylaxis	250 mg IV; repeat every 4–6 hours as needed. Higher dosages may be needed for management of shock
Physostigmine (when flumazenil is not available) Indicated for: • Respiratory depression from benzodiazepines (Diazepam) when flumazenil is not available • Overdose of atropine • Ketamine response	0.5–2.0 mg IV or IM given in 0.5 mg increments to a total dose of 3–4 mg. Repeat in 1–2 hours, as needed
Promethazine • Nausea and vomiting • Tranquilizer for premedication • Antihistaminic	25 mg or 50 mg, deep IM preoperatively or postoperatively Adds to the sedative effect of narcotics. If given with meperidine, reduce dose by 25–50 per cent
Additional drugs (drugs that are desirable to provide additional safety)	
Albuterol (or terbutaline) Indicated for: • Acute asthma • Anaphylaxis with inadequate breathing.	Deliver 3 ml via aerosol (nebulized 0.83 mg/ml; 3 ml/ampule) every 20 minutes for 3–6 doses, then every 4–6 hours, as needed
Flumazenil (preferred over physostigmine) Indicated for: • Respiratory depression from benzodiazepines (diazepam)	0.2 mg (2 ml) IV mg over 30 seconds; repeat at 1 minute intervals to a total dose of 3 mg (15 ml) **Note:** If this treatment does not reverse the respiratory depression, then benzodiazepine (diazepam) overdose is unlikely to be the cause of the depression. If there is a partial response, give additional doses in 0.5 mg amounts, to a maximum dose of 5 mg

continued

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Emergency equipment

Basic equipment

- Demand resuscitator **OR** manual resuscitator (Ambu bag)
- Face mask
- Oxygen tank with pressure-reducing valve, flow meter tubing, oxygen nipple, and tubing
- Suction machine with tubing and two traps
- Non-flexible (size Fr 18) catheters
- Flexible suction catheter
- Oral airways (sizes 90 mm and 100 mm)
- Nasopharyngeal airways (sizes 28 and 30)
- Tourniquet
- Foley bladder catheter (size 16 or 18) and drainage bag
- Blood pressure apparatus (stethoscope, sphygmomanometer)
- Torch (flashlight)
- Emesis basin
- Blanket

Basic supplies

- Oxygen
- IV fluids (normal saline and 5per cent dextrose in water)
- Infusion sets with large-calibre needles (14–16 gauge) and tubing
- Adhesive tape
- Gauze sponges
- Antiseptics to clean the skin
- Lubricant for nasopharyngeal intubation
- Syringes and needles (hypodermic)

Source: Training Resource Package for Family Planning [website]. Tubal Ligation Handout #17: Emergency Supplies and Equipment. Available at: https://www.fptraining.org/training/19/downloads. Accessed 9 June 2022.

Vasectomy (male sterilization): Emergency supplies and equipment

Drugs list

Basic drugs and indication	Administration and dosages
Epinephrine (adrenaline) Indicated for: • Low blood pressure • Acute asthma • Anaphylaxis • Heart arrhythmias (ventricular fibrillation; pulseless ventricular tachycardia; asystole; pulseless electrical activity)	**Low blood pressure:** 2–16 μg IV; then 0.05–0.3 μg/kg/min (mix 4 mg in 500 ml; 1 ml = 8 μg/ml) **Acute asthma and anaphylaxis:** 0.3–0.5 mg (0.3–0.5 ml of a 1:1000 solution) SQ every 10–20 minutes, as needed **Heart arrhythmias:** 1 mg IV bolus (10 ml of 1:10,000 solution) followed by 20 ml saline flush q 3–5 minutes (if only 1:1000 is available, dilute 1 ml of adrenaline into 10 ml of normal saline) **WARNING—1:1,000** solution should never be used for IV administration (ensure 1:10,000 dilution)
Aminophylline (when albuterol and terbutaline are not available) Indicated for: • Acute asthma • Anaphylaxis with inadequate breathing	5–6 mg/kg IV over 20 minutes; then 0.5–0.7 mg/kg/hour
Atropine Indicated for: • Vasovagal reaction • Asystole • Pulseless electrical activity	**Vasovagal reaction:** 0.4–0.6 mg IV **Asystole and pulseless electrical activity:** 1.0 mg IV bolus; repeat as needed every 3–5 minutes, to a maximum of 0.04 mg/kg
Diazepam Indicated for: • Seizure activity	5–10 mg (0.15–0.25 mg/kg) IV at rate of 5 mg per 5 min; may repeat at 10–15 minute intervals, with careful monitoring to maximum dose of 30 mg. May repeat in 2–4 hours. Do not overdose. **Note:** If IV cannot be started, give 10–20 mg per rectum, using a syringe
Diphenhydramine Indicated for: • Anaphylaxis	50 mg IV or IM every 6–8 hours (if severe anaphylaxis, give 100 mg IV initially)

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Basic drugs and indication	Administration and dosages
Hydrocortisone Indicated for: Acute asthma Anaphylaxis	250 mg IV; repeat every 4–6 hours as needed. Higher dosages may be needed for management of shock
Physostigmine (when flumazenil is not available) Indicated for: Respiratory depression from benzodiazepines (diazepam) when flumazenil is not available Overdose of atropine Ketamine response	0.5–2.0 mg IV or IM given in 0.5 mg increments to a total dose of 3–4 mg. Repeat in 1–2 hours, as needed
Promethazine Nausea and vomiting Tranquilizer for premedication Antihistaminic	25 mg or 50 mg, deep IM pre- or postoperatively **Note:** Adds to the sedative effect of narcotics. If given with meperidine, reduce dose by 25–50 per cent
Additional drugs (drugs that are desirable to provide additional safety)	
Albuterol (or terbutaline) Indicated for: Acute asthma Anaphylaxis with inadequate breathing	Deliver 3 ml via aerosol (nebulized 0.83 mg/ml; 3 ml/ampule) every 20 minutes for 3–6 doses, then every 4–6 hours, as needed
Flumazenil (preferred over physostigmine) Indicated for: Respiratory depression from benzodiazepines (diazepam)	0.2 mg (2 ml) IV mg over 30 seconds; repeat at 1 minute intervals to a total dose of 3 mg (15 ml). **Note:** Benzodiazepine overdose is unlikely if there is no response to such treatment. If there is a partial response, give additional doses in 0.5 mg amounts, to a maximum dose of 5 mg

continued

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Basic supplies

- Ambu bag
- Oxygen
- IV fluids (normal saline and 5 per cent dextrose in water)
- Infusion sets with large-calibre needles (14–16 gauge) and tubing/tourniquet
- Adhesive tape
- Gauze sponges
- Antiseptics to clean the skin
- Syringes and needles (hypodermic)

Emergency equipment

Basic equipment

- Demand resuscitator **OR** manual resuscitator (Ambu bag)
- Face mask
- Oxygen tank with pressure-reducing valve, flow meter tubing, oxygen nipple, and tubing
- Suction machine with tubing and two traps
- Non-flexible (size Fr 18) catheters
- Flexible suction catheter
- Oral airways (sizes 90 mm and 100 mm)
- Nasopharyngeal airways (sizes 28 and 30)
- Tourniquet
- Foley bladder catheter (size 16 or 18) and drainage bag
- Blood pressure apparatus (stethoscope, sphygmomanometer)
- Torch (flashlight)
- Emesis basin
- Blanket

Optional equipment

(if personnel trained in its use are available)

- Laryngoscope, with spare bulb and spare battery
- Endotracheal tubes
- Pulse oximeter
- Electrocardiogram (ECG) machine with leads
- Defibrillator
- General inhalation anaesthesia machine

Source: Training Resource Package for Family Planning [website]. Vasectomy Handout #16: List of Emergency Equipment, Drugs, and Supplies. Available at: https://www.fptraining.org/training/6/downloads. Accessed 9 June 2022.

MAIN CONTENTS

Chapter 3: Counselling

contents

contents (continued)

1. Introduction

This chapter supports trained professionals within and outside the health system in strengthening the knowledge, skills, and attitudes needed to provide client-centred sexual and reproductive health counselling that promotes voluntary and informed decision-making by clients. Counselling is a cross-cutting element in sexual and reproductive healthcare and is critically important for all people of reproductive age and particularly for youth (ages 15–24 years), in both development and humanitarian contexts. The counselling guidance provided in this chapter should be applied to all sexual and reproductive healthcare provided in these Client-Centred Clinical Guidelines.

1.1 What is counselling?

Counselling is defined as the exchange of information based on an assessment of the client's needs, preferences, and lifestyle to support decision-making, as per the client's intentions. Counselling fundamentals are based on coercion-free and informed choice; neutral, understandable, and evidence-based information; and a collaborative and confidential decision-making process ensuring quality, respectful, and timely care, and dignity [1].

A rights-based, client-centred approach to counselling ensures that the client's rights are being respected (see *Section 2.3*) and that the power relationship between the client and the counsellor is equal (see *Section 3*).

Counselling supports clients to:

- Assess and understand their situation more clearly.
- Identify a range of options and goals for improving their situation.
- Make their own informed decisions, which fit their values, feelings, situational needs, and rights, and provide informed consent.
- Feel empowered to manage their situation, gain agency, and act on their decisions.
- Develop skills such as being able to talk about sex with a partner.

Acronyms

HIV	human immunodeficiency virus
LGBTI	lesbian, gay, bisexual, transgender, and intersex
SGBV	sexual and gender-based violence
STI	sexually transmitted infection
WHO	World Health Organization

2. Counselling in sexual and reproductive health

Quality-integrated sexual and reproductive health counselling involves healthcare providers effectively utilizing an amalgamation of core counselling principles, skills, knowledge, and processes that are contextualized to a client's local environment and to the individual communication needs of clients [2]. *Section 2* details each of these core components and *Figure 1* (next page) provides a schematic overview of counselling in sexual and reproductive health.

2.1 Integrated sexual and reproductive health counselling

In development and humanitarian contexts, it is essential to recognize that counselling serves as an entry point for identifying unmet sexual and reproductive health needs that have potentially life-threatening consequences [3].

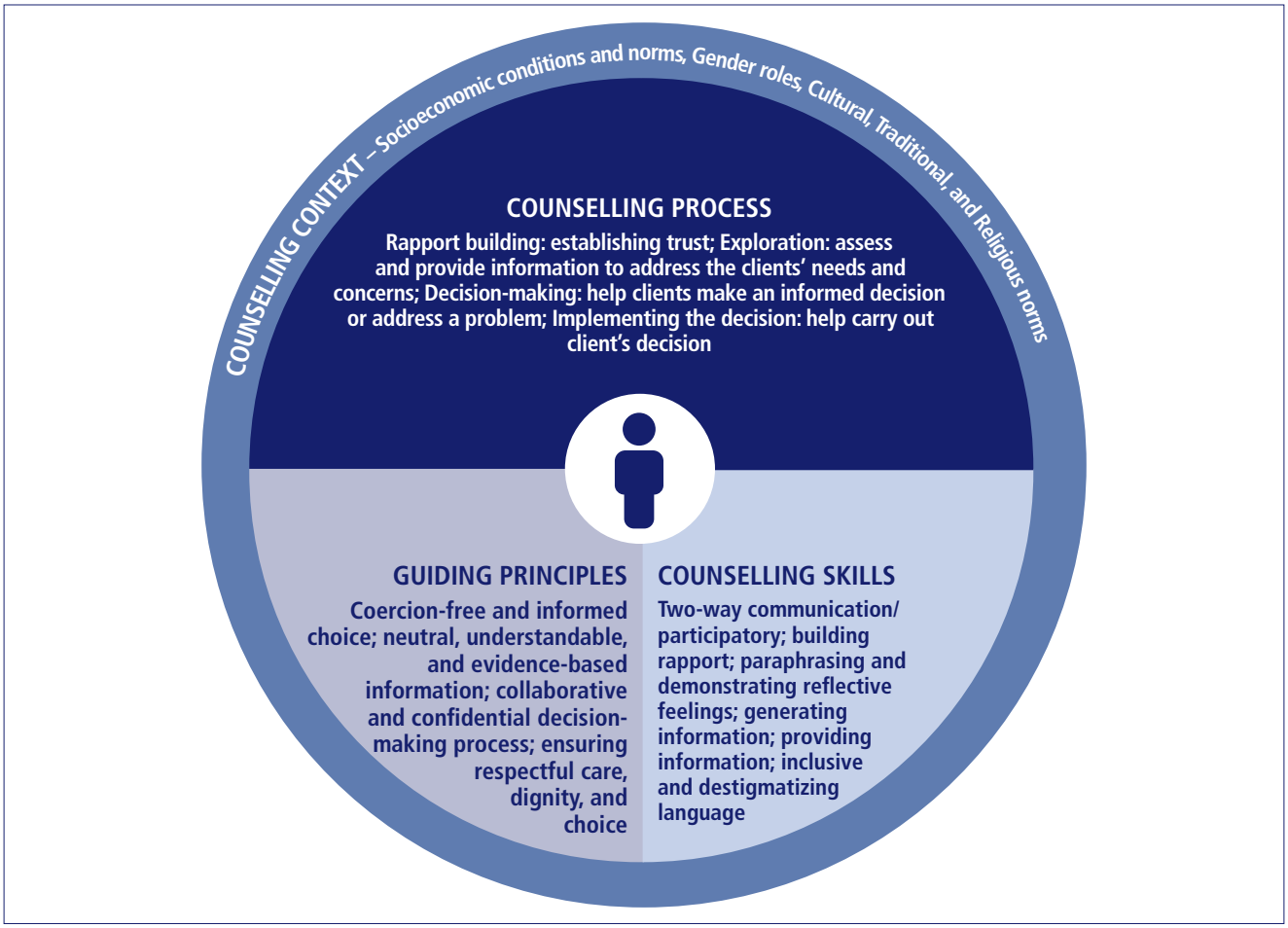
Counselling in sexual and reproductive health should be adapted to the local context, taking into account the needs of the community and the compounding barriers (e.g. structural, sociocultural, traditional, disability-related, religious, and spiritual) and their impact on a client's ability to access care.

In sexual and reproductive healthcare, integrated counselling implies weaving different issues into one counselling session to ensure a holistic view. In turn, this allows the client to assess their sexual and reproductive health needs and manage their sexual life [4].

In sexual and reproductive health settings, integrated counselling can be used to:

- help the client to clarify their needs and desires to use contraception
- help the client to make an informed, free choice of a contraceptive method
- help the client learn about the contraceptive method of choice
- help the client to understand how to use the contraceptive method of choice properly
- help the client overcome anxieties and make adequate decisions if challenges occur
- help with concerns about sexually transmitted infections (STIs), including HIV
- prepare the client for pregnancy and parenthood
- help the client make informed decisions about breastfeeding
- help the client decide to move/not move through a full pregnancy
- help survivors of sexual and gender-based violence (SGBV) acquire the tools they need to cope with their trauma
- discuss any issues around sexuality and sexual relations, including sexual orientation, gender identity and expression, sexual well-being, infertility, menopause, erectile dysfunction, and other sexual and reproductive health issues
- learn about the norms, laws, and rights in their community and how to uphold them in the healthcare provided
- provide referrals for clinical and community social services

FIGURE 1: Schematic overview of the counselling process



Source: Adapted with permission from WHO [2]. A handbook for building skills: Counselling for maternal and newborn health. Geneva. WHO; 2014.

2.2 Who can counsel sexual and reproductive health clients?

In many settings, there may not be a formal specialist counsellor. However, as per national policies, several providers such as trained and competent public health officers, nurses, psychologists, educators, doctors, social workers, or community workers can provide counselling [5].

People who are motivated to counsel are more likely to make empathetic and proficient counsellors and to possess the following characteristics:

- Commitment to practicing and promoting the sexual and reproductive health and rights principles outlined in *Section 2.3*.
- Good communication skills (verbal and non-verbal) as described in *Section 2.4*.
- Have explored personal values, beliefs, and attitudes on all aspects of sexual and reproductive health and rights, and provide client-centred counselling that includes:
    - being non-judgmental
    - knowing oneself and not imposing one's values on clients
    - being respectful, empathetic, warm, and approachable
    - being motivated and committed to the client's rights and well-being
    - being open and willing to learn continuously and from one's own mistakes
    - knowing and demonstrating sensitivity for people with different values, cultures, and ways of life

2.3 Clients' rights: counselling principles

The following rights-based principles underpin standards for sexual and reproductive health counselling. As with other guidance in this chapter, counsellors should contextualize the application of these recommendations and ensure these principles are applied when counselling clients on specific sexual and reproductive health matters. Similarly, a facility should be accessible for all groups of people, including young people and people with different types of disabilities, and offer varied sexual and reproductive healthcare to ensure people have a selection of care options to choose from and receive the integrated care they need (see *Chapter 2: Facility requirements and client history/ examination* for detailed guidance on sexual and reproductive health facility requirements). Human rights standards in relation to programme implementation of the counselling principles in *Table 1* (next page) are detailed in the World Health Organization's (WHO) *Quality of care in contraceptive information and services, based on human rights standards: A checklist for health care providers* [6].

Important!

For the purposes of this chapter, the terms 'healthcare providers' and 'counsellors' are interchangeable and encompass a variety of professions that when trained can provide counselling services

TABLE 1: Sexual and reproductive health and rights counselling principles

Principles	Application in counselling
Principle 1: Non-discrimination	All people have the right to be treated equally regardless of age, gender, race, sexual orientation, gender identity, colour, religion, language, marital status, refugee status, whether they are a survivor of sexual and gender-based violence (SGBV), and/or have a disability. Counselling should not vary in quality because of clients' characteristics, including residence, age, health status, insurance status, drug use, or employment in sex work [6]. Thus, every client should receive respectful care and be treated with dignity.
Principle 2: Availability of information and services	Healthcare facilities, digital counselling platforms, and communities should have a sufficient number of trained counsellors (if possible, counsellors of different genders) to provide education, information sharing, and counselling interventions. In addition, information, education, and communication materials that are age and context appropriate, sensitive to gender, accessible for people with disabilities (e.g. available in different formats such as braille for blind people), and respectful of confidentiality should be available [7].
Principle 3: Accessible information and services	Counselling services are provided through virtual platforms or in a physically accessible and geographically reasonable setting that ensures confidentiality where education, information-sharing, and counselling activities take place, such as in the facility, at home, online, by telephone, in the community, etc. Counselling activities should be equitable to the needs of different populations in a community, especially marginalized groups such as adolescents and people with disabilities. Counselling services should have convenient hours, regardless of location or the virtual platforms utilized [7]. In addition, transportation opportunities for people with disabilities should be ensured, especially during crisis settings. Safety getting to and from the facilities for marginalized groups is imperative and especially during humanitarian settings.
Principle 4. Acceptable information and services	The counsellor should be friendly, warm, and welcoming, and help to bring these same qualities to the counselling session. An example would be to provide a separate space for adolescents to be counselled [8]. The counsellor should avoid overwhelming the client with information, should tailor the counselling session to the client's needs, and utilize visual aids to facilitate discussions, such as flip charts, anatomical and sexual and reproductive health posters, or pelvic models. The pictorials and text should use simple language and images, and should be understandable for a variety of clients with different needs (e.g. people with language or other disabilities).
Principle 5. Quality	The counsellor's knowledge and skills are up to date, not only on quality counselling, but also on evidence-based information required to counsel clients on specific sexual and reproductive health topics, services, trends, and changes in sexual and reproductive health needs in their locality [9]. The counsellor does not let their personal values negatively impact their professional responsibilities and thereby inhibit the clients' rights to coercion-free, informed choice and decision-making [10]. The counsellor establishes referral pathways with other health and community services for sexual and reproductive health matters in their locality, including abortion care, contraception, prevention of STIs including HIV, support, and/or care for survivors of SGBV [9]. The counsellor records information on data collection forms (i.e. logbooks, case files, informed consent, and release of information forms) [11]. To ensure quality counselling, health facility or digital health counselling platform managers should assess the candidates and staff on their sexual and reproductive health counselling knowledge and communication skills, and guarantee continuous training, supportive supervision, and clinical updates in sexual and reproductive health and rights.

Principles	Application in counselling
Principle 6: Informed decision-making	Clients are treated with respect and understanding. Counsellors must refrain from coercion and avoid manipulating a client into what they think is best for them; this is especially true for adolescents and people with disabilities. The counsellor is supportive to the client and gives them full information (i.e. procedure/method options and processes, symptoms, and side effects, etc) in an accessible format that they can understand so that they can make an informed decision. For example, using a sign language interpreter and/or using approachable language to ensure that all clients are able to make an informed decision. See *information box* (next page) providing detailed guidance on consent/assent procedures [11].
Principle 7: Privacy and confidentiality	The counsellor protects medical information against unauthorized disclosures, respects the dignity of the client, guaranteeing privacy and confidentiality [12,13]. It must be clearly stated to the client that the conversation, any clinical procedures, and any follow-up will remain confidential unless they wish any other party to know. The client should be informed of any limits to confidentiality (e.g. mandatory national reporting) before the consultation or examination begins. The counsellor ensures the session is provided in a safe environment and in a private space where others cannot hear. For confidentiality purposes, the counsellor should always ask if the client wants their accompanying support person (e.g. relative, partner, friend, sign language interpreter, etc) in the counselling or procedure room. Any additional support person must ensure confidentiality (for example, by signing a written confidentiality agreement). The counsellor should not tell others what clients have said and should immediately put away clients' records to ensure proper and safe data management [5].
Principle 8: Participation	Good communication builds good rapport, trust, and participation from the client throughout the counselling session [12]. The counselling room is arranged so that the communication between the client and the counsellor is private and confidential. This facilitates discussing risk factors, including sexuality, sexual relationships, and sexual behaviour. This also helps the client identify solutions for their situation and implement them [13].
Principle 9: Accountability	The counsellor holds themselves accountable for respecting the rights of each client when providing information, education, and counselling on sexual and reproductive health issues. Confidential client-feedback forms/satisfaction surveys are one of many methods counsellors can implement to help improve their counselling quality [14].

Source: Adapted from World Health Organization, Johns Hopkins Bloomberg School of Public Health [5].

Informed and voluntary consent/assent process

Counsellors must know the procedures for obtaining informed and voluntary consent from the client to participate in clinical care.

1. Determine the capacity of the client to understand and make a decision about their clinical care based on the information provided, free of inducement, coercion, or discrimination.

a. Be aware of the national legal age of consent, but acknowledge "that, in accordance with evolving capacities, children have the right to access confidential counselling or advice and information without the consent of their parents or legal guardians" [6]. If the client is below the legal age to provide consent to clinical care, consider that in "situations where it is in the best interest of the child or adolescent, informed consent should be sought from that child or adolescent" [6].

b. People with disabilities have the right to be recognized in their own capacity to make decisions over their sexual and reproductive life. While legal frameworks might vary, people with disabilities should be informed and asked for consent in all scenarios by identifying and incorporating support mechanisms and reasonable adjustments in their decision-making [15]. See *information box* (below) containing practical suggestions for seeking informed consent from people with disabilities.

2. Attain and document consent and assent.

a. Once clients have received education and counselling, have been found eligible for sexual and reproductive healthcare, have received answers to any questions, and have made a voluntary and informed choice to receive sexual and reproductive healthcare, the provider must ask them to sign a consent/assent document.

b. Clients must be informed that they can revoke their consent at any point in time and that the provider must respect their decision.

c. Verbal consent is required when written consent cannot be provided through digital health platforms.

d. In certain scenarios, such as providing counselling to migrants, refugees, and ethnic communities, adequate and confidential interpretation must be provided in order to ensure consent.

e. Consent is not required if the client is unconscious and needs life-saving care.

Practical suggestions for seeking informed consent from people with disabilities [16]

When offering sexual and reproductive healthcare to people with disabilities, practitioners seeking informed consent:

1. Assume that all people with disabilities have the capacity to consent to services. Until demonstrated otherwise, healthcare providers should not assume that a client with a disability cannot give their consent to receive healthcare. This is true for people with all types of impairments, including intellectual or cognitive disabilities. Follow the guidelines for communicating with people with disabilities and speak directly to the client, even if they are accompanied by a family member or caregiver.

2. Recognize that capacity to consent is a fluid concept and refers to the ability to consent to particular healthcare at a particular point in time. In other words, capacity may change over time and may not be the same for all types of decisions. Healthcare providers should approach the process of seeking informed consent as an ongoing discussion with a client, and not a one-time event.

continued

Practical suggestions for seeking informed consent from people with disabilities [16] ***continued***

3. Be attentive to how information is communicated. For a client to give their informed consent, they must understand the information on which that consent is based and how the information is communicated to them. It may be helpful for clients to make big decisions by thinking through smaller steps, such as talking through their goals for healthcare, the procedures that will take place, the actions they will need to take, and so on. Providers should take the time to work with clients and discuss decisions in detail, to be sure that they understand what they are consenting to.
4. Remember that clients who lack the capacity to consent have a right to information and should be involved in decision-making. Healthcare providers should always share information, listen to clients, and explain how and why decisions have been made.

2.4 Communication skills in counselling

To support the client's informed and voluntary decision-making, a counsellor needs effective verbal and non-verbal communication skills that help them with [11]:

- **Building rapport**: use warm and welcoming, non-judgmental language (not assuming clients' gender and using gender-neutral language), demonstrate reflective feeling skills by paraphrasing, showing empathy, and expressing that you understand and are listening to the client, and lastly, comfortably broach the topic of sexuality and confidentiality.
- **Generating information**: ask open-ended questions and practice active listening and paraphrasing skills to assess clients' needs, explore risks, and ensure both parties understand one another.
- **Providing information**: communicate knowledge about evidence-based sexual and reproductive healthcare in a way that is not overwhelming and in a language that the client can understand. This will encourage clients to think about their sexual health context and set goals for change if necessary.

Healthcare providers should also utilize inclusive and destigmatizing language:

- The words that providers choose to use or not use will vary depending on cultural differences, age group, and personal preferences (e.g. use gender-neutral and non-stigmatizing language and ask the client how they would like to be addressed) [17]. Moreover, providers should use non-discriminatory and sensitive language when addressing marginalized groups such as people with disabilities (e.g. not using 'disabled' or 'crippled', instead a person with walking difficulties). Providers need to be able to develop a language for talking about sex and sexuality that feels comfortable and appropriate within the context in which they work.
- Body language and simple verbal messages can contribute to stigmatizing or destigmatizing human sexuality. Providers should choose words and tone of voice that address sexuality and sexual relationship issues without promoting shame or stigma.
- Terms like 'normal'/'abnormal' and 'transactional sex' should be used with care. Expressions such as 'promiscuity', 'indulging in sexual activities', and 'premarital' or 'extra-marital' sex should be avoided.
- Providers should be inclusive of all people seeking sexual and reproductive healthcare. They should acknowledge and respect that each client may have confronted challenging experiences, including sexual violence and abortion.

2.5 Counselling framework: REDI

The principles and communications skills providers should use when counselling clients are discussed in *Sections 2.3 and 2.4*. REDI, which stands for Rapport building, Exploration, Decision-making, and Implementing the decision is an efficient four-step client-centred counselling process to aid new and returning clients make voluntary and informed decisions suited to their situation, social circumstances, and comprehensive sexual and reproductive health needs [12].

Important! Do no harm! Provide survivor-informed care

Counsellors should be informed on the prevalence of sexual and gender-based violence (SGBV) in their contexts and be sensitive to a survivor's history and experiences. WHO encourages healthcare providers to raise the topic of violence and safety with clients who have visible injuries or conditions they suspect to be related to SGBV. However, if the client does not disclose, the provider should not pressure the client to do so, but respect their wishes, informing them of the sexual and reproductive healthcare available and offering referrals and any follow-up visits as needed. Remember, while women and girls are predominantly affected by SGBV, men and boys, people who identify as lesbian, gay, bisexual, transgender, and intersex (LGBTI), and people with disabilities are also impacted by SGBV. Research indicates that people with disabilities and people who identify as LGBTI are at a higher risk of facing any kind of violence or SGBV. Women, girls, and boys with disabilities are up to 10 times more likely to experience SGBV in their lives [18]. See *Chapter 10: Sexual and gender-based violence* for detailed guidance on counselling survivors of SGBV.

3. Gender and power dynamics in counselling

It is important to avoid gender stereotypes contaminating the process of counselling. The provider should take an approach that centres the client. A rights- and evidence-based approach to counselling is committed to facilitating equality and personal power between women and men, and addressing stigmatization and discrimination with regard to disability and sexual orientation.

In many settings, more women than men seek counselling. The concept of talking about feelings and exploring emotional and psychological difficulties has been embedded in gender socialization and how women and men consider and evaluate themselves. Depending on the context (e.g. conflict settings where boys are used as child soldiers and used to inflict violence/sexual violence) [8], men and adolescent boys may need specific approaches in counselling, considering that they may be compelled to keep emotions secret and have feelings of shame and isolation. For guidance on engaging men in sexual and reproductive health and rights, refer to the resource list provided in *Section 7.1*.

An individual's position within their family and sociocultural environment impacts their knowledge of and ability to exercise their sexual and reproductive health and rights [12]. In many settings, issues of dominant male masculinity may make it difficult for female clients to talk to male providers and for male clients to talk to female providers. Therefore, clients should be offered the option to speak to a counsellor of the same gender if they prefer. The power imbalance is not always on the side of the provider. Clients can also consciously or unconsciously exercise power and/or manipulate the provider. Providers need to be aware of this and discuss it with clients. Providers are also encouraged to consult other counsellors for support in such cases.

Counsellors must refrain from power imbalances that can cause discrimination and any form of reproductive coercion, specifically for survivors of SGBV, clients seeking abortion care, adolescent clients, sexual and gender diversity minority populations, or clients with disabilities.

Important!

People with diverse sexual orientations, gender identities and expressions, and sex characteristics should never be considered in pathological terms in the context of sexuality education, counselling, or sexual and reproductive health and rights programmes and care. See *Sections 4.1* and *4.2* for guidance on minimizing the stigmatization and discrimination of LGBTI communities.

4. Sexuality and sexual health counselling

Sexuality is an important part of human life. Lack of open and honest communication about sex and sexuality means that it can be difficult for individuals and communities to get accurate information and support with issues relating to sexual and reproductive health. Talking about sex and sexuality can be difficult for both counsellors and clients.

Counsellors can play an important role in creating safe spaces for clients to explore the positive and challenging sides of their sexual orientation, and to develop greater confidence in their sexual relationships and sense of sexual self.

As part of their commitment to sexual and reproductive health and rights, to decreasing stigma, and increasing recognition of sexuality as a positive aspect of human life, providers can put the following into practice:

- Being **sex positive:** the counsellor understands the positive impact that sex and sexuality have on people's lives, and supports their client to have enjoyable, equitable, and safe sexual relationships, and/or to be happy with their sexuality.
- Being **sex critical:** the counsellor is able to identify and critically reflect on what the community sees as 'normal'/'abnormal', 'good'/'bad' in sexuality and sexual relationships, and is aware of who has the power to label sexuality in this way.
- **Engaging in self-reflection:** the counsellor is able to reflect on personal values and experiences; personal attitudes or 'rules' about sexuality, sex, marriage, condoms, pornography, sexual pleasure, female sexuality, or same-sex sexual relationships; who decides on these rules and what happens to those who do not follow them; how the provider can explore possibilities with the client for living by different kinds of rules.

Important!

Adolescents and people with disabilities are often not seen as individuals who have the right to enjoy a sexual life and make decisions about their sexual health or orientation and expression. Additionally, the sexual life of older people is sometimes overlooked or stigmatized, but sexual activity can remain an important aspect of health and well-being throughout a person's lifetime. It is important for counsellors to adopt the practice of being sex positive, sex critical, and self-reflective about their own misconceptions and prejudices, and ensure these populations receive quality care.

4.1 Sexuality counselling

According to WHO's definition of sexuality, many biological, social, cultural, economic, environmental, religious, and contextual factors influence people's sexual behaviours, relationships, feelings, orientations, desires, and attitudes, and each person's experiences and expressions of sexuality are unique.

There are issues that providers need to be aware of when discussing sexuality, sexual and gender diversity, sexual relationships, and the link between sexual and reproductive health (e.g. the use of contraceptives) and sexual difficulties with their clients.

Sexual well-being contributes significantly to quality of life and can positively affect safer sex and positive relationships. However, with often negative and conflicting messages about sexuality, clients can be confused, ashamed of their bodies, insecure about their sexuality, and disempowered to exercise their sexual and reproductive rights. For example, gender norms, sexism, ageism, homophobia, transphobia, disablism, and other forms of prejudices and stereotypes limit people's development and opportunities for sexual expression, particularly for young people, people with disabilities, and people with diverse orientations, gender identities and expressions, and sex characteristics.

To effectively provide counselling on sexuality and sexual well-being, including pleasure, providers need to understand the context of sexuality and the diversity

of people's sexualities should always be recognized, valued, and celebrated in the counselling process.

Sexuality includes a range of physical and emotional experiences that an individual can have in relation to sexual expression in the distinct phases of their life. This includes experiences of pain, anger, anxiety, boredom, and disappointment, as well as experiences of desire, enjoyment, and pleasure. Sex and sexual relationships can be painful or enjoyable, unpleasurable as well as pleasurable, uncomfortable as well as satisfying, and empowering – sometimes all at the same time. All these aspects need to be included or understood in the counselling process.

Sexuality counselling explores the connection between what sexuality means for the individual and for the relationships the client has, and can help to explore the fears and obstacles they encounter in asserting themselves [13].

4.2 Topics for sexuality and sexual health counselling

The following sections provide a description of sexuality and sexual relationship topics, and special considerations a counsellor may discuss with their clients during counselling sessions.

4.2.1 Sexual diversity

Sexual diversity is a term that embodies all of the characteristics related to diverse sexual orientations, gender identities and expressions, and sex characteristics [19].

In many contexts, clients with sexual and gender diversity experience oppression, discrimination, and stigmatization. Sexual orientation or same-sex sexual relationships can influence a client's sexual and reproductive health and rights, sexual well-being, and willingness to talk to providers.

Intersex people have external or internal sexual characteristics that exemplify the wide diversity of biological sex in human beings. Intersex shows that not all bodies fit into the male-female dichotomy.

Both transgender and intersex youth and adults should be supported to make autonomous decisions about their own bodies and receive proper information and guidance from providers about surgeries or hormone therapies.

Providers should reflect on their comfort level and values working with clients whose sexual orientations, gender identity, and expression differ from their own, and be careful not to impose their values on clients.

It is important that providers are aware of the legal aspects related to sexual orientation. This will help them to raise the topic of sexual orientation with their clients.

Providers should never assume that they know the sexual orientation of their client and always use gender-neutral and inclusive language. See *Chapter 1: Guiding principles and approaches* for further details on inclusivity and gender-neutral language.

4.2.2 Sexual concerns

Different negative factors can harm a sexual relationship. These range from physical and emotional issues to dependencies, past sexual experiences, and communication difficulties. By asking the client about the issues that hinder and stimulate sexual play and pleasure for them, counselling can support clients to weigh these issues and decide where there is a possibility of increasing positive stimulating experiences and addressing negative experiences.

There is no standard set of questions in a counselling session to support clients to develop confidence in their sexuality. However, there are some simple exploratory questions that counsellors can try using to open conversations about sex and sexuality and tease out discussion about sexual enjoyment, pleasure, discomfort, and pain.

WHO recommendations on 'Brief sexuality-related communication' [20] encourage providers to explore and address sexuality in counselling sessions by:

- **Attending**: setting up the relationship with the client. While brief sexuality-related communication is shaped around the context and needs of the individual client, there are some typical questions that healthcare providers can use in a socially appropriate manner

to initiate the subject of sexual health, such as "Do you have any questions or concerns about sexual matters?"

- **Responding:** asking questions that open the conversation about sexual health and sexuality, such as "Are you satisfied with your sexual life?"; "Is your sexual life going as you wish?"; or "How do you feel in your sexual relationships?"
- **Personalizing**: identifying the existence of sexual concerns, difficulties, dysfunctions, or disorders and the dynamics of any interplay between these, such as "What difficulties do you have in using condoms?"; "Some people who have had a particular challenge (e.g. cancer, hypertension, diabetes, menopause, a disability, AIDS treatment – whatever the client is facing) tell me that they have had sexual difficulties; how is it for you?"

4.2.3 Sexual pleasure and sexual relationships

Sexual pleasure can mean different things to different clients and can be experienced individually or as a shared experience.

A focus on pleasurable, positive sexual experiences can help to open discussions to work towards safer sexual behaviours and stronger negotiation skills. Furthermore, communicating sexual preferences to partners and experiencing sexual pleasure as a result may lead to greater self-confidence and self-esteem, which may in turn reinforce the ability to make empowered decisions about safer sex and equitable relationships.

Some discussion points to cover in counselling on sexual pleasure and sexual relationships may include:

- Physical and psychological satisfaction/enjoyment
  - the physical and psychological satisfaction/ enjoyment in the client's sexual encounters
  - what makes the sexual relationships more or less pleasurable
- Self-determination
  - the ability of the client to freely choose a sexual encounter
  - being forced to engage in a sexual relationship
- Consent
  - challenges to reach consensual agreements about what the client wants/does not want to do with sexual partners
- Safety
  - what makes the client feel safe/unsafe in their sexual relationships
  - what is their most common method of protection
  - in which situations does the client feel more safe/ less safe
  - challenges to have safe sexual relationships
- Privacy
  - what are the main challenges to ensure privacy
  - factors beyond the control of the client to have privacy in sexual encounters
- Confidence
  - which factors limit the ways the client expresses themselves during the encounters
  - is there something the client feels limited by (e.g. disability, body image); the role of the partner in making the client feel less or more confident
- Communication/negotiation
  - capacity of the client to talk with partner(s) about what they want in a sexual encounter
  - capacity to propose to explore new things

4.2.4 Sexual dysfunctions

Providers should discuss sexual dysfunction, possible causes and treatment, and encourage clients to seek support where necessary. The two most common dysfunctions individuals experience are:

Difficulty reaching an orgasm

- This can be a concern for people of all ages. In surveys about orgasms, women tend to report greater difficulty reaching orgasm than men. However, the quality and timing of orgasms can be an issue for people of all genders.
- Providers can discuss pleasure and the importance of orgasms. Does the client think sex should necessarily involve orgasm? Can it still be enjoyable/satisfying if not?

- Reaching orgasm is often not as simple as it might seem from films/television and pornography. For example, many women find that it is difficult or impossible to reach orgasm during only penetrative (penis in vagina) sex and are likely to require clitoral stimulation. It could be helpful to talk about the internal structure of the clitoris and the number of nerve endings in the outer part of the clitoris compared with the vaginal canal.
- Sometimes pressure to reach orgasm during sex can exacerbate the issue and result in feelings of failure. Providers can talk to the client about what makes them feel relaxed, and how they might initiate sex (solo or partnered) that does not focus on orgasm as a goal, but on pleasure/intimacy.

Pain during sex

- Pain during sex can be caused by a person's state of mind, relationship issues, medications, medical/gynaecological and surgical conditions, or by a partner or unwanted sexual pressure [21].
- No one should feel pressured to have sex that they do not enjoy or sex that causes them pain. See *Chapter 10: Sexual and gender-based violence* for guidance on counselling survivors of sexual violence and referral pathways.
- Find out what your client means by sex. Do they mean penetrative sex? If so, talk about alternative methods of giving and receiving pleasure, and how important it is to them to have this type of sex.
- Pain in the vagina could be the result of an infection, vaginismus, or irritation caused by cosmetic products. Pain in the pelvis could be due to pelvic inflammatory disease, endometriosis, or fibroids. It is important to ask questions to ascertain the cause of the pain.
- Pain may also be due to a lack of arousal, and penetrative sex may be painful for those who are first experiencing it, or for post-menopausal clients experiencing vaginal dryness. It is important to talk about consent and enjoyment as well as lubrication – both natural and synthetic.
- Contraception and condom use may play a big part in how physically comfortable a person is having penetrative sex; providers should talk about the method the client is using and how it feels for them.

Sexual and reproductive healthcare providers should consider referring clients with severe sexual dysfunctions that create difficulties for clients and partners to a specialist. Providers need to know where they can refer clients for trustworthy, sex positive, and unbiased care.

5. Enabling environment

Counselling may have negative connotations in some communities due to embarrassment and stigmatization of sexuality and sexual and reproductive health and rights. It is important that current and potential clients feel supported and accepted to seek the care they need to manage their reproductive lives.

Counsellors have a role to play in addressing adolescent health; disability inclusion; diverse sexual orientations, gender identities and expressions, and sex characteristics; and social issues in the community. Counsellors are often highly regarded and respected and can lead discussions on inequality, harmful practices, and other sensitive and sometimes controversial sexual and reproductive health issues.

Creating an enabling environment for counselling involves a multisector/stakeholder approach that links facilities with local government bodies, schools, youth-led organizations, organizations of people with disabilities, family members, and religious and community leaders [8,22,23]. Similarly, strengthening support within health facilities and communities improves referral pathways along the continuum of care and creates an environment that empowers individuals to develop positive sexual and reproductive health-seeking behaviours [24].

5.1 Health facility strengthening

For a health facility to provide quality sexual and reproductive healthcare for all population groups, counselling must adhere to the nine rights-based principles (see *Table 1*) and must meet the

facility requirements outlined in *Chapter 2: Facility requirements and client history/examination*. The facility's environment and characteristics impact a client's decision to seek and return for information, counselling, and care [5,11].

5.2 Community engagement

In some contexts, it may be the first time that sexual and reproductive health and rights education, information, and counselling are initiated, and it is essential, therefore, to build trust with community members. Giving information and education before counselling builds trust, makes the provider–client interaction more effective, and saves time in counselling consultations where learning is enhanced because the client receives information and education linked to their specific needs. In turn, the client feels empowered to provide informed consent for healthcare and release of information for referrals.

Table 2 describes community engagement strategies that tackle the compounding barriers people face and help catalyse positive sexual and reproductive health behaviours. These strategies are rights based and designed to be implemented in informal and formal settings, including in humanitarian settings, and are adaptable to meet the needs of participants and the most marginalized groups.

Table 2: Community engagement strategies for positive sexual and reproductive health

Strategy	
Engaging religious leaders and community organizations of women; young people; people with diverse sexual orientations, gender identities and expressions, and sex characteristics; and people with disabilities	Working with community leaders is crucial to counter inaccurate information and dispel any existing myths and misconceptions around sexual and reproductive health and rights and counselling that a community might have. Meaningful engagement with community organizations that represent women; young people; people with diverse sexual orientations, gender identities and expressions, and sex characteristics; and people with disabilities destigmatizes the sexual and reproductive health and rights of these populations, and provides an opportunity for direct dialogue and referral to healthcare
Comprehensive group engagement (CGE) [25] and group information-giving (GIG)	CGE and GIG move beyond outreach to decision-makers and leaders, to groups of people to promote open dialogue and understanding of sexual and reproductive health and rights. The facilitator should provide clear information and material to the particular communities. Unlike group counselling, CGE and GIG are not confidential, therefore it is important that participants talk about issues in a general way and do not disclose personal information. The ideal group size depends on the venue and the time available, but generally between 10 and 15 people provides opportunity for discussion. These group activities are highly effective when engaging men and boys and marginalized communities. For additional guidance on the CGE approach, refer to the resource list in *Section 7.1*

continued

continued

Strategy	
Values clarification and attitude transformation (VCAT) [10]	VCAT helps participants reflect on their personal experiences and the driving forces in their communities that help shape their attitudes and beliefs on sexual and reproductive health and rights. VCAT workshops are intended to deeply explore these issues and are designed to challenge participants' perceived notions and to pave the way for acceptance and support of sexual and reproductive health and rights. Trained VCAT facilitators can conduct standalone VCAT workshops or integrate VCAT activities into other community engagement initiatives. Moreover, VCAT workshops can be conducted with different community groups on various sexual and reproductive health and rights issues in locations conducive to the participants. For information on VCAT training packages, refer to the resource list in *Section 7.1*
Comprehensive sexuality education (CSE) [26]	CSE is an evidence-based community engagement approach that is delivered for children, adolescents, and youth. IPPF defines CSE as "A holistic, developmental and age-appropriate, culturally and contextually relevant and scientifically accurate learning process grounded in a vision of human rights, gender equality, sex positivity and citizenship that is aimed at empowering adolescents and young people." CSE empowers them to "improve and protect their health, well-being, and dignity; and support them in developing critical thinking skills, citizenship, and equal, healthy and positive relationships." For additional guidance on CSE, refer to the resource list in *Section 7.1*

6. Healthcare delivery models for counselling

With health systems under pressure from pandemics, humanitarian crises, and/or limited financial and human resources, equitable access to quality information and counselling becomes scarce [27]. Digital health and group counselling are innovative approaches to expand access outside the formal health system for individuals who wish to practice self-care, and for marginalized and under-served populations who face compounding barriers in accessing quality counselling [27,28].

Best practices for in-person one-on-one counselling have been discussed in detail in this chapter. All counselling concepts provided in this chapter can also be utilized and adapted for the additional counselling delivery models described in the following sections.

6.1 Relationship counselling

Counsellors are often confronted with questions and difficulties, many of which are not directly related to sexual and reproductive health or sexuality, such as difficulties in relationships and marriage (e.g. dowry; early and forced marriage; financial and household issues), mental health among adolescents, or difficulties and disagreements between children and parents.

Important! An intersectional approach should be integrated into sexual and reproductive health programming and healthcare

Individuals with all identities, circumstances, and needs should have the same sexual and reproductive health rights as others. This includes taking into account people's religion, national and ethnic origin, age, disability, and sexual orientation. Ensure that all sexual and reproductive health programmes and healthcare along the continuum of care are rooted in a rights-based and evidence-based approach (see *Table 1*).

Important!

Increasing the knowledge and understanding of parents or one partner should not jeopardize a child's or the other co-partner's decision-making ability. The consent/assent guidance in *Section 2.3* outlines the protocol for practitioners to utilize when counselling clients. For couples that demonstrate positive communication and mutual respect, the counsellor can encourage couple communication and shared decision-making.

Many concerns can be related to gender norms, social issues, or economic issues of the individual clients, couples, or the children and parents. These issues often need long-term investment, are not quickly addressed in one or two sessions, and clients may need to be referred for more specialized care.

Sometimes counsellors will have a negotiating role that will have specific requirements for working with couples or with parents and children, such as:

- Making sure that each person can discuss freely, without feeling judged or bullied, and that another person is not dominating the discussion.
- Helping the clients cope with emotions, such as feeling betrayed, undermined, and not listened to, and mitigating any power imbalances.
- Ensuring no form of coercion, threat, or violence inhibits an individual's right to bodily autonomy and safety. The counsellor should provide an overview of what to expect in the joint counselling session and document each party's full consent for counselling separately.

6.2 Group counselling

A group counselling session provides space for people to assess and explore their comprehensive sexual and reproductive health needs and options and make an informed decision about the circumstance(s) impacting their lives [26]. In group counselling, the counsellor builds rapport, guides the exploration of the issues around disease and/or pregnancy prevention, options for risk reduction for STIs (including HIV) and other diseases, and other sexual and reproductive health information over several sessions.

Group counselling consultations are private and confidential, just as they would be in a one-to-one counselling session. These sessions can be held inside a health facility or a safe and accessible location. Group counselling involves a trained counsellor and a small group of people (typically up to 10) who will feel comfortable talking together.

Group counselling can be around a particular sexual and reproductive health topic or for specific marginalized groups (e.g. adolescents, young people living with HIV, survivors of SGBV, people with disabilities) and consist of learning methodologies that provide a pathway for group members to make informed decisions about their comprehensive sexual and reproductive health needs. Methods may include icebreakers and trust-building exercises, experience sharing, discussion only, skill development, and problem-solving [29].

6.3 Digital interventions: telephone and online counselling

Counselling through telephone and telephone hotlines has existed for decades and has proven effective during pandemics and crisis settings, and especially for adolescents, youth, and people with mobility difficulties.

Online counselling is also known as e-counselling, e-therapy, cyber-counselling, and tele-counselling. Online counselling can occur through emails, video conferencing, internet phone services, or online chat.

While telephone and online counselling have advantages and disadvantages (see *Table 3* – next page), these interventions should target counselling marginalized groups and individuals to expand contact coverage and generate demand [30]. These digital health interventions should complement non-digital information-sharing and counselling approaches and avoid exacerbating inequities where people do not have access to technology [30].

Table 3: Advantages and disadvantages of telephone and online counselling

Advantages	Disadvantages
• No geographical limits, especially helpful in pandemics. • No need to make other arrangements to make appointments (e.g. childcare, time off work, etc). • Online counselling gives anonymity to the client, which many clients value – they may be willing to disclose their issues more freely than they would face to face. • Ideal for people who find travelling difficult, have mobility difficulties, or live in hard to reach and remote areas. • Provides an effective way to access counselling that may not previously have been available for the person. • Removes the stigma of physically attending a counselling session. • Can be accessed at any time – many online counselling services offer a 24-hour service. • Provides the same ethical and confidential standards as face-to-face counselling. • Usually no need to commit to set times for the counselling, although some online counselling services may insist on prior appointments. • Most online counselling services will aim to respond to any emails within 24–48 hours. • Gives the client more time. The client may send an email or submit questions via a forum; they will have time to think and reflect about the counsellor's answer and the advice given; they also have time to ask questions. • Less costly than seeing a counsellor face to face. • Writing down concerns in an email can help clients to think about what they are saying, how they phrase it and so on, which is an important part of the counselling process.	• Not available to those without access to digital or telecommunication platforms. • Non-verbal communication is an important part of counselling. There is minimal non-verbal communication from the client and the counsellor. The counsellor may not pick up on signals that they may have done with face-to-face communication. Furthermore, the client may not see how the counsellor is responding to them, which may cause confusion. • A practical difficulty that can occur with telephone and online counselling is connection issues (internet, phone reception) or issues for people with hearing impairments. • Poor connectivity or loss of internet connection can delay treatment, responses, and emails, which can impact the client – the counsellor and client should agree what they should do in this situation. • There are potential security issues if someone hacks the client's or counsellor's computer/mobile phone, therefore confidentiality may be compromised. • With online counselling, there is not always an immediate response, which a client may want. • As with any communication, misunderstanding or miscommunication may occur. The counsellor may think that a particular issue is more important to the client, whereas another issue is actually more important. The client may also misunderstand what the counsellor is saying. • Online counselling demands that the client and provider have computer/digital literacy skills and can express their views in writing (if using emails and chatrooms). • Online and telephone counselling are not always appropriate for clients with complex or serious conditions (e.g. disabilities). • While online or telephone counsellors should have the same ethical guidelines as others within their own country, they may not be the same guidelines as in the client's country. For example, the client may be in country A, whereas the counsellor could be in country B, where there are different ethical guidelines or standards.

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7.1 Resources

In addition to the reference list, the following list provides further tools and resources that focus on rights-based, client-centred sexual and reproductive health counselling.

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MAIN CONTENTS

Chapter 4:
Contraception

contents

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1. Introduction

Contraception has clear health benefits. Prevention of unintended pregnancies decreases maternal and infant morbidity and mortality, increases educational attainment, decreases poverty, and supports individuals to take control of their sexuality, health, and reproduction [1]. Some contraceptives also offer direct health benefits by treating certain medical conditions and decreasing the risk of some cancers. However, unmet need for contraception remains high in many settings, particularly for marginalized populations such as young people, those in hard-to-reach geographic areas, mobile and internally displaced people, people living with HIV, disabilities, or in poverty, and other under-served groups [2].

Timely and affordable access to good-quality sexual and reproductive health information and care, delivered in a way that ensures fully informed decision-making, respects dignity, autonomy, privacy, and confidentiality, and is sensitive to individuals' needs and perspectives are key to the International Planned Parenthood Federation's (IPPF) approach to meeting the sexual and reproductive healthcare needs of all people. The creation of structures that enable all people to access high-quality, rights-based contraception has far-reaching consequences that impact beyond the benefits of personal well-being. This chapter provides accurate, up-to-date, and evidence-based information on contraception and contraceptive counselling to support healthcare providers to deliver high-quality, client-centred contraceptive care.

ACRONYMS

BMI	body mass index
CHC	combined hormonal contraceptive
CIC	combined injectable contraceptive
COC	combined oral contraceptive
COC-ECP	combined oral contraceptive emergency contraceptive pill
DMPA	depot medroxyprogesterone acetate
EC	emergency contraception
ECP	emergency contraceptive pill
ETG	etonogestrel
IPPF	International Planned Parenthood Federation
IUD	intrauterine device
IUD-EC	intrauterine device for emergency contraception
LAM	lactational amenorrhoea method
LNG	levonorgestrel
LNG-ECP	levonorgestrel emergency contraceptive pill
LNG-IUD	levonorgestrel intrauterine device
NET	norethisterone
NET-EN	norethisterone enanthate
NSAIDs	non-steroidal anti-inflammatory drugs
PID	pelvic inflammatory disease
POI	progestin-only injectable contraceptive
STI	sexually transmitted infection
UPA-ECP	ulipristal acetate emergency contraceptive pill
WHO	World Health Organization

2. Counselling for contraception provision and use

Effective contraceptive counselling is an element of integrated sexual and reproductive health counselling. See *Chapter 3: Counselling* for specific information regarding integrated sexual and reproductive health counselling and strategies to provide counselling in a manner that respects an individual's autonomy and rights. *Box 1* (next page) provides a list of recommended contraceptive counselling tools for healthcare providers and counsellors.

By holistically assessing the client's sexual and reproductive health and needs, counsellors can determine the primary reason for a client's visit and identify other sexual and reproductive healthcare from which a client may benefit. It may not be possible to deliver all needed care at a single visit, and several visits may be necessary. In this case, it is important that the client's primary reason for their visit is addressed.

Delivery of healthcare for sexually transmitted infections (STIs) including HIV, preventive healthcare, abortion care, post-partum care, and other healthcare should not delay or create barriers to the provision of contraceptive care.

The aim of contraceptive counselling is to support the client to identify and successfully use the contraceptive method that suits them best, based on their unique situation, values, and personal priorities. The provision of contraceptive information and care that acknowledge an individual's needs and preferences while respecting privacy, autonomy, and informed decision-making, increase client satisfaction and continued use of contraception [3].

Contraceptive counselling should include consideration of the full range of available contraceptive methods, a brief assessment to identify the methods that are safe for the client to use, counselling to support the client to choose an appropriate method and to use it correctly and consistently, and provision of the method – preferably on-site but by referral if necessary (see *Box 1*).

BOX 1: Recommended contraceptive counselling tools

A number of tools are available to support healthcare providers and counsellors to provide high-quality, rights-based, and client-centred contraceptive counselling:

- Contraception cue cards (Pathfinder International, 2016):
  - For adults: https://www.pathfinder.org/wp-content/uploads/2016/12/Adult-Contraception-Cue-Cards.pdf
  - For adolescents: https://www.pathfinder.org/wp-content/uploads/2016/12/Adolescent-Contraception-Cue-Cards.pdf
- The Balanced Counseling Strategy Plus: A Toolkit for Family Planning Service Providers Working in High HIV/STI Prevalence Settings (Third edition). (Population Council, 2015):
  - https://www.popcouncil.org/research/the-balanced-counseling-strategy-plus-a-toolkit-for-family-planning-service
- A guide to family planning for community health workers and their clients (WHO, 2012):
  - https://apps.who.int/iris/handle/10665/44882

2.1 Choosing a contraceptive method

A complete medical history should be taken for every client to determine whether any methods of contraception are contraindicated, and if the client would benefit from any of the non-contraceptive benefits of certain methods. See *Chapter 2: Facility requirements and client history/examination* for guidance on which information should be gathered in a medical history. Most clients will need few or no examinations or laboratory tests before beginning a method of contraception. Guidance on necessary examinations prior to method initiation and non-contraceptive benefits of certain methods is included in the method-specific sections of this chapter. Recommendations on which methods can be safely used by clients with specific physical characteristics or medical conditions, or who are taking certain medications, are primarily drawn from the World Health Organization's (WHO) *Medical Eligibility Criteria for Contraception Use* [4] (see *Appendix* 1).

Providers should **clarify the client's pregnancy intention and future reproductive goals**, if known. Asking a few key questions (see *Box 2: Helpful questions to inform client-centred contraceptive counselling* – next page) gives clients the opportunity to verbalize attitudes about reproduction and, if they want to prevent pregnancy, to explore the degree to which they are motivated to do so. Providers should be aware that some clients may not want to have children, and some may hold ambivalent pregnancy desires (simultaneously having some degree of desire to become pregnant, and some degree of desire to prevent pregnancy) [5].

Asking a client about their **previous experience with contraceptives** gives providers insight into which contraceptive effects and side effects are acceptable to the client, and which are not. For clients who have never used contraceptives, asking about family members' or friends' experiences with particular

BOX 2: Helpful questions to inform client-centred contraceptive counselling

Clarifying pregnancy intention and future reproductive goals:

- Do you have any children currently?
- Do you think you might like to have children (more children) at some point? If yes, when might be a good time to do so?
- How important is it to you to prevent pregnancy until then?

Assessing contraceptive knowledge and experiences:

- Which method(s) of contraception are you currently using, if any?
- Which method(s) of contraception have you used in the past?
- Have you ever used emergency contraception?
- What did you like and not like about the methods that you have tried?
- Which methods have you heard of? What do you like or not like about those methods?
- Which methods have your family members or friends used? What do they like or not like about those methods?

Assessing contraceptive preferences:

- Do you have a method in mind today? What is it about that method that you like?
- How easy or difficult would it be for you to take a pill every day/place a patch every week/replace a vaginal ring every month/use a method each time you have sex/return to the health centre for injections?
- How important is it to you to have a regular period? Are you interested in having lighter periods/fewer periods/no periods at all?
- How do you feel about taking hormones to prevent pregnancy?
- How do you feel about having an object in your body that prevents pregnancy?
- Is your partner supportive of your use of contraception?
- Do you need to keep your contraceptive use private?

Source: Adapted from Cason and Aiken [5] and WHO [6].

contraceptive methods, or what the client may have heard about certain methods can give providers valuable information about which methods a client already feels comfortable with, and if the client holds any misinformation or misperceptions about methods.

Asking about a **client's preferences for their contraceptive**, such as a desire to maintain regular monthly bleeding or the need to keep their method private from parents or a partner, helps the provider to support the client to make a contraceptive choice that best suits their individual needs.

Providers should educate clients about the contraceptive methods that they can safely use based on their medical eligibility and help the client to consider these methods using the framework of the client's reproductive goals and contraceptive preferences.

When educating clients about methods that they can safely use, providing clear information about the following features of the methods can help clients to make an informed choice [7]:

- **Advantages and disadvantages of the method.**
- **Correct use of the method.** The mode of administration, frequency of use, option for extended cycle or continuous cycle use, and need for and frequency of need for additional product/doses might be important considerations for a client when choosing a method.
- **Method effectiveness.** Providers are encouraged to present information on reversible methods of contraception using a tiered effectiveness approach, presenting information on the most effective methods first (see *Appendix* 2). Information in this chapter is ordered by method effectiveness.
- **Non-contraceptive benefits.** Although not generally the main determinant for selecting a method,

awareness of these benefits may help clients decide between methods and motivate clients to use a method consistently and correctly.

- **Common side effects.** As misconceptions about contraception are common, it is important to start by mentioning that most clients do not experience side effects.
- **Return to fertility following method discontinuation.**
- **Protection against STIs, including HIV.** Clients must be informed that only condoms offer protection against STIs and HIV.

2.2 Providing the chosen method

Providers should advise clients to begin contraception at the time of their visit, rather than waiting for their next period, if they can be reasonably certain that the client is not pregnant (see *Box* 3). See *Appendix 3* for information on how to rule out pregnancy before starting the chosen contraceptive method.

Be sure that the client understands **how to correctly use the chosen method**. Providers should help clients anticipate the reasons that they may have difficulty using the method correctly (such as remembering to take a pill every day) and help them develop strategies to address these.

BOX 3: How to be reasonably certain that a client is not pregnant

A provider can be reasonably certain that a client is not pregnant if they have no signs or symptoms of pregnancy and meet any one of the following criteria. The client:

- is within 7 days after the start of a normal period
- has not had sex since the last normal period
- has been correctly and consistently using a reliable method of contraception
- is within 7 days after spontaneous or induced abortion
- is within 4 weeks post-partum
- is fully or nearly fully breastfeeding, amenorrhoeic, and less than 6 months post-partum

Review **common side effects** of the method and how to manage them. Providing adequate information about side effects can minimize a client's concerns if they do experience a side effect. It can be helpful for clients to know that some side effects can improve or disappear over time.

Review **reasons to return for immediate follow-up, including warning signs** for rare but serious adverse events that may be associated with the method, and where to go for immediate follow-up if needed.

Provide accurate information about **return to fertility following method discontinuation,** especially for methods where return to fertility may be delayed.

Review **protection against STIs, including HIV**. Dual protection (protection from both pregnancy and STIs) is important for those at risk of contracting STIs. Dual protection can be achieved through correct and consistent use of condoms with each act of sex to prevent infection plus another form of contraception to prevent pregnancy.

Give each client **printed information about the chosen method** in their preferred language and at an appropriate reading level, including pictorial materials for illiterate clients. Such materials are especially important for barrier methods, behavioural methods, and client-controlled short-acting methods like pills, patches, rings, or self-administered injections, which are dependent on correct use to be effective. Providers should encourage questions and confirm that the client understands the information.

Provide or prescribe as many cycles of contraceptive pills, patches, rings, or self-administered contraceptive injections as possible, to minimize the number of times a client must return to the healthcare facility. Provide condoms to all clients requiring protection against STIs, including HIV. If possible, provide **emergency contraceptive pills** (ECPs) in advance, or an ECP prescription, to all clients using short-term reversible, barrier, or behavioural contraceptive methods. Create a plan with the client to return for additional supplies when needed.

If a client's preferred method of contraception is not available on-site or the same day, the client should be

referred to a nearby location where the method of choice can be obtained. Provide an interim method that can be used until the preferred method is available.

Explain when the client should return for follow-up, if needed. Guidance on follow-up is included in the method-specific sections of this chapter. Routine follow-up is unnecessary after initiation of most contraceptive methods; however, clients should be invited to return at any time if they have additional questions, experience unacceptable side effects, want to stop the method, or want to switch to a different method. Encourage the client to continue using their method until they return, if possible, so that they can transition to a new method without risking unintended pregnancy. Some clients will need to try several methods to find what works best for them. It can be helpful to reassure clients that they will be well supported if they want to switch methods.

2.3 Counselling for returning clients

Follow-up visits offer providers an opportunity to build their relationship with the client by deepening rapport and trust. Assisting clients to plan their families throughout their reproductive life is an ongoing process. Regardless of the reason the client has returned, subsequent visits are an important opportunity to:

- support clients in their decision to plan their family and reproductive life
- discuss any problems they are having with their contraceptive method
- answer any questions they may have
- explore changes in the status of their health or life, which may indicate a need to revisit their choice of contraceptive method
- meet any other outstanding sexual, reproductive, or general health needs that they may have

Regardless of the reason for the client's visit, the following should be reviewed with any returning contraceptive client:

- Review the client's medical record and main details of their reproductive history.
- Ask about changes in health or life status, including any new illness or medications.
- Ask how they are feeling with the method and if they have any concerns or questions.
- Correct any mistakes in effective use of the method.
- If the client reports problems with the method, assess the nature of the problem and review possible solutions.
- Assess for side effects and offer management suggestions and treatment when necessary. Confirm whether the client wants to continue with the method.
- If the client has stopped the method, ask the client to explain why and offer appropriate management or treatment, such as preconception counselling if they desire pregnancy, resupply of commodities if needed, or discuss alternative methods if their chosen method was unacceptable.
- Ensure the client receives additional commodities, including ECPs and condoms, and an appropriate examination if needed.
- Review STI prevention and dual protection, if needed.

2.4 Counselling for special groups

2.4.1 Adolescents

States are obligated under human rights law to provide contraceptive healthcare to adolescents, and to ensure their access to affordable, safe, and effective contraceptives [8]. For many reasons, including restrictive laws and policies, cultural norms and traditions, and unwillingness to recognize adolescent sexuality, adolescents – particularly unmarried and/or nulliparous adolescents – continue to face barriers accessing accurate, unbiased contraceptive information and care that meet their needs. Adolescents frequently lack the necessary knowledge, transportation, and funds to access healthcare even when options are available. However, early pregnancy among adolescents, both intended and unintended, has important health and social consequences. Pregnancy and childbirth complications are the leading causes of death globally

among girls aged 15–19 years, and some 3.9 million unsafe abortions occur among girls of this age each year [9].

Adolescents are a heterogeneous group, and their contraceptive needs are diverse and evolving [10]. Adolescent-friendly contraceptive counselling, particularly when provided in a safe environment, is an opportunity to support young people as they build their knowledge and skills, identify their personal, sexual, and reproductive health needs, and grow their self-worth by making informed and independent decisions. Providers should also consider key social and behavioural issues affecting adolescents that may influence their choice and use of contraceptives, such as sporadic patterns of sex, the need to conceal sexual activity and contraceptive use, intolerance for contraceptive side effects, and risk of STIs, including HIV [11].

Adolescents are medically eligible to use all contraceptive methods, and age alone does not limit their ability to safely and successfully use any method. It is not necessary for adolescent or young clients to be married or to have had a child to safely use contraception. Expanding method choice can lead to increased contraceptive acceptance, satisfaction, and continuing use [11].

2.4.2 People living with disabilities

About 15 per cent of the world's population live with disabilities and 2–4 per cent experience difficulties in functioning in normal activities of daily living [12]. People with disabilities must have access to all forms of sexual and reproductive healthcare as part of the general right to marry, start a family, and retain their fertility [13]. Healthcare providers often fail to offer sexual and reproductive healthcare to people with disabilities, based on the common misperception that they are not sexually active [14]. Providing contraception to people with disabilities may require assessing the specifics of different contraceptive methods within the framework of their disability, in addition to considering the preferences of the client. When the nature of the disability makes it more difficult to discern the will and preferences of the individual, a process of supported decision-making should be implemented in which individuals who are trusted by the client with disabilities, personal ombudsmen, and other support persons jointly participate in reaching a decision that is consistent with the will and preferences of the client [13]. Given the history of involuntary sterilization of people with disabilities, it is especially important to ensure that decisions about sterilization are made with the full, uncoerced, and informed consent of the client, either alone or with support, and that alternative methods, such as long-acting contraceptives, are considered [4,11].

3. Long-acting reversible contraceptive methods

3.1 Progestin-only implants

3.1.1 Counselling the client: Implants

What are they?

- Small, flexible, plastic rods containing hormones that are placed under the skin of the upper arm by a trained provider during a short in-office procedure
- Many types are available:
  - Two-rod implants containing levonorgestrel (LNG):
    - Levoplant (Sino-Implant II): Effective for 4 years
    - Jadelle: Effective for 5 years; replace after 4 years for clients weighing ≥80 kg
  - Single-rod implant containing etonogestrel (ETG):
    - Implanon/Nexplanon*: Effective for 5 years [3,15,16]

How do they work?

- Release a consistent, low dose of a progestin hormone that prevents ovulation and thickens cervical mucus to prevent sperm from entering the uterus

How effective are they?

- Implants are some of the most effective methods of contraception (see *Appendix 2*)
- Failure rate: 0.1 per cent
- Effectiveness of LNG implants decreases after 4 years in clients who weigh ≥80 kg

Non-contraceptive benefits:

- May help protect against anaemia
- Monthly menstrual bleeding may decrease and some clients will have no periods at all
- Menstrual cramping may decrease

Advantages:

- Highly effective, reversible pregnancy prevention
- No user action required, no resupply of commodities needed
- Does not interfere with sex
- Discrete
- Oestrogen-free: Can be safely used by clients who are breastfeeding or those unable to take oestrogen
- Can be placed immediately post-partum or post-abortion
- Insertion and removal do not involve the genital area

Disadvantages:

- No protection against STIs, including HIV
- Provider-dependent: Client must go to a health centre for implant insertion and removal

Side effects:

- Changes in menstrual bleeding patterns:
  - Most clients initially experience irregular spotting or prolonged light to moderate bleeding
  - Later, bleeding is likely to be lighter, less frequent, or stop altogether
- Headaches
- Dizziness
- Nausea
- Acne
- Mood changes
- Enlarged ovarian follicles

Risks:

- Difficult removal
- Infection at the insertion site
- Implant expulsion
- In the rare event that a client becomes pregnant while using implants, the pregnancy is more likely to be ectopic
- Extremely rare: Migration of the implant to another place in the body if improperly inserted

Return to fertility after removal: No delay

Dispelling myths:

- Not harmful for clients to stop having periods when using this method
- Do not cause infertility. The hormones do not stay in the body after the implant is removed
- Do not increase the absolute risk of ectopic pregnancy
- Adolescents and clients who have never been pregnant can safely use

* Nexplanon is currently registered effective for 3 years although data demonstrate effectiveness for 5 years.

Source: Adapted from WHO, Johns Hopkins Bloomberg School of Public Health [3].

3.1.2 Inserting implants

Most clients can safely use implants, including those who are breastfeeding and those unable to take oestrogen (see *Appendix 1*). Physical examination is not required prior to implant insertion and no laboratory tests are required. See *Appendix 3* for information on how to rule out pregnancy before beginning the method.

3.1.2.1 Pre-insertion counselling

Prior to insertion, ensure that the information in *Section 3.1.1* has been reviewed and that the client understands it. Review with the client what they should expect during the implant insertion procedure and ask if they have an allergy to local anaesthesia. Encourage the client to ask any questions they may have to resolve any uncertainties or misunderstandings regarding the insertion procedure or the method. If required, the client should sign an informed consent form for implant insertion following this discussion.

3.1.2.2 Principles of safe and effective implant insertion

- Insertion of implants should only be performed by healthcare personnel trained in these procedures.
- Ensure all necessary equipment is available and appropriately sterilized or high-level disinfected before beginning (see *Chapter 2: Facility requirements and client history/examination*).
- Use proper infection prevention procedures.

- Before and during the procedure, inform the client what will happen during the procedure and encourage them to ask questions and relate how they are feeling. Explain to the client that they may feel discomfort during some of the steps.
- Implants must be inserted just under the skin (subdermally) to decrease the risk of difficult removal or other complications associated with deep placement.

3.1.2.3 Insertion procedure

For detailed insertion instructions, including a list of necessary equipment, see *Appendix 4* (Job aid: Single-rod implant insertion) and *Appendix 5* (Job aid: Two-rod implant insertion).

- Typically, the implant is inserted into the non-dominant arm of the client.
- Implant insertion devices are single use.
- Implant commodities come with specific manufacturer's instructions on insertion.

3.1.3 Post-procedure client instructions

Following successful insertion of the implant, the client should be advised of the following:

- After the effect of the local anaesthesia has worn off, the client may experience some discomfort at the insertion site. They may also have swelling or bruising at the site. This is common and will improve without treatment.
- Keep the area of insertion dry for 4 days. The client can remove the covering gauze after 2 days, and the adhesive bandage and surgical tape after 3–5 days.
- A back-up contraceptive should be used if needed.
- The client should inform their provider if they begin antiretroviral medication or anticonvulsant medication. While these medications do not interact with implants in a way that is dangerous, they may decrease the effectiveness of implants.

The client should be provided with the following written information:

- Name and type of implant inserted.
- Date of insertion and recommended month/year of removal.
- Name, address, and phone number of health centre where they can return for follow-up/removal.

3.1.4 Follow-up care

A routine follow-up visit is not required after implant insertion. Clients should be encouraged to return at any time to ask questions, discuss concerns, change to a different method, or to remove the implant. Clients with specific medical conditions may benefit from more frequent follow-up. See *Section 2.3: Counselling for returning clients* for more information about follow-up visits for clients using contraceptives. Clients should be advised to return for follow-up if they receive a new diagnosis or start a new medication that could affect their use of implants, such as certain anticonvulsants, antiretrovirals, or antimicrobial medications.

3.1.5 Side effects

Common side effects following implant insertion and during use should be reviewed with the client and management strategies discussed.

- Changes in monthly bleeding patterns are common, especially during the first year of implant use. Careful counselling of clients starting implants reduces the number who discontinue this method owing to changes in bleeding patterns. Bleeding may be irregular, lighter, or less frequent, or it may be heavy or prolonged. In some clients, bleeding stops altogether. If the client finds bleeding to be problematic, a trial of non-steroidal anti-inflammatory drugs (NSAIDs) (5–7 days of treatment) or hormonal treatment with a low-dose combined oral contraceptive (COC) or oestrogen (10–20 days of treatment if they are medically eligible) can be helpful. Bleeding changes are generally not harmful; however, gynaecologic evaluation can be pursued if the problem persists, bleeding is too heavy, or there is reason to suspect that something may be wrong.

- Headache can be managed with NSAIDs or paracetamol.
- Less common side effects include dizziness, nausea, weight gain, acne, and mood changes.

3.1.6 Warning signs

Advise the client to return as soon as possible for evaluation if they experience:

- pain, heat, pus, or redness at the insertion site that becomes worse or does not go away
- the implant coming out of the arm, or it is not palpable
- unusually heavy vaginal bleeding
- no menstrual bleeding within 6 weeks of the previous menstrual period
- severe abdominal or pelvic pain
- jaundice
- shortness of breath or chest pain

3.1.7 Complications

3.1.7.1 Expulsion

- Remove the rod if it has not completely expelled and discard.
- If no infection is present, a new rod can be inserted through a new incision. In the case of a two-rod implant, the replacement rod can be inserted near the remaining rod.

3.1.7.2 Infection or abscess at the insertion site

- It is not necessary to remove the implant(s).
- Clean the infected area with antiseptic.
- If an abscess is present, open (incise) and drain the abscess. Treat the wound.
- Give oral antibiotics for 7–10 days.
- The client should return after completing antibiotics. If the infection has not resolved, remove implants or refer for removal.

3.1.8 Implant removal

Implants should be removed at the client's request when there is a medical indication for removal, or when the effective lifespan of the device has expired.

After removing an implant at the end of its lifespan, clients may have a new implant inserted through the removal incision.

If implants are not palpable, refer the client for appropriate imaging to locate the implant and to a provider trained to remove deeply placed implants.

For detailed removal instructions, including an equipment list, see *Appendix 6: Standard implant removal*.

3.2 Intrauterine contraception

3.2.1 Counselling the client: Intrauterine devices (IUDs)

What are they?

- Small, flexible, plastic frame in the shape of the letter 'T' that is inserted into the uterus by a trained provider during a short in-office procedure
- Two types of IUD are available:
  - Non-hormonal: Copper IUD can stay in place up to 12 years, depending on the model
  - Hormonal: Levonorgestrel IUD (LNG-IUD):
    – 13.5 mg LNG-IUD can stay in place up to 3 years
    – 52 mg LNG-IUD can stay in place up to 7 years [16,17]

How do they work?

- Copper IUD: Copper primarily interferes with sperm viability and movement, which inhibits fertilization. Prevents fertilization, not an abortifacient
- LNG-IUD: Hormones released by the IUD thicken cervical mucus and prevent sperm from entering the uterus. Prevents fertilization, not an abortifacient

How effective are they?

- IUDs are some of the most effective methods of contraception (see *Appendix 2*)
- Failure rate: 0.5–0.8 per cent

Non-contraceptive benefits:

- May reduce the risk of endometrial and ovarian cancers
- Copper IUDs may reduce the risk of high-grade cervical neoplasms compared with LNG-IUDs [18]
- LNG-IUD: For most clients, menstrual bleeding decreases and menstrual cramping may improve. Some clients will have no periods at all
- LNG-IUD: Improves symptoms of endometriosis

Advantages:

- Highly effective, reversible pregnancy prevention
- No user action required, no resupply of commodities needed
- Do not interfere with sex
- Use can be kept private
- Oestrogen-free: Can be safely used by clients who are breastfeeding or unable to take oestrogen
- Can be placed immediately post-partum or post-abortion
- Copper IUD and 52 mg LNG-IUD: Can be used as highly effective emergency contraception [19]
- Copper IUD and 52 mg LNG-IUD: No back-up method of pregnancy prevention needed [20]

Disadvantages:

- No protection from STIs, including HIV
- Insertion can be uncomfortable for some clients
- Provider-dependent: client must go to the health centre for device insertion and removal

Side effects:

- Bleeding changes are common:
  - Copper IUD: Heavier menstrual bleeding and more cramping
  - LNG-IUD: Lighter bleeding, fewer days of bleeding, amenorrhoea, prolonged or heavier bleeding are all possible
- LNG-IUD: Breast tenderness, acne
- Partner may feel IUD threads during vaginal sex

Risks:

- Perforation of the uterus is a rare complication of insertion (less than 1 in 1000 women)
- Expulsion (1 in 20 women in 5 years). Risk is higher in the first 3 months after insertion, immediately after an abortion performed after 13 weeks of gestation, and within 4 weeks after delivery
- Pelvic inflammatory disease (1.6 per 1000 woman-years)
- In the rare event that a client becomes pregnant while using an IUD, the pregnancy is more likely to be ectopic

Return to fertility upon removal: No delay

Dispelling myths:

- Not an abortifacient
- Do not increase the risk of contracting STIs, including HIV
- Usually not felt during sex
- Do not move outside of the uterus when properly inserted
- Do not increase the absolute risk of ectopic pregnancy
- Adolescents and clients who have never been pregnant can safely use
- Not harmful for clients to stop having periods when using LNG-IUD

Source: Adapted from WHO, Johns Hopkins Bloomberg School of Public Health [3].

3.2.2 Inserting the IUD

Most clients are able to use intrauterine contraception safely, including adolescents, clients who have never been pregnant, are breastfeeding, have just had an abortion, miscarriage, or delivery, have a history of ectopic pregnancy or pelvic inflammatory disease (PID), have vaginal infections or anaemia, and those with HIV infection that is mild or asymptomatic, regardless of whether or not they are undergoing antiretroviral therapy (see *Appendix 1*).

An IUD can be inserted at any time if it is reasonably certain that the client is not pregnant. Copper and 52 mg LNG-IUDs can be inserted at any time if a same-day urine pregnancy test is negative [21,22,23]. Both the copper IUD and 52 mg LNG-IUD are highly effective methods of emergency contraception and can be inserted up to 5 days following unprotected vaginal sex for this purpose [19]. See *Appendix 3* for information on how to rule out pregnancy before beginning the method.

A complete physical examination is not required prior to IUD insertion. However, speculum visualization of the cervix and bimanual pelvic examination to assess uterine size and position and to detect any cervical or uterine abnormalities that might indicate infection or otherwise prevent insertion are necessary.

- Clients who have current signs of PID, purulent cervicitis, or a known chlamydia or gonorrhoea infection should delay IUD insertion until the STI has been treated. They should be offered an interim method of contraception to use until IUD insertion.
- If an asymptomatic client has risk factors for STIs, they should be screened for chlamydia and gonorrhoea at the time of IUD insertion. Insertion does not need to be delayed for the screening results, and prophylactic antibiotics are not needed. IUD insertion may increase the risk of PID immediately following insertion, but evidence suggests that this risk is low [24]. Clients who have positive screening tests should be treated with appropriate antibiotics with the IUD in place; the IUD does not need to be removed.

3.2.2.1 Pre-insertion counselling

Prior to IUD insertion, ensure that the information in *Section 3.2.1* has been reviewed and that the client understands it. Review with the client what they should expect during the IUD insertion procedure. Encourage the client to ask any questions they may have to resolve any uncertainties or misunderstandings regarding the insertion procedure or the method. If required, the client should sign an informed consent form for IUD insertion following this discussion.

3.2.2.2 Principles of safe and effective IUD insertion

- IUD insertions should only be performed by health personnel trained in these procedures. Immediate and early post-partum insertion require specific training in these skills.
- Ensure all necessary equipment is available and appropriately sterilized or high-level disinfected before beginning (see *Chapter 2: Facility requirements and client history/examination*). The

IUD should be in its original, intact packaging with its inserter.

- Use proper infection prevention procedures.
- Before and during the procedure, tell the client what will happen during the procedure and encourage them to ask questions and relate how they are feeling. Explain to the client that they may feel some discomfort during some of the steps.
- Prophylactic antibiotics are not recommended for IUD insertion.
- While not recommended for routine use, paracervical block can reduce pain during IUD insertion, particularly for nulliparous clients or those who require cervical dilation for insertion. Paracervical block itself causes some pain for most clients [25,26].
- There is no evidence to support the routine use of misoprostol for improving ease of insertion or reducing pain during IUD insertion. NSAIDs improve post-IUD insertion pain. Topical anaesthetics (e.g. 10 per cent lidocaine spray, lidocaine/prilocaine cream) may help alleviate pain associated with IUD insertion [27]). Supporting the client by talking to them during the procedure and providing a hot water bottle for uterine cramping may also be helpful.

Steps on how to load and insert intrauterine devices and specific job aids for insertion of the copper T380A and LNG IUDs are given in *Appendix 7*.

3.2.3 Post-procedure client instructions

The client should be provided with the following written information:

- Name and type of IUD inserted.
- Date of insertion and recommended date of removal.
- Name, address, and phone number of health centre where they can return for follow-up.

Providers should explain to the client that they may feel the IUD threads in their vagina near the cervix, and that their partner may feel them during vaginal sex. Offer to teach the client how to check for the presence of the IUD threads, if they are interested in checking them. Explain that the threads can be cut shorter if they are bothersome. As most IUD expulsions occur within the first 6 weeks after insertion, or during a menstrual period, the client may want to check for the threads following their first post-insertion period to ensure that the IUD remains intrauterine. The client can check the threads if they experience unusual pain or cramping during their period, new onset of discomfort with vaginal sex, if they have any reason to believe that the IUD may have shifted, and periodically as desired for reassurance.

3.2.4 Follow-up care

Clients should be advised that routine follow-up is generally not necessary after an uncomplicated IUD insertion; however, they may return after their next menstrual period or 3–6 weeks after insertion if they would like to be assessed and the position of the IUD confirmed. Clients should be encouraged to return at any time to discuss side effects or other concerns, to change to a different method, or when it is time to remove or replace the method. Clients with specific medical conditions may benefit from regular follow-up.

When IUD users return for any reason, providers should assess satisfaction with the device, enquire about any concerns with the method, assess any changes in overall health status, and consider performing an examination to check for the presence of the IUD strings. See *Section 2.3: Counselling for returning clients* for more information about follow-up visits for clients using contraceptives.

3.2.5 Side effects

Common side effects following IUD insertion and during use should be reviewed with the client and management strategies discussed.

- Uterine cramping may occur for the first few days following insertion of the IUD. The client can take pain-relieving medications and use a heat pad or hot water bottle applied to the lower abdomen to help alleviate discomfort. If pain does not improve or becomes severe, the client should return for evaluation.
- Spotting, light bleeding, and vaginal discharge may occur following IUD insertion. If the bleeding is heavy,

or the discharge is foul-smelling or accompanied by pelvic pain or fever, the client should return for evaluation.

- Changes in menstrual periods are common, and in some cases expected, following insertion of the IUD.
  - For clients using copper IUDs, unscheduled bleeding or light spotting, as well as heavier or prolonged bleeding, is common during the first 3–6 months of IUD use, is not harmful, and generally improves. Clients may experience more cramping with their periods.
  - For clients using the LNG-IUD, unscheduled spotting or light bleeding is expected during the first 3–6 months of use. Over time, bleeding generally decreases with continued LNG-IUD use, and many clients experience only light bleeding or amenorrhoea.
  - Rarely, a client's sexual partner may be able to feel the IUD threads during vaginal sex. Advise the client that they can return and have the IUD threads cut shorter if this occurs.

3.2.6 Warning signs

Advise the client to return for immediate evaluation if they experience any of the following, which may indicate a post-procedural complication:

- fever or chills
- pelvic pain or tenderness
- foul-smelling or purulent vaginal discharge
- excessive bleeding

Advise the client to return as soon as possible for evaluation if:

- they think the IUD may have been expelled or they can feel the hard portion of the IUD
- they are unable to feel the threads of the IUD
- they think they may be pregnant

3.2.7 Complications

3.2.7.1 Uterine perforation

Uterine perforation is a rare complication of IUD insertion. Perforation should be suspected when an instrument passes further into the uterus than expected, or the client experiences sudden pain or bleeding during the procedure. Perforation may be asymptomatic, in which case it may be recognized at follow-up if the IUD threads are not visible or if the client becomes pregnant.

When perforation is recognized at the time of insertion:

- Stop the procedure immediately. Remove all instruments. Remove the IUD with its inserter or, if it has been inserted, by pulling the threads.
- Observe the client for at least 2 hours with frequent monitoring of status and vital signs.
- If vital signs are not stable, or if the client's condition declines in any way, begin stabilization or resuscitation and transfer immediately to an appropriate facility for management.
- If the client is stable, they can be sent home after 2–6 hours of observation with instructions for follow-up and discussion of warning signs to seek immediate care. Reassure the client that a perforation usually heals without treatment and provide an interim method of contraception.

3.2.7.2 Expulsion

- Assess the client for possible pregnancy.
- Attempt to localize the IUD with pelvic examination and imaging with ultrasound or X-ray, if necessary.
- If complete expulsion is confirmed, insert a new IUD per guidelines above or begin another contraceptive method according to the client's preference.
- If partial expulsion is confirmed, remove the IUD and insert a new IUD per guidelines above or begin another contraceptive method according to the client's preference.

- If the IUD is outside the uterine cavity (in the pelvic/abdominal cavity) refer the client for appropriate management. Offer an interim method of contraception.
- In all cases, assess if emergency contraception is needed.

3.2.7.3 Missing threads

- Perform speculum examination to determine if threads are in the cervical canal. Use of a cytobrush in the endocervix may help to locate the threads and gently draw them out if present.
- If threads are not in the cervix, assess for pregnancy.
- If available, attempt to localize the IUD in the uterus with ultrasound or, if the client is not pregnant, with X-ray.
- If the IUD is correctly placed in the uterus, no further action is required.
- If the IUD has been expelled, see *Section 3.2.7.2: Expulsion*.
- If the IUD is outside the uterine cavity (in the pelvic/abdominal cavity), refer the client for appropriate management. Offer an interim method of contraception and emergency contraception, if needed.

3.2.7.4 Pregnancy with an IUD in situ

- Evaluate for possible ectopic pregnancy (see *Chapter 9: Maternal health, Section 4.3.1*).
- Advise the client that they have an increased risk of spontaneous abortion, including septic abortion, and preterm delivery if the IUD is left in place. Removing the IUD decreases this risk, but not completely.
- If the client does not want to continue the pregnancy, counsel them regarding their pregnancy options and refer appropriately (see *Chapter 5: Abortion care*).
- If the client wants to continue the pregnancy and the IUD strings are visible or can be retrieved safely from the cervical canal, advise them that it is best to remove the IUD. Remove the IUD by gently pulling the strings.
- Whether the IUD is kept or removed, advise the client to seek care promptly if they have heavy bleeding, cramping, pain, abnormal vaginal discharge, or fever. Refer the client for prenatal care.
- If the client wants to continue the pregnancy and the IUD strings are not visible and cannot be retrieved safely, consider ultrasonography to determine the location of the IUD. If ultrasonography is not possible or if the IUD is located inside the uterus, advise the client to seek care promptly if they have heavy bleeding, cramping, pain, abnormal vaginal discharge, or fever. Refer the client for prenatal care.

3.2.8 IUD removal

The IUD should be removed at the client's request when there is a medical indication for removal, or when the effective lifespan of the device has expired. It is not necessary to remove an IUD if a client is diagnosed with PID. Treatment can be initiated while the IUD is in place (see *Chapter 6: Sexually transmitted infections*).

As residual sperm in the genital tract could theoretically lead to fertilization after the IUD is removed, clients who wish to remove their IUD and change to another contraceptive method should be advised to abstain from vaginal sex or use condoms for 7 days before IUD removal, or return for removal within 5 days of the start of their menstrual period.

Clients wishing to continue intrauterine contraception may have a new IUD inserted at the time of removal. They should be advised to abstain from vaginal sex or use condoms for 7 days prior to the removal and reinsertion in case the new IUD cannot be inserted.

4. Permanent contraceptive methods

4.1 Female sterilization

4.1.1 Counselling the client: Female sterilization

What is it?

- Permanent surgical contraception for clients with female anatomy who do not want more children or who do not want any children
- The two surgical procedures most commonly used are:
  - Mini-laparotomy: A small incision (2–5 cm) is made in the abdomen. The fallopian tubes are brought to the incision and cut, tied, or occluded with clips or rings. Local anaesthesia, light sedation, and analgesia are usually adequate for pain management
  - Laparoscopy: A small incision (1 cm) is made in the abdomen and a long, thin camera called a laparoscope is inserted into the abdominal cavity. After visualizing the fallopian tubes with the laparoscope, the provider removes or occludes the tubes with clips or rings, which usually requires a second small incision. Local anaesthesia, light sedation, and analgesia are usually adequate for pain management
- Female sterilization can also be performed at the same time as another surgical procedure, such as during a caesarean delivery
- Also called tubal ligation, bilateral tubal ligation, tying tubes, tubectomy, or mini-lap

How does it work?

- By occluding, cutting, tying, or removing the fallopian tubes, the ovum and sperm are unable to meet and fertilization is prevented

How effective is it?

- Sterilization is one of the most effective methods of contraception (see *Appendix 2*)
- Failure rate: 0.5 per cent

Non-contraceptive benefits:

- May help protect against ovarian cancer

Advantages:

- Highly effective, permanent pregnancy prevention
- No user action required, no resupply of commodities needed
- Does not interfere with sex
- Can be kept private
- Can be safely used by all clients with female anatomy

Disadvantages:

- Reversal of sterilization is not usually possible
- No protection against STIs, including HIV

Side effects: No long-term side effects

Risks:

- Possible complications of sterilization procedure:
  - Risk of injury to internal organs (less than 1 in 100, 0.2–0.5 per cent)
  - Excessive bleeding (5 in 100 women, 5 per cent)
  - Infection (<1 per cent)
  - Inability to complete procedure
  - For laparoscopic sterilization: need for laparotomy (3 in 1000 women, 0.3 per cent)
  - Death (1 in 12,000–20,000 women, 0.005–0.008 per cent)
- Possible complications related to anaesthesia:
  - Allergy to medications
  - Overdosing of drugs
  - Death
- In the rare event that a client becomes pregnant after sterilization, the pregnancy is more likely to be ectopic
- Regret

Return to fertility: Permanent (no resumption of fertility)

Dispelling myths:

- Does not affect physical or mental health
- Does not affect hormones, menstrual bleeding, or the timing of menopause
- Does not affect sexual performance or desire
- Does not increase absolute risk of ectopic pregnancy
- Sterilization should be considered irreversible
- Any client, including those who are young, unmarried, or who have never had children, can choose sterilization if it is the right method for them

Source: Adapted from WHO, Johns Hopkins Bloomberg School of Public Health [3] and RCOG [28].

4.1.2 Performing the sterilization

All clients with female anatomy can undergo female sterilization. No medical conditions prevent use of this method; however, a complete medical history should be taken to assess whether the client has any medical conditions that may increase the risks associated with the procedure, and to determine the surgical approach, anaesthetic regimen, and type of facility best suited to the client (see *Appendix* 1). See *Appendix 3* for information on how to rule out pregnancy before performing this method.

Blood pressure screening and bimanual pelvic examination are the only physical examinations required prior to female sterilization. However, other examinations may be helpful to assess the client or indicated based on the client's medical history and the planned surgical approach and anaesthetic regimen.

Recommended examinations include:

- weight
- temperature, blood pressure, and pulse
- auscultation of heart and lungs
- abdominal examination
- bimanual pelvic examination
- examination of the skin of the operative area
- evaluation of nutritional status
- other examinations as indicated by medical history

No routine laboratory tests are required prior to sterilization, although measuring haemoglobin/haematocrit is often recommended. Other laboratory tests may be indicated based on the client's medical history or physical examination.

4.1.2.1 Pre-sterilization counselling

Before the sterilization procedure, ensure that the information in *Section 4.1.1* has been reviewed and that the client understands it. Review with the client what they should expect during the sterilization procedure. Encourage the client to ask any questions they may have to resolve any uncertainties or misunderstandings regarding the procedure. Because sterilization is permanent, the provider should ensure that the client is not making the decision to undergo sterilization at a time of stress – such as during labour or immediately post-partum, or at the time of an abortion – and that they have considered future situations that may lead to regret over the decision (see *Box 4: Because sterilization is permanent*). Involving the client's partner in counselling can be helpful but is not necessary or required. Providers must be aware of any local legislation that applies to sterilization.

Following counselling, the client must sign an informed consent form before the procedure.

4.1.2.2 What the client should expect during the procedure

Mini-laparotomy

- The provider will perform a physical examination and a bimanual pelvic examination.
- The provider inserts a special instrument called a uterine elevator into the uterus through the cervix. This may be uncomfortable.
- The client usually receives light sedation and analgesia to help them relax and feel more comfortable. Local anaesthetic will be injected above the pubic hair line, or below the umbilicus for clients who have recently given birth.
- The provider will make a small horizontal incision (2–5 cm) in the anesthetized area.
- Each tube will be tied or closed with a clip or ring through the incision.
- The provider will close the incision and cover it with a bandage.
- The client will stay in the health facility for at least 2 hours after the procedure. During this time they will be monitored for any complications while they recover from sedation. The client may be given pain relief if needed.

BOX 4: Because sterilization is permanent

- The client must think carefully about whether they could want to have more children in the future. Some questions the provider might ask:
  - "Do you want to have any more children in the future?"
  - "Is there anything that could change your mind? What if you had a new partner? What if one of your children died?"
  - "Does your partner want more children in the future?"
- Although any client may choose sterilization after undergoing appropriate counselling to make an informed choice, those most likely to regret sterilization are:
  - young
  - have few or no children
  - have recently lost a child
  - not married or have marital difficulties
  - have a partner who is not supportive of sterilization
- The client should consider that non-permanent, long-acting contraceptives with similar or higher effectiveness can be excellent alternatives
- Choosing the procedure must be the voluntary, free choice of the client and should not be forced in any way through coercion or inducements
- The client has the right to change their mind at any time prior to surgery
- Although the client may consult others about sterilization, the decision to be sterilized belongs to the client alone

Source: Adapted from WHO, Johns Hopkins Bloomberg School of Public Health [3].

Laparoscopy

- The provider will perform a physical examination and a bimanual pelvic examination.
- The client usually receives sedation and analgesia to help them relax and feel more comfortable. Local anaesthetic is injected under the umbilicus.
- The provider places a special needle into the abdomen and inflates the abdomen (insufflates) with gas or air.
- The provider will make a small incision (about 1 cm) in the anesthetized area and insert a laparoscope, which is a tube containing a camera the provider uses to look inside the body to see the fallopian tubes.
- Through the laparoscope or another small incision, the provider closes off the fallopian tubes with a ring or clip.
- The provider removes the instruments and the gas from the client's abdomen. The small incisions are closed and covered with adhesive bandages.
- The client will stay in the health facility for at least 2 hours after the procedure. During this time they will be monitored for any complications while they recover from sedation. The client may be given pain relief if needed.

4.1.3 Post-procedure client instructions

The client will be able to go home the same day that the surgery is performed, after they have recovered. Explain and provide written instructions for the following:

- Rest for 2 days and avoid vigorous work, heavy lifting, and sex for 1 week. They may resume normal activities after 1 week.
- Keep the incisions clean and dry for 2 days.
- The contraceptive method is fully effective from the time the operation is completed.
- The client should return for a post-surgical follow-up visit 7–10 days after the procedure.

4.1.3.1 Side effects

- The client may experience some abdominal pain and swelling after the procedure. If laparoscopy was performed, they may feel bloated and have shoulder pain. Pain-relieving medications (NSAIDs or paracetamol) can be taken but aspirin should be avoided.
- No long-term side effects.

4.1.3.2 Warning signs

Advise the client to return for immediate evaluation if they experience any of the following, which may indicate a surgical complication:

- bleeding, pain, pus, heat, swelling, or redness at the wound that becomes worse or does not go away
- fever
- fainting, persistent light-headedness, or extreme dizziness

4.1.4 Follow-up care

The client should return for routine follow-up within 7–10 days of surgery. Ideally, the visit should be with the provider who performed the procedure. During the visit:

- Discuss any concerns or questions the client may have.
- Examine the operative site and remove any sutures if required. Perform any other examinations if needed.
- Schedule another visit if needed.

Additional routine follow-up is generally not necessary after an uncomplicated sterilization procedure. Clients with specific medical conditions may benefit from additional follow-up. See *Section 2.3: Counselling for returning clients* for more information about follow-up visits.

4.1.5 Complications

4.1.5.1 Infection

- Clean the infected area with antiseptic.
- If an abscess is present, open (incise) and drain the abscess. Treat the wound.
- Give oral antibiotics for 7–10 days.
- The client should return after completing antibiotics if the infection has not resolved.

4.1.5.2 Severe pain

- Assess for conditions that could be related to the surgery, such as pelvic infection, peritonitis, injury to internal organs, or surgical emphysema. Treat appropriately or refer as needed.
- If surgery happened more than 3–4 weeks previously, assess for ectopic pregnancy.

4.1.5.3 Suspected pregnancy

- Assess for pregnancy, including ectopic pregnancy.

4.2 Vasectomy

4.2.1 Counselling the client: Vasectomy

What is it?

- Permanent contraception for clients with male anatomy who do not want more children or who do not want any children
- Through a small puncture or incision made in the scrotum, the provider locates each vas deferens (the tubes that carry sperm from each testicle to the penis) and cuts, ties, or occludes them
- Also called male sterilization

How does it work?

- By occluding, cutting, or tying the vas deferens, sperm are prevented from entering semen. Ejaculation occurs normally, but the ejaculate does not contain sperm, and fertilization is prevented

How effective is it?

- Vasectomy is one of the most effective methods of contraception (see *Appendix 2*)
- Failure rate: 0.15 per cent
- Vasectomy requires 3 months following the procedure to be fully effective

Non-contraceptive benefits: None

Advantages:

- Highly effective, permanent method of pregnancy prevention
- No user action required, no resupply of commodities needed
- May be performed at any time
- Does not interfere with sex
- Can be kept private
- Can be safely used by all clients with male anatomy
- Allows the male client to take responsibility for contraception

Disadvantages:

- Reversal of sterilization is not usually possible
- No protection against STIs, including HIV

Side effects: No long-term side effects

Risks:

- Possible complications of vasectomy procedure:
  - pain and swelling of the scrotum
  - significant bleeding/haematoma
  - infection
  - formation of sperm granuloma
  - severe testicular pain that lasts month or years (very rare)
- Risk of pregnancy if a back-up contraceptive is not used for 3 months after the procedure
- Risk of failure of the procedure
- Regret

Return to fertility: Permanent (no resumption of fertility)

Dispelling myths:

- Does not remove the testicles
- Does not affect physical or mental health
- Does not affect hormones
- Does not affect sexual function (quality of erection and ejaculation) or decrease sex drive
- Sterilization should be considered irreversible
- Does not prevent transmission of STIs, including HIV
- Any client, including those who are young, unmarried, or who have never had children, can choose vasectomy if it is the right method for them

Source: Adapted from WHO, Johns Hopkins Bloomberg School of Public Health [3].

4.2.2 Performing the vasectomy

All clients with male anatomy can have a vasectomy. No medical conditions prevent use of this method. A complete medical history should be taken to assess if there are any conditions that might require delaying the procedure, and to determine the anaesthetic regimen and type of facility best suited to the client (see *Appendix* 1).

Examination of the genital area is the only physical examination required prior to vasectomy.

No routine laboratory tests are required prior to sterilization, although measuring haemoglobin/haematocrit, urinalysis, coagulation function, or other laboratory tests may be indicated based on the client's medical history or physical examination.

Vasectomy can be performed at any time.

4.2.2.1 Pre-vasectomy counselling

Before the vasectomy procedure, ensure that the information in *Section 4.2.1* has been reviewed and that the client understands it. Review with the client what they should expect during the vasectomy procedure. Encourage the client to ask any questions they may have to resolve any uncertainties or misunderstandings regarding the procedure. Because vasectomy is permanent, the provider should ensure that the client has considered future situations that may lead to regret over the decision (see *Box* 4). Involving the client's partner in counselling can be helpful but is not necessary or required. Following counselling, the client must sign an informed consent form before the procedure.

4.2.2.2 What the client should expect during the procedure

- A local anaesthetic will be injected into the scrotum to prevent pain. The client stays awake throughout the procedure.
- The provider locates each vas deferens by palpating the scrotum.
- The provider makes a puncture or small incision in the scrotal skin. The vas deferens is brought to the surface, and is cut, tied, or occluded.
- The incision may be closed with stitches. The wound is covered with an adhesive bandage.
- The client stays at the health facility for at least 30 minutes after the procedure to ensure that the operative site shows no signs of bleeding. The client may be given pain relief if needed.

4.2.3 Post-procedure client instructions

The client can go home the same day that the procedure is performed. Explain and provide written instructions for the following:

- Rest for 2 days. Avoid vigorous work, strenuous exercise, and sex during that time.
- Place cold compresses on the scrotum for the first 4 hours after the procedure to decrease pain and bleeding. The client will experience some discomfort, swelling, and bruising. This should resolve in 2–3 days.
- Wear snug underwear or pants to support the scrotum for 2–3 days.
- Keep the incision site clean and dry for 2–3 days.
- Use condoms or another effective contraceptive method for at least 3 months after the procedure.
- The client should return for post-surgical follow-up within 7–10 days after the procedure.

4.2.3.1 Side effects

- Discomfort, swelling, bruising of the scrotum are expected after the procedure. Pain-relieving medications (NSAIDs or paracetamol) can be taken but aspirin should be avoided.
- No long-term side effects.

4.2.3.2 Warning signs

Advise the client to return for immediate evaluation is they experience any of the following, which may indicate a procedural complication:

- bleeding, pus, heat, swelling, or redness at the incision site that becomes worse or does not go away
- excessive pain or swelling of the scrotum
- fever

4.2.4 Follow-up care

The client should return for follow-up within 7–10 days of the procedure. Ideally, the follow-up visit should be with the provider who performed the procedure. During the follow-up visit:

- Discuss any concerns or questions the client may have.
- Examine the scrotal area.
- Review plans for semen analysis, if available.
- Reinforce the need for back-up contraception for 3 months after the procedure.

If available, offer semen analysis 12 weeks after the procedure to confirm procedure success. If motile sperm are present after 12 weeks, the provider must re-evaluate the case and take appropriate steps. A repeat semen analysis is indicated, and a second vasectomy procedure may be offered in the event of persistent motile sperm/failed vasectomy.

Additional routine follow-up is generally not necessary after an uncomplicated sterilization procedure. Clients with specific medical conditions may benefit from additional follow-up. See *Section 2.3: Counselling for returning clients* for more information about follow-up visits.

4.2.5 Complications

4.2.5.1 Bleeding or haematoma

- Minor bleeding and small, uninfected blood clots usually resolve without treatment in several weeks.
- Large blood clots may need to be surgically drained.
- Infected blood clots require antibiotics and hospitalization.

4.2.5.2 Infection

- Clean the infected area with antiseptic.
- If an abscess is present, open (incise) and drain the abscess. Treat the wound.
- Give oral antibiotics for 7–10 days.
- The client should return after completing antibiotics if the infection has not resolved.

4.2.5.3 Pain lasting for months

- Suggest elevating the scrotum with snug underwear or an athletic supporter.
- Suggest soaking the scrotum in warm water.
- Advise pain-relieving medications (NSAIDs or paracetamol) as needed.
- Provide antibiotics if infection is suspected.

5. Short-acting reversible contraceptive methods

5.1 Combined hormonal contraceptives

5.1.1 Counselling the client: Combined hormonal contraceptives (CHCs)

What are they?

- Short-acting, reversible contraceptives that use a combination of two hormones (an oestrogen and progestin)
- There are many different types:
  - Combined oral contraceptives (COCs): a pill taken every day
  - Combined hormonal patch: a sticker placed on the skin once a month
  - Combined vaginal ring: a flexible plastic ring placed in the vagina once a month
  - Combined injectable contraceptive (CIC): an injection that is administered monthly, by a healthcare provider

How do they work?

- The hormones in combined hormonal contraceptives (CHCs) inhibit ovulation

How effective are they?

- CHCs are very effective methods of contraception, but there are some methods that are more effective (see *Appendix 2*)
- Failure rates:
  - COCs, patch, ring: failure rate 0.3 per cent (perfect use) to 7 per cent (typical use)
  - CICs: failure rate <1 per cent (perfect use) to 3 per cent (typical use)
- Pregnancy rates may be slightly higher for clients using the patch who weigh ≥90 kg

Non-contraceptive benefits:

- Reduces heavy menstrual bleeding and menstrual cramping
- Improves symptoms of premenstrual syndrome
- May improve acne
- Helps protect against endometrial, ovarian, and colorectal cancers
- Improve symptoms (acne, hirsutism, menstrual irregularities) of polycystic ovary syndrome
- May help protect against iron deficiency anaemia

Advantages:

- COCs, patch, ring: Standard dosing regulates menstrual bleeding. Extended and continuous use regimens offer clients fewer/no periods [29]
- Do not interfere with sex

Disadvantages:

- Requires remembering to use the contraceptive on a regular basis: taking a pill every day, replacing a patch every week, inserting a new vaginal ring every month, or getting an injection every month
- Requires refilling commodities
- Certain anticonvulsant, antiretroviral, and antimicrobial medications may reduce the effectiveness of CHCs
- Do not protect against STIs, including HIV

Side effects:

- Changes in menstrual bleeding patterns, including lighter periods, fewer days of bleeding, infrequent bleeding, or no bleeding
- Headache
- Dizziness
- Nausea
- Breast tenderness
- Weight changes
- Mood changes
- Changes in sex drive

Risks: (see *Box 5: Counselling on the risks of combined hormonal contraceptives* – next page)

- Small increased risk of breast and cervical cancers, which returns to baseline within 10 years after stopping CHCs
- Very rare but serious adverse events: blood clots, stroke, or heart attack

Return to fertility after discontinuation:

- COCs, patch, ring: No delay
- CICs: An average of 5 months after the last injection

Dispelling myths:

- Hormones do not accumulate in the body. There is no need for a 'rest' from hormones
- Not harmful for clients to stop having periods when using these methods
- Do not cause infertility. Fertility returns rapidly after the method is stopped
- Do not cause birth defects

Source: Adapted from: WHO, Johns Hopkins Bloomberg School of Public Health [3].

BOX 5: Counselling on the risks of combined hormonal contraceptives

This information can help clients put the risks associated with use of combined hormonal contraceptives (CHCs) into an appropriate context for informed decision-making. Clients should be reassured that all risks associated with CHCs are very small.

Breast cancer

Using CHCs may increase the risk of breast cancer during use. This risk is small and returns to baseline within 10 years of stopping CHCs. Previous use of CHCs does not increase the risk of breast cancer later in life when breast cancer is more common.

Cervical cancer

Using CHCs for more than 5 years may increase the risk of cervical cancer. This risk is small and returns to baseline within 10 years of stopping CHCs.

Venous thromboembolism (VTE)

The risk of VTE is about three times higher among CHC users compared with non-users; however, the risk is still very low and is much lower than the risk of VTE during pregnancy and in the post-partum period, where it can be as much as 80 times higher [30]. Risk of VTE is highest when initiating CHCs or when restarting after a break of at least 1 month. Risk reduces over the first year and becomes stable thereafter.

Heart attack and ischaemic stroke

Risk of heart attack and stroke is very low in young clients but increases with age. Current use of CHCs is associated with an increased risk compared with the risk in non-users. CHCs with doses of ethinyl oestradiol ≥35 µg carry more risk than formulations with lower doses and are not advised for contraceptive purposes. Risk returns to baseline after stopping CHCs.

Source: Adapted from Faculty of Sexual and Reproductive Healthcare [29].

5.1.2 Safe and effective use of combined hormonal contraceptives (CHCs)

While many clients may safely use CHCs, there are some for whom these contraceptives are contraindicated. See *Appendix* 1 to determine if the client is a suitable candidate for the method, particularly if they have any of the following:

- hypertension
- heart disease
- stroke
- diabetes
- multiple risk factors for cardiovascular disease
- deep vein thrombosis or pulmonary embolism
- migraine headaches, especially migraine with aura
- known thrombogenic mutation
- systemic lupus erythematosus
- severe liver disease
- inflammatory bowel disease
- breast cancer
- a delivery less than 6 weeks previously
- using anticonvulsant, antifungal, or antiretroviral medications
- cigarette smoking

In healthy clients, no physical or pelvic examinations are required before initiating CHCs. It is desirable to have blood pressure measurements taken before initiation of CHCs; however, in settings where blood pressure measurements are unavailable, clients should not be denied these methods because their blood pressure cannot be measured. No laboratory tests are required before initiating CHCs.

See *Appendix* 3 for information on how to rule out pregnancy before beginning a method.

5.1.3 Using combined oral contraceptives (COCs), patch, and ring

Standard dosing regimens for COCs, patch, and ring are designed to induce a withdrawal bleed each month, mimicking naturally occurring menstrual cycles. Clients using standard dosing use contraceptive hormones for about 3 weeks, followed by a hormone-free interval during which they will experience withdrawal bleeding. There is, however, no health benefit of having a monthly withdrawal bleed. Clients can safely use COCs, patch, and ring in extended use (taking contraceptive hormones for 12 weeks, followed by a 4- or 7-day hormone-free interval with withdrawal bleeding); continuous use (taking contraceptive hormones continuously without a hormone-free interval); or flexible use (using contraceptive hormones to avoid monthly bleeding when desired) dosing regimens to reduce the number of monthly withdrawal bleeds they experience, or eliminate monthly withdrawal bleeding altogether (see *Box 6* – next page). For clients who experience symptoms during their withdrawal bleed, such as headaches, mood changes, heavy bleeding, or dysmenorrhoea, or for clients who do not want monthly withdrawal bleeding, extended use or continuous use dosing is a safe and effective treatment option. Unscheduled bleeding is more common for clients using extended or continuous dosing, and clients will require additional commodities when using these dosing regimens.

Provide clients choosing COCs or patches with a year's supply of commodities, depending on their preference and planned use. Clients using extended or continuous dosing regimens will require additional commodities. After dispensing, the ring can be stored at room temperature and must be used within 4 months; for this reason, no more than four rings can be provided at any one time. Provide emergency contraceptive pills in advance for all CHC users and provide condoms for all clients requiring protection against STIs, including HIV. Create a plan with the client to return for additional commodities when needed.

5.1.3.1 Combined oral contraceptives (COCs)

There are many different formulations of COCs available. Most contain the synthetic oestrogen ethinylestradiol in doses ranging from 20–35 µg, although pills with lower (10 µg) and higher (50 µg) doses of ethinylestradiol, and pills with different oestrogens (estradiol, estetrol), are available. Pill formulations containing 30 µg or less of ethinylestradiol have fewer health risks, particularly heart attack and ischemic stroke, than formulations containing higher doses [31]. Of the many different synthetic progestins that are in COCs, norethisterone (NET), levonorgestrel (LNG), and norgestimate are associated with a lower risk of venous thrombosis than desogestrel, gestodene, drospirenone, and cyproterone acetate [29,32].

Monophasic COCs contain the same amount of oestrogen and progestin in every hormone-containing pill. Biphasic and triphasic COCs change the amount of oestrogen and progestogen at different points in the pill-taking cycle. All prevent pregnancy via the same mechanism of action and differences between monophasic and biphasic or triphasic pills are slight. Monophasic COCs are recommended for extended or continuous dosing regimens.

COCs are available in packets of:

- **21 pills**: each pill in the packet contains a combination of oestrogen/progestin.
- **28 pills**: the first 21 pills in the packet contain a combination of oestrogen/progestin. The final 7 pills in the packet do not contain hormones (they may be placebo pills or contain iron) and are typically a different colour than the hormone-containing pills.
- **28 pills**: the first 24 pills in the packet contain a combination of oestrogen/progestin. The final 4 pills in the packet do not contain hormones.

BOX 6: Standard, extended, and continuous use dosing regimens for combined oral contraceptives, patch, and ring*

Combined oral contraceptives	Patch	Ring
Standard use		
• Take 1 hormone-containing pill daily for 21 days (if using 21/7 pill pack) or 24 days (if using 24/4 pill pack) • Take placebo pills, or no pills at all, for the next 7 days (if using 21/7 pill pack) or 4 days (if using 24/4 pill pack) • Expect withdrawal bleeding during hormone-free interval	• Apply new patch to skin weekly for 3 weeks (21 days) • Do not wear a patch during the fourth week (7 days) • Expect withdrawal bleeding during hormone-free interval	• Insert new ring into vagina and leave in place for 3 or 4 weeks • Remove and discard ring at the beginning of the fourth or fifth week (day 22 or day 29); do not use the ring for the next 7 days • Expect withdrawal bleeding during hormone-free interval
Extended use		
• Take 1 hormone-containing pill daily for 12 weeks (84 days) • Take placebo pills, or no pills at all, during a 4- or 7-day hormone-free interval • Expect withdrawal bleeding during hormone-free interval	• Apply new patch to skin weekly for 12 weeks (84 days) • Do not wear a patch during the 13th week (7 days) • Expect withdrawal bleeding during hormone-free interval	• Insert new ring into vagina and leave in place for 4 weeks (28 days) • Remove and replace ring at the beginning of the fifth week (day 29) • Remove and replace second ring at the beginning of the ninth week (day 56) • Remove third ring at the beginning of the 13th week (day 85); do not use ring during the 13th week (7 days) • Expect withdrawal bleeding during hormone-free interval
Continuous use		
• Take 1 hormone-containing pill daily, without a hormone-free interval	• Apply new patch to skin weekly, without a patch-free week	• Insert new ring into vagina every 4 weeks, without a ring-free week

* Clients may move between different dosing regimens and adapt them to their needs.

Client instructions

- Show and explain the 21-day or 28-day pill pack, including the hormone-free interval and when clients should expect monthly bleeding.
- Explain standard dosing of COCs, and extended use or continuous use dosing if the client chooses one of these regimens.
- Explain the importance of taking pills every day. Discuss strategies with the client that will help them remember to take their pill every day, such as setting an alarm on their phone or combining pill-taking with another daily activity such as brushing teeth.
- Review what to do in the event of missed pills (see *Appendix 8*).
- Advise the client that if they vomit within 2 hours of taking a pill, they should take another pill as soon as possible, then keep taking pills as normal. If vomiting persists for more than 2 days, the client should follow missed pill instructions.

5.1.3.2 Patch

The transdermal contraceptive patch is placed on the skin for 1 week at a time. Each patch releases 20 µg ethinylestradiol and 150 µg norelgestromin daily.

Client instructions

- Show the patch. Explain to the client that they should tear the foil pouch containing the patch along the edge, and peel away the backing without touching the sticky surface.
- Explain standard dosing of patches, and extended use or continuous use dosing if the client chooses one of these regimens.
- Advise that only one patch should be worn at a time, and should be applied to clean, dry, unbroken, hairless skin on the upper outer arm, back, stomach, abdomen, or buttocks. Patches should not be applied directly to the breast.
- Advise the client to apply a new patch on the same day of each week: the 'patch-change day'. To avoid skin irritation, advise the client to apply the new patch to a different patch of skin.
- Explain that the patch will stay on all the time, including during work, exercise, swimming, and bathing. Avoid using lotions or creams on the skin where the patch will be/is placed.
- Advise that patches should be disposed of in a waste bin and not flushed down the toilet.
- Review what to do if a patch becomes partially or fully detached, or application of a new patch is delayed (see WHO [3] for detailed instructions for late replacement or removal, or if the patch comes off).

5.1.3.3 Ring

The contraceptive ring is placed in the vagina for 3–4 weeks. It releases 15 µg ethinylestradiol and 120 µg etonogestrel daily.

Client instructions

- Show the client the ring and explain how to insert it into the vagina. The client can choose any position that is most comfortable; for example, standing with one leg up, squatting, or lying down. Explain how to press the opposite sides of the ring together and gently push the folded ring entirely into the vagina. The exact position of the ring is not important, but inserting the ring deeply helps it stay in place and it is less likely to be felt.
- The ring should be left in place at all times. If the ring comes out, it should be rinsed and reinserted as soon as possible (see WHO [3] for detailed instructions for late replacement or removal).
- It is not necessary to remove the ring prior to sex, although some may prefer to. If the client does remove the ring, it should be reinserted as soon as possible (see WHO [3] for detailed instructions for late replacement or removal).
- The ring can be removed by hooking a finger inside it and pulling it out of the vagina.

5.1.4 Using combined injectable contraceptives (CICs)

CICs contain a short-acting oestrogen and a long-acting progestogen, administered monthly by injection. There are two formulations of CICs:

- 5 mg oestradiol cypionate/25 mg medroxyprogesterone acetate (Cyclofem)
- 5 mg oestradiol valerate/50 mg norethisterone enanthate (Mesigyna, Norigynon)

Currently, CICs are formulated to be given by a healthcare provider by intramuscular injection. If a client would prefer to self-administer an injectable contraceptive, formulations of the progestin-only injectable are available for subcutaneous self-administration.

5.1.4.1 Administering the injection

1. Standard infection prevention measures should be followed.
2. Gather medication, intramuscular injection needle, and a 2 ml or 5 ml syringe.
3. Prepare the medication by gently shaking the vial and warming it to skin temperature if cold.
4. Pierce the vial with the sterile needle and fill the syringe with the correct dose. There is no need to wipe the vial top with antiseptic.
5. Insert the needle deep into the ventrogluteal muscle (hip), upper outer gluteal muscle (buttocks), deltoid muscle (shoulder), or quadriceps muscle (anterior thigh) and inject the contents of the syringe. There is no need to wipe the skin with antiseptic. Do not massage the injection site.
6. Dispose of the needle and syringe safely.

5.1.4.2 Client instructions

- Advise the client not to massage the injection site.
- Reassure the client that some irritation at the injection site is normal and will resolve.
- Ideally, they should return for their next injection in 4 weeks. The client may attend up to 7 days before the scheduled date or 7 days after and still get the injection.
- If the client returns for their next injection more than 7 days after the scheduled date, they should abstain from sex or use a back-up contraceptive method until they have the injection. The client could also consider any emergency contraceptive if more than 7 days have elapsed since the injection was due and they have had unprotected sex in the past 5 days.

The client should be provided with the following written information:

- Name of injection given.
- Date of injection and recommended date of next injection.
- Name, address, and phone number of the health centre for follow-up.

5.1.5 Follow-up care

A routine follow-up visit is not required after initiating COCs, patch, or ring. Clients receiving CICs must return to receive the injection; however, they do not require a complete follow-up visit. All clients should be encouraged to return at any time to ask questions, discuss side effects or other concerns, or to change the method. Clients should also be advised to return for follow-up if they receive a new diagnosis or start a new medication that could affect their use of CHCs, such as certain anticonvulsants, antiretrovirals, or antimicrobial medications.

An annual visit is recommended for all CHC users. Clients with specific medical conditions may benefit from more frequent follow-up [11]. See *Section 2.3: Counselling for returning clients* for more information about follow-up visits for clients using contraceptives.

5.1.6 Side effects

Common side effects of CHC use should be reviewed with the client and management strategies discussed. Many side effects will subside after a few weeks or months of CHC use.

- Changes in monthly bleeding patterns are common with CHC use. Many clients experience lighter bleeding, but some will experience irregular bleeding, particularly when starting CHCs. For COCs, patch, and ring, ensure that the method is used consistently and correctly and review how best to manage errors in use, such as missed pills (see *Appendix 8*). The client can try 800 mg ibuprofen three times a day after meals for 5 days when irregular bleeding begins. If the issue persists for more than a few months and NSAIDs do not help, it may be helpful to try a new CHC formulation. It is important that providers consider the possibility of an underlying condition unrelated to the method, particularly if irregular bleeding starts after several months of normal or no bleeding.
- Monthly bleeding may stop altogether in some clients. Ensure that the client is using the method consistently and correctly and evaluate for pregnancy, if indicated. Reassure the client that it is not harmful if monthly bleeding stops while using CHCs.
- If clients experience nausea or vomiting, advise that they try taking COCs with food or at bedtime. If nausea is related to starting a new pill pack, extended use or continuous use dosing may be helpful.
- Headaches can be managed with NSAIDs or paracetamol. If headaches occur during the hormone-free interval, consider extended use or continuous use dosing. Any headaches that get worse or occur more often during CHC use should be evaluated. Migraine-type headaches with or without aura require further assessment and may necessitate switching to a method that does not contain oestrogen.
- Breast tenderness can be improved by wearing a supportive bra, particularly for exercise and sleep, and using hot or cold compresses. NSAIDs and paracetamol may be helpful.

5.1.7 Warning signs

Advise the client to seek immediate evaluation if they experience any of the following, which may indicate a rare but serious adverse event such as venous thromboembolism, heart attack, or stroke:

- severe abdominal pain
- severe chest pain or shortness of breath
- severe headache
- loss or blurring of vision
- severe pain in the thigh or calf
- jaundice

5.2 Progestin-only injectable contraceptives

5.2.1 Counselling the client: Progestin-only injectable contraceptives (POIs)

What are they?

- Short-acting reversible contraceptives that use synthetic progestin
- Injected intramuscularly or under the skin
- There are several different types:
  - Depot medroxyprogesterone acetate (DMPA):
    DMPA-IM: 150 mg DMPA intramuscularly every 13 weeks
    DMPA-SC: 104 mg DMPA subcutaneously every 13 weeks (Sayana-Press)
  - Norethisterone enanthate (NET-EN) 200 mg intramuscularly every 8 weeks

How do they work?

- The hormones in progestin-only injectable contraceptives (POIs) inhibit ovulation

How effective are they?

- POIs are very effective methods of contraception, but there are some methods that are more effective (see *Appendix 2*)
- Failure rates: 0.2 per cent (perfect use) to 4 per cent (typical use)

Non-contraceptive benefits:

- Improves dysmenorrhoea
- Improves symptoms of endometriosis
- Reduces painful crises among clients with sickle cell anaemia
- May help protect against iron deficiency anaemia
- May reduce risk of ovarian and endometrial cancers
- May reduce risk of uterine fibroids

Advantages:

- Very effective reversible pregnancy prevention
- Require action only every 2–3 months
- Do not interfere with sex
- Can be kept private
- Oestrogen-free: Can be used by clients who are breastfeeding or unable to take oestrogen
- Can be used immediately post-partum or post-abortion
- DMPA-SC: Clients can self-administer

Disadvantages:

- Must return to the health centre for injections
- No protection against STIs, including HIV

Side effects:

- Irregular vaginal bleeding, unscheduled bleeding, amenorrhoea
- Weight gain
- Headaches
- Dizziness
- Abdominal bloating and discomfort
- Mood changes
- Decreased sex drive

Risks:

(See *Box 7: Counselling on the risks of progestin-only injectable contraceptives* – next page)

- DMPA: Temporary loss of bone mineral density
- Weight gain
- Possible small increase in breast and cervical cancer risk, which returns to baseline after stopping POIs

Return to fertility after discontinuation (last injection):

- DMPA: 10 months, on average
- NET-EN: 6 months, on average

Dispelling myths:

- Not harmful for clients to stop having periods while using POIs. Blood is not building up inside the body
- Do not disrupt an existing pregnancy
- Do not cause infertility
- Do not increase a client's risk of acquiring HIV infection [33]

Source: Adapted from WHO, Johns Hopkins Bloomberg School of Public Health [3].

BOX 7: Counselling on the risks of progestin-only injectable contraceptives

This information can help clients put the risks associated with use of progestin-only injectable contraceptives (POIs) into an appropriate context for informed decision-making. Clients should be reassured that all POI-associated risks are very small.

Loss of bone mineral density

The use of depot medroxyprogesterone acetate (DMPA) is associated with a small loss of bone mineral density, which is a measure of the mineral content of bones that is correlated with bone strength. Following discontinuation of DMPA, bone mineral density fully or nearly fully recovers within 5 years. No high-quality evidence exists regarding the effect of this temporary bone mineral density loss, if any, on fracture risk. For otherwise healthy clients, the decrease in bone mineral density does not place age or time limits on the use of DMPA.

Weight gain in adolescents with body mass index (BMI) ≥30 kg/m^2

Use of DMPA appears to be associated with weight gain, particularly for adolescents under 18 years of age with a BMI ≥30 kg/m^2. Those gaining more than 5 per cent of their baseline body weight in the first 6 months of DMPA use are likely to experience continued weight gain with the method.

Risk of breast and cervical cancers

There may be a very slightly increased risk of breast cancer among current DMPA users, and a very slightly increased risk of cervical cancer among clients who have used DMPA for more than 5 years. Any increased risk is likely to be small and to decrease after stopping the medication. Findings are based on small sample sizes and may be subject to bias and confounding.

Source: Adapted from Faculty of Sexual and Reproductive Health Care [34] and WHO, Johns Hopkins Bloomberg School of Public Health [3].

5.2.2 Safe and effective use of progestin-only injectable contraceptives (POIs)

Most clients can safely use POIs, including those who are breastfeeding and those who cannot take oestrogen (see *Appendix* 1). In healthy clients, no physical examinations or laboratory tests are required before initiating POIs. Baseline weight and body mass index (BMI) measurements might be useful to monitor clients using POIs over time.

See *Appendix* 3 for information on how to rule out pregnancy before beginning the method.

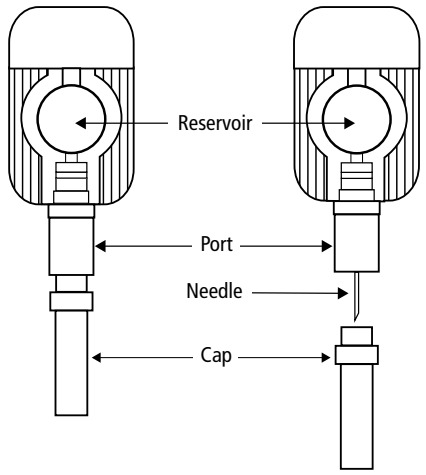
5.2.2.1 Administering DMPA-IM or NET-EN

1. Standard infection prevention measures should be followed.
2. Gather the medication, intramuscular injection needle, and a 2 ml or 5 ml syringe or pre-filled single-use syringe and needle.
3. If the vial is cold, warm it to skin temperature. For DMPA-IM, gently shake the vial. Shaking the vial is not necessary with NET-EN.
4. Pierce the vial with the sterile needle and fill the syringe with the correct dose. There is no need to wipe the vial top with antiseptic.
5. Insert the needle deep into the ventrogluteal muscle (hip), upper outer gluteal muscle (buttocks), or deltoid muscle (shoulder) and inject the contents of the syringe. There is no need to wipe the skin with antiseptic. Do not massage the injection site.
6. If the needle does not reach the muscle of the hip or buttocks, the deltoid injection site or DMPA-SC should be used instead.
7. Dispose of the needle and syringe safely.

5.2.2.2 Administering DMPA-SC in Uniject (Sayana Press)

1. Wash hands with soap and water and let them dry. Wash the injection site if it is dirty. There is no need to wipe the skin with antiseptic.
2. Open the foil pouch and remove the injection device.
3. Hold the device by the port and shake it vigorously for 30 seconds, ensuring that the solution is mixed and the granules are distributed throughout the solution.
4. Holding the device by the port with the needle facing upward, push the cap into the port until the gap between the cap and the port is closed. Take off the cap.
5. Gently pinch the skin at the injection site on either the back of the upper arm, the abdomen, or the front of the thigh.
6. Holding the device by the port and with the needle facing downward, push the needle straight into the skin until the port touches the skin. Squeeze the reservoir slowly over 5–7 seconds to inject the medication.
7. Pull out the needle and release the skin. Do not massage the site after injecting.
8. Dispose of the injection device safely.

Parts of the Sayana Press injection device



Source: Reproduced/translated from WHO [3]: Family Planning: A Global Handbook for Providers. Geneva: WHO; 2018. License: CC BY-NC-SA 3.0 IGO.

Instructions on how clients can self-administer the DMPA-SC injection are given in *Box 8* (next page).

Client instructions

- Advise the client not to massage the injection site.
- Reassure the client that some irritation at the injection site is normal and will resolve.
- Review with the client when they should return for the next injection, or when they should next self-administer DMPA-SC (see *Box 9* – next page).

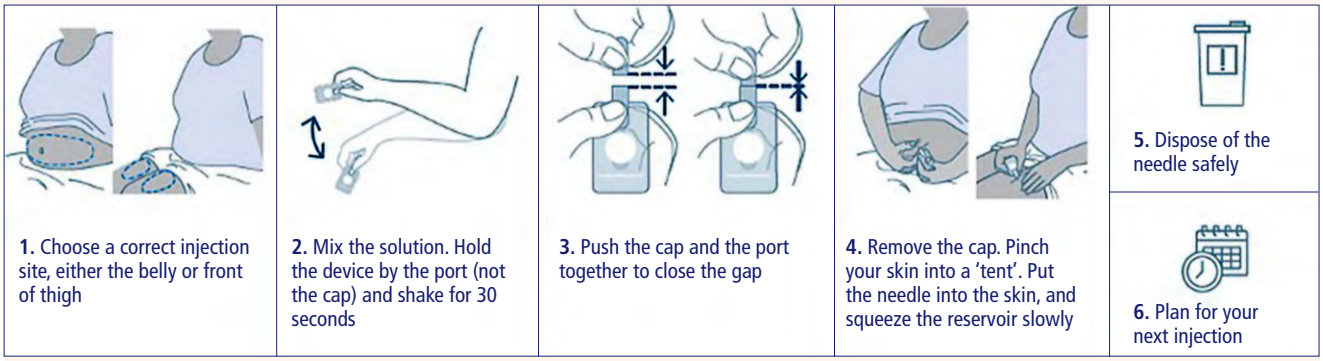
The client should be provided with the following written information:

- Name of medication injected.
- Date of injection and recommended date of next injection.
- Name, address, and phone number of the health centre where they can return for follow-up.

BOX 8: Teaching clients how to self-administer DMPA-SC

Some clients will want to give themselves the DMPA-SC injections, and those who self-administer have higher continuation rates compared with administration by a healthcare provider. Most clients can inject themselves correctly after training. The following applies to self-injection with the Uniject system.

1. **Discuss a plan for storage and disposal.** DMPA-SC should be stored out of reach of children or animals and in moderate temperatures (not in direct sunlight or in a refrigerator). Used devices should be disposed of in a container with a lid that cannot be punctured.
2. **Explain and show the client how to self-inject**
3. **Observe the client self-inject**
4. **Tell the client where to get more injection devices and invite them to return if they have any questions or difficulties**



Source: Adapted from WHO [3] and WHO [35].

5.2.3 Follow-up care

A routine follow-up visit is not required after initiating POIs, although clients receiving intramuscular injections must return for administration of the contraceptive. Some clients benefit from a follow-up visit, which offers an opportunity to answer questions and assist with any difficulties. All clients should be advised to return at any time to ask questions, discuss side effects or other concerns, or to change the method. Clients should also be advised to return for follow-up if they receive a new diagnosis or start a new medication that could affect their use of POIs, such as certain anticonvulsant, antiretroviral, or antimicrobial medications. Clients with specific medical conditions may benefit from more frequent follow-up. See *Section 2.3: Counselling for returning clients* for more information about follow-up visits for clients using contraceptives.

BOX 9: Recommended timing for reinjection of progestin-only injectable contraceptives

Recommended reinjection interval:

- DMPA: 13 weeks
- NET-EN: 8 weeks

Early attendance for an injection:

- DMPA: Can be given up to 2 weeks early
- NET-EN: Can be given up to 2 weeks early

Late attendance for an injection:

- DMPA: Can be given up to 4 weeks late; no back-up contraceptive needed
- NET-EN: Can be given up to 2 weeks late; no back-up contraceptive needed

5.2.4 Side effects

Common side effects of POIs should be reviewed with the client and management strategies discussed.

- Changes in monthly bleeding patterns are expected when using POIs. Bleeding may be irregular, lighter, or less frequent, or it may be heavy or prolonged. Clients should be reassured that irregular bleeding is not harmful and usually lessens or stops after the first few months of POI use. If the client finds bleeding to be problematic, a trial of NSAIDs (5–7 days of treatment) or hormonal treatment with low-dose COCs or oestrogen (10–20 days of treatment if medically eligible) can be helpful. Bleeding changes are generally not harmful; however, gynaecologic evaluation can be pursued if the problem persists, bleeding is heavy or prolonged, or there is reason to suspect an underlying condition unrelated to method use.
- Most clients using POIs stop having monthly bleeding altogether. Evaluate for pregnancy, if indicated. Reassure clients that it is not harmful if monthly bleeding stops while using POIs.
- Headache can be managed with NSAIDs or paracetamol.
- Less common side effects include dizziness, weight gain, abdominal bloating, and mood changes.

5.3 Progestin-only pills

5.3.1 Counselling the client: Progestin-only pills (POPs)

What are they?
- Short-acting reversible oral contraceptives that use a synthetic progestogen

How do they work?
- Thicken cervical mucus to prevent sperm entry and fertilization (mini- and midi-pills)
- Prevent ovulation (midi-pills)

How effective are they?
- POPs are effective methods of contraception, but there are some methods that are more effective (see *Appendix 2*)
- Failure rate: 0.3 per cent (perfect use) to 7 per cent (typical use)
- When used during breastfeeding: 0.3 per cent (perfect use) to 1 per cent (typical use)

Non-contraceptive benefits:
- May improve dysmenorrhoea

Advantages:
- Effective, reversible pregnancy prevention
- Do not interfere with sex
- Oestrogen-free: Can be used by clients who are breastfeeding or cannot take oestrogen
- Can be used immediately post-partum or post-abortion
- Add to the contraceptive effect of breastfeeding

Disadvantages:
- Require taking a pill at the same time every day
- No protection against STIs, including HIV
- Require refilling commodities

Side effects:

- Irregular vaginal bleeding, unscheduled bleeding, amenorrhoea
- Headaches
- Breast tenderness
- Dizziness
- Mood changes
- Nausea

Risks: None

Return to fertility after discontinuation: No delay

Dispelling myths:

- Do not cause infertility
- Do not cause problems in breastfeeding babies

Source: Adapted from WHO, Johns Hopkins Bloomberg School of Public Health [3].

5.3.2 Safe and effective use of progestin-only pills (POPs)

Most clients can safely use POPs, including those who are breastfeeding or cannot take oestrogen (see *Appendix* 1). In healthy clients, no physical examinations or laboratory tests are required prior to initiating POPs.

See *Appendix 3* for information on how to rule out pregnancy before beginning the method.

Traditional POPs (often called mini-pills) contain the synthetic progestins levonorgestrel (LNG) or norethisterone (NET) in lower doses than in COCs. Newer POPs contain desogestrel or drospirenone in slightly higher doses than other POPs (midi-pills). Midi-dose POPs have a longer missed pill window and suppress ovulation more consistently than traditional mini-dose POPs, making midi-dose POPs more effective, particularly in clients who are not also breastfeeding.

Provide clients choosing POPs with a year's supply of commodities, depending on their preference and planned use. Provide ECPs in advance for all POP users and provide ample condoms to all clients requiring protection against STIs, including HIV. Create a plan with the client to return for additional commodities when needed.

5.3.2.1 Client instructions

- Show the client a packet of pills and explain that all pills in the pack are the same and contain the hormone that prevents pregnancy.
- Advise the client to take one pill at the same time every day, regardless of vaginal bleeding patterns. Discuss strategies with the client to help them remember to take the pill every day, such as setting an alarm on their phone or combining pill-taking with another daily activity such as brushing teeth.
- The client should start a new pack the day after they finish the previous pack, without a break.
- Review what to do in the event of missed pills (see WHO [3] for full details). Importantly, taking mini-dose POPs more than 3 hours late is considered missed. Taking midi-dose POPs more than 12 hours late is considered missed.
- If the client vomits within 2 hours of taking a pill, they should take another pill from the pack as soon as possible and keep taking pills as usual. If vomiting persists, the missed pill instructions should be followed.

5.3.3 Follow-up care

A routine follow-up visit is not required after initiating POPs; however, some clients benefit from contact after 3 months of use. This offers an opportunity to answer questions, assist with any concerns, and check on correct and consistent use. Clients should be advised to return for follow-up if they receive a new diagnosis or start a new medication that could affect their use of POPs, such as certain anticonvulsant, antiretroviral, or antimicrobial medications. Clients who are breastfeeding should be informed that the effectiveness of POPs may decrease if breastfeeding frequency decreases.

Clients with specific medical conditions may benefit from additional follow-up. See *Section 2.3: Counselling for returning clients* for more information about follow-up visits for clients using contraceptives.

5.3.4 Side effects

Common side effects of POPs should be reviewed with the client and management strategies discussed.

- Changes in monthly bleeding patterns are expected when using POPs. Bleeding may be irregular, lighter, or less frequent, it may be heavy or prolonged, or it may stop altogether. Clients should be reassured that irregular bleeding is not harmful and sometimes lessens or stops after the first few months of POP use. Reinforce taking the pill every day at the same time, as late or missed pills can contribute to irregular bleeding. If the client finds bleeding to be problematic, a trial of NSAIDs (5–7 days of treatment) can be helpful. Bleeding changes are generally not harmful; however, gynaecologic evaluation can be pursued if the problem persists, bleeding is heavy or prolonged, or there is reason to suspect an underlying condition unrelated to method use.
- Some clients may stop having monthly bleeding altogether. Ensure that the client is using the method consistently and correctly and evaluate for pregnancy, if indicated. Reassure clients that it is not harmful if monthly bleeding stops while using POPs.
- Headache can be managed with NSAIDs or paracetamol.
- Breast tenderness can be improved by wearing a supportive bra, particularly for exercise and sleep, and using hot or cold compresses. NSAIDs and paracetamol may be helpful.
- Clients using POPs who experience nausea or vomiting can try taking POPs with food or at bedtime.
- Less common side effects include dizziness and mood changes.

6. Barrier contraceptive methods

6.1 Male (external) and female (internal) condoms

6.1.1 Counselling the client: Condoms

What are they?

- Male condom: sheath made of thin latex, polyurethane, nitrile, or lambskin that fits over an erect penis
- Female condom: lubricated sheath made of thin latex, polyurethane, or nitrile that is inserted into the vagina before sex

How do they work?

- Form a physical barrier between the penis and the vagina, preventing the exchange of fluids, such as semen or vaginal secretions, between sexual partners

How effective are they?

- Condoms are a less effective method of contraception (see *Appendix 2*)
- Male condom failure rate: 2 per cent (perfect use) to 13 per cent (typical use)
- Female condom failure rate: 5 per cent (perfect use) to 21 per cent (typical use)

Non-contraceptive benefits:

- Protect against STIs, including HIV
- May help protect against conditions caused by STIs, such as infertility and cervical cancer

Advantages:

- Can be used for vaginal, anal, and oral sex
- Are a convenient back-up method of contraception
- Can be used for dual protection
- May be used at any time and are immediately effective
- Can be controlled by either sexual partner
- Widely available and easily obtained

Disadvantages:

- Requires correct use with every act of sex
- Requires cooperation of both partners
- Requires refilling commodities
- May dull the sensation of sex
- Rarely, condoms may slip or break during use
- Single use
- Provide less protection against STIs transmitted by skin-to-skin contact, such as herpes

Side effects: None

Risks: Extremely rare severe allergy to latex

Return to fertility after discontinuation: No delay

Dispelling myths:

- Very few condoms break when used correctly
- Cannot get lost inside female anatomy
- Lambskin condoms do not protect against STIs, including HIV

Source: Adapted from WHO, Johns Hopkins Bloomberg School of Public Health [3].

6.1.2 Safe and effective use of condoms

All people can use condoms. People with severe allergy to latex should use condoms made from a different material, such as polyurethane or nitrile. No physical examinations or laboratory tests are required before condom use.

Barrier methods of contraception, like condoms, must be used correctly at every act of sex to be effective. Provide clients choosing condoms with an ample supply, depending on their preference and planned use. Advise clients to store condoms in a cool, dry place. Provide ECPs in advance for all condom users. Emergency contraception should be considered if a condom breaks or slips, or if a condom is not used. Create a plan with

the client to return for additional commodities when needed.

Lubrication can make condom use more comfortable and can avoid condom breakage. There are three ways to provide lubrication: natural secretions, such as vaginal secretions or saliva, using condoms that include lubricant, or adding a separate lubricant. Importantly, oil-based lubricants (petroleum jelly, oils, butter, cocoa butter, or lotions) damage latex and should not be used with latex condoms. Water, glycol, and silicone-based lubricants are safe to use with all condoms. Lubricants can be applied to the outside of male condoms, inside female condoms, in the vagina, or in the anus. A drop or two of lubricant applied inside the tip of a male condom before it is unrolled can help increase the sensation of sex for the wearer; however, it is important not to apply too much lubricant to the inside of male condoms as it can cause them to slip off.

Some practices can increase the risk of a condom breaking and should be avoided:

- Do not unroll the male condom first and then try to put it on the penis.
- Do not use a condom if the colour is uneven or changed.
- Do not use a condom that feels brittle, dried out, or very sticky.
- Do not reuse condoms.
- Do not have dry sex.
- Do not use more than one condom at the same time.
- Do not use a male and a female condom at the same time.
- Do not use the same condom when switching between different penetrative sex acts, such as from anal to vaginal sex.

6.1.2.1 Client instructions

Male condoms

1. Check the condom package. Do not use if it is torn or damaged. Avoid using a condom past its expiration date.
2. Tear the condom package open carefully.
3. For the most protection, put the condom on before the penis makes any genital, oral, or anal contact.
4. Place one or two drops of lubricant in the tip of the condom, if desired. Place the condom on the erect penis with the roll on the outside.
5. Compress the tip of the condom between the finger and thumb to leave space for the ejaculate to collect. Unroll the condom all the way to the base of the erect penis. If the condom does not unroll easily, it may be on the wrong way round.
6. Immediately after ejaculation, hold the rim of the condom in place and withdraw the penis while still erect.
7. Slide the condom off and dispose of properly. Do not flush condoms down the toilet.

Female condoms

1. Check the condom package. Do not use if it is torn or damaged. Avoid using a condom past its expiration date.
2. Tear the condom package open carefully.
3. For the most protection, insert the condom before the penis makes any genital or anal contact. Female condoms can be inserted up to 8 hours before sex.
4. Rub the sides of the female condom together to spread the lubricant evenly.
5. Choose a comfortable position for insertion: squat, raise one leg, sit or lie down.
6. Grasp the ring at the closed end and squeeze it so that it becomes long and narrow.
    - To insert into the vagina, separate the labia and locate the opening to the vagina with the other hand. Gently push the closed end ring into the vagina as far as it will go. Insert a finger into the condom and push it into place. About 2–3 cm of the outer ring will remain outside the vagina.
    - To insert into the anus, use lubricant around the anus and gently push the closed end ring into the rectum as far as it will go. Insert a finger into the

condom and push it into place. The outer ring will stay outside of the body.

7. Carefully guide the penis into the condom – not between the condom and the wall of the vagina or anus. If the condom becomes displaced, reinsert.
8. Unlike a male condom, the female condom does not require an erection to stay in place. The female condom does not need to be removed immediately after sex.
9. After the penis is withdrawn, hold the outer ring of the condom, twist to seal in fluids, and gently pull it out.
10. Dispose of the condom properly. Do not flush condoms down the toilet.

6.1.3 Follow-up care

A routine follow-up visit is not required after initiating condoms. Clients should be encouraged to return at any time to ask questions, discuss concerns, change to a different method, or for additional contraception if a condom slips or breaks during sex. Clients with specific medical conditions may benefit from more frequent follow-up. See *Section 2.3: Counselling for returning clients* for more information about follow-up visits for clients using contraceptives.

6.1.4 Managing complications

- If a condom breaks, slips, or is not used, consider emergency contraception, post-exposure prophylaxis against HIV, and presumptive treatment against other STIs. Review the correct and consistent use of condoms, including use of lubricants.
- Some clients may experience mild irritation around the vagina, anus, or penis in reaction to condoms. Changing to a different brand of condoms or trying lubrication or lubricated condoms may help. If a mild latex allergy is suspected, trying polyurethane or nitrile condoms may help.
- Vaginal antifungal creams can damage latex condoms. Clients using these creams should use polyurethane or nitrile condoms until treatment is complete.

6.1.5 Warning signs

Advise the client to seek immediate evaluation if they experience any of the following signs, which may indicate a severe latex allergy if they occur during or after latex condom use:

- hives or rash over much of the body
- difficulty breathing, dizziness, or loss of consciousness

6.2 Diaphragms and cervical caps

6.2.1 Counselling the client: Diaphragms and cervical caps

What are they?

- Soft latex, plastic, or silicone cups that are placed deep in the vagina to cover the cervix
- Used with spermicide
- Diaphragms are soft cups with a firm, flexible spring to keep it in place in the vagina:
  - Flat spring: the spring is a flat band of metal
  - Coil spring: the spring is a firm coiled wire
  - Arcing spring: the metal spring allows the rim to assume an arcing, rather than a flat shape
  - Wide-seal rim, available in both coil-spring and arcing-spring types: a flexible flange (1.5 cm wide) on the inner edge of the rim holds spermicide in place and creates a better seal between the diaphragm and the vaginal wall
  - Single size, contoured; does not need to be fitted
- Cervical caps are smaller, thimble-shaped caps that fit snugly over the cervix

How do they work?

- Create a reservoir of spermicide, which kills or disables sperm
- Form a physical barrier that blocks sperm and prevents it from entering the cervix

How effective are they?

- Some of the least effective methods (see *Appendix 2*)
- Cervical caps are less effective in clients who have had children
- Failure rates:
  - Diaphragm: 14–16 per cent (perfect use) to 17 per cent (typical use)
  - Cervical cap: parous clients 26 per cent (perfect use) to 32 per cent (typical use); non-parous clients 9 per cent (perfect use) to 16 per cent (typical use)

Non-contraceptive benefits:

- May help protect against cervical cancer
- May decrease risk of some STIs

Advantages:

- Do not interrupt sex
- May be used at any time and are immediately effective
- Can be used only when needed

Disadvantages:

- Require correct use with every act of sex
- Must be inserted before sex
- Most (but not all) diaphragms and caps must be fitted by a provider and require refitting after childbirth, a second-trimester abortion, a change in weight ≥3 kg, or after 2 years
- Must be kept in place in the vagina for 6 hours after sex
- Must be cleaned and stored
- Do not reliably protect against STIs, including HIV
- Require refilling of commodities (spermicide)

Side effects:

- Irritation of the vagina or penis
- Vaginal lesions, especially on the anterior wall

Risks:

- Urinary tract infection
- Vaginitis caused by bacterial vaginosis or candidiasis
- Use of spermicide nonoxynol-9 may increase risk of HIV infection
- Extremely rare: toxic shock syndrome

Return to fertility: No delay

Dispelling myths:

- Cannot get lost inside female anatomy
- Do not affect sensation during sex

Source: Adapted from WHO, Johns Hopkins Bloomberg School of Public Health [3].

6.2.2 Safe and effective use of diaphragms and cervical caps

Most clients can safely use diaphragms and cervical caps; however, they are are not suitable for the following clients:

- less than 6 weeks post-partum
- second-trimester abortion less than 6 weeks previously
- high risk of HIV or HIV positive
- history of toxic shock syndrome
- uterine prolapse
- cervical caps: cervical neoplasia or cancer, or anatomical cervical abnormalities
- allergy to latex

A pelvic examination is required before diaphragm or cap use to ensure that there are no anatomical abnormalities that would prevent use, and to fit the user with the correct size of device, unless the single-size diaphragm is being used. Single-size diaphragms fit 80 per cent of users and do not require fitting. No laboratory tests are needed before diaphragm or cap use. See *Box 10* (next page) for information on which type of diaphragm to use.

Provide ECPs in advance for all diaphragm and cap users and provide ample condoms to all clients requiring protection against STIs, including HIV. Create a plan with the client to return for additional commodities when needed. The diaphragm, cap, and spermicides should be stored in a cool, dry place, preferably out of the sun.

6.2.2.1 Fitting the diaphragm

It is preferable to use diaphragm-fitting sets, as opposed to diaphragm-fitting rings, for fitting. The client's bladder and rectum should be empty.

1. Perform a pelvic examination to assess for any uterine or cervical abnormality.
2. Obtain an estimate of the size needed by manually measuring the distance between the posterior fornix and the bony inferior pubic arch. With the middle finger in the posterior fornix, note the spot where the index finger touches the pubic bone, or mark the spot with the tip of the thumb. The distance between the tip of the middle finger and the thumb is the anticipated diameter of the diaphragm.
3. Using the measurement as a guide, select the largest diaphragm size that is comfortable for the client and fits snugly behind the pubic bone.
4. Fit the selected diaphragm into the posterior fornix of the vagina and behind the symphysis pubis. It should cover the cervix and the upper anterior wall of the vagina, and touch both lateral vaginal walls. The client should not feel the diaphragm once it is in place, and the diaphragm should not be dislodged when the client is asked to perform a Valsalva manoeuvre (bear down):
    - If the diaphragm is too large, it may cause discomfort, or may become distorted or displaced.
    - If the diaphragm is too small, it may not cover the cervix or become displaced.
5. Following fitting, review steps for diaphragm insertion (as described) and have the client insert the diaphragm. After the client inserts the diaphragm, check for correct insertion and confirm the fit of the device.

Client instructions: Diaphragm insertion

1. Plan to insert the diaphragm less than 1 hour before sex. If placed more than an hour before sex, another applicator full of spermicide needs to be inserted into the vagina before sex.
2. Check the diaphragm for holes, cracks, or tears by holding it up to the light.
3. Place about a tablespoonful of spermicide in the hollow of the dome of the diaphragm and along the rim.
4. Fold the diaphragm by pinching the rim together with the thumb and fingers of one hand. Ensure that the spermicide is facing upward.

BOX 10: Which type of diaphragm to use

The choice of diaphragm depends on the depth of the vagina, vaginal muscle tone, and uterine position.

Single size

- The silicone, single-size diaphragm measures 75 mm by 67 mm and fits individuals fitted with a 65–80 mm wide-seal diaphragm (approximately 80 per cent of users). The design of the single-size diaphragm facilitates easy insertion and removal.

Arcing spring

- Helps to ensure that the posterior rim is inserted correctly behind the cervix.
- A client with a retroverted or markedly anteverted uterus may find insertion easier.
- A client with a long firm cervix may find insertion easier.
- Can be used in clients with decreased vaginal tone, cystocele, or mild uterine prolapse.

Flat spring

- Can be inserted with a diaphragm introducer.
- Can be used by clients who find arcing spring diaphragms uncomfortable.
- Can be used by clients with firm vaginal tone.
- Useful for clients with a shallow arch behind the pubic symphysis.
- Can be used by clients with an anteflexed uterus.

Coil spring

- Can be inserted with a diaphragm introducer.
- Can be used by clients who find arcing spring diaphragms uncomfortable.
- Can be used by clients with firm vaginal tone.
- Useful for clients with a deep arch behind the pubic symphysis.
- Can only be used by clients with no uterine displacement.

5. The client may wish to squat, stand with one leg up, or lie down to insert the diaphragm. Hold the opening of the vagina apart with one hand and with the other hand slide the folded diaphragm as far back as possible into the vagina, aiming for the low back.
6. Use the index finger to push the front rim of the diaphragm up behind the pubic bone.
7. Check to be sure that the diaphragm is in place by feeling the front rim behind the pubic bone and feeling the cervix through the soft dome. The spermicide should be on the cervical side of the diaphragm. An additional application of spermicide is then placed in the vagina.
8. Each new act of sex while the diaphragm is in place should be preceded by the insertion of fresh spermicide. The diaphragm should remain in place in the vagina for at least 6 hours after the last act of sex.
9. Remove the diaphragm by hooking one finger under the anterior rim of the device and pulling it straight down and then out of the vagina. The diaphragm should be removed within 24 hours of initial placement to minimize vaginal irritation and risk of urinary tract infection and toxic shock syndrome.

6.2.2.2 Fitting the cervical cap

Cervical caps come in three sizes:

- small (22 mm) for clients who have never been pregnant
- medium (26 mm) for clients who have had an abortion or caesarean delivery
- large (30 mm) for clients who have had a full-term vaginal delivery

Client instructions: Cervical cap insertion

1. Plan to insert the cervical cap no more than 6 hours prior to sex.
2. Fill one-third of the cap with spermicide and place another quarter teaspoon of spermicide along the rim. An additional quarter teaspoon is placed on the other side of the cap, in the groove between the dome and the rim.
3. The client may wish to squat, stand with one leg up, or lie down to insert the cervical cap. The cap is inserted so that the dome/strap side is down with the brim edge entering the vagina first, so that the wider aspect of the cap brim is positioned in the posterior vaginal fornix. An additional application of spermicide is then placed in front of the cervical cap.
4. Each new episode of sex while the cap is in place should be preceded by the insertion of fresh spermicide. The cap should remain in place in the vagina for at least 6 hours after the last episode of sex.
5. Remove the cap by hooking one finger through the strap and pressing against the side of the cap to dislodge and break suction between the cap and the cervix. Rotate the cup slowly and pull down and out of the vagina. The cap should be removed within 48 hours of initial placement.

6.2.2.3 Diaphragm and cervical cap care

- Wash with mild soap and water, air-dry, and store in a clean, dry container.
- Do not use powders or other products on the device. Do not use oil-based products (petroleum jelly, cooking oils, butter, or lotion) on the device as these can damage it. If additional lubricant is needed, water- or silicone-based lubricants should be used.
- Diaphragms and cervical caps are typically not used during menstrual bleeding because blood will accumulate behind the device and could increase the risk of infection.
- Check the diaphragm and cervical cap routinely for damage such as holes, cracks, weak spots, or wrinkles. The diaphragm or cervical cap can be held up to the light or filled with water to assess for leaks.
- Diaphragms and cervical caps should not be shared between individuals.

6.2.3 Follow-up

A follow-up visit 1–2 weeks after the diaphragm or cap fitting is recommended to check the fit of the device, answer any client questions, assist with any concerns, and confirm correct and consistent use of the device. Instruct the client to wear the device for at least 8 hours before the visit. All clients should be advised to return at any time to discuss side effects or other concerns, or to change the method. Clients with specific medical conditions may benefit from more frequent follow-up. See *Section 2.3: Counselling for returning clients* for more information about follow-up visits for clients using contraceptives.

The client will need a new device fitted if they have a baby or a second-trimester abortion, or if their weight changes by more than 3 kg. The diaphragm or cap will need replacing after 2 years of use.

6.2.4 Side effects

Common side effects of diaphragm and cervical cap use should be reviewed with the client and management strategies discussed.

- If the client experiences discomfort or pain with use of the diaphragm or cap, it is possible that the fit is incorrect. Ask the client to insert the device and check the placement and fit. Adjust the size of the device if needed. If the client is experiencing vaginal sores or lesions, suggest that they use another method temporarily to allow the lesions to heal, and provide them with the correct commodities. Review the client's technique for removal of the device. Assess for vaginal infection or STIs and treat appropriately.
- If the client develops a urinary tract infection, treat with appropriate antibiotics and consider refitting with a smaller diaphragm.
- If the client develops a vaginal infection, assess and treat appropriately. Vaginal antifungal medicines (such as miconazole) can damage latex devices.

6.2.5 Warning signs

Advise the client to seek immediate evaluation if they experience the following signs, which may indicate toxic shock syndrome:

- sudden high fever
- body rash
- vomiting and diarrhoea

6.3 Spermicide

6.3.1 Counselling the client: Spermicide

What is it?

- Contraceptive gel/foam/film/cream/tablet/suppository inserted into the vagina before sex. Most contain the active ingredient nonoxynol-9

How does it work?

- Kills or immobilizes sperm, preventing fertilization

How effective is it?

- One of the least effective contraceptive methods (see *Appendix 2*)
- Failure rate: 16 per cent (perfect use) to 21 per cent (typical use)

Non-contraceptive benefits: None

Advantages:

- Can be used at any time
- Can be used only when needed
- Can be used with condoms, diaphragms, and cervical caps

Disadvantages:

- Must be inserted less than 1 hour before sex
- Must be used with each act of sex
- Some forms (suppositories, films, and tablets) require 10–15 minutes to become effective
- Does not protect against STIs, including HIV
- Requires refilling of commodities

Side effects:

- Irritation of the vagina or penis

Risks:

- Use of spermicide containing nonoxynol-9 may increase the risk of HIV infection

Return to fertility: No delay

Dispelling myths:

- Does not cause birth defects
- Does not protect against STIs, including HIV

Source: Adapted from WHO, Johns Hopkins Bloomberg School of Public Health [3].

6.3.2 Safe and effective use of spermicide

Almost all clients can safely use spermicide. Importantly, spermicide is not suitable for use by clients at high risk of HIV or those who have HIV. No physical examinations or laboratory tests are needed before spermicide use. Spermicide may be used at any time.

Provide ECPs in advance for all spermicide users and provide ample condoms to all clients requiring protection against STIs, including HIV. Create a plan with the client to return for additional commodities when needed. Spermicide should be stored in a cool, dry place, preferably out of the sun.

6.3.2.1 Client instructions

- Spermicide needs to be inserted into the vagina before each act of sex. Nonoxynol-9 foams and creams are immediately effective. Films, tablets, and suppositories have a 10–15-minute delay to become fully effective after insertion.
- If sex takes place more than 1 hour after initial application of spermicide, a new application of spermicide is needed.
- Follow the manufacturer's instructions for use and storage of each individual product.
- Spermicide should be placed high in the vagina to ensure that the cervix is well covered.
- Douching is not recommended.

6.3.3 Follow-up

A routine follow-up visit is not required after initiating spermicide. Clients should be encouraged to return at any time to ask questions, discuss concerns, or change to a different method. Clients with specific medical conditions may benefit from more frequent follow-up. See *Section 2.3: Counselling for returning clients* for more information about follow-up visits for clients using contraceptives.

7. Behavioural contraceptive methods

7.1 Lactational amenorrhoea method

7.1.1 Counselling the client: Lactational amenorrhoea method (LAM)

What is it?

- A temporary method based on the natural effect of breastfeeding on fertility
- All three of the following criteria must be met:
  - The baby is fully or nearly fully breastfeeding, and is fed often, day and night
  - The baby is less than 6 months old
  - Monthly bleeding has not returned

How does it work?

- Frequent breastfeeding prevents release of hormones that cause ovulation

How effective is it?

- Failure rate: 0.9 per cent (perfect use) to 2 per cent (typical use)
- Effective for up to 6 months after childbirth

Non-contraceptive benefits:

- Breastfeeding reduces the risk of death from common childhood illness
- Breastfeeding improves the health and development of the child
- Breastfeeding improves maternal health

Advantages:
- Natural contraceptive
- No commodities needed
- No direct costs

Disadvantages:
- No protection against STIs, including HIV
- Requires breastfeeding often, day and night. Effectiveness decreases when breastfeeding frequency decreases

Side effects: None

Risks: None

Return to fertility: Dependent on how long breastfeeding continues

Dispelling myths:
- Highly effective when all three criteria are met
- No special foods are required
- Equally effective regardless of the client's weight

Source: Adapted from WHO, Johns Hopkins Bloomberg School of Public Health [3].

7.1.2 Safe and effective use of lactational amenorrhoea method (LAM)

Anyone who is breastfeeding can safely use LAM; however, clients using certain medications (some mood-altering drugs, reserpine, ergotamine, anti-metabolites, cyclosporine, high doses of corticosteroids, bromocriptine, lithium, and certain anticoagulants) may want to consider a different method. Clients living with HIV who are breastfeeding can transmit the virus to their baby if they are not taking antiretroviral medicines. Antiretroviral therapy greatly reduces the risk of transmission in breastfeeding clients living with HIV and HIV-exposed babies. Among clients living with HIV who are not taking antiretroviral medicines, 14 per cent of their babies acquire HIV after 2 years of breastfeeding. Among clients taking antiretroviral medicines, less than 1 per cent of babies become infected. Clients who are living with HIV should also be encouraged to use condoms in addition to LAM.

No examinations or laboratory tests are required prior to initiating LAM.

Consider providing clients who are breastfeeding with condoms, ECPs, and POPs in advance of need. They can begin using them if the baby is no longer fully or nearly fully breastfeeding, or if the baby reaches 6 months of age before the client is able to return to the health centre. POPs increase the contraceptive effectiveness of breastfeeding and are safe to use anytime post-partum.

7.1.2.1 Client instructions

- Start breastfeeding immediately (within 1 hour), or as soon as possible, after childbirth.
- Ideally, breastfeeding occurs on demand, whenever the baby wants to be fed. This should be at least 10–12 times a day in the first few weeks after childbirth, and 8–10 times a day thereafter. Breastfeeding should occur at least once at night.
- Daytime feedings should be no more than 4 hours apart.
- Night-time feedings should be no more than 6 hours apart.
- For LAM to be effective, the following criteria must be met:
  - the client must be fully or nearly fully breastfeeding
  - menstrual bleeding has not resumed
  - the client is less than 6 months post-partum

7.1.3 Follow-up

Clients using LAM will require follow-up to transition to another contraceptive method when their baby is 6 months old, or sooner if breastfeeding frequency decreases or menstrual bleeding resumes. Clients should be encouraged to return at any time to ask questions, discuss concerns, or change to a different method. Clients with specific medical conditions may benefit from more frequent follow-up. See *Section 2.3: Counselling for returning clients* for more information about follow-up visits for clients using contraceptives.

7.2 Fertility awareness-based methods

7.2.1 Counselling the client: Fertility awareness-based methods

What are they?

- Identification of the times during the menstrual cycle when clients are likely to be fertile, with avoidance of unprotected vaginal sex on those days:
  - Calendar-based methods: keeping track of the days of the menstrual cycle to identify fertile days
  - Symptom-based method: observing physical signs of fertile days

How do they work?

- Avoidance of unprotected sex during fertile times to prevent conception

How effective are they?

- Some of the least effective methods (see *Appendix 2*)
- Failure rate: 3–5 per cent (perfect use) to 15 per cent (typical use)

Non-contraceptive benefits: None

Advantages:

- Require no procedures or commodities
- Can be used to identify fertile days both to avoid pregnancy or to attempt conception
- Responsibility for contraception can be shared between partners
- Acceptable for those avoiding contraceptives for religious or cultural reasons

Disadvantages:

- Daily monitoring of signs of fertility or calendar days
- Can be difficult to learn and use
- Requires cooperation from partners
- Requires use of a back-up contraceptive or abstinence for multiple days every month
- No protection against STIs, including HIV

Side effects: None

Risks: None

Return to fertility: No delay

Dispelling myths:

- Can be effective when used correctly
- Do not require literacy or advanced education

Source: Adapted from WHO, Johns Hopkins Bloomberg School of Public Health [3].

7.2.2 Safe and effective use of fertility awareness-based methods

All clients can safely use fertility awareness-based methods. No medical conditions prevent the use of these methods, but some conditions can make them harder to use effectively. Clients who have irregular menstrual cycles, including adolescents and perimenopausal clients, or those who have recently given birth, are breastfeeding, or who have had a recent abortion should ideally have had three regular menstrual cycles before using calendar-based methods. Clients with irregular menstrual cycles, clients who have recently given birth, are breastfeeding, have a condition affecting body temperature, have irregular vaginal discharge, or are using a medication that affects vaginal secretions may have more difficulty using symptom-based methods effectively. No physical examinations or laboratory tests are required before use.

The success of fertility awareness-based methods depends upon the quality of the teaching provided to the clients and their determination to use the method successfully. Training should last until both partners are confident in their use of the method and may require multiple visits. Instructions should include elementary facts about reproductive physiology, with emphasis on the changes that occur during the menstrual cycle, their timing, and relationship to one another; how to use the selected technique to identify the fertile phase; and discussion of the timing of sex.

Provide ECPs in advance for all clients using fertility awareness-based methods, if desired, and provide condoms to all clients requiring protection against STIs, including HIV. Create a plan with the client to return for additional commodities when needed.

7.2.2.1 Calendar-based methods

Standard days method

The standard days method works best for clients who have a regular menstrual cycle that lasts between 26 and 32 days. If the client has more than two longer or shorter cycles in a year, the method will be less effective.

1. The client keeps track of their menstrual cycle. The first day of bleeding is day 1.
2. Days 8 through 19 of every cycle are considered fertile days. During these days the couple avoids vaginal sex, or uses another method of contraception, such as condoms, a diaphragm and spermicide, or withdrawal.
3. The couple can have unprotected sex on days 1 through 7 and from day 20 until the client's next monthly bleeding begins.
4. Memory aids, such as marking the days on a calendar or using CycleBeads (see *Figure 1: How to use CycleBeads* – next page) can be helpful.

Calendar rhythm method

Before relying on the calendar rhythm method, the client records the number of days in each menstrual cycle for at least 6 months. The first day of menstrual bleeding is day 1.

1. The client subtracts 18 from the length of their shortest recorded cycle. This is the estimated first day of the fertile period.
2. They then subtract 11 from the length of the longest recorded cycle. This is the estimated last day of the fertile period.
3. During the fertile period, the couple avoids vaginal sex, or uses another method of contraception, such as condoms, a diaphragm and spermicide, or withdrawal.
4. The client updates these calculations each month, always using the six most recent cycles (see *Box 11*).

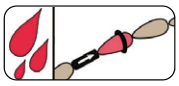
BOX 11: Example of calendar rhythm method calculations

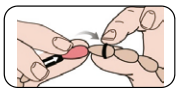
Length of the client's most recent six menstrual cycles: 28, 26, 29, 27, 29, 28 days

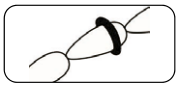
First day of fertile period = shortest cycle – 18 days = 26 – 18 = day 8

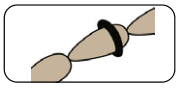
Last day of fertile period = longest cycle – 11 days = 29 – 11 = day 18

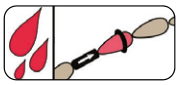
FIGURE 1: How to use CycleBeads

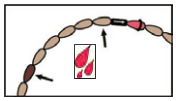
1. 
Move ring to RED bead when period starts

2. 
Move ring to next bead every day. Move ring even on bleeding days

3. 
Use condoms or abstain when ring is on WHITE beads

4. 
BROWN beads are safe days of no pregnancy

5. 
When period starts again move ring to red bead to begin again


Always check your period comes between dark brown bead and last brown bead

Source: Reproduced/translated with permission from WHO [6].

7.2.2.2 Symptom-based methods

Two-day method

If a client has a vaginal infection or another condition that changes cervical mucus, the two-day method will be difficult to use.

1. The client checks for cervical secretions every afternoon or evening, on fingers, underwear, on tissue paper, or by sensation in or around the vagina.
2. The couple avoids vaginal sex or uses another method of contraception, such as condoms, a diaphragm and spermicide, or withdrawal, every day that the client has secretions, and every day after a day with secretions.
3. The couple can have unprotected vaginal sex after the client has not had cervical secretions for two consecutive days.

Cervical mucus (ovulation) method

If a client has a vaginal infection or another condition that changes cervical mucus, the cervical mucus (ovulation) method will be difficult to use.

1. The client checks for cervical secretions every afternoon or evening, on fingers, underwear, on tissue paper, or by sensation in or around the vagina.
2. During days when they experience heavy menstrual bleeding, and cervical mucus is difficult to observe, the client should avoid unprotected vaginal sex.
3. After menstrual bleeding ends, the client will have several 'dry' days before cervical secretions begin. During this time the couple can have unprotected vaginal sex. It is recommended that the couple has sex in the evenings, after the client has been in an upright position for a few hours and has been able to check for the presence of cervical secretions. To allow semen to disappear and for cervical mucus to be observed, the couple should not have vaginal sex on two consecutive days.

4. As soon as the client notices cervical secretions, they should consider themselves fertile and the couple should avoid unprotected vaginal sex.

5. The client continues to check cervical secretions each day. The mucus will change from thick, sticky, cloudy, and inelastic to slippery, thin, white, transparent, and extremely elastic. It may be similar to raw egg white. This type of mucus indicates fertility, and the last day of elastic, slippery, thin secretions is called the 'peak mucus day.' The client can check the elasticity of the mucus by opening the paper tissue or the fingers on which mucus has been collected. If the threads of mucus stretch easily between the leaves of the paper tissue or the fingers without breaking, it is highly elastic.

6. Following the peak mucus day, mucus will abruptly become sticky or dry. The client should consider themselves fertile for 3 days after peak mucus day.

7. The couple can resume unprotected vaginal sex on the fourth day after the peak mucus day, and continue until the client's menstrual period begins.

8. The client may want to track their mucus on a chart or calendar, as the peak mucus day can only be recognized retrospectively.

Basal body temperature method

If the client is experiencing fever or other changes in body temperature, the basal body temperature method will be difficult to use. After ovulation, body temperature increases 0.2–0.5°C (0.4–1.0°F) and remains elevated until the next menstruation. By measuring and recording their temperature, a client can determine when they ovulate and can avoid unprotected vaginal sex during this time.

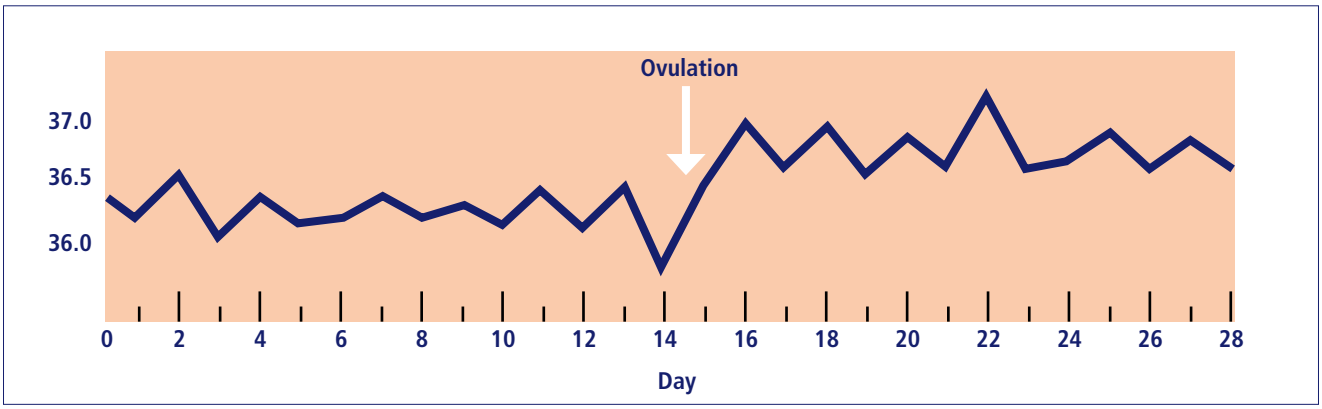
1. The client takes their temperature each morning before they get out of bed or eat or drink anything. Ideally, temperature is taken at the same time each day. The client must use an ovulation thermometer, which has an expanded scale between 35°C and 39°C (96–100°F) allowing visualization of the small, expected increase in temperature. If an ovulation thermometer is not available, a clinical thermometer, which has a scale with a wider range, may be used. The client records their temperature on a special chart.

2. The client watches for their temperature to rise 0.2–0.5°C (0.4–1.0°F), indicating that ovulation has occurred (see *Figure 2: Example of a basal body temperature chart*).

3. The couple avoids unprotected vaginal sex from day 1 of menstrual bleeding until 3 days after the client's temperature has risen above their regular temperature.

4. The couple can have unprotected vaginal sex on the fourth day after the client's temperature increased until their next monthly period begins.

FIGURE 2: Example of a basal body temperature chart



Source: Reproduced/translated from WHO [3]: Family Planning: A Global Handbook for Providers. Geneva. WHO; 2018. Licence: CC BY-NC-SA 3.0 IGO.

Symptothermal method

Users identify fertile and non-fertile days by combining the cervical mucus (ovulation) method and the basal body temperature method. Clients may also incorporate other signs of ovulation, such as breast tenderness or lower abdominal cramping related to ovulation, to determine their fertile days. The couple avoids unprotected vaginal sex between the first day of monthly menstrual bleeding and either the fourth day after peak cervical secretions or the third full day after the rise in basal body temperature, whichever occurs later. Clients may find recording cervical secretions and basal body temperature on a single chart helpful to track these signs.

7.2.3 Follow-up

Once clients have learned the technique of their chosen fertility awareness-based method, there is no standard schedule for follow-up. Clients should be encouraged to return at any time to ask questions, discuss concerns, or change to a different method or for additional commodities such as condoms and/or ECPs. Clients with specific medical conditions may benefit from more frequent follow-up. See *Section 2.3: Counselling for returning clients* for more information about follow-up visits for clients using contraceptives.

7.3 Withdrawal (coitus interruptus)

7.3.1 Counselling the client: Withdrawal

What is it?
- Withdrawal of the penis from the vagina just before ejaculation, which occurs outside the vagina
- Also known as coitus interruptus or pulling out

How does it work?
- Prevents fertilization

How effective is it?
- Withdrawal is a less effective method (see *Appendix 2*)
- Failure rate: 4 per cent (perfect use) to 20 per cent (typical use)

Non-contraceptive benefits: None

Advantages:
- Always available in any situation
- Requires no supplies, health centre visits, or pharmacy visits

Disadvantages:
- No protection against STIs, including HIV

Side effects: None

Risks: None

Return to fertility: No delay

Dispelling myths:
- Can be an effective method when used correctly

Source: Adapted from WHO, Johns Hopkins Bloomberg School of Public Health [3].

7.3.2 Safe and effective use of withdrawal

Anyone can use withdrawal and no medical conditions prevent its use. No physical examinations or laboratory tests are required before using this method. Provide condoms and ECPs in advance for all clients using withdrawal. Create a plan with the client to return for additional commodities when needed.

7.3.2.1 Client instructions

- When they feel close to ejaculating, the client should withdraw their penis from their partner's vagina and ejaculate away from their genitalia.
- If the client has recently ejaculated, before having sex again they should urinate and wipe the tip of the penis to remove any remaining semen.
- Learning to use withdrawal effectively can take time and the couple may want to use another method until the client feels confident that they can effectively withdraw with every act of sex.

8. Emergency contraception

8.1 Counselling the client: Emergency contraceptive pills and intrauterine devices for emergency contraception*

What is it?

- Contraception that can be used to prevent pregnancy after unprotected sex
- Can be used up to 120 hours (5 days) after unprotected vaginal sex
- Several options available:
  - Ulipristal acetate emergency contraceptive pill (UPA-ECP): 30 mg as a single dose
  - Levonorgestrel emergency contraceptive pill (LNG-ECP): 1.5 mg as a single dose
  - Combined oral contraceptive emergency contraceptive pill (COC-ECP, Yuzpe method): two doses of 100 µg ethinyl oestradiol + 0.5 mg LNG taken 12 hours apart
  - Copper IUD or 52 mg LNG-IUD for emergency contraception (IUD-EC)

How does it work?

- Thickens cervical mucus or damages sperm to prevent fertilization
- ECPs: Prevent or delay ovulation

How effective is it?

- If 100 clients had unprotected sex once during the second or third week of their menstrual cycle, 8 would become pregnant.
  - If all 100 took UPA-ECP: <1 would become pregnant
  - If all 100 took LNG-ECP: 1 would become pregnant
  - If all 100 took COC-ECP: 2 would become pregnant
  - If all 100 used IUD-EC: <1 would become pregnant
- ECPs work best when taken as soon as possible after unprotected vaginal sex
- ECPs may be less effective in clients with BMI ≥30 kg/m^2
- UPA-ECP and IUD-EC are more effective than other ECPs between 72 and 120 hours after unprotected sex

Non-contraceptive benefits:

- ECPs: None
- IUD-EC: See *Section 3.2: Intrauterine contraception*

Advantages:

- Safe for all clients to use, including those who cannot use ongoing hormonal contraceptives
- Can be used after forced or coerced sex
- ECPs can be kept on hand to use if needed
- IUD-EC provides ongoing, highly effective pregnancy prevention after insertion

Disadvantages:

- ECPs are less effective than using a regular method of contraception
- ECPs do not provide protection following sex that occurs after the pills are taken

Side effects:

- ECPs:
  - irregular bleeding
  - next menstrual period earlier or later than expected
  - nausea/vomiting
  - abdominal pain
  - fatigue
  - headache
  - breast tenderness
  - dizziness
- IUD-EC: See *Section 3.2: Intrauterine contraception*

Risks:

- ECPs: None
- IUD-EC: See *Section 3.2: Intrauterine contraception*

Return to fertility: No delay

Dispelling myths:

- Does not disrupt an existing pregnancy; not an abortifacient
- Can be used by clients of any age
- Does not cause birth defects if pregnancy occurs
- ECPs: Can be used more than once in a menstrual cycle

* IUDs are a highly effective method of emergency contraception and should be discussed with any client who needs it. Limited information about IUDs for emergency contraception is included in this section for counselling purposes. See *Section 3.2: Intrauterine contraception* for complete information about this method.

Source: Adapted from WHO, Johns Hopkins Bloomberg School of Public Health [3].

8.1.2 Safe and effective use of emergency contraceptive pills (ECPs)

All clients can use ECPs safely, including those who cannot use ongoing hormonal methods of contraception. Although safe to use, effectiveness of ECPs may be decreased for clients taking certain anticonvulsants (phenytoin, phenobarbital, fosphenytoin, oxcarbazepine, topiramate), efavirenz, griseofulvin, rifampicin, or rifabutin. Clients should not

breastfeed for 24 hours after using UPA-ECP and should express and discard their milk during this time [36,37]. UPA-ECP is not recommended for clients with severe asthma controlled by oral steroid medication.

Clients can use ECPs multiple times in the same menstrual cycle. If UPA-ECP has already been taken in the current cycle, LNG-ECP should not be taken in the following 5 days. If LNG-ECP has already been taken, UPA-ECP may be less effective if used in the following 7 days.

Clients can safely start or resume a regular contraceptive method after using ECPs, if desired (see *Box 12*). If the client wants to use an IUD, they should consider using an IUD instead of ECPs for emergency contraception. Both copper IUDs and 52 mg LNG-IUDs can be used for emergency contraception, are more effective than ECPs at preventing pregnancy after unprotected sex, and provide ongoing, highly effective contraception (see *Section 3.2: Intrauterine contraception* for more information).

No physical examinations or laboratory tests are needed before using ECPs, although clients should be offered STI screening and may benefit from post-exposure prophylaxis against HIV depending on the circumstance of the unprotected sex.

Provide ECPs in advance for all clients who desire them. Providing an advanced supply of ECPs does not affect contraceptive use patterns, and a client is more likely to use ECPs after unprotected sex if they have a supply on hand. Provide ample condoms to all clients requiring protection against STIs, including HIV. Create a plan with the client to return for additional commodities when needed.

8.1.2.1 Client instructions

- The client should take the ECPs as soon as possible.
- ECPs do not provide protection against unprotected sex that occurs more than 24 hours after they are taken. If the client has unprotected sex again, they can take ECPs again.
- Provide instructions on using a regular contraceptive method if the client has chosen to start one after ECP use.
- The client should return for a pregnancy test, or be advised to perform a pregnancy test, if their next menstrual period is more than 7 days late.

8.1.3 Follow-up

A routine follow-up visit is not required after ECP use, although the client may want to return for a pregnancy test, especially if their menstrual period is delayed by more than 7 days. Clients initiating a new contraceptive method at the time of ECP use may also benefit from follow-up, depending on the method chosen. All clients should be encouraged to return at any time to ask questions, discuss side effects or other concerns, or to initiate a regular contraceptive method, if desired.

BOX 12: Starting or restarting contraception after using emergency contraceptive pills

	After LNG-ECP or COC-ECP	After UPA-ECP

All hormonal methods	• Start immediately after ECP use
	  ◦ COC users: resume same pack
	  ◦ Patch users: begin new patch
	  ◦ Ring users: follow instructions for delayed insertion of ring
	  ◦ Injectables can be given the same day
	• Use a back-up method for 7 days
		• Start on the sixth day after UPA-ECP use
		• Use a back-up method from the time of UPA-ECP use until the client has used the new method for 7 days (2 days for POPs)

Fertility awareness-based methods	• Calendar-based methods: with the start of next menstrual bleeding • Symptom-based methods: when normal secretions have resumed	

8.1.4 Side effects

- Vaginal bleeding after taking ECPs is common and will stop without treatment. The timing of menstrual bleeding may change due to the medication; this is not a sign of illness or pregnancy.
- Nausea is more common with COC-ECP but can occur with LNG-ECP and UPA-ECP. Routine use of anti-nausea medication is not recommended; however, clients who have experienced nausea with ECPs in the past can take 25–50 mg meclizine hydrochloride 1 hour before taking ECPs.
- If vomiting occurs within 2 hours of taking LNG-ECP or COC-ECP, or within 3 hours of taking UPA-ECP, the client should take another dose of the medication. Anti-nausea medication can be used with this repeat dose (see above). LNG-ECP and COC-ECP can also be taken by placing the pills high in the vagina. If vomiting occurs later than 2 or 3 hours after taking the medications, no repeat dose is necessary.

9. Digital innovations for access to contraception

Recognizing that sexual and reproductive healthcare is quickly disrupted when health systems are under pressure, the WHO has called for countries to prioritize access to contraception, among other sexual and reproductive healthcare, as a part of their COVID-19 response [38]. Digital healthcare delivery is a perfect strategy to improve sexual and reproductive healthcare in both the short and long term. Many strategies are recommended to maintain timely access to contraceptives while minimizing risks related to COVID-19. Implementation of such strategies beyond the pandemic has the potential to positively affect sexual and reproductive health even after the current crisis has passed [39,40]:

- Screening to determine whether an in-person visit is required.
- Using telemedicine for contraceptive counselling, initiation, and maintenance.
- All reversible contraceptive methods can be initiated without a visit.
- In-person contraceptive visits when necessary, such as:
  - IUD or implant insertion or removal.
  - Suspected IUD expulsion.
  - Non-palpable contraceptive implant.
  - Symptoms concerning for ectopic pregnancy.
  - Symptoms concerning for contraceptive-related adverse event, such as deep vein thrombosis or pulmonary embolism.

10. References

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11. Appendices

Appendix 1: Medical eligibility for intrauterine devices, hormonal methods, and sterilization

These summary tables provide up-to-date guidance on the safety of various contraceptive methods for use in the context of specific health conditions and characteristics. Most of the recommendations presented in the following tables are drawn from the World Health Organization's *Medical Eligibility Criteria for Contraceptive Use* (MEC), published in 2015 [1]. In some cases, the recommendations included here are based on data published since the WHO MEC was last updated and the sources for these recommendations have been noted.

For each medical condition or medically relevant characteristic, contraceptive methods are placed into one of four numbered categories, guiding providers in counselling, initiating, and continuing contraception safely (see *Box 1: MEC categories for contraceptive eligibility*). The goal of these recommendations is to remove unnecessary barriers for individuals accessing and using contraception.

BOX 1: MEC categories for contraceptive eligibility

Categories for intrauterine devices and hormonal methods	
1	A condition for which there is no restriction for the use of the contraceptive method
2	A condition where the advantages of using the method outweigh the theoretical or proven risks
3	A condition where the theoretical or proven risks usually outweigh the advantages of using the method
4	A condition which represents an unacceptable health risk if the method is used
Categories for sterilization	
A	Accept: Procedure can be normally conducted in routine setting
C	Caution: Procedure can be normally conducted in routine setting but with extra preparation and precautions
D	Delay: Procedure should be delayed until condition is evaluated and/or corrected
S	Special: Procedure should be undertaken in a setting with an experienced surgeon and staff, equipment required for general anaesthesia, and back-up medical support.

Reference

[1] World Health Organization. Medical Eligibility Criteria for Contraceptive Use. Geneva: WHO; 2015.

SUMMARY table: MEC for intrauterine devices, hormonal methods, and female sterilization

	Copper-IUD	LNG-IUD	CHCs	POIs	Implant POPs	Female sterilization
Age	<20: 2 ≥20: 1	<20: 2 ≥20: 1	<40: 1 ≥40: 2	<18: 2 18–45: 1 >45: 2	Any age: 1	Young age: C
Parity						
Nulliparous	2	2	1	1	1	A
Parous	1	1	1	1	1	A
Breastfeeding						
<6 weeks post-partum	<4 weeks: 2* 4–6 weeks: 1	<4 weeks: 2* 4–6 weeks: 1	4	2*/3+	2	<7 days: A 7–42 days: D
≥6 weeks to <6 months	1	1	3	1	1	A
≥6 months	1	1	2	1	1	A
Post-partum, not breastfeeding						
<21 days post-partum	2	2	4[1]/3	1	1	<7 days: A 7–21 days: D
≥21 days to 6 weeks	<4 weeks: 2 4–6 weeks: 1	<4 weeks: 2* 4–6 weeks: 1	3[1]/2	1	1	D
>6 weeks	1	1	1	1	1	A
Post-partum/puerperal sepsis	4	4	--	--	--	D[2]
Post-abortion						
First trimester	1	1	1	1	1	A
Second trimester	2	2	1	1	1	A
Immediately post-septic abortion	4	4	1	1	1	D[3]
Past ectopic pregnancy	1	1	1	1	Implant: 1 POP: 2	A
History of pelvic surgery	1	1	1	1	1	--

1 Higher number classification is for those with risk factors for venous thromboembolism (VTE) (age ≥35, previous VTE, thrombophilia, immobility, transfusion at delivery, peripartum cardiomyopathy, BMI ≥30 kg/m2, postpartum haemorrhage, post caesarean delivery, pre-eclampsia, smoking).

2 For clients experiencing severe perinatal outcomes (severe pre-eclampsia, prolonged rupture of membranes (≥24 hours), severe ante- or post-partum haemorrhage, severe genital tract trauma): D. For clients experiencing uterine rupture or perforation: S.

3 For clients experiencing severe peri-abortion outcomes (severe post-abortion haemorrhage, severe trauma to genital tract, acute haematometra): D. For clients experiencing uterine perforation: S.

	Copper-IUD	LNG-IUD	CHCs	POIs	Implant POPs	Female sterilization
Smoking						
Age <35 years	1	1	2	1	1	A
Age ≥35 years, <15 cigarettes/d	1	1	3 (CIC: 2)	1	1	A
Age ≥35 years, ≥15 cigarettes/d	1	1	4 (CIC: 3)	1	1	A
Obesity (BMI ≥30 kg/m2)	1	1	2	2[4]/1	1	C
Multiple cardiovascular disease risk factors[5]	1	2	3/4	3	2	S
Hypertension						
History of hypertension; unable to measure blood pressure	1	2	3	2	2	--
Adequately controlled hypertension	1	1	3	2	1	C
Systolic 140–159 or diastolic 90–99 mm Hg	1	1	3	2	1	C
Systolic ≥160 or diastolic ≥100 mm Hg	1	2	4	3	2	S
Vascular disease	1	2	4	3	2	S
History of high blood pressure during pregnancy; current blood pressure normal	1	1	2	1	1	A
Deep vein thrombosis (DVT)/pulmonary embolism (PE)						
History of DVT/PE	1	2	4	2	2	A
Acute DVT/PE	1+/2*	2*	4	2*/3+	2*/3+	D
DVT/PE and established on anticoagulant therapy	1	2	4	2	2	S
Family history of DVT/PE	1	1	2	1	1	A
Major surgery with prolonged immobilization	1	2	4	2	2	D

4 Higher number classification is for clients younger than 18 years.

5 Cardiovascular disease risk factors: older age, smoking, diabetes, hypertension, known dyslipidaemia.

	Copper-IUD	LNG-IUD	CHCs	POIs	Implant POPs	Female sterilization
Major surgery, no prolonged immobilization	1	1	2	1	1	A
Minor surgery, no immobilization	1	1	1	1	1	A
Known thrombogenic mutations[6]	1	2	4	2	2	A
Varicose veins	1	1	1	1	1	A
Superficial venous thrombosis	1	1	2	1	1	A
Current and history of ischaemic heart disease	1	Start: 2 Continue: 3	4	3	Start: 2 Continue: 3	Current: D History: C
Stroke	1	2	4	3	Start: 2 Continue: 3	C
Known dyslipidaemia	1	2	2	2	2	A
Valvular heart disease, uncomplicated	1	1	2	1	1	C
Valvular heart disease, complicated[7]	2	2	4	1	1	S
Systemic lupus erythematosus						
Positive/unknown antiphospholipid antibodies	1	3	4	3	3	S
Severe thrombocytopenia	Start: 3 Continue: 2	2	2	Start: 3 Continue: 2	2	S
On immunosuppressive treatment	Start: 2 Continue: 1	2	2	2	2	S
None of the above	1	2	2	2	2	C

6 Thrombogenic mutations: Factor V Leiden or prothrombin mutations; protein C, protein S, or antithrombin deficiencies.

7 Complicated valvular heart disease: with accompanying pulmonary hypertension, risk of atrial fibrillation, history of subacute bacterial endocarditis.

	Copper-IUD	LNG-IUD	CHCs	POIs	Implant POPs	Female sterilization
Headaches						
Non-migraine (mild or severe)	1	1	Start: 1 Continue: 2	1	1	A
Migraine without aura, menstrual migraine	1	Start: 2 Continue: 2	Start: 2 Continue: 3 >35 yo: Start: 3 Continue: 4	2	2	A
Migraine with aura	1	Start: 2 Continue: 3	4	Start: 2 Continue: 3	Start: 2 Continue: 3	A
Epilepsy	1	1	1	1	1	C
Using phenytoin, carbamazepine, barbiturates, primidone, topiramate, oxcarbazepine	1	1	3 (CIC: 2)[8]	DMPA: 1 NET-EN: 2[8]	Implant: 2[8] POP: 3[8]	--
Using lamotrigine	1	1	3[8]	1	1	--
Depressive disorders	1	1	1	1	1	C
Using selective serotonin reuptake inhibitors	1*	1*	1*	1*	1*	--
Irregular vaginal bleeding	1	1	1	2	2	A
Heavy or prolonged vaginal bleeding	2	Start: 1 Continue: 2	1	2	2	A
Suspicious, unexplained vaginal bleeding	Start: 4 Continue: 2	Start: 4 Continue: 2	2	3	Implant: 3 POP: 2	D
Endometriosis	2	1	1	1	1	S
Benign ovarian tumours and cysts	1	1	1	1	1	A
Severe dysmenorrhoea	2	1	1	1	1	A
Gestational trophoblastic disease	3/4[9]	3/4[9]	1	1	1	A/D[9]
Cervical ectropion	1	1	1	1	1	A

8 Although the interaction of certain anticonvulsants with CHCs, POPs, NET-EN, and implants is not harmful to clients, it is likely to reduce the effectiveness of these methods.

9 For clients with decreasing or undetectable beta-HCG levels: 3 (A); for clients with persistently elevated beta-HCG/malignant disease: 4 (D).

	Copper-IUD	LNG-IUD	CHCs	POIs	Implant POPs	Female sterilization
Cervical intraepithelial neoplasia (CIN)	1	2	2	2	Implant: 2 POP: 1	A
Cervical cancer (awaiting treatment)	Start: 4 Continue: 2	Start: 4 Continue: 2	2	2	Implant: 2 POP:1	D
Breast disease						
Undiagnosed mass	1	2	2	2	2	A
Benign breast disease	1	1	1	1	1	A
Family history of breast cancer	1	1	1	1	1	A
Current breast cancer	1	4	4	4	4	C
Past breast cancer, no evidence of disease for 5 years	1	3	3	3	3	A
Endometrial cancer	Start: 4 Continue: 2	Start: 4 Continue: 2	1	1	1	D
Ovarian cancer	Start: 3 Continue: 2	Start: 3 Continue: 2	1	1	1	D
Uterine fibroids, no uterine cavity distortion	1	1	1	1	1	C
Uterine fibroids with uterine cavity distortion	4	4	1	1	1	C
Pelvic inflammatory disease (PID)						
Past PID with subsequent pregnancy	1	1	1	1	1	A
Past PID without subsequent pregnancy	2	2	1	1	1	C
Current PID	Start: 4 Continue: 2	Start: 4 Continue: 2	1	1	1	D

	Copper-IUD	LNG-IUD	CHCs	POIs	Implant POPs	Female sterilization
Sexually transmitted infections						
Current purulent cervicitis, chlamydia or gonorrhoea infection	Start: 4 Continue: 2	Start: 4 Continue: 2	1	1	1	D
Other STIs (excluding HIV and hepatitis)	2	2	1	1	1	A
Vaginitis	2	2	1	1	1	A
Increased risk for STIs	2*	2*	1	1	1	A
High risk of HIV	1	1	1	1	1	A
Asymptomatic or mild HIV clinical disease	2	2	1	1	1	A
Severe or advanced HIV clinical disease	Start: 3 Continue: 2	Start: 3 Continue: 2	1	1	1	A
Antiretroviral therapy						
Nucleoside reverse transcriptase inhibitors (NRTIs): abacavir (ABC), tenofovir (TDF), zidovudine (AZT), lamivudine (3TC), didanosine (DDI), emtricitabine (FTC), stavudine (D4T)	Start: 2/3 Continue: 2	Start: 2/3 Continue: 2	1	1	1	--
Non-nucleoside reverse transcriptase inhibitors (NNRTIs): efavirenz (EFV), nevirapine (NVP)	Start: 2/3 Continue: 2	Start: 2/3 Continue: 2	2[10]	DMPA: 1 NET-EN: 2[10]	2[10]	--
NNRTIs: etravirine (ETR), rilpivirine (RPV)	Start: 2/3 Continue: 2	Start: 2/3 Continue: 2	1	1	1	--
Protease inhibitors (PIs): ritonavir-boosted atazanavir (ATV/r), ritonavir-boosted lopinavir (LPV/r), ritonavir-boosted darunavir (DRV/r), ritonavir (RTV)	Start: 2/3 Continue: 2	Start: 2/3 Continue: 2	2[10]	DMPA: 1 NET-EN: 2[10]	2[10]	--

10 Antiretroviral medications have the potential to affect the levels of steroid hormones in clients using hormonal contraceptives; this may reduce the effectiveness of hormonal contraceptives.

	Copper-IUD	LNG-IUD	CHCs	POIs	Implant POPs	Female sterilization
Integrase inhibitor: raltegravir (RAL)	Start: 2/3 Continue: 2	Start: 2/3 Continue:2	1	1	1	--
Schistosomiasis	1	1	1	1	1	A/C[11]
Tuberculosis, non-pelvic	1	1	1	1	1	A
Tuberculosis, pelvic	Start: 4 Continue: 3	Start: 4 Continue: 3	1	1	1	S
Malaria	1	1	1	1	1	A
Diabetes						
History of gestational diabetes	1	1	1	1	1	A
Non-vascular disease, insulin dependent and non-insulin dependent	1	2	2	2	2	C
Nephropathy/ retinopathy/neuropathy	1	2	3/4	3	2	S
Vascular disease or diabetes for >20 years	1	2	3/4	3	2	S
Thyroid disorder (goitre, hyper- or hypothyroid)	1	1	1	1	1	A/S/C[12]
Gallbladder disease						
Asymptomatic or treated with cholecystectomy	1	2	2	2	2	A
Current or medically treated	1	2	3 (CIC: 2)	2	2	D/A[13]
History of pregnancy-related cholelithiasis	1	1	2	1	1	A
Past COC-related cholelithiasis	1	2	3 (CIC: 2)	2	2	A
Viral hepatitis						
Acute or flare	1	1	Start: 3/4 Continue: 2	1	1	D
Carrier or chronic	1	1	1	1	1	A
Mild cirrhosis	1	1	1	1	1	A

11 Uncomplicated schistosomiasis: A; with liver fibrosis: C.

12 Simple goitre: A; hyperthyroid: S; hypothyroid: C.

13 Current gallbladder disease: D; medically treated: A.

	Copper-IUD	LNG-IUD	CHCs	POIs	Implant POPs	Female sterilization
Severe cirrhosis	1	3	4 (CIC: 3)	3	3	S
Liver tumours						
Focal nodular hyperplasia	1	2	2	2	2	A
Hepatocellular adenoma	1	3	4 (CIC: 3)	3	3	C
Malignant hepatoma	1	3	4 (CIC: 3/4)	3	3	C
Thalassaemia	2	1	1	1	1	C
Sickle cell disease	2	1	2	1	1	C
Iron deficiency anaemia	2	1	1	1	1	D/C[14]
Antimicrobial therapy						
Broad-spectrum antibiotics	1	1	1	1	1	--
Antifungals	1	1	1	1	1	--
Antiparasitics	1	1	1	1	1	--
Rifampicin or rifabutin	1	1	3 (CIC: 2)[15]	DMPA: 1 NET-EN: 2[15]	Implant: 2[15] POP: 3[15]	--

*Adapted from Curtis KM, Tepper, NK, Jatlaoui et al. U.S. Medical Eligibility Criteria for Contraceptive Use, 2016. *MMWR Recomm Rep.* 2016;65(3):1–103.

+World Health Organization. Medical Eligibility Criteria for Contraceptive Use. Geneva: WHO; 2015 (updates in 2018).

14 Hb <7 g/dl: D; 7≤Hb<10 g/dl: C.

15 Although the interaction of rifampicin or rifabutin with CHCs, POPs, NET-EN, and implants is not harmful to clients, it is likely to reduce the contraceptive effectiveness of these methods.

ADDITIONAL considerations for male and female sterilization		
	Female sterilization	**Male sterilization**
Young age	C	C
Depressive disorders	C	C
High risk of HIV	A	A
Asymptomatic or mild HIV clinical disease	A	A
Severe or advanced HIV clinical disease	S	S
Diabetes	See above	C
Sickle cell disease	C	A
Local infection	D	D[16]
Coagulation disorders	S	S
Systemic infection or gastroenteritis	D	D
Chronic asthma, bronchitis, emphysema, or lung infection	S	--
Fixed uterus due to previous surgery or infection	S	--
Abdominal wall or umbilical hernia	S	--
Diaphragmatic hernia	C	--
Kidney disease	C	--
Previous abdominal or pelvic surgery	C	--
Sterilization concurrent with abdominal surgery		
Elective	C	--
Emergency without previous counselling	D	--
Infectious condition	D	--
Sterilization concurrent with caesarean delivery	A	
Previous scrotal injury	--	C
Large varicocele or hydrocele	--	C
Filariasis, elephantiasis	--	D
Intrascrotal mass	--	D
Cryptorchidism	--	S
Inguinal hernia	--	S

16 Includes: scrotal skin infection, active STI, balanitis, epididymitis, and orchitis.

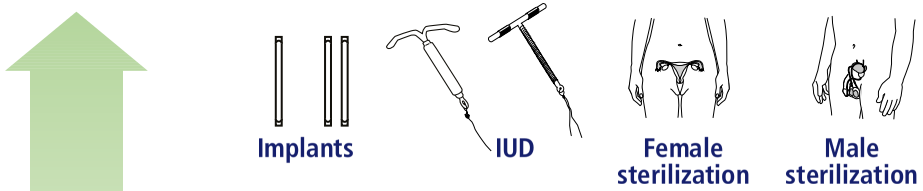
Source: Reproduced/translated with permission from Medical Eligibility Criteria for Contraceptive Use. Geneva: WHO; 2015.

Appendix 2: Comparing typical effectiveness of contraceptive methods

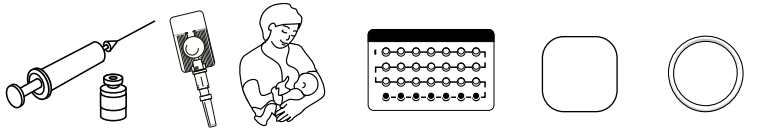
Comparing effectiveness of family planning methods

MORE EFFECTIVE

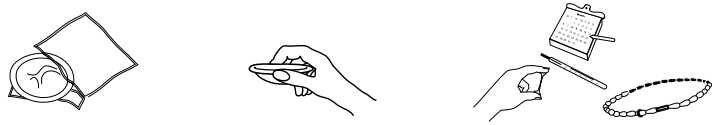
Less than 1 pregnancy per 100 women in one year



Implants | IUD | Female sterilization | Male sterilization



Injectables | LAM | Pills | Patch | Vaginal ring



Male condoms | Diaphragm | Fertility awareness methods

Female condoms | Withdrawal | Spermicides

LESS EFFECTIVE

About 20 pregnancies per 100 women in one year

How to make your method more effective

Implants, IUD, female sterilization: After procedure, little or nothing to do or remember

Vasectomy: Use another method for first 3 months

Injectables: Get repeat injections on time

Lactational Amenorrhea Method (for 6 months): Breastfeed often, day and night

Pills: Take a pill each day

Patch, ring: Keep in place, change on time

Male condoms, diaphragm: Use correctly every time you have sex

Fertility awareness methods: Abstain or use condoms on fertile days. Newer methods (Standard Days Method and TwoDay Method) may be easier to use

Female condoms, withdrawal, spermicide: use correctly every time you have sex

Source: Reproduced/translated from Family Planning: A Global Handbook for Providers. Geneva. WHO; 2018. Licence: CC BY-NC-SA 3.0 IGO.

CHAPTER 4 CONTENTS

MAIN CONTENTS

Appendix 3: Ruling out pregnancy – when to use the pregnancy checklist and when to use a pregnancy test

Ruling Out Pregnancy

Ruling out pregnancy is recommended before starting a hormonal contraceptive and before IUD insertion. Family planning providers have 3 tools available for this routine task:

1. Medical history (often collected using the Pregnancy Checklist)
2. Pregnancy tests
3. Delaying the start of the method until the client's next monthly bleeding

Which tool should a provider use first, and when?

The job aid How and When to Use the Pregnancy Checklist and Pregnancy Tests, offers guidance based on the client's chosen method and on whether she has been having bleeding each month or she is not having monthly bleedings due to recent childbirth or other reasons. This job aid also addresses the situation for a woman who has been having monthly bleedings but now has missed her expected monthly bleeding.

Important points to note

- Unless the client has missed her monthly bleeding, ruling out pregnancy **starts with the Pregnancy Checklist.** This checklist can provide reasonable certainty that a woman is not pregnant.
- **Pregnancy tests are not likely to work before the first day of missed monthly bleeding.** Using a test earlier is pointless and wasteful.
- **The only contraceptive method known to pose a health risk if started during pregnancy is the IUD (either copper or hormonal).** If the Pregnancy Checklist cannot rule out pregnancy, a provider should use another tool to rule out pregnancy before inserting an IUD.
- **All hormonal methods except the LNG-IUD can be provided without delay** even when uncertainty about pregnancy exists. Follow-up is required in some cases.
- **Delaying the start of the method is the worst choice** among the 3 tools for assessing pregnancy. She may become pregnant before her next monthly bleeding. The other tools should be used first whenever possible.
- Both the Pregnancy Checklist and a pregnancy test are highly accurate for ruling out pregnancy when used appropriately. **When the checklist can be used, there is no reason to prefer a test.**

How and when to use the pregnancy checklist and pregnancy tests

Match your client's menstrual status and chosen contraceptive method with one of the options below and follow the instructions

Client with amenorrhea
(postpartum or other type)

Implants, pills, ring, injectables, or patch

Use Pregnancy Checklist.[1]
Pregnancy ruled out: Provide method.

Pregnancy not ruled out:
Use a pregnancy test.

Pregnancy test is negative (or test is not immediately available):
Provide the method now.[2]
Schedule a follow-up pregnancy test in 3-4 weeks.

IUDs
Copper or LNG

Pregnancy test is negative (or test is not immediately available):
Advise woman to use COCs, DMPA, or condoms or abstain for 3–4 weeks, then repeat the pregnancy test.

Second pregnancy test is negative. Provide the IUD.

Client between two regular menses
(monthly bleeding)*

Implants, pills, ring, injectables, or patch

Use Pregnancy Checklist[1]
Pregnancy ruled out: Provide method.

Do not use a pregnancy test (in most cases it is too early for the test to be effective).

Pregnancy not rued out:
Provide the method now.[2]
Return for a pregnancy test if next menses are delayed.

IUDs
Copper or LNG

Pregnancy not ruled out:
Do not provide method.

Advise woman to return for LNG-IUD insertion within 7 days of onset of her next menses, or within 12 days for a copper IUD; but in the meantime, use COCs, DMPA, or condoms or abstain.

Return for a pregnancy test if next menses are delayed.

1 See Pregnancy Checklist.

2 For implants, counsel about the need to remove the implant if pregnancy is confirmed and she wishes to continue the pregnancy.

In cases where pregnancy cannot be ruled out, offer emergency contraception if the woman had unprotected sex within the last 5 days.

Counsel all women to come back any time they have a reason to suspect pregnancy (for example, she misses a period).

*** If the client presents with a late/missed menses, use a pregnancy test to rule out pregnancy.** If using a highly sensitive pregnancy test (for example, 25 mIU/ml) and it is negative, provide her desired method.

If using a test with lower sensitivity (for example, 50 mIU/ml) and it is negative during the time of her missed period, wait until at least 10 days after expected date of menses and repeat the test. Advise the woman to use condoms or abstain in the meantime. If the test is still negative, provide her desired method.

If test sensitivity is not specified, assume lower sensitivity.

Pregnancy checklist

Ask the client questions 1–6. As soon as the client answers "yes" to *any question*, stop and follow the instructions below.

NO		YES
	1. Did your last monthly bleeding start within the past 7 days?*	
	2. Have you abstained from sexual intercourse since your last monthly bleeding, delivery, abortion, or miscarriage?	
	3. Have you been using a reliable contraceptive method consistently and correctly since your last monthly bleeding, delivery, abortion, or miscarriage?	
	4. Have you had a baby in the last 4 weeks?	
	5. Did you have a baby less than 6 months ago, are you fully or nearly-fully breastfeeding, and have you had no monthly bleeding since then?	
	6. Have you had a miscarriage or abortion in the past 7 days?*	

* If the client is planning to use a copper-bearing IUD, the 7-day window is expanded to 12 days.

If the client answered NO to *all of the questions*, pregnancy cannot be ruled out using the checklist.

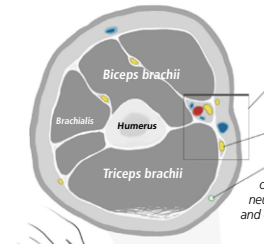
Rule out pregnancy by other means.

If the client answered **YES** to *at least one of the questions*, you can be reasonably sure she is not pregnant.

Appendix 4: Single-rod implant insertion

Job Aid: Implanon NXT Insertion

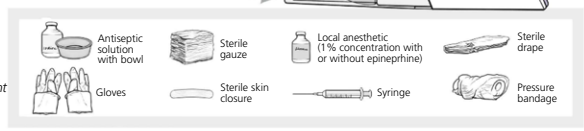
Implanon NXT Insertion



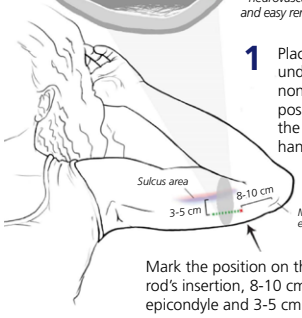
Sulcus area, Neurovascular bundle

Ulnar nerve

Implant *should be inserted subdermally (just under the skin) over the triceps muscle, avoiding the neurovascular bundle, for proper placement and easy removal*

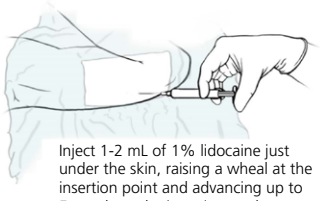


1 Place a clean, dry cloth under the woman's non-dominant arm and position the arm with the elbow flexed and the hand under her head.



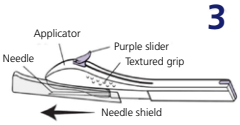
Mark the position on the arm for the rod's insertion, 8-10 cm from the medial epicondyle and 3-5 cm below the sulcus.

2 Prep the insertion site with antiseptic solution and drape.



Inject 1-2 mL of 1% lidocaine just under the skin, raising a wheal at the insertion point and advancing up to 5 cm along the insertion track.

3

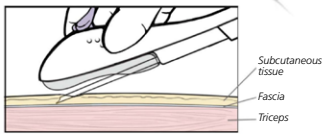


Using the no-touch technique, remove the sterile disposable one-rod implant applicator from the blister pack. Hold it at the textured surface area. Visually verify the presence of the implant inside the needle. Remove the needle shield.

4 The provider should be positioned to visualize the insertion and ensure it is subcutaneous and parallel to the arm.

Stretch the skin near the insertion site with your thumb and index finger.

Puncture the skin with the applicator at a 30˚ angle and insert only the bevel of the needle.



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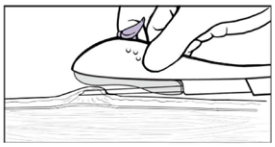
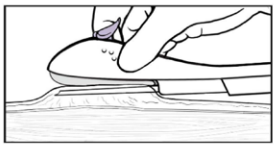


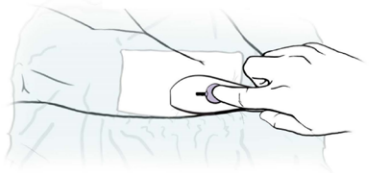
Visualizing the needle, lower the applicator until it is parallel with the surface of the skin and gently advance, while lifting the skin upwards to ensure superficial placement.

Insert the entire length of the needle without using force.

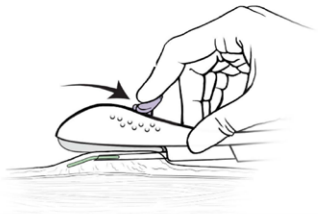
Verify that the entire length of the needle has been inserted in the skin before the next step.



6 Hold the applicator in this position and press the purple slider downwards until it stops.

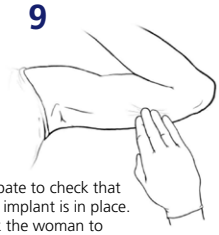


7 This action will retract the needle into the body of the applicator.



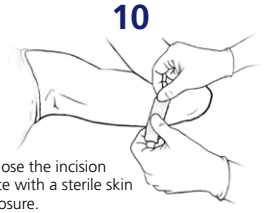
8 Gently remove the applicator, leaving the implant in place.

9



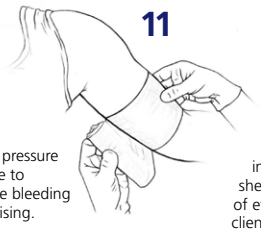
Palpate to check that the implant is in place. Ask the woman to palpate the implant to confirm its placement.

10



Close the incision site with a sterile skin closure.

11



Apply a pressure bandage to minimize bleeding and bruising.

12

Complete the client record and client card, indicating which implant she received and its length of effectiveness. Inform the client that she can return at any time if she has questions or to have the implant removed.

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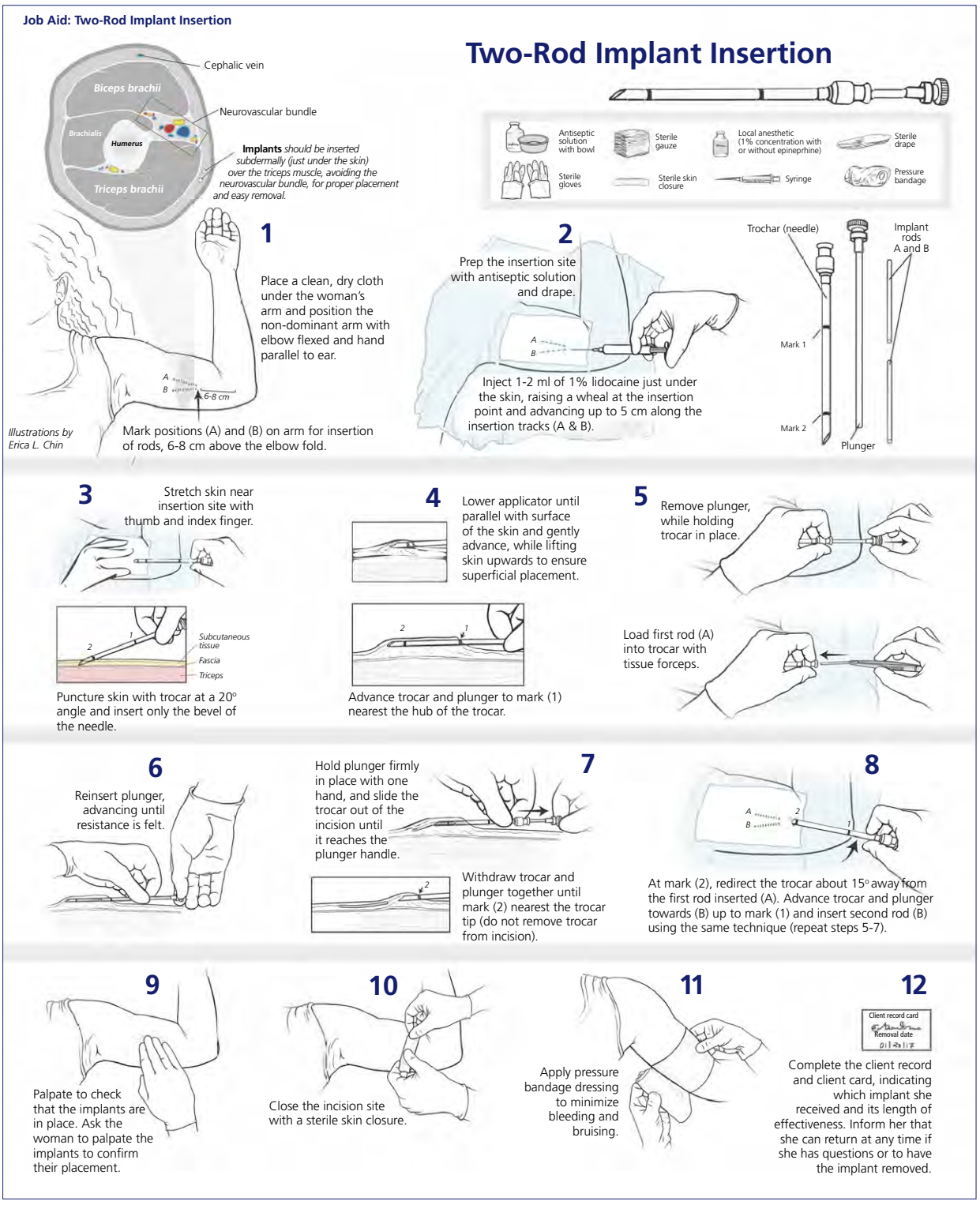
Appendix 5: Two-rod implant insertion



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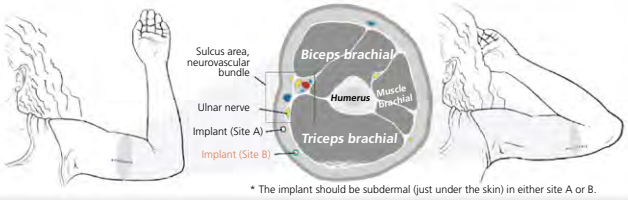
Appendix 6: Standard implant removal

Standard implant removal

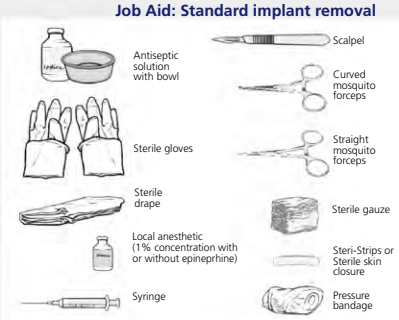
Site A: Location for 2-rod systems or for Implanon NXT prior to 2020*

Site B: Implanon NXT location updated in 2020*

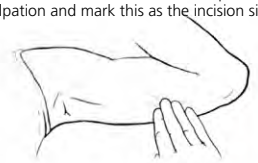


* The implant should be subdermal (just under the skin) in either site A or B.

Job Aid: Standard implant removal



1 Locate the one- or two-rod implant by palpation and pressing down. Determine the location of the distal end of the implant with palpation and mark this as the incision site.

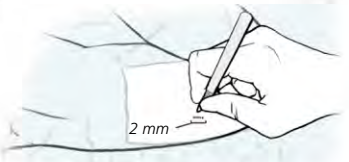


If the implant cannot be located, check both of the possible insertion sites (A and B), as well as both arms. If it is not possible to find the implant, refer the woman for further examination.

2 Prepare the insertion site with the antiseptic solution and a sterile drape

Inject 1-2 mL of 1% lidocaine just under the implant so not to obscure it. If this is a two-rod system, inject between the two rods.

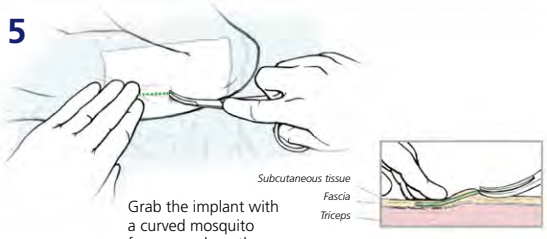
3 Make a small incision (2 mm) at the tip(s) of and parallel to the implant(s).



4

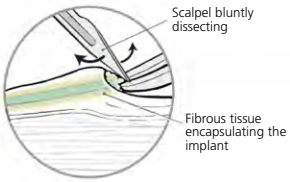
Push the implant(s) toward the incision until the tip is visible. If this is a two-rod system, remove them one at a time.

5



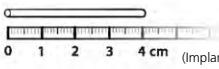
Grab the implant with a curved mosquito forceps and gently remove it.

6 If the tip of the implant does not become visible in the incision, insert a forceps tip into the incision, grasp the implant, and remove the fibrous tissue with the back of the scalpel blade and/or gauze.



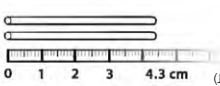
7 After the implant is exposed, grasp it with the second pair of mosquito forceps and gently remove it.

8 Ensure that the entire rod has been removed; show it to the client.



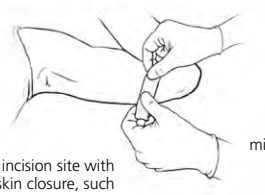
(Implanon)

If this is a two-rod system, repeat steps 4-7 to remove the second rod.



(Jadelle)

9



Close the incision site with a sterile skin closure, such as Steri-Strips.

10

Apply a pressure bandage dressing to minimize bleeding and bruising.

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Appendix 7: Steps for inserting intrauterine devices and specific job aids

1. Gather equipment:
    - Speculum
    - Ring forceps
    - Metal cup
    - Tenaculum
    - Uterine sound
    - Scissors
    - Sterile gauze
2. Perform bimanual examination and speculum visualization of the cervix to assess uterine size and position and to detect any cervical or uterine abnormalities.
3. Wipe cervix with antiseptic solution.
4. Gently place the tenaculum on the cervix.
5. Holding the cervix and uterus steady with the tenaculum, gently insert the uterine sound through the cervical os until it reaches the uterine fundus. Be sure to avoid touching the tip of the sound on the speculum or vagina (see *Box 1: No touch technique)*. It may be necessary to gently pull the tenaculum to straighten the cervical canal and allow passage of the sound. Remove the sound and, using the markings, note the depth of the uterus. Usually, the sound will be wet or darker from the antiseptic solution where it was in the uterus. Typically, the uterus will measure 6–9 cm. Most IUDs cannot be inserted if the uterine depth is less than 6 cm; providers should refer to the manufacturer's instructions for guidance for specific IUDs. If the depth is more than 10 cm, the sound may have perforated the uterus.
6. Load the IUD into the inserter in a sterile fashion. See *job aids: Instructions for loading the Copper T 380A in a sterile package; Instructions for loading and inserting the one-handed LNG-IUD;* and *Instructions for loading and inserting the two-handed LNG-IUD*).
7. Place the sound next to the IUD and set the depth gauge at the measured depth of the uterus.
8. Holding the cervix and uterus steady with the tenaculum, gently insert the IUD in its inserter through the cervical os into the uterus. See *job aids: Instructions for inserting the loaded Copper T 380A intrauterine device; Instructions for loading and inserting the one-handed LNG-IUD;* and *Instructions for loading and inserting the two-handed LNG-IUD* for instructions on how to release the IUD into the uterus. The goal is to place the IUD at the uterine fundus. Remove the inserter after successful placement.
9. Cut the IUD strings to approximately 3 cm from the cervical os. The strings can be cut shorter, including flush with the cervix, at the request of the client.
10. Remove the speculum, reassure the client that procedure was completed successfully and without complication.
11. Allow the client to rest on the examination table until they feel ready to get dressed.

BOX 1: No touch technique

- Do not let the loaded IUD or uterine sound touch any unsterile surface, such as hands, speculum, vagina, or tabletop
- Load the IUD into the inserter in a sterile package; do not touch the IUD directly
- Pass the uterine sound and the loaded IUD through the cervical canal only once

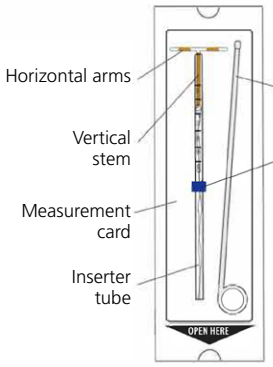
Job aid: Instructions for loading the Copper T 380A intrauterine device in a sterile package

Copper Intra-Uterine Device (Cu-T)

***Do not start this loading procedure more than 10 minutes before inserting into the uterus. The arms of Cu-T will not straighten out easily if they are left within inserter tube too long.**

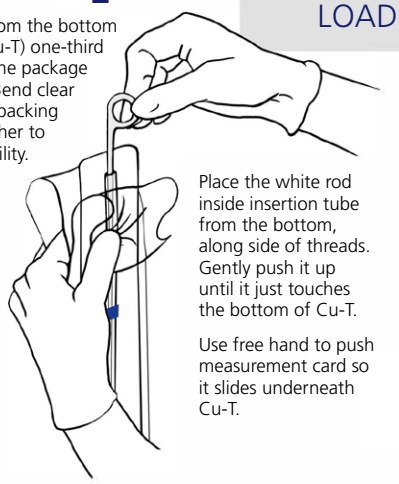
USE NO-TOUCH TECHNIQUE THROUGHOUT LOADING

1 Adjust the contents of the package through the clear plastic cover. Confirm the vertical stem of Cu-T is fully inside inserter tube.



Place the package on a clean, flat surface.

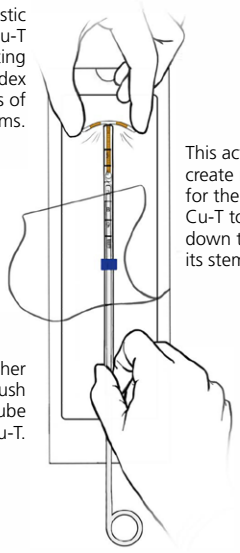
2 Open the package from the bottom (end farthest from Cu-T) one-third of the way. Pick up the package with the open end up. Bend clear plastic cover and white backing away from each other to maintain sterility.



Place the white rod inside insertion tube from the bottom, along side of threads. Gently push it up until it just touches the bottom of Cu-T.

Use free hand to push measurement card so it slides underneath Cu-T.

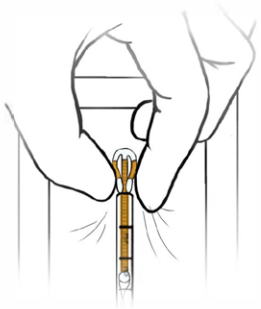
3 Through the plastic cover, stabilize Cu-T in place by putting thumb and index finger over ends of its horizontal arms.



This action will create resistance for the arms of Cu-T to bend down towards its stem.

With the other hand, push inserter tube towards Cu-T.

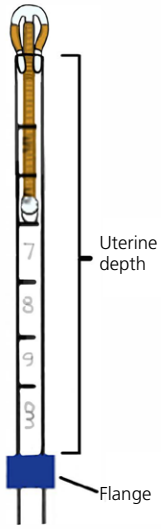
4 Fold arms enough to touch sides of inserter tube, then pull tube out slightly from under tips of arms.



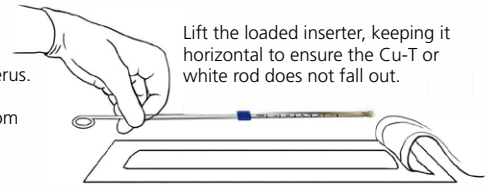
Push and rotate tube over tips of the arms only enough to retain arms inside tube next to the stem.

5 Adjust blue flange to the depth of uterus, measured with uterine sound. Ensure the longest side of the flange is parallel with arms of the Cu-T.

The sterile card in package may also be used to set flange according to the premeasured uterine depth.



6 Cu-T is now ready to be placed in the woman's uterus. Carefully peel clear plastic cover of package away from the white backing.



Lift the loaded inserter, keeping it horizontal to ensure the Cu-T or white rod does not fall out.

USAID FROM THE AMERICAN PEOPLE

Maternal and Child Survival Program

Source: Reproduced with permission from USAID Maternal and Child Survival Program. Long-Acting Reversible Contraceptives Learning Package. May 2017.

Job aid: Instructions for inserting the loaded Copper T 380A intrauterine device

Step 1

- Grasp the tenaculum (which is still in place on the cervix after sounding the uterus) and pull firmly to pull the uterine cavity and cervical canal in line with the vaginal canal. Gently place the loaded inserter tube through the cervical canal. Keep the blue depth gauge in a horizontal position.
- Advance the loaded IUD until the blue depth gauge touches the cervix or resistance of the uterine fundus is felt. Keep the blue depth gauge in a horizontal position.

Step 2

- Hold the tenaculum and the white rod in place in one hand. With your other hand, withdraw (pull toward you) the inserter tube until it touches the thumb grip of the white rod. This will release the arms of the TCu 380A high in the uterine fundus.

Step 3

- Once the arms have been released, again very gently and carefully, push the inserter tube upward, toward the top of the uterus, until you feel a slight resistance.

  This step ensures the arms of the T are as high as possible in the uterus.
- Hold the inserter tube still while removing the white rod.

Step 4

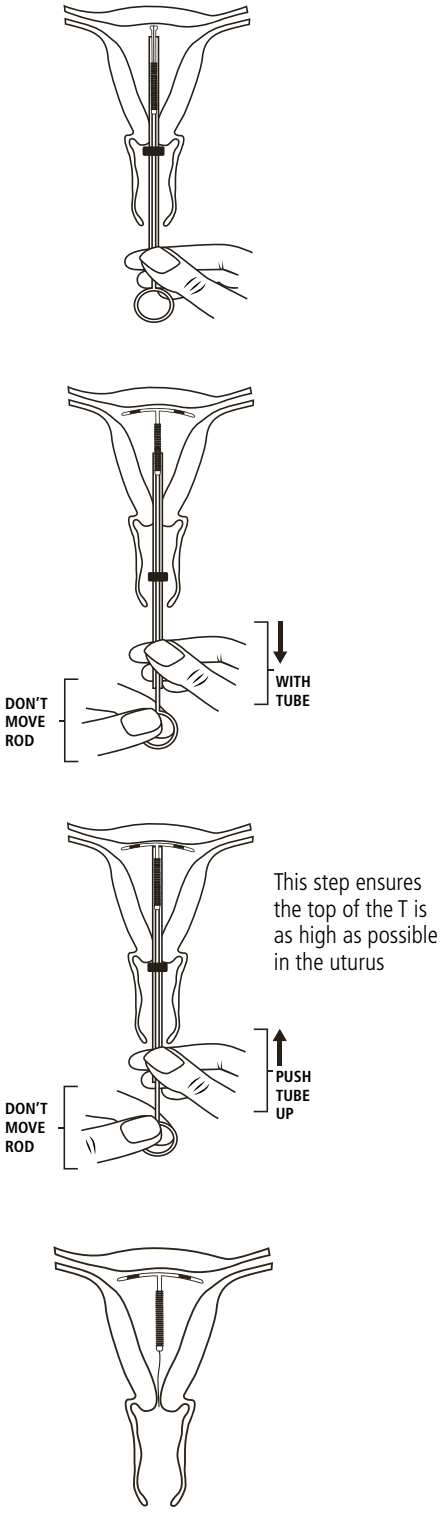
- Gently and slowly withdraw the inserter tube from the cervical canal. The strings should be visible protruding from the uterus. Cut the strings so that they protrude only three to four centimeters into the vagina.
- Remove the tenaculum. If the cervix is bleeding from the tenaculum site, press a swab to the site, using clean forceps, until the bleeding stops.

Step 5

- Gently remove the speculum, and put all of the instruments used in 0.5% chlorine solution for 10 minutes for decontamination.

Step 6

- Help the client get up from the table very slowly. Watch her in case she becomes dizzy or feels faint. Teach her how and when to check the strings. Ask her to check the strings now. Ask her if she has any questions and answer them in simple words she can understand. Tell her to return in three to six weeks. If she can read, give her written instructions or tell her the warning signs of problems and how to get help if she needs.

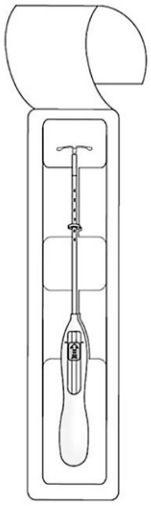


Source: Diagrams redrawn with the permission of the Population Council from: Population Council and The Program for Appropriate Technology in Health (PATH). Copper T380A IUD: A Manual for Clinicians. Second edition. Seattle, Washington: PATH, 1989.

Job aid: Instructions for loading and inserting the one-handed levonorgestrel intrauterine device

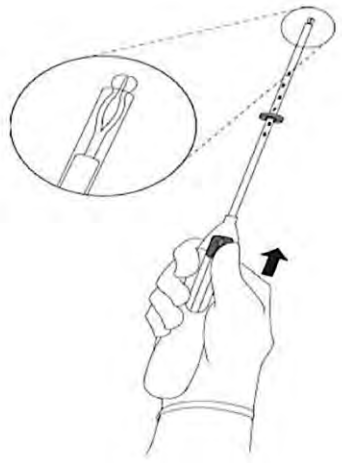
STEP 1: Open the sterile package

- Open the sterile LNG-IUD package.
- Lift the handle of the sterile inserter from the sterile package.



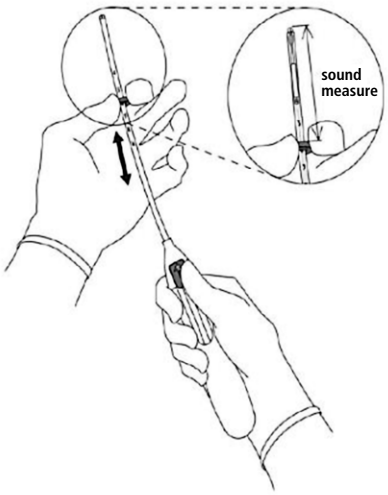
STEP 2: Move slider all the way to forward position

- Move slider all the way to forward position to load LNG-IUD.
- The tips of the LNG-IUD arms will meet to form a rounded dome that extends slightly beyond the insertion tube.
- Maintain forward pressure with your thumb or forefinger on the slider to avoid releasing strings prematurely.



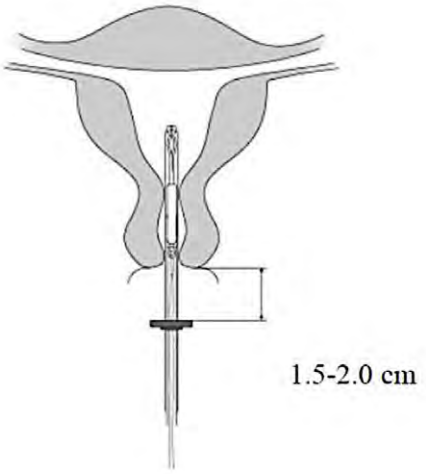
STEP 3: Set the flange to uterine depth

While maintaining forward pressure on the slider, set the upper edge of the flange to correspond to the uterine depth (in centimeters) measured during sounding.



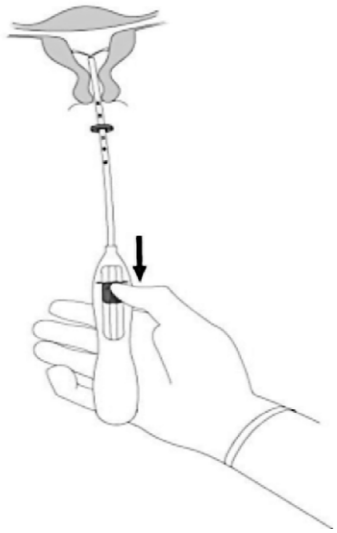
STEP 4: Advancing insertion tube

- Apply gentle traction on the tenaculum to straighten the alignment of the cervical canal and uterine cavity.
- Maintaining the slider in forward position, advance the loaded insertion tube through the cervical canal until the upper edge of the flange is 1.5-2.0 cm from the cervical os.



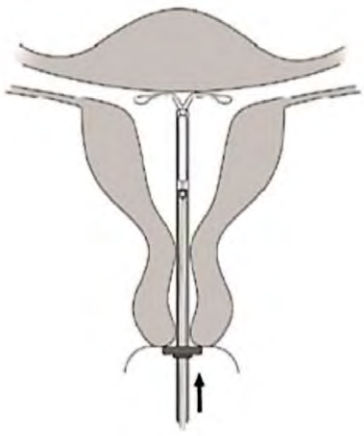
STEP 5: Release the arms of the LNG-IUD

- While holding the inserter steady, move the slider down to the mark to release the arms of the LNG-IUD.
- Wait 10 seconds for the horizontal arms to open completely.



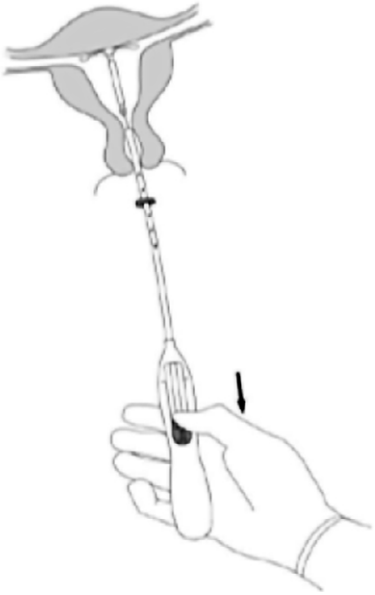
STEP 6: Place IUD in fundal position

- Advance the inserter gently towards the fundus of the uterus until the flange touches the cervix.
- LNG-IUD is now in the fundal position.



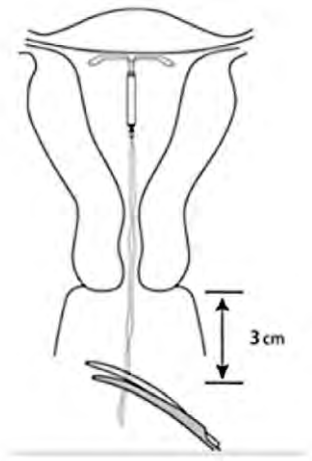
STEP 7: Release LNG-IUD and withdraw inserter

- Holding the inserter firmly in place, release LNG-IUD by moving the slider all the way down.
- Keep holding the slider down while gently withdrawing the inserter from the uterus.



STEP 8: Cut the threads

Use blunt-tipped sharp scissors to cut the LNG-IUD threads perpendicular to the thread length leaving about 3 cm outside of the cervix while strings ends are still in the inserter tube.



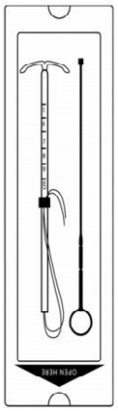
Source: Training Resource Package for Family Planning [website]. https://www.fptraining.org/training

Job aid: Instructions for loading and inserting the two-handed levonorgestrel intrauterine device

LNG-IUD loading with two-handed inserter

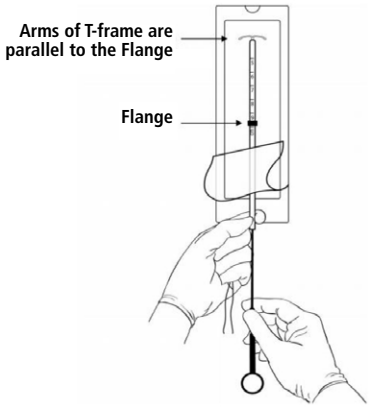
STEP 1: Open the package

- Place the LNG-IUD package on a flat, clean surface.
- Open from the bottom by pulling on the clear plastic cover from the end farthest from the LNG-IUD until package is 1/3 open.



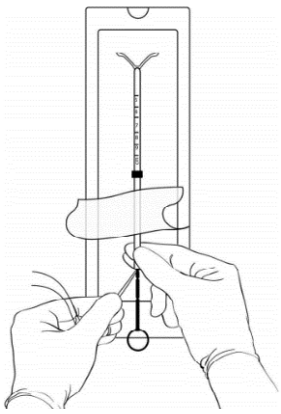
STEP 2: Release threads from the flange and insert the rod

- Pick up threads with dominant hand and release them from flange.
- While holding inserter tube and threads, remove rod and insert it into the inserter tube until the tip of the rod is at 5 cm mark.



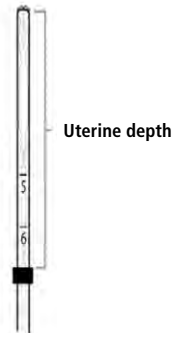
STEP 3: Load the LNG-IUD into the inserter

- Hold inserter tube and rod firmly with the thumb and index finger of dominant hand.
- With the other hand grasp threads and gently pull the IUD down slowly and steadily into the insertion tube until the knobs of the lateral arms form a hemispherical dome at the top of the tube and the tip of the rod is touching the bottom of the LNG-IUD. The hemispherical dome facilitates safe passage through the cervical os.



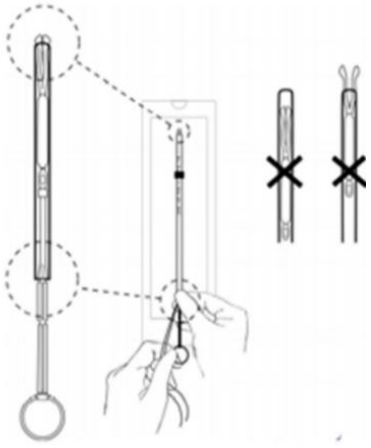
STEP 4: Adjust the flange to the uterine depth

- Adjust the upper end of the flange to correspond with the uterine depth as measured by the uterine sound.



STEP 5: Check final IUD positioning

- LNG-IUD should be positioned in the tube so that the knobs of the lateral arms form a hemispherical dome.
- The top of the rod is touching the bottom of the IUD.
- The threads are hanging through the end of the insertion tube.
- The flange is marking the depth of the uterus.
- The proximal end of the insertion tube will be approximately at the top of the first indent on the rod.



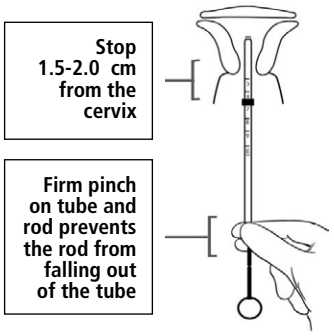
STEP 6: Remove the insertion tube from the packet

- Remove the loaded IUD insertion tube from the package while holding the lower end of the tube firmly between your fingers and thumb.
- If not using sterile gloves, do not touch the flange and any part of the insertion tube above the flange during this step and through the IUD insertion procedure.

LNG-IUD insertion with two-handed inserter

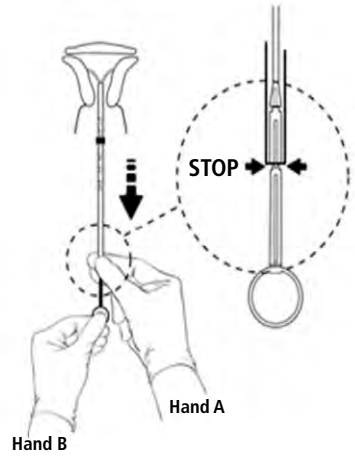
STEP 1: Insert loaded LNG-IUD into the uterus

- Apply gentle traction on the tenaculum to straighten the alignment of the cervical canal and uterine cavity.
- Slide the loaded LNG-IUD insertion tube through the cervical canal until the upper edge of the flange is approximately 1.5–2.0 cm from the cervix.
- DO NOT advance flange to the cervix at this step.



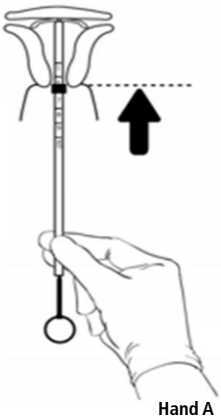
STEP 2: Release arms of LNG-IUD in the uterus

- Release hold on tenaculum.
- Hold insertion tube with the fingers of one hand (Hand A) and the rod with the fingers of other hand (Hand B).
- Relax the firmness of the pinch on the tube, AND PULL THE INSERTION TUBE BACK with Hand A to the edge of the second (bottom) indent on the rod.
- Wait 10-15 seconds for the arms of the IUD to fully open.



STEP 3: Advance LNG-IUD to fundus

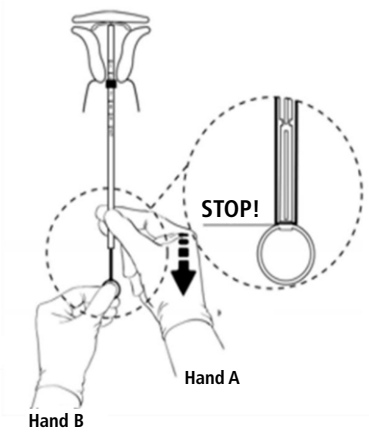
- Apply gentle traction with tenaculum.
- With Hand A still holding the proximal end of the tube, advance the insertion tube (with the rod still inside) up to the uterine fundus.
- You will feel slight resistance when the LNG-IUD is at the fundus.
- The flange should be touching the cervix when the LNG-IUD reaches the uterine fundus.



STEP 4: Release the LNG-IUD and withdraw the inserter

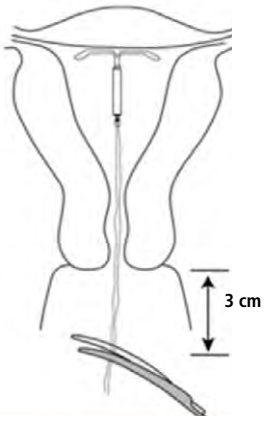
- Hold rod still with Hand B while pulling the insertion tube back with Hand A to the ring of the rod.
- While holding the inserter tube with Hand A, withdraw the rod from the insertion tube all the way out.
- Withdraw the insertion tube until the tube is 3-4 cm away from the cervical os, but the ends of the strings are still inside the tube.

Removing the rod first and then the tube prevents the LNG-IUD from being pulled out of the uterus.



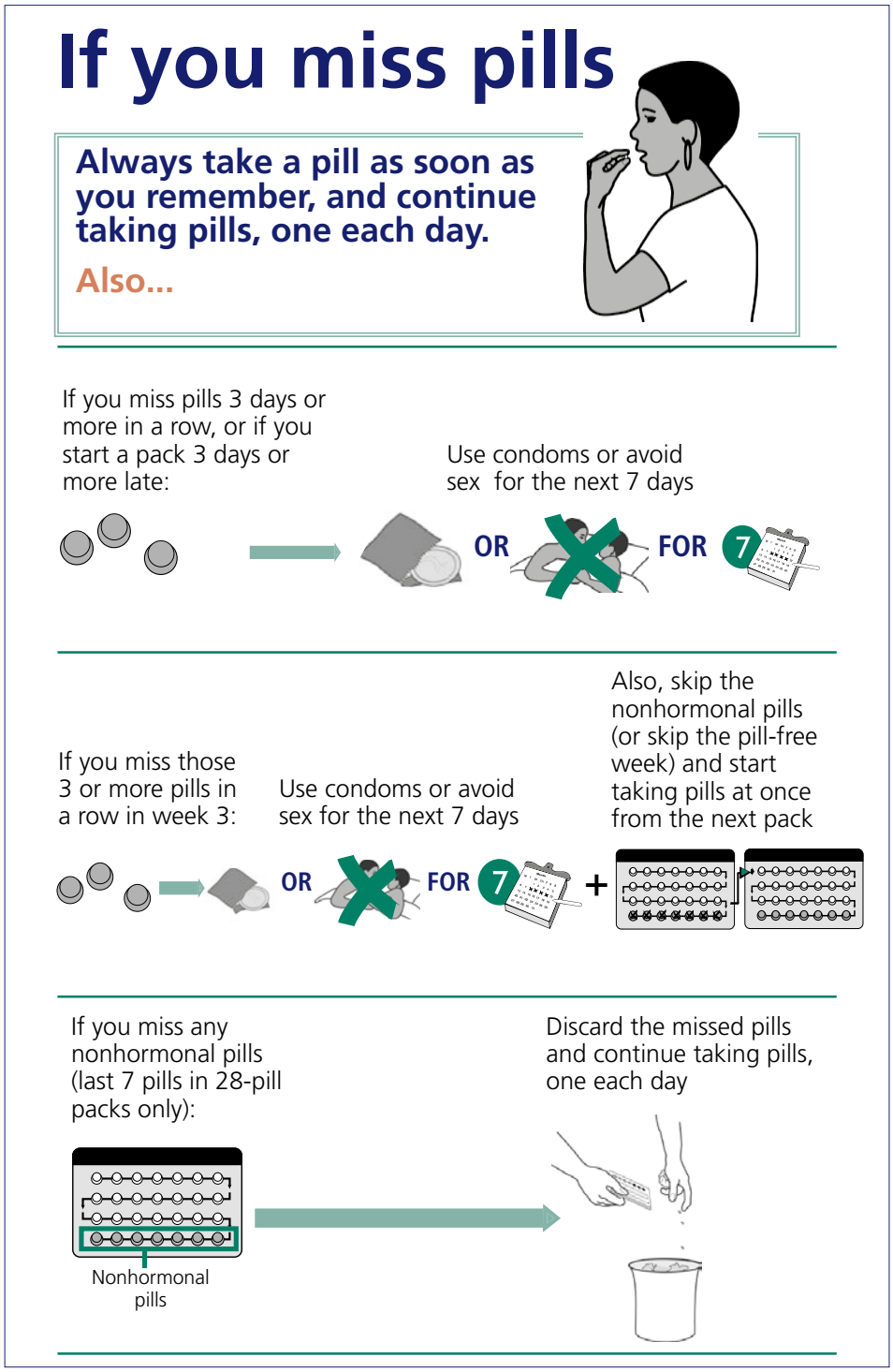
STEP 5: Cut the threads

- Use blunt-tipped sharp scissors to cut the LNG-IUD threads perpendicular to the thread length leaving about 3 cm outside of the cervix while strings ends are still in the inserter tube (cutting threads at an angle may leave sharp ends).
- Do not apply tension or pull on the threads when cutting to prevent displacing the LNG-IUD.



Source: Training Resource Package for Family Planning [website]. https://www.fptraining.org/training

Appendix 8: What a client should do if they miss taking their contraceptive pills



Source: Reproduced/translated from Family Planning: A Global Handbook for Providers. Geneva. WHO; 2018. Licence: CC BY-NC-SA 3.0 IGO.

MAIN CONTENTS

Chapter 5: Abortion care

contents

contents (continued)

1. Introduction

Ensuring good health and moving towards the realization of human rights for all requires that individuals have access to quality healthcare, which includes comprehensive abortion care – comprising information, management of the abortion process, and post-abortion care. Lack of access to safe, timely, affordable, and respectful abortion care poses not only physical risks, but also mental and social ones, which affect the well-being of those seeking abortion.

The objective of this chapter is to provide evidence-based recommendations regarding the entire abortion process, including the pre-abortion period, the abortion process itself, and post-abortion care.

1.1 Definition

Abortion can be spontaneous (also called miscarriage) or induced. Abortion can be induced surgically (e.g. by vacuum aspiration, or dilatation and evacuation [D&E]) or medically (e.g. using an antiprogestogen with prostaglandins or prostaglandins alone).

Induced abortion is a common procedure throughout the world and one of the safest medical procedures when performed by trained individuals using the proper equipment or quality-assured medical abortion drugs, the correct technique, and sanitary standards. According to the World Health Organization (WHO), medical abortion can also be self-managed by clients safely and effectively, without the supervision of a healthcare provider [1].

Each year, an estimated 25 million unsafe abortions take place globally, almost all of them in low- and middle-income countries. Between 4.7 per cent and 13.2 per cent of maternal deaths can be attributed to unsafe abortion [2].

Acronyms

D&E	dilatation and evacuation
EVA	electric vacuum aspiration
FGM	female genital mutilation
IPPF	International Planned Parenthood Federation
IUD	intrauterine device
MVA	manual vacuum aspiration
NSAIDs	non-steroidal anti-inflammatory drugs
SGBV	sexual and gender-based violence
STI	sexually transmitted infection
WHO	World Health Organization

Comprehensive abortion care can be provided through various pathways, including in-clinic care as well as through out-of-clinic care models. Out-of-clinic pathways to care include, for example, through digital health interventions, home provision of medical abortion, or supported self-care. In a growing number of countries, guidance no longer restricts the provision of abortion care to registered facilities, enabling health workers, clinics, and organizations to innovate and use new models of care to increase reach and access to a greater number of clients, in particular those who may have difficulty accessing in-clinic care due to geographical location or other challenges. Adapting existing healthcare delivery models and introducing new pathways to care allow for a more person-centred approach to abortion care, enabling women and girls and people who can get pregnant* to end a pregnancy through a pathway that is most suited to their personal situations and preferences (see *Chapter 1: Guiding principles and approaches* for more information on inclusivity).

* These guidelines are inclusive of women and girls and all people who can become pregnant, including intersex people, transgender men and boys, and people with diverse gender identities that may have the reproductive capacity to become pregnant and have abortions. For the purposes of these guidelines, references to 'women and girls' refer to all people who have the capacity to become pregnant.

Comprehensive abortion care includes:

- Planning of care that is sustainable, accessible, decentralized and closer to clients, affordable and acceptable, and addresses the needs of young people and other groups; this should include the implementation of different pathways to care including in-clinic care, telehealth, home-based care, and support for self-care.
- Care structured with the individual at the centre and offered based on human rights and gender equality principles; in addition, healthcare provision efforts must be gender transformative and non-stigmatizing.
- Empathetic counselling and support, addressing physical and psychological needs, including access to other sexual and reproductive healthcare, such as screening (e.g. sexually transmitted infections [STIs], gender-based violence), contraceptive counselling and provision to allow immediate post-abortion start, if requested.
- Competent abortion providers using safe technologies such as vacuum aspiration or medical regimens to ensure successful abortion and management of complications, including referral to other healthcare, as appropriate.
- Follow-up care, if needed or wanted, including contraception (if not provided at the time of the abortion care) and management of complications in line with current evidence-based recommendations.

1.2 Legal considerations

The vast majority of women live in countries where abortion is legally available for at least one indication. As of 2019:

- 5 per cent of women (90 million) live in countries that prohibit abortion under any circumstances
- 36 per cent of women (596 million) live in countries where abortion is only indicated to save a woman's life or preserve health
- 59 per cent of women (976 million) live in countries where abortion is allowed on broad social or economic grounds or on request [3]

In countries where abortions are permitted at the request of the pregnant individual, most adopt gestational age limits.

In countries that legally permit abortion only for specific indications, these include:

- to save the life of the pregnant individual (in some countries, this is the only indication for legal abortion)
- to preserve the health of the pregnant individual (mostly physical and/or mental health)
- pregnancy resulting from rape or incest
- fetal abnormality
- economic and social grounds

In some countries or settings, abortion is legal but access to abortion care is restricted, meaning that complex administrative procedures or legally mandated over-medicalized clinical guidelines must be followed before the abortion can be carried out, even if the basic grounds for legality are met. These types of restrictions can decrease and delay access to abortion care. They can include a mandatory waiting period, a requirement to have an ultrasound examination, the provider's right to refuse to provide abortion, and mandated third-party authorization (e.g. spousal, parental, or judicial). In addition, healthcare delivery limitations can restrict access to legal abortion, such as the need for inpatient care, limitation on the types of providers who can provide abortion care, and need for specialized infrastructure or equipment.

These requirements are often outdated, not evidence based, and do not contribute to the safety of the abortion, but instead further the stigmatization of abortion. As abortions are safer when carried out earlier in pregnancy, all unnecessary requirements that delay care may increase complications [4,5]. Additionally, they may contribute to delay and may preclude access to legal care, due to gestational age limits.

WHO guidelines recommend the full decriminalization of abortion, that abortion be available on the request of the individual without the authorization of any other individual, and that access to and continuity of comprehensive abortion care be protected against barriers created by conscientious objection. WHO guidelines also recommend against laws and other regulations that restrict abortion by grounds and those that prohibit abortion based on gestational age limits; the guidelines also recommend against mandatory waiting periods, and against regulation on who can provide and manage abortion that is inconsistent with WHO guidance [1].

1.3 Guiding principles

The International Planned Parenthood Federation (IPPF) is committed to a rights-based, person-centred approach to ensure full access to safe abortion care as part of an integrated sexual and reproductive health package, and to thus reduce the entirely preventable maternal morbidity and mortality associated with unsafe abortion. Therefore, IPPF upholds:

- the right of all individuals to decide the number and spacing of children
- the right of a pregnant individual to determine the outcome of their pregnancy, including access to safe abortion and post-abortion care

IPPF supports the provision of comprehensive abortion care according to the most liberal interpretation of national laws and policies. Accordingly:

- Healthcare providers should make every effort to make full use of the law in the country where they work through a liberal, rights-based, client-centred approach and translate it into practice. Healthcare providers should aim to reduce or remove all unnecessary barriers that are not evidence based to improve the access and guarantee the safety and overall quality of care received by clients.
- Clients have a right to accurate, evidence-based information about their health and treatment to best inform their decision-making about their health. In some settings, accurate information may form a 'harm reduction' approach to care.
- In all countries, the provision of post-abortion care – including treatment for incomplete abortion – is legal, and therefore healthcare providers should, at a minimum, provide post-abortion care.

Concerning access to abortion care:

- Pregnant individuals should have access to full and accurate information and counselling on all possible options for their pregnancy and support to make choices that are best for their circumstances.
- When an individual has decided to have an abortion, it should be provided as early as possible and without delay (this is because the earlier care is accessed, more medical and surgical options can be offered, the risk of falling outside legal restrictions on gestational age is lower, and the procedure is safer).
- The available pathways to abortion care and the safety and quality of the methods of abortion are explained to the client and adequate opportunity for questions, discussion, and clarifications is provided.
- Abortion care is provided through a person-centred approach, the client's choice of method and pathway for abortion care is respected, and the utmost is done to provide and/or facilitate that abortion care.
- Referral pathways for where abortion care can be provided – if it is not locally available – should be clear for healthcare providers, as should procedures for managing complications.

Where national guidelines exist, all efforts must be made to incorporate evidence and best practices, to increase access and ensure safety, while simplifying the healthcare delivered when possible. IPPF supports task-sharing, with the aim of demedicalizing abortion and optimizing the use of available human resources to ensure that clients receive timely and high-quality abortion care.

1.4 Requirements for abortion providers

Each facility manager/director and each healthcare provider should be aware of:

- local and national laws, policies, regulations, and guidelines for abortion care, including which safe methods of abortion are available (which also depends on provider skills and available facilities/equipment and training) and the pathways to care permitted (e.g. in-clinic, telemedicine, self-administration at home)
- organizational and professional bodies' policies, procedures, standards, and best practices for healthcare provision, documentation, reporting, auditing, and tracking of referrals
- organizational policy
- when and how to detect, refer, and follow-up with a client who requires specialist or higher-level abortion care, e.g. operative interventions, serious complications

1.4.1 Staff requirements

At a healthcare facility that provides abortion care, adequate numbers of staff with a suitable mix of skills should be trained and assessed as competent for:

- counselling
- determining eligibility for abortion method and contraception (gestational dating and clinical conditions)
- clinical and laboratory examination, when needed
- performing and/or knowing when to refer for ultrasound evaluation, when needed
- surgical and/or medical abortion procedures
- pain management
- infection control and instrument processing
- post-abortion care
- identification and management of medical emergencies
- follow-up care for clients

2. Pre-abortion care

2.1 History-taking and examination

The first task for the healthcare provider is to develop a rapport with the client, to find out what care they are seeking, and to perform a clinical assessment (see *Chapter 2: Facility requirements and client history/examination* and *Chapter 3: Counselling*).

In addition to the routine history-taking and examination recommended for all healthcare, the following steps should be covered during the clinical assessment:

1. Correct assessment of gestational age: this informs the management method and preparation for abortion (see *Box 1* and *Table 2*):
    - Confirm pregnancy if the client is not sure (use procedure described in *Chapter 9: Maternal health, Appendix 2*).
    - Determine gestational age – this can usually be done based on the first day of the last menstrual period alone or in combination with the use of

BOX 1: Why correct assessment of gestational age is important prior to abortion

- Risk of abortion complications increases with gestational age.
- Providers require additional competencies and equipment for higher gestational age.
- Dosing regimens for medical abortion need to be adjusted for gestational age to reduce the chances of a failed procedure (due to insufficient doses) or uterine overstimulation (due to high doses of misoprostol) (see *Table 3* for dosing regimens).
- Surgical abortion over 12–14 weeks of gestation requires per-procedure cervical preparation. However, cervical preparation may be considered for surgical abortions earlier than 12 weeks in clients with specific conditions (e.g. young age and nulliparity, previous cervical procedures, overall higher risk for abortion complications) or when performed by a less experienced provider.

a validation tool. If the last menstrual period is uncertain, physical exam (abdominal/bimanual examination) can be used. The routine use of ultrasound is not required or recommended to provide induced abortion care [1]. However, in certain clinical situations, additional investigations including ultrasound and/or serum beta human chorionic gonadotropin (hCG) may be needed to determine location of pregnancy and/or gestational age (see *Section 2.2*).

2. Identification of any co-existing medical issues that may result in additional care being considered, or one type of procedure being recommended over another:

   - Take the client's medical and obstetric history, history of any gynaecological pathology, and history of any surgical procedures. In particular, note the following:

     - A previous caesarean delivery is not a contraindication for induced abortion. Previous caesarean deliveries or classical uterine scars require additional care under the following circumstances: (a) during surgical evacuations, especially at higher gestational age due to a risk of perforation; and (b) during medical procedures, due to increased risk of uterine rupture. Multiple prior caesarean deliveries can increase risks for either surgical or medical abortion due to risk of implantation in the uterine scar leading to risk of haemorrhage.

     - Fibroids may increase uterine size on examination and affect reliable assessment of gestational age. There is also a small chance that submucosal fibroids can distort the uterine cavity making surgical procedures more difficult.

     - In the presence of uterine malformations or severe distortions of the uterine cavity, a medical abortion may be preferable to surgical evacuation or a surgical procedure may require ultrasound guidance.

     - A history of cervical procedures may make cervical dilatation more difficult and require additional preparation (see information on cervical preparation in *Box 1* – previous page).

     - History of or presence of conditions that increase the risk of an ectopic implantation, including prior ectopic pregnancies, history of pelvic inflammatory disease or abdominal surgeries, pregnancy with an intrauterine device (IUD) in place, or symptoms such as vaginal bleeding/spotting or one-sided pelvic pain.

   - Make note of any co-existing medical conditions such as diabetes, hypertension, asthma, heart disease, coagulation disorder, porphyria, or a history of allergy to medicines.

3. Other points to cover during the clinical assessment:

   - *Current risk of STIs including HIV*: Provide information on the benefits of testing. If the client consents to testing and there is an active STI or a positive HIV test result, provide treatment with information on the benefits, but do not delay the provision of an abortion. If the client has an active STI, treating the STI first before performing a surgical procedure can avoid ascending infection (see *Chapter 6: Sexually transmitted infections* and *Chapter 7: HIV*) but the procedure should not be delayed if access to abortion is difficult and treatment can be started on the day of the procedure.

   - *Current use of contraception, if any*: It may be that the client has been using a method correctly, but it has failed. This is an opportunity to discuss contraceptive options. If an IUD is in place, it must be removed prior to a medical abortion.

   - *Sexual and gender-based violence (SGBV) and female genital mutilation (FGM)*: Any contact with a provider at a sexual and reproductive health clinic is an opportunity to identify people affected by SGBV. The provider should therefore be aware of signs of SGBV. For clients with FGM type III, deinfibulation should be suggested. This can be performed at the same time as surgical abortion, if that is the procedure of choice (see *Chapter 10: Sexual and gender-based violence*).

- *Medications and allergies*:
  - Allergies to mifepristone or misoprostol should be excluded. If allergy is confirmed, a surgical procedure should be considered and/or an alternative medical regimen or cervical preparation, if required.
  - Medications to treat epilepsy and tuberculosis, antiretrovirals, or corticosteroids may reduce the effectiveness of mifepristone if they are taken regularly.

2.2 Other investigations

No other routine investigations are needed for the provision of safe abortion in the first trimester, but the following additional testing can be offered:

- Rhesus status should be established, if possible, and anti-D prescribed for clients with rhesus negative blood type who are having a surgical evacuation or medical abortion over 12 weeks. The procedure should not be withheld, however, if these resources (rhesus testing and anti-D) are not available.
- Blood tests to check haemoglobin can be done if there is a clinical suspicion of anaemia. If the client's haemoglobin level is found to be below 8 g/dl, consideration should be given to treating or referring to a higher-level facility.
- Ultrasound is not recommended or routinely required unless there are concerns or the need to confirm gestational age, such as in the situations listed below. Ensure that the procedure is not unduly delayed because of this.
  - The client does not remember the date of their last menstrual period or has irregular menses, e.g. due to use of progestogen-only contraceptives or breastfeeding, and gestational age cannot be determined by physical examination.
  - There is discrepancy between gestational age as determined by the date of the last menstrual period versus uterine size by bimanual examination.
  - There is suspicion of ectopic pregnancy based on risk factors or small-for-gestational-age uterus.
  - Other conditions (e.g. fibroids).

Post-abortion contraception

Healthcare providers should discuss post-abortion contraception with the client. Clients should be made aware that fertility can return as soon as 8 days after early abortion, with ovulation occurring within 1 month of first-trimester abortions in 90 per cent of clients (see *Section 5: Post-abortion contraception*). If the client chooses a method of contraception, the contraceptive method or a prescription, placement, or appointment for placement if needed, should be provided. However, acceptance of post-abortion contraception should never be a requirement for providing abortion care.

2.3 Information, counselling, and informed consent

2.3.1 Information and counselling

As with any procedure or care, informed consent must be obtained (see *Chapter 3: Counselling*).

Counselling must never be imposed; however, every individual considering abortion should have access to comprehensive, non-directive, and supportive counselling that is responsive to personal needs, circumstances, and cultural background. Clients should always be given access to correct and unbiased information.

The healthcare provider should take time to talk with the client about the available options and not expect an immediate decision (see *Section 2.3.1.1*). If necessary, make it clear that the client can return at another time. However, most clients will have decided firmly not to move through a full pregnancy before seeking assistance from the healthcare provider and should receive care without requiring another visit. The key information in *Section 2.3.1.1* should be provided to a client regardless of where abortion care is taking place (e.g. clinic or by telemedicine).

2.3.1.1 Key information to be provided for informed consent

For all abortion procedures:

- Provide the client with information on all available options for the current pregnancy and clearly document the client's independent decision.

- Inform clients who are eligible for medical or surgical procedures about the characteristics of each mode of treatment (see *Table 2*).
- Explain what the client should expect before, during, and after the procedure, and ensure that the client is made aware of when they may feel discomfort, how long this may last, and what medications will be available to treat it.

For medical abortion:

- Explain the possibility of heavy bleeding with clots, passage of the products of conception, and pain that may be significantly stronger than normal menstrual cramps for some clients; explain that pain relief is available (see *Section 2.4*).
- Explain that medical abortion is a process that typically takes 2–3 days and that bleeding can continue afterwards for 2–3 weeks.

For surgical abortion:

- Explain that an internal examination/instrumentation with a speculum will be needed to insert cervical dilators (if required) as well as an aspirator cannula.
- Explain to the client that they may experience discomfort as the cervix is dilated, painful abdominal cramps during and after the procedure, and that pain relief will be available.
- Explain that for vacuum aspiration the procedure will typically take 5 minutes. D&E procedures may take longer (up to 20–30 minutes).
- The side effects of any analgesia should be discussed and appropriate options for the management of side effects should be offered to all clients.

Regarding risks and complications [6]:

- Inform the client that serious complications following safe medical and surgical abortion are rare (<1 per cent).
- The risk of the following complications is lower for first-trimester abortion than for second- or third-trimester abortion: severe bleeding, uterine rupture, cervical trauma, and uterine perforation.
- For medical abortion at higher gestational age, clients with uterine scars have a low risk of scar dehiscence.
- For surgical abortion, there is a low risk of the following complications that may require transfer to another facility and additional procedures including laparotomy: haemorrhage, uterine perforation, infection, damage to bladder and bowel (<1 per cent).
- Make the client aware of the signs of the following rare complications, so that they can seek appropriate care promptly:
  - Incomplete abortion: This may necessitate additional doses of misoprostol or a surgical intervention to complete the abortion.
  - Infection: This is more common with surgical abortion than with medical abortion and may require antibiotic treatment or transfer to an inpatient facility for additional treatment, if severe.
  - Continuing pregnancy: Continuing symptoms of pregnancy after a failed manual vacuum aspiration (MVA) or medical abortion may also indicate an ectopic location of pregnancy. This will need confirmatory tests and corresponding care (see *Section 4.3.1* and *Chapter 9: Maternal health*).

2.4 Pain management

The two key sources of pain during an abortion are cervical dilatation and uterine contractions. It is important that providers understand the timing of expected pain during the procedure in order to ideally prevent it and to time anaesthesia/analgesia accordingly. Pain relief should be offered to all clients undergoing medical and surgical abortion, and an individualized pain management plan should be made before initiating the abortion. Key points for healthcare providers regarding pain management are given in *Section 2.4.1* and a summary of pain management options can be found in *Table 1* (next page).

2.4.1 Key points for healthcare providers [7]

- Non-pharmacological methods to reduce pain and anxiety for abortion procedures are essential. These include preparing the client during pre-procedural counselling and discussion of what might be

expected and providing verbal reassurance and support throughout the entire process.

- Reducing discomfort for the client may also reduce time taken to perform the procedure.
- In most cases, analgesics such as non-steroidal anti-inflammatory drugs (NSAIDs), local anaesthesia, and/or conscious sedation supplemented by verbal reassurance are sufficient.
- Prophylactic NSAIDs, at sufficient doses, are the first-line analgesics of choice and may reduce the need for narcotic analgesia during surgical abortion. They should also be offered if misoprostol is used for cervical priming.
- To ensure that oral medications (NSAIDs and analgesics) will be most effective at the time of the procedure, administer them 30–45 minutes before the procedure.
- The need for pain management increases with gestational age; narcotic analgesia (with or without anxiolytics) may be required for D&E.
- Local anaesthesia, such as paracervical block using lidocaine, will alleviate discomfort from surgical procedures and should be routinely provided if available (*Appendix 1*).
- Paracetamol (oral or rectal) is ineffective for reducing pain during both surgical and medical abortion but can be used to treat fever and in addition to NSAIDs or, in case of allergy, replace NSAIDs.
- General anaesthesia is not recommended for routine abortion procedures, including routine D&E, as it has been associated with higher rates of complications than analgesia and local anaesthesia.

TABLE 1: Summary of pain management options

	Surgical abortion	Medical abortion
Non-pharmacological methods	• Respectful, non-judgemental communication • Verbal support and reassurance • Thorough explanation of what to expect • The presence of a support person who can remain with the client during the process (if the client desires it) • Hot water bottle or heating pad • Advance notice of each step of the procedure (if the client desires it) • Gentle, smooth operative technique • Encouraging deep controlled breathing • Listening to music	• Respectful, non-judgemental communication • Verbal support and reassurance • Thorough explanation of what to expect • The presence of a support person who can remain with the client during the process (if the client desires it) • Hot water bottle or heating pad • Moving helps to reduce pain (as during labour) • Encouraging deep controlled breathing • Listening to music

Pharmacological methods	• Analgesia (NSAIDs, e.g. ibuprofen 400–800 mg)
	• Anxiolytics/sedatives (e.g. diazepam 5–10 mg)
	• Local anaesthetic (paracervical block using lidocaine, usually 20 ml of 1 per cent or 10 ml of 2 per cent)
	• Conscious sedation (a combination of a sedative to relax and an anaesthetic to block pain) where available
		• Analgesia (NSAIDs, e.g. ibuprofen 400–800 mg)
		• Adjuvant medications may also be provided for side effects of misoprostol (e.g. loperamide for diarrhoea)
		> 12 weeks of gestation
		• Offer at least one of the following other options:
		  ◦ oral opioids (e.g. tramadol)
		  ◦ intramuscular or intravenous opioids
		  ◦ epidural anaesthesia (for higher gestational ages)

Source: WHO [1], Ipas [6].

3. Methods of abortion

3.1 Recommended options for medical and surgical abortion

Abortion can be carried out with medications – using a combined regimen of mifepristone plus misoprostol, or misoprostol alone – or surgically, using vacuum aspiration for gestational ages before 14 weeks or using D&E at or after 14 weeks of gestation.

The following methods are recommended for abortion up to 12 weeks of gestation:

- surgical methods: MVA or electric vacuum aspiration (EVA)
- medical methods:
  - combined medical abortion (oral mifepristone followed by misoprostol)
  - misoprostol alone in repeat doses, where mifepristone is not available

Dilatation and curettage (D&C) is an obsolete method of surgical abortion and should be replaced by vacuum aspiration and/or medical methods [1,8].

The following methods are recommended for abortion at or after 12 weeks of gestation:

- medical methods:
  - combined medical abortion (oral mifepristone followed by repeated doses of misoprostol)
  - misoprostol alone, in repeated doses, where mifepristone is not available
- surgical method: MVA or EVA up to 14 weeks of gestation and D&E using vacuum aspiration and forceps after 14 weeks of gestation

Healthcare providers should ensure that they stay updated on current evidence-based practice and how to provide it in a safe, dignified, and respectful environment. This helps to ensure that clients are empowered to make the best decision on what type of abortion procedure they prefer, including when they choose abortion self-care.

Further details regarding medical and surgical procedures can be found in the next sections and in *Tables 2, 3, and 4*.

TABLE 2: Characteristics of medical and surgical abortion procedures by gestational age range

Medical abortion	Surgical abortion
Gestation <12 weeks	**Gestation <14 weeks**

• Mifepristone + misoprostol (combined medical abortion) or misoprostol alone
• Avoids surgery
• May take place in a healthcare facility OR may be self-managed at home/elsewhere (with access to accurate information, quality medications, and access to a healthcare provider if needed)
• Takes time (hours to days) to complete the abortion, and the timing may not be predictable
• Mimics the process of miscarriage
• Clients experience bleeding and cramping, and potentially some other side effects (nausea, vomiting, slight fever, chills, and diarrhoea)
• Contraceptive options that can be initiated at the time of medical abortion are limited to hormonal methods
• May be preferred in the following situations:
  ◦ client wants to avoid surgical intervention
  ◦ client wishes to administer medication themself (up to 12 weeks)
  ◦ pelvic instrumentation is not feasible or not wanted
  ◦ client is severely obese
  ◦ client has uterine malformations or fibroids
• **Complications** are rare (<5 per cent) but may include: infection, excessive bleeding, continued pregnancy and need for a surgical procedure if abortion fails or is incomplete
	• Vacuum aspiration (manual or electric)
	• Requires instrumentation of the uterus
	• Takes place in a healthcare facility
	• Quick procedure – timing of abortion controlled by the facility and provider
	• Complete abortion easily verified by evaluation of aspirated products of conception
	• All contraceptive methods including tubal occlusion or placement of an intrauterine device (IUD) may be performed at the same time as the procedure
	• May be preferred in the following situations:
	  ◦ contraindications to medical abortion
	  ◦ constraints for the timing of the abortion
	• **Complications** are rare (<1 per cent) but may include: infection, excessive bleeding, cervical trauma, perforation of uterus, bladder, and bowel, continued pregnancy and need for an additional surgical procedure if abortion fails

continued

Medical abortion	Surgical abortion
Gestation ≥12 weeks	**Gestation ≥14 weeks**

• Mifepristone + misoprostol (combined regimen) or misoprostol alone
• Avoids surgery
• Takes place in a healthcare facility; clients remain in the facility until expulsion of the pregnancy is complete (usually day care)
• Takes time (hours to days) to complete the abortion, and the timing may not be predictable
• Mimics the process of miscarriage
• Clients experience bleeding and cramping, and potentially some other side effects (nausea, vomiting, slight fever, chills, and diarrhoea)
• Complete abortion easily verified by inspection of expelled products of conception
• All hormonal contraceptive methods can be started immediately; IUD placement or tubal occlusion can be performed immediately after expulsion
• May be preferred or necessary in the following situations:
  ◦ client wants to avoid surgical intervention
  ◦ client is severely obese
  ◦ client has uterine malformations or fibroids, or has had previous cervical surgery
  ◦ if surgical procedure is unsuccessful
• **Complications** are rare but may include: infection, excessive bleeding, uterine rupture, incomplete abortion or continued pregnancy (more common in early gestations). Retained placenta can occur in at least 10 per cent of cases, which requires intervention with manual removal or an aspiration procedure
	• Dilatation and evacuation (D&E)
	• Requires uterine instrumentation, and requires cervical preparation prior to the procedure
	• Takes place in a healthcare facility
	• Relatively shorter procedure than medical abortion, once cervical preparation is adequate; timing of abortion controlled by the facility and provider
	• Complete abortion easily verified by evaluation of evacuated products of conception
	• All contraceptive methods including tubal occlusion or placement of an IUD may be performed at the same time as the procedure
	• May be preferred or necessary in the following situations:
	  ◦ client has an allergy to mifepristone or misoprostol
	  ◦ constraints for the timing of the abortion
	  ◦ if medical abortion is prolonged or unsuccessful
	• **Complications** are rare but may include: infection, excessive bleeding, perforation of uterus, bladder, and bowel, cervical trauma, incomplete abortion or continued pregnancy

Source: WHO [1], RCOG [9].

3.2 Medical abortion [1]

Medical management of induced abortion at all gestations is most effective when a combination of mifepristone and misoprostol is used (*Box 2*). This regimen also shortens the induction-to-abortion interval and reduces side effects compared with the misoprostol-only regimen. Therefore, for induced abortion (and for cases of intrauterine embryonic or fetal demise), the combined regimen should always be the first choice if mifepristone is available, whereas the misoprostol-only regimen is the alternate choice. For treatment of incomplete abortion, the misoprostol-only regimen is the only recommended regimen. Misoprostol can be administered through a variety of routes (vaginal, sublingual, or buccal), whereas mifepristone is always given orally. See *Table 3* for further details on regimens, doses, and routes of administration for a range of indications.

3.2.1 Self-management of medical abortion

IPPF understands abortion self-care as the right of individuals to lead, in part or entirely, their abortion process, with or without support from healthcare providers. WHO recommendations state that individuals who have access to accurate information, quality-assured medicines, and a trained healthcare provider can self-manage the medical abortion process up to 12 weeks of gestation, including self-assessment of eligibility, self-administration of abortion medicines outside of a healthcare facility, and self-assessing the success of the abortion process using pregnancy tests (at 2–4 weeks post-abortion) and/or checklists.† The self-management of medical abortion is often a preferred alternative for some individuals due to affordability, reduced transportation needs, improved privacy, reduced stigma, comfort, and easier access for people with restricted mobility.

Abortion self-care places the person firmly at the centre of the abortion process; however, multiple stakeholders can also play a role in enabling this and facilitating this approach. The self-management of medical abortion is most effective when individuals have access to accurate information, quality medical abortion pills, and to a trained and empathetic facilitator or provider if needed or desired at any point during the process.

Healthcare providers should recognize self-managed abortion as a valid approach and be ready to play a supportive and enabling role, by acting on three components of support for abortion self-care:

1. **Delivery of accurate and accessible information** on abortion and, particularly, on medical abortion including what to expect, dosage, side effects, and signs of complications. Information can be provided through various strategies including hotlines, peer

BOX 2: Key information about mifepristone and misoprostol and effectiveness of medical abortion regimens

- Mifepristone works by blocking the effects of progesterone and thus inhibiting hormonal and vascular support of pregnancy, inducing cervical ripening and uterine contractions. It also increases the sensitivity of the myometrium to prostaglandins.
- Misoprostol is a prostaglandin analogue that causes uterine contractions and cervical softening (cervical ripening) to allow passage of the pregnancy.
- A combined regimen of mifepristone and misoprostol is recommended for medical abortion; where mifepristone is not available, the misoprostol-only regimen may be used.
- A combined regimen of mifepristone and misoprostol is effective and safe with success rates over 95 per cent, continuing pregnancy rates of less than 2 per cent, and complication rates of less than 1 per cent up to 10 weeks of gestation. Between 10 and 13 weeks, the success rate of mifepristone combined with misoprostol is over 95 per cent, with a continuing pregnancy rate around 2 per cent and complication rate of 3 per cent.
- A misoprostol-only regimen has lower success rates of about 80–85 per cent, with continuing pregnancy rates of 3–10 per cent and complication rates of 1–4 per cent up to 13 weeks of gestation.

Source: Ipas [6].

† There are limited data between 10 and 11 weeks and no comparative data regarding home use of misoprostol as part of a combined regimen after 11 weeks of gestation [6].

provision, websites, or referral to other reliable sources of information and support.

2. **Access to quality medical abortion pills**. People who choose to self-manage abortion can be supported to access quality medical abortion pills, for example by providing digital prescriptions, partnership with pharmacists, and sending pills by post or dispensed by community health workers.
3. **Providing supportive care during the self-care process**. Healthcare providers should ensure readiness to meet the needs of the individual at any point in their abortion process. This includes, for example, providing on-demand abortion counselling when requested and setting up referral networks in case of doubts or for treatment of complications, for post-abortion care, or other relevant care, as needed.

3.2.2 Additional information for care of medical abortion clients

Routine prophylactic antibiotics are **NOT** required for medical abortion at any gestational age if no instrumentation of the cervix or uterus is undertaken nor manual removal of the placenta in second-trimester medical abortions.

For both medical and surgical abortions at less than 12 weeks, WHO recommend against administration of anti-D immunoglobulin to prevent Rh-isoimmunization in Rh-negative clients [1]. At beyond 12 weeks, if available, anti-D immunoglobulin should be given by injection into the deltoid muscle to all Rh-negative clients at surgical abortion or within 72 hours following medical abortion; however, abortion care should not be refused or delayed if this is not possible (see *Section 3.3* for information on surgical abortion).

Regardless of gestational age or which regimen is used (combined or misoprostol only), repeated doses of misoprostol can be considered. Most medical abortions up to 10 weeks will be successful with only one dose of misoprostol, while abortions between 10 and 13 weeks will usually require two doses; above 13 weeks, 3–5 doses may be needed. The WHO abortion care guidelines do not set a maximum number of doses of misoprostol but encourages healthcare providers to use caution and clinical judgement when making this decision [1]. According to WHO recommendations: "Health-care providers should use caution and clinical judgement to decide the maximum number of doses of misoprostol in pregnant individuals with prior uterine incision. Uterine rupture is a rare complication; clinical judgement and health system preparedness for emergency management of uterine rupture must be considered with later gestational age" [1].

Ensure the client has access to pain relief, sanitary pads, and private toilets while awaiting pregnancy expulsion following medical abortion, whether at the healthcare facility or at home.

TABLE 3: Medical management of abortion: WHO recommended regimens

Recommendations	Combination regimen (Recommended) Mifepristone >>1–2 days>> Misoprostol		Misoprostol only (Alternate)
	Mifepristone	Misoprostol	Misoprostol[1]
Induced abortion <12 weeks	200 mg PO once	800 µg B, PV, or SL[2]	800 µg B, PV, or SL every 3 hours[3]
Induced abortion ≥12 weeks	200 mg PO once	400 µg B, PV, or SL every 3 hours[4,5]	400 µg B, PV, or SL every 3 hours[4,5]
Intrauterine fetal demise ≥14–28 weeks	200 mg PO once	400 µg PV or SL every 4–6 hours[4,5]	400 µg SL (preferred) or PV every 4–6 hours[4,5]

Abbreviations: B, buccal (between gum and inside cheek); PO, oral; PV, vaginal; SL, sublingual.

Source: WHO [1], Ipas [6].

1 If the uterine size is 22 weeks AND the client has a history of previous caesarean delivery or 13–22 weeks with more than one previous caesarean delivery), consider lowering the dosage of misoprostol with or without increasing dosing interval.

2 If bleeding does not begin within 24 hours, or if it is unclear whether the abortion has worked, the client can be given four more pills of misoprostol, to be taken in the same way as the initial dose (e.g. buccally, sublingually, or vaginally). It is common for clients to require two doses of misoprostol for pregnancies between 10 and 13 weeks of gestation. If bleeding has not begun within 24 hours of the second dose of misoprostol, consider and evaluate for ectopic pregnancy (see *Chapter 9: Maternal health, Section 4.3.1*) or failed abortion.

3 While some clients may require additional doses of misoprostol to complete an abortion, if bleeding does not begin within 24 hours of the third dose of misoprostol, or if it is unclear if the abortion has worked, consider and evaluate for the possibility of ectopic pregnancy (see *Chapter 9: Maternal health, Section 4.3*) or failed abortion.

4 Refer to information regarding repeat doses of misoprostol above.

5 If the client is stable, providers should allow at least 4 hours after fetal expulsion for passage of the placenta.

3.3 Surgical abortion

3.3.1 Prophylactic antibiotics

To reduce the risk of post-procedure infection, it is recommended that prophylactic antibiotics should be initiated preoperatively or perioperatively, whether the client has requested STI screening or not. Facilities offering surgical abortion should make efforts to secure adequate antibiotic supplies. If antibiotics are not available, however, abortion may still be performed.

3.3.2 Cervical preparation

Adequate cervical preparation decreases the morbidity associated with surgical abortion after 13 weeks, including the risk of cervical injury, uterine perforation, and incomplete abortion. Therefore, cervical preparation before surgical abortion is recommended for all clients with pregnancies beyond 12 weeks and may be considered in specific circumstances for earlier gestations (see *Box 1*). Pharmacologic agents and osmotic dilators can be used for cervical preparation (*Table 4* – next page).

TABLE 4: Cervical preparation for surgical abortion

Up to 14 weeks of gestation	Over 14 weeks of gestation
Misoprostol 400 µg administered vaginally or buccally 2–3 hours prior to the procedure. Misoprostol 400 µg sublingually 12 hours prior to the procedure	**Misoprostol** 400 µg administered vaginally 3 hours prior to the procedure. Misoprostol 400 µg sublingually 1–3 hours before the procedure
Mifepristone 200 mg taken orally 24–48 hours prior to the procedure	**Mifepristone** 200 mg taken orally 24–48 hours prior to the procedure
NOTE: Vaginal administration of misoprostol provides equally effective dilatation with fewer systemic side effects than sublingual administration but needs 3 hours to be effective	**Osmotic dilator** (e.g. laminaria) placed within the cervical canal 6–24 hours before the procedure; if the pregnancy is <18 weeks of gestion, an osmotic dilator will be effective if placed 3–4 hours before the procedure
	For surgical abortion at ≥19 weeks: Recommend cervical priming with an osmotic dilator plus medication (mifepristone, misoprostol, or a combination of both)
	NOTE: Use of misoprostol results in less dilatation than osmotic dilators but has the advantage of being a 1-day procedure for most clients

Source: WHO [1], Ipas [6], RCOG [9].

Analgesics such as ibuprofen and/or narcotics, as well as oral anxiolytics, as needed, should be administered around the time of cervical preparation and repeated, as needed, in advance of the procedure to maximize their effectiveness. Paracervical block can also be used when placing osmotic dilators. For further information on pain management, see *Section 2.4*.

3.3.3 Surgical abortion up to 14 weeks of gestation: vacuum aspiration

Vacuum aspiration is the only recommended surgical method for abortion up to gestations of 14 weeks, with successful abortion rates of over 98 per cent [6].

Either MVA or EVA can be used. MVA does not require a power supply and is quieter for the client. EVA may be more convenient for high-volume sites.

MVA uses a hand-held aspirator to generate a vacuum. The aspirator is attached to cannulas ranging from 4–16 mm in diameter and can be used in multiple settings, including those without electricity.

EVA uses an electric pump to generate a vacuum and can accommodate cannulas ranging from 6–16 mm in diameter, depending on gestational age, with larger-diameter tubing or an adapter required for cannulas larger than 12 mm.

For gestations between 12 and 14 weeks of gestation, MVA can be performed if providers have the appropriate level of competence and the correct equipment, including the appropriate cannula size.

Sharp uterine curettage, including a 'check' routine curettage, is **NOT** recommended for uterine evacuation nor for checking the success of MVA/EVA surgical abortion at any gestation as it has not been shown to decrease rates of incomplete abortion and can increase the potential for complications.

The steps for vacuum aspiration for gestational ages up to 14 weeks are summarized in *Appendix 2*.

3.3.4 Surgical abortion at and above 14 weeks of gestation: dilatation and evacuation (D&E)

D&E involves cervical preparation (see *Section 3.3.2*) and use of aspiration and blunt forceps, as needed, to remove fetal parts. The steps for performing D&E are summarized in *Appendix 3*.

D&E is the only recommended surgical method for pregnancies above 14 weeks of gestation and it is generally safe and effective; however, trained and skilled providers and specific equipment must be available. D&E can usually be performed on an outpatient basis but is associated with more pain for the client than surgical evacuation up to 14 weeks of gestation. Information on pain management is provided in *Section 2.4*.

D&E is the only recommended surgical method for pregnancies above 14 weeks of gestation; however, there is some flexibility between use of vacuum aspiration and D&E procedures between 12 and 16 weeks of gestation.

3.3.5 Confirmation of a complete procedure

A surgical abortion at any gestational age is not considered complete without examination of the products of conception:

- If there is no gestational sac or chorionic villi seen after evacuation, ectopic pregnancy should be considered (see *Chapter 9: Maternal health, Section 4.3.1*).
- If fetal tissues are observed, but the criteria are not met for the estimated gestational age, re-aspiration or follow-up ultrasound should be performed to rule out an incomplete procedure.

4. Post-abortion care

4.1 Post-procedure protocol

Each facility providing surgical abortion at or after 14 weeks or medical abortion beyond 12 weeks must have a discharge protocol, including the following:

- Mandatory recording of vital signs (pulse, blood pressure, volume of vaginal blood loss) taken by a provider assessed as competent.
- Monitoring of the client at the facility, with discharge by a named competent provider only when clinically stable, usually 20 minutes to 1 hour after the procedure.
- Monitoring of fever in the client. Healthcare providers need to be aware that misoprostol can also cause elevation of body temperature and feverish symptoms such as chills. If the fever lasts more than a few hours from the last misoprostol dose, another cause of fever should be suspected.
- Regular assessment of pain and analgesia offered after the procedure for as long as required.

4.2 Follow-up

Routine follow-up is not necessary following an uncomplicated surgical abortion. However, clients undergoing abortion should be informed that they can contact a healthcare provider if they have any questions or worries after leaving the facility. Information about how to contact the facility, what warning signs to look out for (*Box 3* – next page), and other available post-abortion care should be both written and verbal if feasible.

Clients should be informed of normal post-abortion signs and symptoms. Vaginal bleeding and uterine cramping similar to menstrual colic are to be expected for up to 2 weeks following surgical abortion and up to 4 weeks after medical abortion, within normal limits. To manage this, the client should be provided with pain relief to take home.

If the client did not initiate post-abortion contraception on the day of the abortion procedure, healthcare

BOX 3: Warning signs for complications in the immediate post-abortion period – seek medical attention!

- Bleeding complications (including incomplete abortion): prolonged or heavy bleeding (soaking more than two large pads per hour for two consecutive hours).
- Infectious complications: any fever after surgical abortion or fever lasting more than 24 hours after misoprostol administration; severe abdominal pain, unrelieved by pain medications.
- Ectopic pregnancy: continuing signs and symptoms of pregnancy after abortion and/or no bleeding after medical abortion; severe abdominal pain, unrelieved by pain medications.
- Traumatic complications (i.e. uterine perforation +/– bowel injury): severe abdominal pain after surgical abortion, unrelieved by pain medications.
- Unspecified complications: feeling generally unwell with malaise more than 24 hours after misoprostol administration.

providers should discuss post-abortion contraception with the client at the time of follow-up and provide them with a method of contraception, if chosen. The provider must ensure the client is aware that fertility can return as early as 8 days after abortion (see *Section 5: Post-abortion contraception*).

4.2.1 Routine follow-up

There is no need for routine follow-up for clients who have had an uncomplicated medical or surgical abortion.

For those using any medical abortion regimen (mifepristone plus misoprostol, or misoprostol alone) at home before 12 weeks of gestation, an in-person follow-up visit to assess the success of the abortion is not required if clinical signs/symptoms of pregnancy disappear and no warning signs are present. However, clients can be offered the option of a telephone follow-up at 7–14 days to answer any questions, reiterate instructions, and confirm absence of complications.

Any follow-up visit provides a good opportunity to discuss methods of contraception and provide adequate supplies where requested. The client may also need to access other sexual and reproductive healthcare, such as STI or HIV care, psychological support, or sexual and gender-based violence counselling and support.

4.2.2 Urgent follow-up

If an ectopic pregnancy is suspected post-procedure (see *Box 3* for warning signs), evaluate the client by performing a pelvic examination and/or ultrasound scan and/or human chorionic gonadotropin (hCG) test to determine uterine size, adnexal pain, and/or presence of adnexal mass. See *Chapter 9: Maternal health, Section 4.3.1* for additional information on diagnosis and management of ectopic pregnancy.

If uterine perforation and/or visceral damage is suspected, prompt investigation and treatment is required. See *Section 4.3: Management of complications*.

4.3 Management of complications

When clients present with signs or symptoms of complications following abortion, a routine clinical history and examination should be performed (see *Section 2.1* and *Chapter 2: Facility requirements and client history/examination*), which should be as comprehensive and efficient as possible depending on the urgency and condition of the client.

4.3.1 Incomplete abortion (without or with infection)

Incomplete abortion should be suspected if the client presents with:

- heavy bleeding
- pain
- signs of infection (see below)

When incomplete abortion is suspected, the healthcare provider needs to establish the uterine size, how much blood loss has occurred, and whether infection is present.

If the client shows signs of shock, heavy bleeding, or infection, an aspiration/uterine evacuation should be performed or urgent referral should be provided. If the client is clinically stable and no signs of infection are present, the uterus can be evacuated surgically using aspiration or medically using misoprostol (see *Table 5 and Table 3*).

TABLE 5: Summary of management of incomplete abortion (without/with infection)

Clinical assessment	Uterine size	Action	Note
No suspicion of infection	Uterine size ≤14 weeks	**Option 1**: Uterine evacuation using vacuum aspiration; antibiotic prophylaxis should be given before surgical evacuation: 200 mg doxycycline or 500 mg azithromycin within 2 hours before the procedure **Option 2**: One dose misoprostol 800 µg vaginally (if no significant vaginal bleeding), 600 µg orally, or 400 µg sublingually	The procedure should not be delayed if antibiotics are not available
	Uterine size >14 weeks	**Option 1**: Uterine evacuation using vacuum aspiration and blunt forceps if necessary; antibiotic prophylaxis as above **Option 2**: If the client is stable, misoprostol can be used: 14–28 weeks: misoprostol 400 µg buccally, sublingually or, in the absence of vaginal bleeding, vaginally every 3 hours until expulsion 28+ weeks: 25 µg vaginally 6-hourly or 25 µg orally 2-hourly	If the uterine size is 22 weeks AND the client has a history of previous caesarean delivery or 14–22 weeks with more than one previous caesarean delivery), consider lowering the dosage of misoprostol with or without increasing dosing interval
Infection is present	Regardless of uterine size, evacuation as soon as possible	Start broad-spectrum antibiotics immediately – intravenously if infection is severe Urgently transfer to a unit with the facilities for undertaking surgical evacuation if it cannot be done in the facility where the client presents	If the skills necessary for urgent surgical uterine evacuation are not available, misoprostol can be used while planning for a transfer: • 14–28 weeks: misoprostol 400 µg buccally, sublingually or, in the absence of vaginal bleeding, vaginally every 3 hours until expulsion • 28+ weeks: 25 µg vaginally 6-hourly or 25 µg orally 2-hourly

Source: Ipas [6], RCOG [9].

Complications of an unsafe abortion should be suspected if there is evidence of:

- vaginal or cervical laceration or injury
- presence of foreign material in the vagina or cervix
- systemic infection and vaginal bleeding in a previously pregnant client

4.3.2 Infection

Infection should be suspected if:

- the client's temperature is ≥37.5°C or <35.5°C
- there is localized or general abdominal tenderness, guarding, and rebound
- there is foul-smelling odour or pus in the cervical os or vaginal discharge
- the uterus is tender on palpation or bimanual examination

Infection should be treated promptly with evidence-based antibiotic regimens; evaluation should be performed to determine if uterine evacuation is needed due to retained products of conception (see *Table 5*).

4.3.3 Severe complications

While incomplete abortion and infection are the most common complications following abortion, healthcare providers should be able to recognize and treat or refer for the rare (<1 per cent) but life-threatening complications described in the following sections. Of note, these complications occur more commonly when unsafe methods of abortion are used.

4.3.3.1 Sepsis

Features suggestive of sepsis and indicating the need for emergency action include:

- hypotension
- tachycardia
- increased respiratory rate
- severe pain

If these features are present, start two intravenous lines with intravenous fluids (normal saline or compound sodium lactate solution) and start broad-spectrum antibiotics.

If there is a suspicion of retained products of conception, evacuation of the uterus should be considered.

If the situation is not stabilized or the client may need intensive care, transfer should be arranged.

4.3.3.2 Uterine perforation

Most perforations go undetected and resolve spontaneously without any need for intervention. However, uterine perforation should be suspected during surgical abortion if the cannula advances beyond the expected limits of the uterus (based on bimanual examination or ultrasound), or if fat or bowel is removed from the uterus.

If available, laparoscopy is the method of choice to investigate further. If laparoscopy is not available, or damage to organs or blood vessels is suspected, exploratory laparotomy should be performed. The healthcare provider should consider early transfer and resuscitation if a surgical approach cannot be performed in the facility.

4.3.3.3 Bowel damage

Late diagnosis of bowel perforation can lead to peritonitis and death. Healthcare providers of all cadres must be able to monitor vital signs and client condition after the procedure.

Clinical warning signs and symptoms of bowel perforation in the post-operative period include:

- abdominal pain or shoulder pain (a sign of fluid or blood in the abdomen causing irritation to the diaphragm)
- inability to tolerate oral fluids, nausea or vomiting
- distended abdomen with decreased bowel sounds and rebound tenderness
- fever and malaise
- rising pulse rate with lowering of blood pressure

Bowel injury most often presents 12–36 hours after a known surgical abortion (or suspected unsafe abortion), although it may not manifest until 5–7 days later. Facilities and staff should be aware of transfer protocols when bowel perforation is suspected. Clients should be kept nil by mouth if bowel injury is suspected. Clinical suspicion can be confirmed by X-ray (free intra-abdominal air), in which case a laparotomy is indicated for treatment.

5. Post-abortion contraception

Generally, almost all methods of contraception can be initiated immediately following a surgical or medical abortion.

If not started immediately, the method may be started if there is a reasonable certainty that the client is not pregnant. Need for additional contraception and its duration is based on when the method is started and the chosen contraceptive's mechanism of action (see *Chapter 4: Contraception*).

As with the initiation of any method of contraception, the client's medical eligibility for a method should be verified (see *Chapter 4: Contraception* and *Appendix 1* of that chapter for medical eligibility criteria summary tables).

Clients who do not choose to immediately start a contraceptive method should be offered follow-up contact to discuss this further and should be routinely supplied with condoms and emergency contraceptive pills.

Immediate start of contraception after surgical abortion refers to the same day as the procedure. Immediate start after medical abortion refers to the day the first pill of a medical abortion regimen is taken (mifepristone for the combined regimen or first dose of misoprostol for misoprostol-only regimens). With immediate start of contraception, no additional protection or abstinence is needed.

6. Harm reduction approach

In circumstances where abortion is legally permitted, providers should be trained and equipped to offer safe and accessible abortion care. However, in settings where abortion is severely legally restricted, a harm reduction approach with a view to improving the care of clients with unintended pregnancies can be implemented.

The harm reduction approach to preventing unsafe abortions is based on three principles, namely: **neutrality, humanism,** and **pragmatism**. It is grounded in ethical principles of the provider–client relationship and provides an inclusive approach for all people who can become pregnant, regardless of socioeconomic status or educational levels, while upholding confidentiality.

These principles can be used across countries even where abortion is restricted or illegal to provide information and supportive care in line with the law.

A harm reduction model provides abortion-related care to the full extent permitted by the law. That is, if the client requiring an abortion is eligible for a legal abortion, it is provided, or the client is referred to the relevant care (provided they accept and this is their preferred choice). If the client is not eligible for a legal abortion, they are provided with information and counselling to minimize potential harm to themselves, should they undertake efforts to opt out of the pregnancy.

A harm reduction approach acknowledges that in every abortion there are three stages, and care is provided accordingly:

1. The pre-abortion ('before') stage: Pre-abortion counselling and consultation is provided, including pregnancy options counselling and information on the safest methods of abortion available (i.e. the use of misoprostol).

2. The abortion ('during') stage: Individuals self-manage their abortion outside of the clinic setting.

    a. Tasks that can be undertaken to support a person in this stage, particularly to prevent least safe procedures, depend on local laws and a legal assessment.

3. The post-abortion ('after') stage: Post-abortion care is provided, offered via telephone/remote methods or in-person follow-up consultation. Complications, if any, are managed, and healthcare to prevent future unintended pregnancies and address other sexual and reproductive health concerns is provided.

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7.1 Resources

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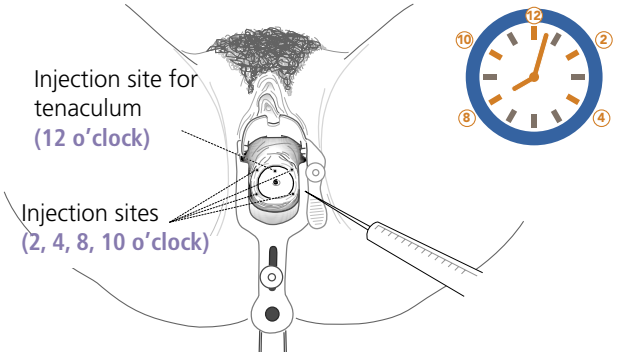
Appendices

Appendix 1: How to administer a paracervical block

Paracervical block technique



1. Prepare lidocaine syringe using 20mL of 1% lidocaine and a 3cm (1in) needle.
2. Place the speculum and perform cervical antiseptic prep.
3. Inject 2mL of lidocaine superficially into the anterior lip of the cervix where the tenaculum will be placed (12 o'clock).
4. Grasp cervix with the tenaculum at 12 o'clock.
5. Inject remaining lidocaine in equal amounts at the cervicovaginal junction, at 2, 4, 8 and 10 o'clock
6. Begin procedure without delay.

PRACTICE TIPS

- Do not exceed the lidocaine maximum dose of 4.5mg/kg or 200mg total.
- If 1% lidocaine is unavailable, 10mL of 2% may be substituted. A two-point paracervical block technique (injecting at 4 and 8 o'clock) may be used.
- Deep injection of lidocaine (3cm or 1in) provides more effective pain relief than superficial injection.
- Aspirate before injecting to prevent intravascular injection.
- Possible side effects seen with intravascular injection include peri-oral tingling, tinnitus, metallic taste, dizziness or irregular/slow pulse.
- Midlevel providers trained to provide paracervical block demonstrate similar safety and efficacy as physicians.
- Serious adverse events related to paracervical block are rare.

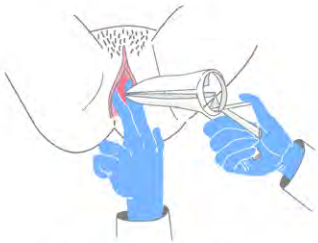
Source: Reproduced with permission from Ipas. Clinical Updates in Reproductive Health. North Carolina: Ipas; 2021. Available at: https://www.ipas.org/resource/clinical-updates-in-reproductive-health/

Appendix 2: How to perform vacuum aspiration

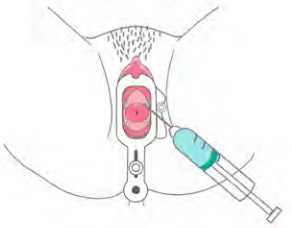
safe2choose

The vacuum aspiration abortion step-by-step

1. The procedure will begin with a **pelvic or speculum exam**.

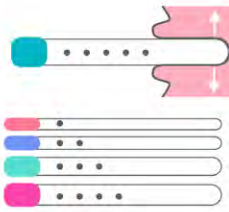


2. A local **anesthetic** is injected next to the cervix.



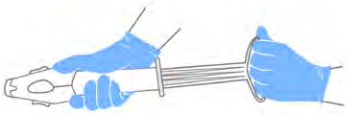
3. The clinician will **dilate the cervix** with instruments called cervical dilators.

These dilators gradually increase in size depending on the number of pregnancy weeks.



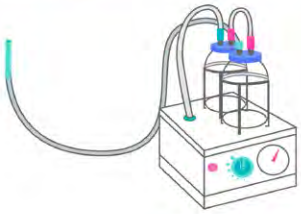
4. Once the desired dilation is achieved, the clinician will perform the **aspiration** and remove the pregnancy.

*A) with a silent, handheld suction device for **manual vacuum aspiration (MVA)**.*

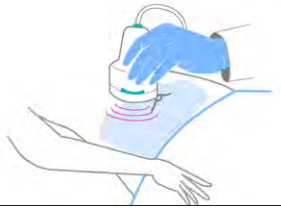


OR

*B) with an electrical machine for **electric vacuum aspiration (EVA)**.*



5. After removal of the pregnancy, the provider may choose to do an ultrasound, then the woman is allowed to **rest**.



Source: Source: Reproduced/translated/adapted with permission from Safe2Choose. Guide to a Safe Manual Vacuum Aspiration (MVA). London. Safe2choose; 2022. Available at: https://safe2choose.org/safe-abortion/inclinic-abortion/manual-vacuum-aspiration-mva-procedure

Appendix 3: How to perform dilatation and evacuation

Procedure step by step

- Perform safety and equipment check.
- Have the woman empty her bladder before entering the procedure room.
- Initiate any intravenous pain and/or antianxiolytics. Any oral medications should be given in advance of the procedure in order to perform the D&E at the time of their maximal effect.
- Perform bimanual exam to check uterine size and position as well as adequacy of cervical dilation. Remove and account for all osmotic dilators previously placed. If the cervix is not adequately prepared, give an additional dose of misoprostol and/or place another set of dilators.
- Place speculum.
- Clean cervix with an antiseptic solution, such as providone-iodine (Betadine).
- Perform paracervical block and place tenaculum.
- Place traction on the tenaculum to bring cervix down the vagina.
  - Ring/Foerster/sponge-holding/vulsellum forceps can be used in place of a tenaculum for later gestations, if desired.
- Recheck adequacy of dilation by attempting to pass the largest diameter dilator without using force.
- Mechanically dilate cervix, as needed, to achieve desired/necessary amount.
  - Dilators need to reach the internal os, without going higher into the uterus. Touching the fundus with the dilator is painful for the woman and increases the risk of perforation.
- Perform uterine aspiration with largest cannula available (12-16 mm) and aspirate the amniotic fluid (see Figure 1). Either electric or manual vacuum aspiration can be used.
  - Perform the suction as is done during a first-trimester aspiration abortion, rotating the cannula during suction. If using MVA, empty the aspirator when it is full and repeat as necessary. When nothing more can be suctioned, remove cannula from uterus.
  - For gestations up to 15 weeks, it may be possible to complete the abortion using aspiration only.
- Maintaining gentle traction on the tenaculum to straighten the cervical canal, pass the closed forceps through the cervix in a vertical direction (the jaw of the Bierer or Sopher forceps should open in an up-down direction, not horizontally) (see Figure 2).

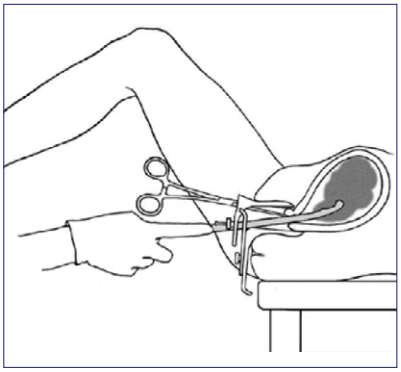


Figure 1. Aspirate the amniotic fluid.

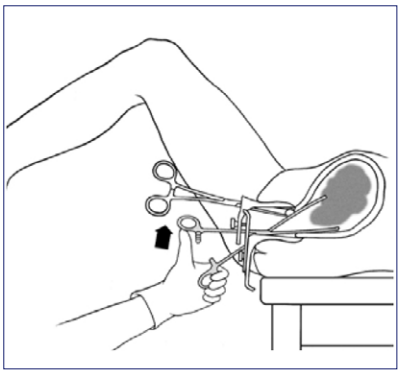


Figure 2. Open the forceps.

- As soon as the forceps pass through the internal os, gently open it as wide as possible. While opening the forceps, drop your hand and forceps in the direction of the floor to angle the jaws of the forceps into the anterior lower-uterine segment (see Figure 3).
  - A mid-trimester gravid uterus is usually positioned anteriorly, toward the anterior abdominal wall.
- To evacuate the tissue, close the forceps around the fetal tissue and rotate it 90 degrees to assist with disarticulation before withdrawing.
  - Be careful not to grasp the myometrium with the forceps.
  - Keep forceps within the lower to mid-uterine segment. There is usually no need to use the forceps near the fundus, which increases the risk of perforation (see Figure 4).
- Repeat until fetal removal is completed as is the majority or all of the placenta.
  - Attempt to remove tissue with each pass of the forceps.
    - If you cannot locate and move the fetus/fetal parts within 5-7 minutes, consider using ultrasound to visualize and direct the movement of the forceps.
    - If the tissue has moved upwards to the fundus from the lower segment of the uterus, use suction to bring the tissue down within grasp of the forceps or consider removing the speculum and tenaculum and massaging the uterus. If dilated sufficiently to allow passage of part of the provider's hand, the pregnancy can be repositioned internally. In the unlikely event that these maneuvers do not bring the tissue within reach of the forceps, administer misoprostol 400mcg (buccal) or high-dose oxytocin (200 units in 500mL normal saline or lactated ringers and run at 50mL/hour IV). The D&E procedure should be re-attempted in 30 minutes to 3 hours. The woman should be observed during this time.
- When all fetal tissue is removed, perform suction aspiration to ensure no tissue is remaining.
- Examine the fetal tissue to ensure that evacuation is complete:
  - Identify fetal parts (thorax, spine, calvarium, all 4 extremities and placenta, for all procedures 14 weeks and greater).
  - If it is unclear whether the evacuation is complete, an ultrasound or a digital exam of the uterine cavity may be used for confirmation.

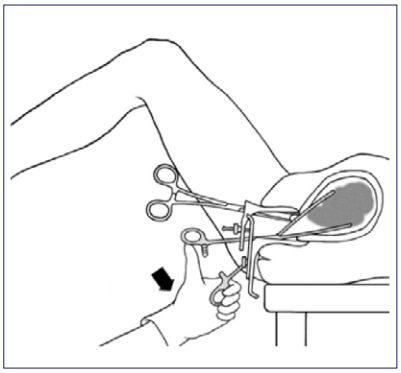


Figure 3. Pull the forceps handle down so graspers are in the anterior lower-uterine segment.

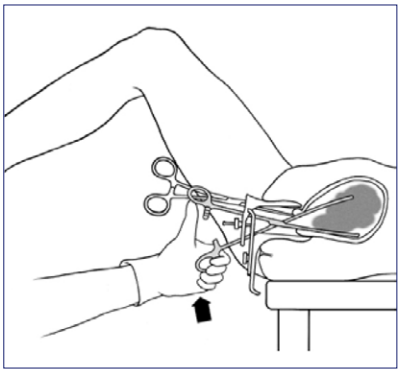


Figure 4. Evacuate from the lowest section of the uterine cavity.

Source: Reproduced with permission from Ipas. Edelman A, Kapp N. Dilatation & Evacuation (D&E) Reference Guide: Induced abortion and postabortion care at or after 13 weeks gestation ('second trimester'). Chapel Hill, NC: Ipas; 2018. Available at: https://www.ipas.org/resource/dilatation-evacuation-de-reference-guide-induced-abortion-and-postabortion-care-at-or-after-13-weeks-gestation-second-trim\ester/

MAIN CONTENTS

Chapter 6:

Sexually transmitted infections

contents

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1. Introduction

Sexually transmitted infections (STIs) have a profound impact on reproductive health. Although many different bacteria, viruses, and parasites can be transmitted through sexual contact, eight of them cause the greatest incidence of disease. Four are currently curable: syphilis, gonorrhoea, chlamydia, and trichomoniasis; while the others are viral infections that remain incurable: hepatitis B, herpes simplex virus (HSV or herpes), HIV, and human papillomavirus (HPV).

STIs directly impact sexual and reproductive health through stigmatization, infertility, cancers, and pregnancy complications, and can increase a person's risk of acquiring HIV. The goal of this chapter is to present details on preventing, diagnosing, and treating infections spread predominantly by sexual contact, including vaginal, anal, and oral sex, thereby mitigating the serious consequences of infection and disease.

1.1 Key terms, magnitude, and overview of STIs

The terms 'sexually transmitted infections' and 'sexually transmitted diseases' (STDs) are often used interchangeably, although they refer to two different conditions. 'Infections' may or may not lead to 'diseases', or disease complications and sequelae. Using STIs rather than STDs highlights that infections may exist and be transmissible without (or before) causing clinical manifestations. STIs are often asymptomatic (e.g. chlamydia, gonorrhoea, HPV), and some do not affect the genitals or reproductive tract directly (e.g. HIV, hepatitis B, hepatitis C).

'Reproductive tract infections' (RTIs) is an umbrella term for all infections of the reproductive tract. Not all STIs affect the reproductive tract and not all RTIs are sexually transmitted. STI refers to the *mode* of transmission, whereas RTI refers to the *site* where the infections develop.

RTIs include:

- STIs that affect the reproductive tract (e.g. gonorrhoea, chlamydia, syphilis, genital herpes simplex virus, trichomoniasis, chancroid, HPV).
- Endogenous RTIs that are caused by an overgrowth of micro-organisms normally found in the reproductive tract of healthy women and which are not sexually transmitted (e.g. bacterial vaginosis or vulvovaginal candidiasis, also known as yeast infections).
- Iatrogenic RTIs that can result from poor infection prevention and from medical procedures, such as intrauterine device (IUD) insertion, unsafe abortion, or other gynaecological/obstetric procedures (e.g. management of pregnancy complications, resulting in infection of the uterus, fallopian tubes, and other pelvic organs).

Acronyms

BV	bacterial vaginosis
GUD	genital ulcer disease
HBsAG	hepatitis B surface antigen
HBeAG	hepatitis B e antigen
HBV	hepatitis B virus
HCV	hepatitis C virus
HIV	human immunodeficiency virus
HPV	human papillomavirus
HSV	herpes simplex virus
IPPF	International Planned Parenthood Federation
IUD	intrauterine device
LGV	lymphogranuloma venereum
NAAT	nucleic acid amplification test
PCR	polymerase chain reaction
PID	pelvic inflammatory disease
POCT	point-of-care test
PrEP	pre-exposure prophylaxis
RDT	rapid diagnostic test
RPR	rapid plasma reagin
RST	rapid syphilis test
RTI	reproductive tract infection
STI	sexually transmitted infection
UTI	urinary tract infection
VVC	vulvovaginal candidiasis
WHO	World Health Organization

Urinary tract infections (UTIs) affect the bladder and urethra and can be caused by organisms that are sexually transmitted or by gastrointestinal bacteria (e.g. *E. coli* bacteria are the main cause of bladder infections).

STIs are a significant cause of global morbidity with large numbers of people acquiring new infections and living with existing infections, some of which can have life-threatening consequences. Worldwide, over 1 million new STIs are acquired every day.

1.1.1 Overview of STIs

Although there are more than 30 pathogens known to be transmitted through sexual contact, the vast majority of disease or illness linked to STIs is due to only eight, four of which are currently curable: ***Treponema pallidum* (syphilis), *Neisseria gonorrhoeae* (gonorrhoea), *Chlamydia trachomatis* (chlamydia), and *Trichomonas vaginalis* (trichomoniasis)**. These four can be treated with effective single-dose antibiotic regimens, although antimicrobial resistance has been increasing in STIs recently, especially in gonorrhoea. The four most common non-curable/viral STIs are **hepatitis B virus, genital herpes simplex virus (HSV type 2), HIV, and HPV**. Although incurable, these infections can be mitigated or modulated through treatment, and vaccinations exist for hepatitis B and for many types of HPV [1].*

Many STIs are asymptomatic or only have mild symptoms that may not be recognized easily, which increases the likelihood that complications develop and may have serious consequences in some cases. Sexual dysfunction, infertility, and psychological morbidity can also be a consequence of STIs, due to stigma and discrimination.

Gonococcal infections and **chlamydial infections** are often asymptomatic and are common in all people. Both infections can lead to severe complications in women, including pelvic inflammatory disease (PID), ectopic pregnancy, and infertility. In men, untreated urethral infection can lead to epididymitis, urethral stricture, and infertility. Lymphogranuloma venereum (LGV), caused by a more invasive serovar of *C. trachomatis*, is increasingly prevalent among men who have sex with men in some regions. Infants of individuals with gonococcal or chlamydial infection can develop neonatal conjunctivitis, which may lead to blindness if left untreated. Maternal chlamydial infection is also associated with preterm birth, low birth weight, and neonatal nasopharyngeal infection and pneumonia [2,3].

Primary syphilis often presents as a single, painless chancre, which may go unnoticed by clients. Untreated syphilis can progress to secondary syphilis, early and late latent (asymptomatic) syphilis, and tertiary syphilis (i.e. severe illness: neurosyphilis, cardiovascular syphilis, and gummatous syphilis). Vertical transmission of syphilis (congenital syphilis) is usually devastating to the fetus if maternal infection is not detected and treated early in pregnancy [4].

HPV infections are usually asymptomatic, and the vast majority clear up on their own within months to 2 years, although a small proportion persist. If the infections persist, several HPV types can cause cancers of the cervix, vulva, vagina, anus, penis, and oropharynx, as well as genital warts. Most significantly, HPV 16 and 18 cause approximately 70 per cent of cervical cancers and precancerous cervical lesions globally. Cervical cancer is the fourth most common cancer in women, with about 90 per cent of the new cases and deaths worldwide occurring in low- and middle-income countries in 2020 [5].

HIV is usually asymptomatic initially but reduces immune function if untreated so that individuals with HIV are increasingly susceptible to a wide range of infections, cancers, and other diseases. If undetected and untreated, HIV can also be transmitted perinatally during pregnancy, delivery, and breastfeeding. STIs that cause genital ulcers, such as syphilis, herpes, and chancroid, can also increase the risk of HIV acquisition (see *Chapter 7: HIV*).

Viral hepatitis attacks the liver and can cause both acute and chronic disease, although most people do not experience symptoms when newly infected. Viral hepatitis can also lead to death as a result of chronic liver disease and liver cancer, mostly caused by hepatitis B and C virus [6].

* Gardasil 9 vaccine protects against nine HPV types (HPV types 6, 11, 16, 18, 31, 33, 45, 52, and 58), while Cervarix protects against two HPV types and Gardasil against four HPV types.

1.2 IPPF position on STI management

- Comprehensive STI healthcare should be evidence-based, acceptable, accessible, affordable, and equitable, and should be offered as an integrated package of care with other sexual and reproductive healthcare for a person-centred approach.
- Screening, diagnosis, and treatment of STIs (including screening for STI risk), and HIV prevention and risk reduction counselling are essential components of comprehensive sexual and reproductive healthcare and in line with the International Planned Parenthood Federation's (IPPF) integrated service package (see *Chapter 1: Guiding principles and approaches).*
- STI management should be informed by national guidelines, or by World Health Organization (WHO) (see *Appendix 1*) and other relevant global guidance adapted to the local context.
- Correct and effective treatment of STIs, ideally given and taken on the same day, at the first contact between clients and healthcare providers, is important as it attempts to break the chain of transmission of the infection without delay.
- Tests that enable diagnosis and treatment in a single visit, known as rapid diagnostic tests (RDTs) or point-of-care tests (POCTs), are widely available for HIV and syphilis (separately or using a dual HIV/syphilis RDT). Use of these tests in the context of antenatal care is a priority, to help prevent perinatal transmission of both syphilis and HIV.
- Syndromic management is effective for some STIs and is recommended in settings without sufficient laboratory capacity or in the absence of diagnostic tests. Symptomatic clients should be managed in line with national STI management guidelines.
- All healthcare should be centred on a rights-based approach. Clients should never be coerced by anyone to obtain care and must give consent before receiving any STI healthcare.
- Inform clients requiring STI treatment that their sexual partner(s) should also be tested and/or treated and prepare these clients with practical advice on how to talk to their partner(s) about STIs (see *Section 2.5: Partner notification*).
- Periodic screening of populations most at risk for STIs is recommended, including youth (age range determined by local STI prevalence patterns), men who have sex with men, transgender people, sex workers, and people who use drugs.
- Clients should be referred for additional healthcare as required, including for prompt STI screening and treatment if not available at the facility where the client has presented. All STI healthcare should include follow-up visits to review treatment and provide further counselling and/or related care. All aspects of care should remain confidential.

1.3 Key competencies for healthcare providers

Know the local and national epidemiology of STIs: Providers need to be aware of the prevalence of STIs in their country or locality, as a basis for assessing the risk of STIs in their client population. Combining this information with an individual risk assessment during client history-taking will support effective STI management, especially where aetiological tests are not available (see *Section 3: Diagnostic tests*).

Keep up to date with clinical information and current guidance: Providers need to stay updated in their knowledge of STI presentations, screening/diagnostic methods, and treatment regimens, as well as STI prevention interventions; know the local and regional guidance (where available); and be aware of local changes relevant to particular infections and treatments, (e.g. reductions in antibiotic sensitivity/susceptibility). Emerging antimicrobial resistance in some STIs may affect recommended treatment, especially *N. gonorrhoeae* (the bacterium causing gonorrhoea).

Be able to provide non-judgmental and non-stigmatizing STI healthcare: Providers should aim to provide non-judgmental and confidential care and promote good sexual and reproductive health in a way that reduces the stigma associated with STIs, HIV, and unintended pregnancy. Many populations at higher risk of STIs (see *Box 1*) also face stigma and discrimination and

may not present for certain healthcare because they fear experiencing stigma or they may feel that care provision is not equipped to help them. Providers may also overlook populations at risk (such as people with disabilities), by presuming that they are not sexually active. Some clients may also not be able to afford treatment; they may avoid or delay accessing healthcare or mentioning STI symptoms due to stigma and shame; and/or they may have hectic lives and therefore cannot attend a clinic, finish a course of treatment, or return for follow-up.

Take all opportunities to provide STI information and care: Providers of sexual and reproductive healthcare should feel prepared to take the opportunity, whenever appropriate, to counsel clients on the benefits of STI screening and treatment and to support them in making informed choices. Information should be provided in a manner that is easily accessible and understandable and meets the needs of the client (pictorial, sign language, etc). Examples of potential opportunities include:

- During provision of contraceptive healthcare, and especially when potential STI symptoms are mentioned or found (e.g. inspect for symptoms when inserting an intrauterine device).
- During provision of a safe surgical abortion procedure or other gynaecological care requiring physical examination (e.g. cervical cancer screening).
- During antenatal care visits (e.g. strongly recommended to offer dual HIV and syphilis screening).
- During management of clients affected by sexual and gender-based violence and rape.

Be able to offer STI diagnosis and treatment: Screening or test methods that allow for a same day or same visit diagnosis are preferable to reduce loss to follow-up and support appropriate and efficient treatment for positive clients. Accurate and easy-to-use RDTs exist for HIV and syphilis (separate or as a combined 'dual' test), giving results within 20 minutes [7]. In the absence of accurate RDTs for other STIs, clinics will require supplies for taking samples, laboratory equipment (preferably on-site to expedite analysis), and training to provide a diagnosis. Where no laboratory facilities or RDTs are available to support aetiological diagnosis, access to STI treatment for symptomatic clients is still essential, therefore providers need to be skilled in syndromic management of STIs (see *Section 5*). The medications recommended by the facility's syndromic management protocol (based on national or regional guidance) should be widely available in adequate supply so that treatment is not delayed and loss to follow-up is minimized.

2. Comprehensive STI healthcare delivery

Effective STI management consists not only of antimicrobial therapy to cure and reduce infectiousness, but also comprehensive assessment and care of the person's sexual and reproductive health and that of their sexual partners.

The objectives of comprehensive STI healthcare delivery are to provide treatment, obtain cure, reduce infectiousness, reduce the risk of developing complications of STIs, reduce or prevent future risk-taking behaviour (including other bio-behavioural interventions, such as pre-exposure prophylaxis (PrEP) and voluntary medical male circumcision), and ensure that sexual partners are appropriately treated.

A full range of high-quality STI care should be provided within the continuum of sexual and reproductive healthcare. This requires that a client receives the following care, as relevant:

- medical and sexual history taken and noted
- correct diagnosis (whether syndromic or based on diagnostic tests)
- effective treatment
- health education and counselling about the infection and risk reduction
- advice on compliance with treatment
- promotion and/or provision of condoms (male or female)
- promotion and/or provision of PrEP

- promotion and/or provision of other preventive interventions, such as vaccines against hepatitis A and B, vaccines against HPV, where appropriate, and voluntary medical male circumcision
- encouragement to notify sexual partners
- clinical follow-up where appropriate

The specific STI care provided at the facility – and the specific population groups that may need extra attention (see *Box 1*) – will vary by country and region, depending on the local epidemiological and social context. The core package of healthcare offered needs to be regularly reviewed to ensure that, as new evidence emerges and new technologies and approaches are developed (e.g. use of internet messaging services for engagement), innovations are rapidly integrated and opportunities harnessed.

2.1 STI prevention

Prevention is the most important strategy to control STIs, including HIV infection.

Effective STI control requires ensuring access to high-quality and effective prevention healthcare, including ensuring access to vaccinations for hepatitis A, hepatitis B, and HPV, and promoting voluntary medical male circumcision where appropriate. Screening for asymptomatic STIs is important for early detection, prevention of serious consequences of infection, and preventing transmission of STIs. Inclusion of partner notification, testing, and/or treatment prevents reinfection.

It is also crucial that STI healthcare is non-stigmatizing and non-discriminatory, accessible for all, and integrated with other sexual and reproductive health or primary care services to maximize access, while ensuring privacy and confidentiality.

Healthcare providers have multiple roles to play in the prevention of STIs and their complications, as described in brief below.

- **Promote early use of clinic services** to treat STIs and prevent complications, emphasizing that many STIs are curable. Encourage health-seeking behaviour by teaching people how to recognize symptoms and when to seek care.

BOX 1: Specific populations most affected by STIs, including HIV

Countries should define the specific populations to focus on for STI healthcare, depending on the local contexts. These population groups may include:

- people most likely to have high numbers of sexual partners, e.g. sex workers and their clients
- men who have sex with men
- transgender people
- people with existing STI(s), including HIV
- adolescents and young people (ages 10–24)
- women
- people experiencing sexual and gender-based violence
- mobile populations
- children and young people living on the street
- prisoners
- people who use recreational drugs
- people affected by conflict and civil unrest

Source: WHO [8].

- **Promote safer sexual practices and condom use,** when counselling clients, including providing verbal and written information about STIs and key prevention messages (see *Box 2 – next page*), demonstrating correct male and female condom use, and discussing dual protection (against pregnancy and STIs, including HIV). Different condom sizes and types should be available, including female condoms, as well as condom-compatible lubricants. The use of lubricants helps prevent male condoms from breaking and slipping and can increase comfort and pleasure, particularly for anal sex. Explain that oil-based lubricants must not be used with latex condoms as they can degrade the latex, increasing the risk of condom breakage (for further information see *Chapter 7: HIV*).
- **Detect infections** that are not obvious. Ask about STI symptoms during history-taking when clients attend for any sexual and reproductive healthcare. Also look for signs of STIs when performing non-

STI examinations (e.g. cervical screening or IUD insertion). Offer screening for asymptomatic infections and periodic retesting/examination, when possible, especially if the client is assessed to be at high risk. Provide advice on how often a client should be tested depending on risk factors (e.g. for men who have sex with men, STI screening can be offered at 3–6-month intervals).

- **Prevent iatrogenic infection** by following universal precautions and strict instrument processing, using aseptic techniques, and by ruling out or treating cervical infection before performing transcervical procedures.
- **Manage symptomatic STIs** effectively by providing treatment, obtaining cure or reducing infectiousness, reducing the risk of developing complications of STIs, reducing or preventing future risk-taking behaviour, and ensuring that sexual partners are appropriately treated.
- **Counsel clients** on how to remain free from STIs after treatment by adopting safer sexual practices including biomedical interventions (see *Box 2*). Encourage clients to adhere to treatment, including ensuring partner notification and treatment, emphasizing that it is best if partners are treated simultaneously (see *Section 2.5: Partner notification*).
- **Recommend universal screening of pregnant individuals** for syphilis, HIV, and hepatitis B at first antenatal contact. For syphilis and HIV, use point-of-care RDTs (e.g. a dual RDT for both syphilis and HIV) and provide treatment to reduce vertical transmission risk to the fetus, which can be fatal.
- **Promote and provide vaccination against** hepatitis A and B and HPV infections, in accordance with local guidance. Hepatitis A and B vaccinations are often included in infant immunization programmes. Vaccines available for HPV are a bivalent vaccine that protects against HPV types 16 and 18, which cause 70 per cent of cervical cancer worldwide; a quadrivalent vaccine that protects against those as well as HPV types 6 and 11, which cause most anogenital warts; and a nonavalent vaccine that targets HPV types 6, 11, 16, and 18 as well as five additional high-risk oncogenic HPV types (31, 33, 45, 52, and 58), providing protection against anal, cervical, vaginal, and vulvar cancer as well as anogenital warts. HPV vaccines are intended to be given before the onset of sexual activity but are recommended regardless of onset of sexual activity in anyone aged up to 26 years. For adults aged between 26 and 45 years who are not vaccinated, some may still benefit from vaccination [9]. If available and licensed for use in the local context, healthcare providers should engage in shared decision-making regarding HPV vaccination (see *Chapter 8: Gynaecology and other reproductive healthcare*).
- **Promote voluntary medical male circumcision** for appropriate candidates to provide some protection against HIV (where prevalence is high, see *Chapter 7: HIV)* and other STIs, such as herpes and HPV.
- **Provide prophylaxis for ophthalmia neonatorum to all newborn babies** regardless of maternal symptoms or signs of gonorrhoea or chlamydia infection. Providers should check local treatment guidance.

BOX 2: Key counselling messages for the primary prevention of STIs, including HIV

Safer sexual activity and STI prevention can be achieved by adopting any combination of the following:

- be educated and aware about STIs and sexual health and well-being
- delay the age of sexual debut
- reduce the number of sexual partners
- engage in non-penetrative sex acts (e.g. mutual masturbation and rubbing)
- use condoms (male or female) consistently and correctly during penetrative sex acts (vaginal, oral, anal), along with condom-compatible lubricant
- get vaccinated against hepatitis A and B, and HPV
- use pre- and post-exposure prophylaxis (PrEP and PEP) for HIV, as needed (see *Chapter 7: HIV*)
- get screened or tested regularly when with new or multiple sexual partners
- seek immediate care in case of any symptoms of STIs

Source: Adapted from WHO [8] and WHO [10].

2.2 Counselling for clients attending STI healthcare

Counselling for STI testing should include information on the importance of testing, noting that STIs are common but that there is the potential to cure or control the infection, and emphasizing the benefits of preventing future complications, reducing or ending the possibility of transmission, and taking control of self-protection and protection of partner(s). Counselling should also include information on the importance of adhering to an STI treatment regimen and completing the course of medication (see *Section 2.4: Provision of STI treatment*). Counselling should encourage health-seeking behaviour whenever STI symptoms are noticed, especially if there has been any risk of exposure to STIs (e.g. new or multiple partners, condom breakage or non-use).

Information given should be client-centred, accessible, easy to understand, and sensitive to the client's individual circumstances. For example, the client may be starting a sexual relationship with a new partner, they may be living with HIV, or may be living with the threat of sexual and gender-based violence. Providers must also keep in mind that each client's needs are not static and will change over time.

Providers should emphasize that a positive diagnosis (either through syndromic management or aetiological testing) does not mean that someone is to 'blame'. Treatment of the partner, who is likely also to be infected, is essential if the client is to avoid being reinfected after their own treatment. This is an opportunity to discuss the benefits of partner notification and treating all parties at the same time to reduce the chances of treatment failure (see *Section 2.5: Partner notification*).

Joint counselling for couples on STI prevention can be explored as a possibility. Many clients will find it difficult to talk about the issue with their partner(s) and may appreciate support with communication.

For clients with a **positive** result, it is important to reassure them about confidentiality and provide support, if needed, on how to deal with stigma that may result from a positive diagnosis. Some clients may need further support or referrals, depending on their circumstances. Offer counselling on risk reduction to prevent future STIs by assessing current risks and barriers to safer sex and discuss a plan to reduce risk.

For clients with a **negative** result, offer counselling on risk reduction and how to stay 'negative' based on the client's individual circumstances, including safer sex messaging (see *Box 2*). Assess current risks and barriers to safer sex and discuss a plan to reduce risk.

All clients should be encouraged to ask questions, and to return (or call if the option is available and preferred by the client) if they have any further questions or concerns. They should also be offered written information (e.g. a relevant informative pamphlet), if available.

For HIV-related counselling and partner notification, see *Chapter 7: HIV*.

2.2.1 Mobile technology and STI care

The rapid expansion of internet access and mobile phones has created new opportunities to leverage mobile technologies to help reduce STI burden across diverse populations. Mobile technologies enable clients to be reached whenever and wherever they are and can be an important tool to augment in-person healthcare. Such tools can support a range of efforts including outreach and engagement of key populations, raise awareness of local healthcare, facilitate dissemination of educational contents, send reminders for follow-up, and increase access to STI screening and testing. A wide range of tools are available (e.g. phone or video calls, simple SMS or messaging apps, social media, and smartphone apps) (see *Table 1* – next page). A key consideration, however, needs to be given to proactively protecting privacy and confidentiality of participants, especially if phones are shared with others.

Key principles and considerations in using mHealth/eHealth for STI and HIV programmes:

- Conduct a needs assessment and ensure sufficient time for planning, piloting, and integration into workflows.
- Involve clients or the target population at all stages, which will help guide planning, promote feasibility, and support engagement/use and address digital literacy.

- Develop clear, actionable, and measurable goal(s) and outcomes for using the technology.
- Tailor digital content (posts, articles, videos) to the local population, and ensure language and messages used are not unintentionally stigmatizing.
- Ensure ethical conduct and use across mobile/internet-based platforms of technology.
- Have procedures to maintain the strictest confidentiality such as safeguarding data (e.g. list of mobile phone numbers of clients).
- Develop procedures to protect privacy (e.g. obtain the client's consent to contact them via SMS to prevent unintended disclosure of a client's health issue).
- Consider issues of sustainability and resources in planning and implementation.

TABLE 1: Examples of technological tools used to facilitate STI care

Technology platform	Use example
SMS – mobile phones	Reminders for appointments or for medication adherence
Social media (e.g. Instagram/ Facebook)	Posting educational and motivational digital content (graphics, short videos) about STI/HIV testing or how to access PEP/PrEP
WhatsApp	Connect clients to a peer outreach worker for ongoing support for HIV prevention
Private online groups (e.g. Messenger, WhatsApp, Facebook)	Develop a closed group of clients to create virtual peer support groups for clients living with HIV
WhatsApp provider group	Create a network of providers to support each other by sharing information, accessing experts who can answer questions in real-time, provide educational and informational updates for new guidelines
Dating apps/social media	Work with key population influencers and community stakeholders to reach people who are marginalized (e.g. men who have sex with men, transgender women, sex workers) to inform about safe and affirming healthcare
Multiple platforms	Distribute a link via social media and stakeholders to efficiently conduct a needs assessment of existing or potential new clients
Smartphone apps	Tailor and distribute custom apps to promote STI/HIV prevention and care

2.3 Client assessment

2.3.1 Sexual history and risk assessment

In the context of sexual and reproductive healthcare, the provider should start by asking about the client's general health followed by a full sexual and reproductive health history and initial sexual history screening questions (follow the steps described in *Chapter 2: Facility requirements and client history/examination*).

A. Risk assessment

For clients reporting more than one partner in the past year and for male clients who have sex with men, conduct a further risk assessment (see *Table 2* – next page).

Note that although these questions are brief, a sexual history will, in some situations, lead to a longer discussion of important sexual and reproductive health and related issues. *Table 2* provides additional questions that can be asked to further assess risk. The questions should be adapted/validated for the client/population/setting.

TABLE 2: Risk assessment: suggested additional questions to ask when sexual history screening indicates risk for STIs, including HIV

Partners	Do you know whether your partner has one or more other sexual partners? Do you know whether your partner has STI symptoms? In the past 3 months, have you had sex with a new partner, with someone you didn't know or had just met, or have you had multiple partners? Have you ever been coerced or pressured to have sex?
Practices	In the past 3 months, what kind of sex have you had: anal/vaginal/oral? (for men who have sex with men, ask about receptive anal sex, insertive anal sex, or both) Have you or any of your partners used alcohol or drugs when you had sex? Have you ever exchanged sex for drugs or money?
Past history of STIs	Have you ever had an STI? • If yes: which infection/disease (or what/where were the symptoms)? When did you have it? Were you and your partner(s) treated? Have you ever been tested for HIV? • If yes: how long ago was that test? What was the result?
Protection	What do you do to protect yourself from STIs, including HIV? When do you use this protection and with which partners? (for anal/vaginal/oral sex?) Have you been vaccinated against HPV, hepatitis A, or hepatitis B? Have you recently experienced condom breakage or slippage?

Source: Adapted from Altarum Institute [11].

B. Asking about clinical symptoms

After completing the risk assessment (section A), providers should ask the right questions about any clinical signs or symptoms to assess whether these are indicative of an STI or another pathology, even before proceeding to a clinical examination. These questions are summarized in *Box 3*.

BOX 3: Questions for clients about clinical symptoms

Questions to ask all clients on general symptoms	• Systemic symptoms such as fever, rash, joint or eye pain (can be related to complications of chlamydia and gonorrhoea). • For clients who have had anal intercourse, any pain, bleeding, or discharge from the anus or a change in bowel habit (indicate the need for further investigations). • Lumps in the groin (may indicate inguinal buboes or enlarged lymph nodes). • Urinating more often and pain in the urethra or the abdomen when passing urine (indicate the need for further investigations). • Soreness or itching on the external genitals or anus, any skin changes or ulcers (may indicate pubic lice, genital herpes, or genital warts).

Questions for clients who are women/have female genitalia	• Date of last menstrual period, any abnormal uterine bleeding, and use of contraception
	  ◦ It is important to confirm or exclude pregnancy, especially in the presence of pelvic pain and/or abnormal uterine bleeding (potential miscarriage or ectopic pregnancy, see *Chapter 8, Section 3. Management of common gynaecological conditions*), and to ensure that any current or planned medication is not contraindicated.
	  ◦ Perform a pregnancy test if required.
	  ◦ If the client is at risk of unintended pregnancy, offer contraceptive care, including emergency contraception if required, and discuss condom use.
	• Any bleeding after sex (may indicate cervicitis related to chlamydia).
	• Any abdominal or pelvic pain, or pain during sex (and location of pain).
	  ◦ Lower abdominal pain may indicate PID, most commonly caused by chlamydia, but also caused by gonorrhoea or other microorganisms (see *Chapter 8, Section 3. Management of common gynaecological conditions*). Presence of fever and deep dyspareunia increase the likelihood of having PID.
	• If there is any vaginal discharge, ask if this is different to normal (and to describe the colour/consistency/odour/amount). Different types of abnormal discharge may indicate an STI (e.g. chlamydia, gonorrhoea, trichomoniasis) or a non-sexually transmitted RTI (e.g. bacterial vaginosis, candidiasis).

Questions for clients who are men/have male genitalia	• Ask about the testicles: any changes in size or swelling, any pain
	  ◦ For sudden onset of severe pain, consider torsion as a possible diagnosis.
	  ◦ For swelling without pain, consider hydrocele (a harmless collection of fluid in the scrotum affecting one or both testicles) or varicocele (a swelling of the blood vessels in the testicles).
	• Ask if they urinate more often and if there is blood in the urine (indicate the need for further investigations).
	• If there is any discharge from the penis and its description (discharge may indicate an STI).

2.3.2 Clinical examination

Refer to *Chapter 2, Section 4: Physical examination* for guidance about physical examination. The additional information provided below is specifically for STI signs and symptoms.

Genital area:

- *All clients:* Inspect the external genitalia for any ulcers, rash, or warts.
- *Vaginal/cervical/ovarian examination:*
  - Speculum examination: Observe the amount, consistency, colour, and odour of vaginal discharge and the presence of ulcers or warts in the vagina or on the cervix. Suspect cervicitis secondary to STI if the cervix is friable (sensitive and prone to tearing, or bleeding on contact), or if there is mucopurulent discharge.
  - Bimanual examination: Check for lower abdominal pain (pelvic pain) and cervical motion tenderness (cervical excitation), which indicate acute infection.
- Testicular/penis examination:
  - Penis: Check or 'milk' the urethra (i.e. gently massage from the ventral part of the penis towards the meatus) for evidence of any reported discharge.
  - Scrotum and testicles: Check for scrotal swelling. Palpate the epididymis to assess for pain.

Groin areas:

- Check for inguinal swellings. If these are fluctuant and/or painful they are more likely to be buboes rather than enlarged lymph nodes.

Anal area:

- Check the peri-anal area of clients who may have receptive anal sex for ulcers, warts, discharge, bleeding, or other abnormalities as they may not be aware of their symptoms.
- Perform a rectal examination if there is mucopurulent discharge, mucosal oedema, or ulcers, and test for rectal chlamydia and gonorrhoea if resources are available.

Oral area:

- For clients who have oral sex, check for a sore throat and signs of oropharyngeal infection, and test for throat chlamydia and gonorrhoea if resources are available, especially among groups at high risk (e.g. men who have sex with men, sex workers).

Findings from the sexual history and the physical exam, in combination with local epidemiological information and national or facility-specific guidance, will guide in selecting the most appropriate aetiological test(s) as needed. Examinations also form part of syndromic management (see *Section 5*).

2.4 Provision of STI treatment

High-quality care and treatment for STIs must be available to people who need it at their first point of contact. For clients requiring treatment, whether based on syndromic, diagnostic, or self-administered tests (see *Sections 3 and 5*), it is critical for providers to have the appropriate medications available (see *Appendix 2: Recommended treatment options*) or to be able to refer clients to an accessible and affordable pharmacy.

Advise clients who require medical treatment:

- Take all medication as instructed, adhering to the regimen, even if symptoms disappear before the medication is finished. Explain that this helps to ensure that the treatment is effective and prevents the development of resistance to treatment.
- Not to have any sexual contact (vaginal, anal, or oral) until the treatment has been completed and symptoms have disappeared.
- Not to have any sexual contact until their partner(s) has also been treated (see *Section 2.5: Partner notification*). This may not apply to endogenous STIs. If that is not possible, condoms should be used. Provide condoms and lubricants to clients as needed.

Advise the client to return to the clinic:

- If they experience adverse effects of medication.
- If any symptoms have not resolved or have worsened.
- If they were not able to complete their treatment.
- If they think they may have been reinfected.

Encourage all clients to ask any questions they may have, and to return at any time if they have further questions or concerns. Routine follow-up is not essential. In addition to instructions for treatment, clients should be given verbal and written information and education as appropriate (see *Section 2.1: STI prevention*).

2.5 Partner notification

Once a client has been diagnosed with an STI and treatment has commenced, the provider should provide information, counselling, and support regarding notification of their sexual partner(s).

The purpose of notifying the client's sexual partner(s) is to treat those who are likely to have the same STI and to prevent the client from becoming reinfected after their treatment. Ideally, sexual partners of clients should be screened and treated as soon as possible.

The partner notification process can be challenging for several reasons:

- The concept of partner notification may be threatening to the client. It is essential to respect the client's wishes and to maintain their trust. It can help if the clinic has earned a reputation for maintaining confidentiality.
- Providers need to be sensitive to clients who may be more susceptive to adverse outcomes of disclosure, such as discrimination, violence, abandonment, or incarceration. These clients may need additional counselling.
- Many clients may find it difficult to discuss an STI diagnosis with their partner, especially those at risk of violence.
- The client's sexual partner(s) may not believe that they have an infection, especially if they have no symptoms, and may refuse to come for screening or treatment.
- Clients who have been diagnosed with vaginal discharge syndrome may not have an STI, but they may be given treatment for STIs in accordance with syndromic management (see *Section 5*). Providers need to discuss with the client whether to disclose this presumptive diagnosis and/or suggest treatment to their sexual partner(s).
- Some clients may not know the correct names and contact details of their sexual partner(s), and even if they do, some may be hard to locate.

It is critical that the provider does not force the client to decide and act against their will. The provider can give information about why partner notification and treatment are important but ultimately it is the client's choice whether to notify their partner(s).

Depending on the characteristics of the client and the circumstances of the case, providers can discuss and consider the following partner notification approaches with the client:

- **Client-led system of notification and referral:** Some clients may have the confidence to talk to their partner(s) directly and refer them for STI management. Ask these clients to bring or send in their partner(s) to the clinic. If possible, give them referral slips to hand to their sexual partner(s). Recommend an alternative clinic if that is more convenient for the partner.
- **Client-led system of treatment:** Some clients know that their partner will not attend for STI management, but they are willing to take the treatment to their partner to prevent delaying treatment. The client can be given information and sufficient medicines or prescriptions for their sexual partner(s) without requiring examination, to expedite the process. This is only possible where treatment is oral.
- **Provider-led system of notification:** Some clients may prefer that the healthcare provider contact their sexual partner(s) without naming them as the potential source of exposure. Ask these clients for the name(s) and address(es) of the partner(s), and try to contact them by telephone, post, or by visiting them at home, as needed, and recommend that they come for testing due to potential exposure to someone with an STI.
- **Combined approaches:** In many cases, more than one approach may be required. For instance, if a client offers to notify the sexual partner(s), the provider

may wait for a reasonable amount of time (about a week), then try another approach if the partner has not appeared for treatment.

Note: Providers also need to be aware of local or national regulations and protocols that may stipulate mandatory notification and reporting of particular STIs and should be open with the client about the implications, depending on the circumstances of the case.

2.6 Referral

Many providers see clients for STI care in primary care facilities and may not have immediate access to all tests or treatments. Each provider or facility should plan a referral pathway for clients who need to be seen or followed up elsewhere for STI testing and care, other sexual and reproductive healthcare, and other needs including mental health care.

It is generally recommended to refer clients in the following circumstances:

- There is an STI complication, such as suspected or confirmed PID, or a secondary infection for which close monitoring or appropriate management is not available on-site.
- There is doubt about a diagnosis, especially in clients who are acutely unwell, and there is a possibility that a non-STI-related condition may be the cause, such as ectopic pregnancy or acute appendicitis.
- Treatment has failed or the symptoms have failed to respond to the available treatment regimen (e.g. when there is persistent urethral discharge). In these cases, enhanced diagnostic services may be required to provide effective treatment and decrease the risk of antimicrobial resistance.
- Specialist treatment is required (e.g. for a pregnant client or a client with multiple medical comorbidities, or for surgical removal of more complicated anogenital warts).
- Further diagnostic tests or investigations are required.
- A client with chronic hepatitis B infection who could benefit from antivirals to slow disease progression, which are available at a specialist centre, or a hepatitis B client who is seriously ill with complications and requires higher-level care.
- A client requires any other sexual and reproductive healthcare that is not available at the facility.

Prevention and management of STIs within humanitarian settings

The prevalence of STIs including HIV can increase in emergencies if there is a lack of prevention, screening, and treatment healthcare. STIs can seriously impact sexual and reproductive health, and some can increase the risk of HIV acquisition.

In a crisis, and in low-resource settings, syndromic management of STIs is used (see *Section 5*). This involves managing cases based on clinical presentation (symptoms and signs) with reference to a decision-making flowchart, with use of on-site microscopy if available and appropriate. The additional resources needed for aetiological testing of STIs – and later returning the results to clients with provision of correct treatment – are not justified in emergencies.

Measures to reduce STI and HIV transmission must include the abundant availability and distribution of free condoms. Ensuring male and female condoms are available (lubricated, or with condom-compatible lubricants, as needed) in all appropriate locations (on- or off-site) from the earliest days of a humanitarian response is critical, since condoms offer the best protection from STIs, including HIV. In addition, post-exposure prophylaxis (PEP) for HIV and STIs should be provided to survivors of sexual violence. See *Chapter 11: Sexual and reproductive healthcare delivery in humanitarian settings* for full details of Minimum Initial Service Package objective 3 concerning prevention of transmission and reduction of morbidity and mortality due to HIV and other STIs in humanitarian settings.

3. Diagnostic tests

Accurate identification of asymptomatic and symptomatic STIs, as well as improvements in the sensitivity and specificity of the syndromic approach, all depend on the availability of diagnostic tests and a screening strategy. The different types of STI tests available are summarized in *Table 3*. Healthcare providers should be aware of which reliable, cost-effective, and high-quality diagnostic tests are appropriate and available locally and should procure and ensure an adequate stock of these tests.

Diagnostic tests, whether they are rapid POCTs or laboratory-based tests, should be provided after taking a full clinical and sexual history, and conducting further risk assessment and examination as appropriate (see *Section 2* and *Chapter 8: Gynaecology and other reproductive healthcare*).

For tests that require specimens using swabs (microscopy, culture, nucleic acid amplification test [NAAT]), these should be taken during the clinical examination indicated by sexual history, from the high vagina, cervix, throat, and/or anus. Swabs from the urethra (male and female) or vagina/cervix can also be taken if there is no access to urine-based testing for gonorrhoea/chlamydia. It should be noted that urine testing is preferred for males, but if not available, urethral swabs can be taken. Swab- rather than urine-based tests are recommended for females, if feasible, due to more sensitivity towards gonorrhoea infections (urine and swabs have similar high sensitivity for chlamydia [12]).

Testing for HIV, syphilis, and hepatitis requires blood/serological testing. Oral swab-based tests also exist for HIV.

Self-collection kits have the advantage of not needing a provider for collection. They can be carried out at home (and in some contexts posted directly to a laboratory), or simply used by the client in a private room/bathroom at the clinic after consultation, similar to the self-collection of urine samples. The effectiveness and thus wider availability of self-collection of urine samples and swabs for STI testing has increased the uptake of STI screening among clients while also reducing the workload of STI healthcare providers as it allows specimen collection without a pelvic examination or provider-collected urethral swab. Commonly self-collected swabs include vaginal, anorectal, and oropharyngeal. They can also be an additional resource to offer to clients who attend for screening or report symptoms but who do not give consent to be examined. Clients must receive clear instructions for the use of self-collection kits, using clear visual tools as appropriate.

Wherever possible, testing should be brought as close to the client as possible (POCTs) and allow for results during the same clinic visit (RDTs). This will maximize the rate of correct diagnosis and treatment received on the same day/visit, and minimize loss to follow-up, which is a risk when tests must be sent for laboratory analysis,

Recommendations on self-collection of samples for STI testing

Greater efforts are needed to expand STI testing globally, and self-collection of samples (SCS) is one way to facilitate this. SCS means that individuals take a specimen themselves, either at a healthcare facility or elsewhere, and send it to a laboratory for testing, and the laboratory returns the result to the individual. Follow-up in the case of positive test results requires linking the individual with the health system. In high-income countries, where laboratory facilities and healthcare are widely available, research shows that self-collected STI samples are as accurate as clinician-collected samples, and that SCS is feasible and acceptable in a variety of populations. SCS approaches can also potentially address some barriers that often prevent people from seeking STI testing from a healthcare provider or clinic, such as concerns about autonomy, inconvenience, stigma, and lack of privacy.

WHO recommendations:

- Self-collection of samples for *N. gonorrhoeae* and *C. trachomatis* should be made available as an additional approach to deliver STI testing.
- Self-collection of samples for *T. pallidum* (syphilis) and *T. vaginalis* may be considered as an additional approach to deliver STI testing.

Source: WHO [13].

delaying access to the results. POCTs/RDTs generally have lower sensitivity than laboratory-based tests but have the advantage that more clients will receive treatment and they incur no laboratory costs (including facilities, specialist equipment, and expertise). These tests can also be conducted by a range of healthcare professionals without laboratory training. Providers should be aware of the POCTs/RDTs that are available locally and regionally and make efforts to use them at their facilities where possible.

When aetiological tests are not available and when test results are not available immediately, providers need to apply a syndromic approach and make a clinical judgement when deciding whether and what treatment to provide. Syndromic management guidance is provided in *Section 5*, and key clinical and diagnostic information including on diagnostic tests is provided in *Section 4* for each infection. All information about provision of counselling and treatment is provided in *Section 2*. Details of recommended treatment regimens are outlined in *Appendix 2*.

TABLE 3: Types of diagnostic tests for STIs

Type of test	Description
Tests to detect the organism	
Microscopy	Wet preparation microscopy can be used to detect *C. albicans* (candidiasis), *T. vaginalis* (trichomoniasis), and bacterial vaginosis Gram stain can be used to observe the presence of intracellular diplococci to detect *N. gonorrhoeae* in men Immediate analysis and results can be provided while the client waits if equipment and expertise are available on-site
Culture	Culture can be used for *N. gonorrhoeae*, among others. Results can take several days, with the risk that clients waiting for results may be lost to follow-up Culture is also essential for *N. gonorrhoeae* to monitor antimicrobial resistance to inform treatment guidelines Transportation, sample collection, and storage must be rigorously controlled
Nucleic acid amplification tests (NAATs)	NAATs can be used for *C. trachomatis, N. gonorrhoeae, T. vaginalis,* and *M. genitalium* among others These tests use enzymatic methods to target the genetic material of the bacteria or virus then amplify it into billions of copies
Tests to detect the client's immune response to infection (antibodies)	
Enzyme-linked immunosorbent assays (ELISAs or EIAs) and direct fluorescence assays (DFAs)	Can be used to diagnose HIV These tests can have false-positive results, which may persist for some time after treatment but have the advantage in some cases that they can be provided as point-of-care tests (POCTs), potentially increasing the numbers of clients treated
Rapid diagnostic tests (RDTs), or POCTs	Available for syphilis and for HIV, or dual HIV/syphilis RDT Syphilis RDTs (also called rapid syphilis tests, or RSTs) test for the presence of treponemal antibodies, results available in 15 minutes. 85–98 per cent sensitive depending on the type of test Do not require access to specialized laboratory services

4. Common STIs, clinical features, and diagnostics

This section provides key information for the identification and diagnosis of infections by clinical features and diagnostic tests [14].

4.1 Curable bacterial STIs

4.1.1 Chlamydia trachomatis (chlamydia)

Chlamydia trachomatis causes chlamydia, the most common bacterial STI globally. Chlamydia includes a spectrum of diseases in a variety of sites (i.e. genital, ocular, lymph nodes, and bronchial). *C. trachomatis* can be transmitted through vaginal, anal, or oral sex. Many people infected with chlamydia will have no symptoms. Negative outcomes associated with untreated chlamydia infections include PID, ectopic pregnancy, tubal factor infertility, epididymitis, prostatitis, and others. Chlamydia can be easily treated and cured with antibiotics.

Clinical features and associated diseases

Women/female genitalia:

- Primary: Cervicitis, copious purulent discharge, friable cervix, dysuria, pelvic pain, cervical motion tenderness. Commonly asymptomatic.
- Sequelae: PID, endometritis, salpingitis, ectopic pregnancy, tubal factor infertility, preterm rupture of membranes, perihepatitis.

Men/male genitalia:

- Primary: Urethral discharge (urethritis), dysuria, testicular pain.
- Sequelae: Epididymitis, prostatitis, orchitis, infertility.

All sexes: Proctitis, pharyngitis, Reiter's syndrome. Asymptomatic infections are common.

Neonates: Conjunctivitis, chlamydial pneumonia.

Diagnostic tests

Diagnostic technologies for detection of chlamydia continue to advance. Due to the superior performance characteristics, NAATs are strongly recommended for diagnosis and screening of chlamydial infections. However, the choice of tests is dependent on the resources available and level of laboratory support.

- NAATs are the gold standard for chlamydia diagnosis, with higher sensitivity and specificity compared with other tests. They can also be used on urine samples. They are expensive.
- Rapid POCTs have lower sensitivity but may be useful in low-resource settings with a high prevalence of chlamydia, especially for community-based testing, and they enable the provision of immediate treatment.
- Culture has a suboptimal sensitivity and is not recommended for chlamydia diagnosis.
- Serology should only be used as a possible aid in the diagnosis and/or screening for complicated *C. trachomatis* infections, neonatal pneumonia, and LGV infections.

4.1.2 Lymphogranuloma venereum (LGV), caused by C. trachomatis L1–L3 serovars

LGV is found worldwide but is more prevalent in tropical and subtropical countries. LGV is caused by the distinct 'L' biovar of *C. trachomatis*, which contains serovars (L1, L2, L2a, L2b, L3) that are more invasive than those serovars responsible for the classical eye disease, trachoma (serovars A–C) and those causing non-gonococcal urethritis and associated infections of the genital tract (serovars D–K). Classically, LGV presents as a transient, herpetiform primary lesion of the external genitalia, but in many cases the lesion may pass unnoticed or manifest as an acute non-gonococcal urethritis in men or be completely asymptomatic in women as a result of primary infection of the cervix.

Clinical features and associated diseases

- All sexes: Inguinal lymphadenopathy (swelling/bubo) with or without an associated primary lesion (ulcer), proctitis. These symptoms are more commonly reported in men than women.
- In women, the perirectal and deep pelvic glands may become involved if the primary lesion is found on the

cervix, and the client may present with symptoms consistent with severe PID.

- Men who have sex with men (especially if they are living with HIV) may present with severe ulcerative proctitis or proctocolitis with rectal pain, blood-stained discharge, markedly abnormal anoscopy, fever, and lymphadenopathy.
- Complications: Perirectal abscesses, rectal strictures, fistulas, and chronic scarring. Chronic manifestations of the disease may result in blockage of the lymphatics draining the genitalia or rectum, causing oedema.

Diagnostic tests

NAATs or culture: The specimens of choice for both culture and NAATs for LGV include swabs taken directly from primary lesions (when present), urethral swabs, or first-catch urine specimens in men, endocervical swabs in women, and rectal swabs in men who have sex with men.

4.1.3 Neisseria gonorrhoeae (gonorrhoea)

N. gonorrhoeae causes gonorrhoea, the second most common bacterial STI globally. Gonorrhoea includes a spectrum of diseases in a variety of sites, including urogenital, pharyngeal, rectal, and conjunctival. *N. gonorrhoeae* is primarily transmitted through sexual contact (involving the anus, penis, vagina, mouth, or throat). Complications and sequelae associated with untreated *N. gonorrhoeae* infections include PID, ectopic pregnancy, infertility, penile oedema, epididymitis, and disseminated gonococcal infection. With antimicrobial resistant strains increasing, gonorrhoea is often treated with dual therapy of antibiotics.

Clinical features and associated diseases

Women/female genitalia:

- Uncomplicated gonorrhoea: Cervicitis with purulent discharge from cervical os and friable cervix, dysuria, lower abdominal tenderness. Commonly asymptomatic, particularly in the pharynx and rectum.
- Complicated gonorrhoea: Endometritis, salpingitis, Bartholin abscess, lymphangitis, tubo-ovarian abscess, ectopic pregnancy, infertility, preterm rupture of membranes, perihepatitis.

Men/male genitalia:

- Uncomplicated gonorrhoea: Urethral discharge (urethritis) which may be copious and purulent or scant and clear, dysuria. Can be asymptomatic, particularly in the pharynx and rectum.
- Complicated gonorrhoea: Penile oedema, Tyson's glands abscess, Cowper's glands abscess, seminal vesiculitis, epididymitis, orchitis, infertility (rare).

All sexes:

- Complicated gonorrhoea: Disseminated gonococcal infection.
- Rectum: Copious, purulent discharge, burning/stinging pain, tenesmus, blood in stools.
- Pharynx: Mild pharyngitis, mild sore throat, erythema.

Neonates: Ophthalmia neonatorum.

Diagnostic tests

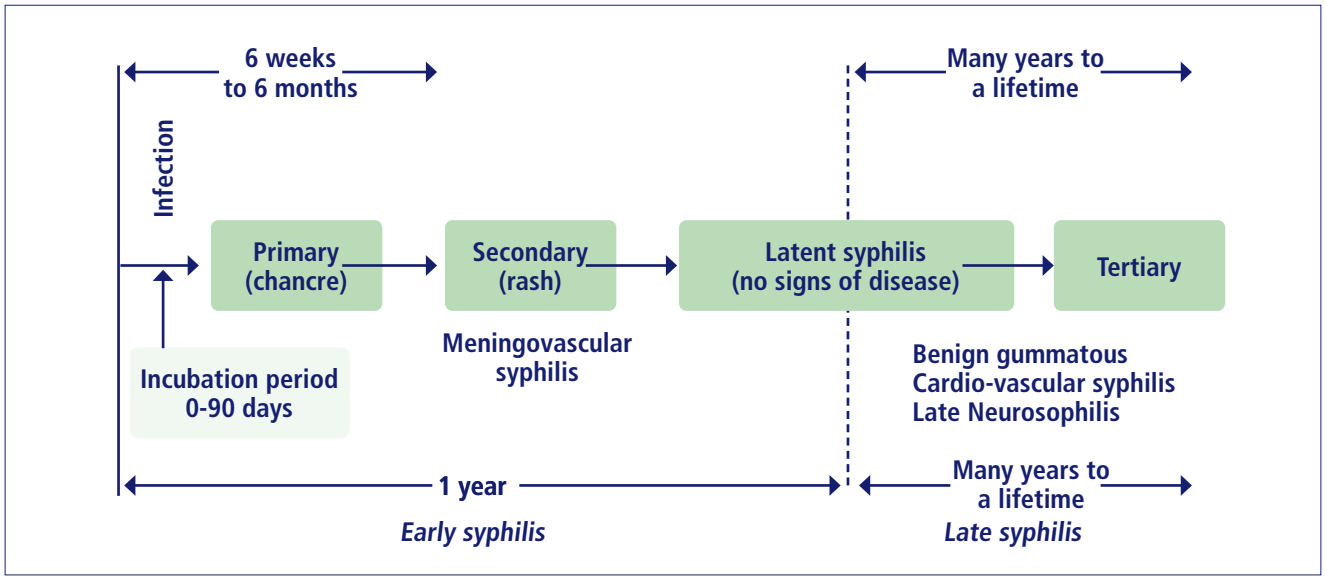
Laboratory procedures are needed for diagnosis, case finding, and test of cure. The diagnosis of gonorrhoea is established by identification of *N. gonorrhoeae* in genital or extra-genital secretions.

- NAATs are highly sensitive and specific diagnostic tests for gonorrhoea. They have superior sensitivity and specificity compared with culture, and can be conducted on urine, vulvovaginal, cervical, and urethral samples. NAATs can also be used on rectal and pharyngeal specimens but may have slightly lower sensitivity.
- Microscopy is sensitive and specific in symptomatic men with urethral discharge.
- Culture is sensitive and highly specific in optimized circumstances, inexpensive, and allows antimicrobial susceptibility testing.

4.1.4 Treponema pallidum (syphilis)

Syphilis, caused by the bacterium *T. pallidum*, is a chronic STI that continues to cause substantial morbidity and mortality. It is primarily transmitted through sexual contact when an open sore or 'chancre' is present during the early stages of infection, or transplacentally from a pregnant individual to the fetus. Untreated syphilis infections in pregnancy typically result in severe adverse pregnancy outcomes, such that universal screening for syphilis in pregnancy is recommended (see further information below). The course of untreated syphilis is shown in *Figure 1*. Tertiary syphilis, occurring many years after the initial infection, can cause significant damage, with manifestations classified as benign gummatous syphilis, cardiovascular syphilis, and neurosyphilis, which may coexist. The disease may progress significantly more rapidly in clients coinfected with HIV. Treatment for syphilis is highly effective and affordable with appropriate antibiotics.

FIGURE 1: The course of untreated syphilis: primary, secondary, latent, and tertiary stages



Source: Reproduced/translated with permission from Laboratory diagnosis of sexually transmitted infections, including human immunodeficiency virus. Geneva: WHO; 2013.

Clinical features and associated diseases

All sexes:

- Primary: Primary chancre (typically a single, painless genital lesion), usually with bilateral inguinal lymphadenopathy (typically discrete and non-tender).
- Secondary: Evenly distributed, non-irritant skin rash that may be macular, papular, or papulo-squamous (often seen on the palms of the hands and soles of the feet). In warm, moist areas the rash may become enlarged to form condylomata lata, and on mucous surfaces form superficial grey-white serpiginous lesions known as 'snail-track ulcers'. There may also be generalized lymphadenopathy, fever, headache, and general malaise.
- Tertiary: Gummas (lesions) can occur in any organ of the body, but most frequently in skin, cartilage, and bone (benign gummatous syphilis), the walls of the aorta (cardiovascular syphilis), the cerebral vessels (meningovascular syphilis), or the brain and spinal cord (neurosyphilis).

Women/female genitalia: Spontaneous abortion, stillbirth, premature delivery.

Neonates: Stillbirth, congenital syphilis.

Diagnostic tests

Serological tests:

- *Treponemal tests:* The vast majority of commercially available POCTs or RDTs for syphilis, also known as RSTs. Other treponemal tests include FTA-Abs, *T. pallidum* haemagglutination assay, and *T. pallidum* passive particle agglutination assay.
- *Non-treponemal or reagin tests:* These include rapid plasma reagin (RPR) and Venereal Disease Research Laboratory (VDRL) tests.

Direct detection (using specimens obtained from skin lesions or tissues):

- Dark-field microscopy: The only POCT that is capable of establishing a direct diagnosis of syphilis in cases of adult primary or secondary or early congenital disease. The ideal specimen is a serous exudate from active lesions, free of red blood cells.
- Direct immunofluorescence, specifically the direct fluorescent antibody test: Specimen collection is the same as for dark-field microscopy. Both the specificity and sensitivity are superior to that of dark-field microscopy.
- NAATs: Several polymerase chain reaction (PCR) assays have been developed and successfully used to detect *T. pallidum*-specific DNA target sequences in primary and secondary lesions. They can be used to examine specimens from any lesion exudate, tissue, or body fluid, and the specimen can be fresh, frozen, or fixed and paraffin-embedded. They can also be applied to the diagnosis of congenital syphilis and also neurosyphilis.

Note on testing for congenital syphilis: Any skin and mucous membrane lesions present in the newborn of a seropositive individual should be examined by dark-field microscopy, direct immunofluorescence, or PCR for direct evidence of infection with *T. pallidum*. For information on serological testing in neonates, refer to the WHO laboratory manual [14].

Syphilis screening and treatment in pregnancy

Perinatal transmission of syphilis (congenital syphilis) is usually devastating to the fetus if maternal primary or secondary syphilis infection is not detected and treated sufficiently early in pregnancy, ideally before the second trimester. Latent (asymptomatic) syphilis infections in pregnancy also cause serious adverse pregnancy outcomes in more than half of cases.

WHO's recommendations and suggestions for syphilis screening and treatment in pregnant individuals are as follows [15]:

- *In all settings, regardless of local prevalence of syphilis:* Screen all pregnant individuals for syphilis at their first antenatal care visit.
- *In settings with low coverage of syphilis screening and treatment for pregnant individuals, high loss to follow-up of pregnant individuals, or limited laboratory capacity:* Use on-site tests (Strategies A, B and C, below) rather than the standard off-site laboratory-based screening and treatment strategy.
- *In settings with a low prevalence of syphilis (below 5 per cent):* Use a single on-site RST (also known as RDT or POCT) to screen pregnant individuals (Strategy A) rather than a single on-site RPR test (Strategy B).
- *In settings with a high prevalence of syphilis (5 per cent or greater):* Use an on-site RST and, if positive, provide a first dose of treatment and an RPR test, and then, if the RPR test is positive, provide treatment according to duration of syphilis (Strategy C).

Strategy A: Single on-site RST followed by treatment if positive

The on-site RST (treponemal test) can be provided as a single test and treatment can be given during the same visit based on the results. The RST does not distinguish between the presence of previously adequately treated syphilis and untreated syphilis. Therefore, pregnant individuals who test positive on the RST and are treated adequately for syphilis will likely still test positive on a subsequent RST (e.g. during a subsequent pregnancy). Pregnant individuals who tested positive on a previous

RST (e.g. during a previous pregnancy) could therefore be treated again for syphilis without repeating the RST if the risk of reinfection is considered high. Alternatively, a quantitative RPR test could be performed in these clients instead of an RST (i.e. to determine the titre).

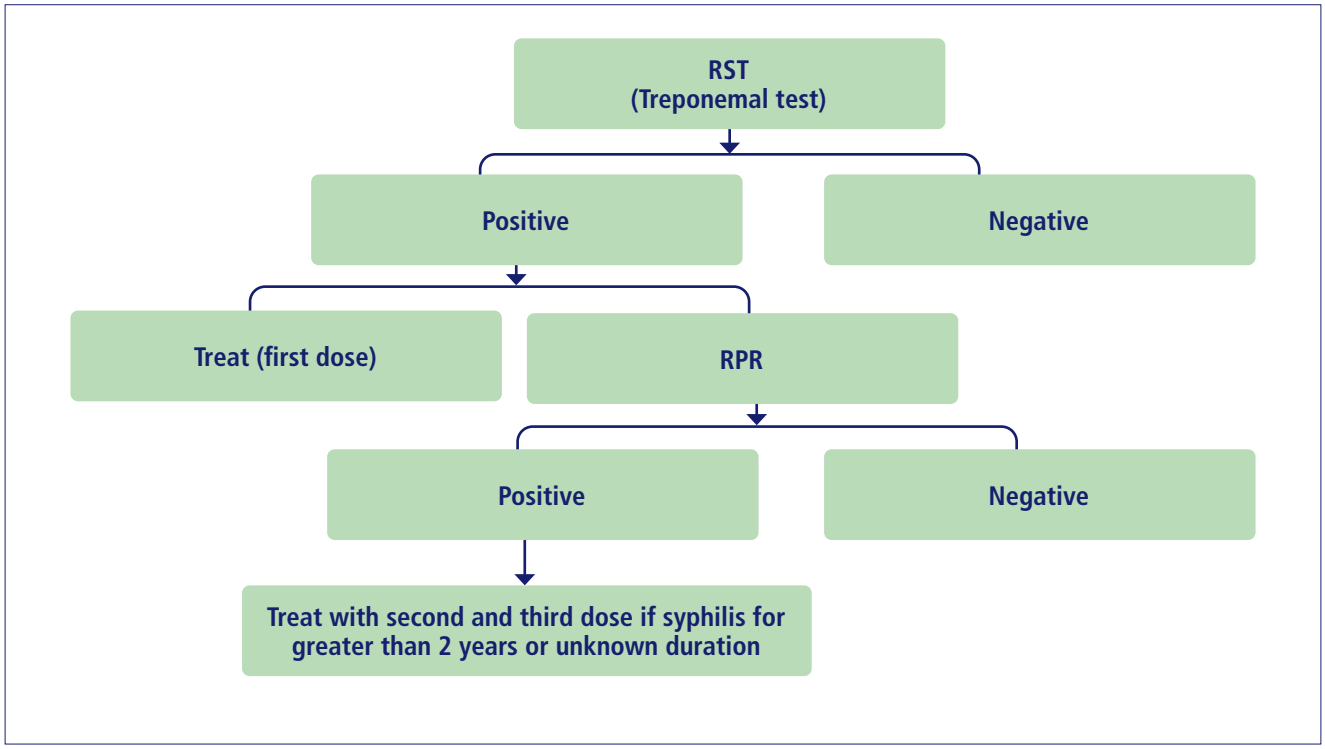
Strategy B: Single on-site RPR test followed by treatment if positive

The RPR test in this strategy is a single, on-site, rapid test, allowing treatment to be provided the same day. This means that (as with Strategy A), a pregnant client can receive testing and treatment during the same visit. If the RPR is negative, it can be repeated after approximately 1 month to obtain a correct (positive) diagnosis in cases where early syphilis was not yet detected on the first RPR test, since syphilis is only detectable by RPR approximately 1 month after the onset of the primary chancre. Provision of on-site RPR will require a rotator, blood centrifuge, and a refrigerator for reagents, and electricity to operate this equipment.

Strategy C: On-site RST followed (if positive) by first dose and RPR test (*Figure 2*)

An on-site RST is provided to the pregnant client first. If the result is seronegative, it can be interpreted as no syphilis infection and no treatment or further testing is given. If the on-site RST is positive, immediate treatment should be given to prevent adverse outcomes of pregnancy. An RPR test should then be done (on- or off-site, depending on available resources), and if this test is also positive then the client should be treated appropriately for syphilis according to the determined duration of their infection. If the RPR is negative, however, it can be repeated after approximately 1 month to obtain a correct (positive) diagnosis in cases where early syphilis was not yet detected on the first RPR test. This strategy may require the client to make two visits to the clinic if their first test was positive (i.e. to receive the results of the RPR test if it was not a rapid on-site test).

FIGURE 2: Flowchart to illustrate Strategy C



Source: WHO [15]: WHO guideline on syphilis screening and treatment for pregnant women. Geneva: WHO; 2017. Licence: CC BY-NC-SA 3.0 IGO.

4.1.5 Haemophilus ducreyi (chancroid)

Chancroid, caused by *Haemophilus ducreyi*, is transmitted exclusively by sexual contact with skin (except in rare instances of laboratory-acquired infection). The incubation time is 4–10 days. It is approximately seven times more common in men than women, and transmission is linked to high numbers of sexual partners. Chancroid was previously very common in certain parts of the world, but its prevalence has declined dramatically since the 1990s due to better access to antimicrobial agents, the roll-out of syndromic management, improved healthcare for sex workers, and sexual behavioural change in the era of HIV infection.

Clinical features and associated diseases

- All sexes: Painful, irregular genital ulcers with undermined edges (initially a tender papule, which ulcerates within 2 days) and multiple lesions may merge to form very large ulcers. This may be accompanied by unilateral painful inguinal lymphadenitis, which may lead to spontaneous rupture of suppurating lymph nodes (buboes), particularly if there has been a delay in seeking care or receiving the correct diagnosis.
- Atypical presentations of chancroid are common, and the disease can be easily confused with other genital ulcer diseases (GUDs), particularly genital herpes.
- Perianal chancroid may occur in men who have receptive sex with men and also among women who have engaged in penile–anal sex.

Diagnostic tests

- Culture of *H. ducreyi:* Technically demanding procedure with low yield outside of highly skilled laboratories used to working with the pathogen.
- NAATs: For diagnosis of chancroid.
- Antigen detection and nucleic acid probe technologies: Several research-based techniques have been described, including the use of monoclonal antibody-based antigen detection and DNA probes.
- Direct microscopy: Low sensitivity and low specificity.
- Serological assays: Those that are currently available are only useful for sero-epidemiological research purposes.

4.1.6 Klebsiella granulomatis (donovanosis, also known as granuloma inguinale)

Donovanosis is a chronic infection involving the skin, mucous membranes, and lymphatic system of the genitalia and perineal area. Its occurrence is limited to certain countries and regions, including Brazil, the Caribbean, India, Papua New Guinea, and southern Africa. Donovanosis is principally transmitted by sexual contact but has low infectivity. The incubation time varies from 1–12 weeks. Donovanosis may spread haematogenously to bones, joints, and the liver, and cutaneous lesions can also occur.

Clinical features

All sexes:

- Initially a subcutaneous nodular swelling erodes the skin surface (progressing slowly) to form a granulomatous genital ulcer with a well-defined border, which bleeds easily on contact, and which may become painful when a secondary bacterial infection develops, potentially contributing to necrotic debris in the ulcer.
- Ulcerative lesions may also occur in the inguinal and perianal areas and may spread to extragenital body sites. Genital and perianal lesions at various stages may resemble lesions formed by other conditions, such as syphilis, chancroid, carcinoma, and amoebiasis.
- New lesions may be formed by autoinoculation, and inguinal lymph nodes may become enlarged as a result of secondary infection (pseudobuboes).
- Donovanosis may spread haematogenously to bones, joints, and the liver.

Men/male genitalia: Urethral discharge (non-gonococcal urethritis).

Women/female genitalia: Cervicitis, endometritis, PID.

Diagnostic tests

- Microscopy: Visualization of Donovan bodies in stained smears obtained from clinical lesions (using a simple, rapid [1-minute] Giemsa method). Donovan bodies have also been identified from Papanicolaou (Pap) smears used in routine cervical cytology screening.
- Histopathology: Visualization of Donovan bodies in stained histological sections of tissue biopsies – may be helpful in the differential diagnosis between donovanosis and other conditions.
- NAATs: A research-based diagnostic PCR has been developed, which has been refined further into a colorimetric PCR test. However, these assays are not available in most countries for routine diagnostic purposes.

4.1.7 Mycoplasma genitalium (MG, also known as Mgen)

M. genitalium is a common cause of urethritis in men. In most settings, it is more common than *N. gonorrhoeae* but less common than *C. trachomatis.* In women, it can be found in the vagina, cervix, and endometrium and, like chlamydial and gonococcal infections, *M. genitalium* infections in women are commonly asymptomatic. *M. genitalium* should be suspected in cases of persistent or recurrent urethritis and may also be considered in persistent or recurrent cases of cervicitis and PID. Infection occurs through genital-to-genital or genital-to-rectal contact.

Clinical features

- *Men/male genitalia:* Urethral discharge (non-gonococcal urethritis).
- *Women/female genitalia:* Cervicitis, endometritis, PID.
- *All sexes*: May be asymptomatic, may cause proctitis.

Diagnostic tests

- NAAT from urine, urethral, anorectal, oropharyngeal, vaginal, or cervical swabs.
- Culture: Extremely slow (several months), challenging, and insensitive.
- Other: To date, no serological assays, antigen detection assays, or POCTs have proven useful for diagnosis of urogenital *M. genitalium* infections.

4.2 Curable protozoal STIs

4.2.1 Trichomonas vaginalis (trichomoniasis)

T. vaginalis is a motile, flagellated protozoan parasite that causes the STI trichomoniasis. Trichomoniasis is the most common curable STI worldwide. *T. vaginalis* is most commonly transmitted sexually through penis-to-vagina or vulva-to-vulva contact. Trichomoniasis is simple to cure with a single dose of appropriate antibiotics.

Clinical features

Women/female genitalia:

- Primary: Asymptomatic in at least 50 per cent of cases. Vaginosis with profuse, fulminant, purulent or frothy white to yellow discharge, dysuria, pelvic pain, itching.
- Sequelae: Adverse outcomes of pregnancy (e.g. low birthweight babies, preterm birth), increased risk of HIV transmission and acquisition.

Men/male genitalia:

- Primary: Asymptomatic in 70–80 per cent of cases. Urethral discharge (non-gonococcal urethritis), dysuria, testicular pain.
- Sequelae: Possible epididymitis and prostatitis.

Neonates: Low birthweight.

Diagnostic tests

Symptomatic trichomoniasis can be diagnosed using the syndromic approach based on:

- Odour, quality, and quantity of vaginal discharge (fulminate or frothy white discharge).
- Vaginal pH (usually >6.0).
- Possible presence of cervical friability (punctate cervical friability: 'strawberry cervix').

However, use of diagnostic testing is recommended due to the high proportion of asymptomatic cases:

- NAATs: Superior sensitivity relative to other diagnostic methods and very high specificity (as do other methods).
- Wet preparation (wet mount) microscopy: With this first-line diagnostic method, a positive result provides a definitive diagnosis with high specificity when correctly performed and interpreted (but sensitivity is low, except in symptomatic clients).
- Culture: Vaginal swabs, urethral swabs, and urine sediment from men are specimens licensed for culture. This method requires up to 5–7 days post-collection, and determination of positive results requires microscopy – this increases the sensitivity of the test beyond that of wet preparation microscopy, and specificity is also very high.
- Antigen detection: POCT for vaginal swab samples only. The latest generation of these tests has better sensitivity than microscopy and can provide results in approximately 30 minutes, and specificity is also very high.

4.3 Endogenous reproductive tract infections (not sexually transmitted)

4.3.1 Candida albicans (candidiasis)†

Both symptomatic and asymptomatic *C. albicans* infections are common in women. Predisposing factors for colonization and inflammation include changes in reproductive hormone levels associated with menstrual periods, pregnancy, and oral contraceptives; use of antibiotics; diabetes; and immunosuppression. Although sexual transmission of *C. albicans* may occur, the gastrointestinal tract has also been implicated as a source of infection. Men may acquire candidiasis from a sexual partner. They typically develop an allergic response to candidal antigen, although fulminant infection may be seen more frequently in clients with the predisposing factors.

Clinical features and associated diseases

- *Women/female genitalia:* Vulvovaginitis with an odourless, thick, white, curd-like ('cottage cheese') vaginal discharge, vulval and vaginal itching, burning sensation in the vulva, dysuria, and erythema of the labia and vulva. Also known as vulvovaginal candidiasis (VVC) or yeast infection.
- *Men/male genitalia:* Superficial infection of the glans penis. Can cause balanitis or balanoposthitis and rarely urethritis.

Diagnosis of VVC

- Clinical examination of symptoms (see above): In women with classic signs, it is often reasonable to give therapy on a presumptive clinical diagnosis without further confirmation (see *Section 5*).
- Microscopy: Detection of typical mycelia and yeast cells by wet mount or potassium hydroxide microscopy (which increases sensitivity) can be performed on-site and has a very high positive predictive value.
- Gram-stained smear and detection of budding yeast cells and pseudohyphae is preferred in some centres for the determination of candidiasis.

4.3.2 Bacterial vaginosis

Bacterial vaginosis (BV) is the most common cause of vaginal discharge, which is characteristically malodourous and is common among women of reproductive age as well as those who are post-menopausal. This syndrome is related to alterations in the vaginal ecology causing an increase in the local pH, resulting from a reduction in the protective hydrogen peroxide-producing lactobacilli and an increase in the numbers of various anaerobes, *such as Mycoplasma hominis* and *Gardnerella vaginalis*. It is an endogenous rather than a sexually transmitted infection, and symptomatic episodes have been linked to menstruation, presence of an IUD, and genital douching. Sexual activity is a risk factor for its acquisition (i.e. it is associated with an increased number of recent and lifetime partners, and having a new sexual partner).

† Vulvovaginal candidiasis is caused by the fungus *Candida albicans* in approximately 85 per cent of cases; *C. glabrata* is responsible for the remaining 15 per cent.

Clinical features

- Increased quantities of malodorous vaginal discharge.

Diagnostic tests

Diagnosis is based on the presence of at least three of the following four clinical criteria (Amsel criteria):

- homogenous white to grey adherent vaginal discharge
- vaginal fluid pH >4.5
- positive whiff/amine test (i.e. the release of a fishy amine odour from the vaginal fluid when mixed with 10 per cent potassium hydroxide solution)
- 'clue cells'‡ visible on microscopy

Diagnosis can also be achieved by assessment or scoring of bacteria in a Gram-stained vaginal smear.

4.4 Persistent viral infections (for HIV, see *Chapter 7*)

4.4.1 Genital herpes simplex virus (HSV)

Herpes simplex virus type 1 (HSV-1) and type 2 (HSV-2) can both cause genital HSV infection, although HSV-1 is more typically associated with oral HSV infection than genital infection. Genital herpes is primarily transmitted by skin-to-skin contact. There is no cure for herpes. It is a life-long infection that periodically causes outbreaks of genital ulcers (or sores) and inflammation. Treatment is available to reduce symptoms and decrease the risk of transmission to a partner.

Clinical features and associated diseases

- *All sexes*: Anogenital vesicular lesions and ulcerations, genital pain and itching, dysuria, fever, headache, myalgias and malaise, cervicitis, tender inguinal and femoral lymphadenopathy.
- *Neonates*: Neonatal herpes can be transmitted vertically during vaginal delivery. This can result in disseminated infection, central nervous system involvement, and possibly neonatal death.

Primary infection/first clinical episode: Most initial infections are asymptomatic or atypical, and therefore undiagnosed. Only 10–25 per cent of primary infections give rise to the classical syndrome 4–7 days after sexual exposure. This includes bilateral clusters of erythematous papules, vesicles, or ulcerations on the external genitalia, in the perianal region, or on the buttocks. Clients present with genital pain and itching and 80 per cent of women also report dysuria. Constitutional symptoms, such as fever, headache, myalgias, and malaise are common. Cervicitis and tender inguinal and femoral lymphadenopathy frequently accompany initial infections. Over a period of 2–3 weeks, new lesions appear and existing lesions progress to vesicles and pustules and then coalesce into ulcers before crusting over and healing. Atypical presentations of infections due to HSV-2 may include small erosions and fissures, as well as dysuria or urethritis without lesions [16].

Recurrent episodes: Recurrences are often preceded by prodromal symptoms (including tingling, paresthesia, and pain), are characterized by fewer lesions than the first episode, and are usually present unilaterally and without systemic symptoms. Pain is less severe during recurrences, and the lesions heal in 5–10 days without antiviral treatment. Immunocompromised clients, including those with HIV, generally have more frequent recurrences with more severe symptoms [16].

Diagnostic tests

Genital herpes is often diagnosed clinically; however, laboratory diagnosis is necessary to differentiate between HSV-1 and HSV-2, to diagnose other causes of genital ulceration (e.g. other STIs that cause painful genital ulcer, such as syphilis), and to detect non-infectious causes (e.g. Crohn's disease). The choice of test and how to interpret the results are important considerations.

‡ Clue cells are "squamous epithelial cells covered with many small coccobacillary organisms, giving a stippled, granular aspect; the edges of these epithelial cells are not clearly defined, owing to the large number of bacteria present and the apparent disintegration of the cells" [14].

Direct diagnosis from clinical specimens (material from lesions)

- Direct examination of specimens and cytological examination using conventional staining procedures: Low sensitivity and specificity for diagnosis of herpes virus infection.
- Viral antigen detection: Viral antigen in material from mucocutaneous lesions can be detected using direct immunofluorescence, immunoperoxidase staining, or enzyme-linked immunosorbent assay (ELISA). Rapid POCTs for HSV antigen detection are commercially available.
- Viral culture: HSV isolation in cell culture has been the cornerstone of HSV diagnosis, but it is feasible only in specialized laboratories at high cost and is resource intensive. It has high specificity but lower diagnostic sensitivity than NAATs.
- NAATs: NAATs are the most sensitive test currently available to detect HSV in genital samples. They are up to four times more sensitive, less dependent on collection and transportation conditions, and more rapid than viral culture. Strict validation of in-house PCRs or commercially available NAATs in individual settings is important.

Indirect serological methods

- Serological testing is recommended as an aid to diagnosis of genital herpes in clients with recurrent genital symptoms, atypical lesions, or with healing lesions and negative HSV cultures.
- Rapid POCTs exist for detection of HSV-2-specific antibodies, using capillary blood from a finger stick (or serum). These tests have good sensitivity and specificity and can provide results while the client waits; however, they are expensive compared with ELISA-based methods.

Serological testing for HSV is not routinely recommended in asymptomatic clients, but is indicated in the following groups:

- History of recurrent or atypical genital disease when direct virus detection methods have been negative.
- First-episode genital herpes, where differentiating between primary and established infection guides counselling and management.
- Sexual partners of clients with genital herpes, where concerns are raised about transmission.

HSV serology and pregnancy:

- Testing of asymptomatic pregnant individuals is not routinely recommended but is indicated when there is a history of genital herpes in the partner.
- HSV-1 and/or HSV-2 seronegative clients should be counselled about strategies to prevent a new infection with either virus type during pregnancy.

4.4.2 HPV types 6 and 11 (anogenital warts, also known as condylomata acuminata)

Transmission of genital HPV generally occurs readily via skin-to-skin genital contact. There are more than 200 different HPV types, of which 40 are known specifically to infect the anogenital mucosa of humans. While most people never develop symptoms and most HPV infections go away by themselves, HPV can cause genital warts and certain types of cancer. HPV types frequently detected in the anogenital tract are subdivided into low-risk and high-risk types, based on their relative risk for the rare complication of neoplasia.[§] Low-risk HPV types are typically found in low-grade intraepithelial lesions (non-precancerous lesions), as well as anogenital warts. HPV types 6 and 11 account for 85–90 per cent of anogenital warts. Anogenital warts are benign exophytic, papular, or flat growths that may occur anywhere in the anogenital area. They are extremely common, particularly in young people commencing sexual activity. In rare cases, lesions may cause problems owing to size and obstruction, but the most common problems are cosmetic and psychosocial. Lesions tend to recur after treatment. Acquisition of HPV types 6 and 11 can be effectively prevented by administration of HPV vaccination.

§ The high-risk HPVs are found in low- and high-grade lesions, as well as cancers of the cervix and other anogenital sites (vulva, vagina, anus, penis). Collectively, HPV 16 and 18 are responsible for approximately 70 per cent of all cervical cancer cases worldwide. For information about cervical cancer and precancer, and HPV vaccination, refer to *Chapter 8: Gynaecology and other reproductive healthcare*.

Clinical features

- *Men/male genitalia:* Penile and anal warts.
- *Women/female genitalia*: Vulval, anal, and cervical warts.

Diagnostic tests

- Clinical diagnosis.

4.4.3 Hepatitis B virus

Hepatitis B is a potentially life-threatening liver infection caused by the hepatitis B virus (HBV). It is a major global health problem and can cause both acute and chronic disease. The virus is most commonly transmitted perinatally, as well as through contact with blood (e.g. needlestick injury, tattooing, piercing, menstrual blood) or other infected body fluids (e.g. saliva, vaginal and seminal fluids). Sexual transmission of hepatitis B is most likely in unvaccinated men who have sex with men and in heterosexual individuals with multiple sexual partners or contact with sex workers. Chronic hepatitis B infection is defined as persistence of hepatitis B surface antigen for 6 months or more, and it can lead to liver cirrhosis and primary liver cancer, which can be fatal. Hepatitis B can be prevented by a vaccine that is 98–100 per cent effective. WHO recommends that all people are immunized against hepatitis B as infants [6].

Clinical features and associated diseases

Acute hepatitis B infection:

- When newly infected, most people do not experience any symptoms, while others have acute illness with symptoms lasting several weeks: yellowing of the skin and eyes (jaundice), dark urine, extreme fatigue, nausea, vomiting, and abdominal pain.
- A small subset of people with acute hepatitis can develop acute liver failure, which can be fatal.

Chronic hepatitis B infection:

- 20–30 per cent of those who develop chronic hepatitis B infection experience major complications, i.e. cirrhosis (scarring of the liver) or hepatocellular carcinoma (liver cancer).

Diagnostic tests

- The WHO 2017 testing guidelines [17] recommend the use of a single quality-assured serological in vitro diagnostic test to detect hepatitis B surface antigen (HBsAG) (to screen for HBV exposure). This test can be an RDT or a laboratory-based enzyme immunoassay (EIA), chemiluminescence immunoassay (CLIA), or electrochemiluminescence immunoassay (ECLIA). RDTs used should meet minimum performance standards and be delivered at the point of care to improve access and linkage to care and treatment.
- Nucleic acid testing technologies are typically used to detect the presence of the virus; determine if the infection is active and if the individual would benefit from antiviral treatment; determine when antiviral treatment should be discontinued (due to non-response or resistance); or to confirm effective suppression (HBV).
- Acute HBV infection is characterized by the presence of HBsAg and immunoglobulin M (IgM) antibody to the core antigen, HBcAg. During the initial phase of infection, individuals are also seropositive for hepatitis B e antigen (HBeAg). HBeAg is usually a marker of high levels of replication of the virus. The presence of HBeAg indicates that the blood and body fluids of the infected individual are highly infectious.
- Chronic infection is characterized by the persistence of HBsAg for at least 6 months (with or without concurrent HBeAg). Persistence of HBsAg is the principal marker of risk for developing chronic liver disease and liver cancer (hepatocellular carcinoma) later in life.
- Recent data caution on the need to test for HBV infection and consider antiviral therapy prior to starting direct-acting antiviral therapy in HBV/HCV

coinfected clients because of a potential risk of HBV reactivation and worsening of liver disease.

- Non-invasive assessment of liver disease stage at baseline and during follow-up: Aspartate aminotransferase (AST)-to-platelet ratio index (APRI) is recommended as the preferred non-invasive test to assess for the presence of cirrhosis (APRI score >2 in adults) in resource-limited settings. Transient elastography (e.g. FibroScan) or FibroTest may be the preferred non-invasive tests in settings where they are available and cost is not a major constraint [18].

Notes:

- It is not possible, on clinical grounds, to differentiate hepatitis B from hepatitis caused by other viral agents, hence laboratory confirmation of the diagnosis is essential.
- Many people are diagnosed only when they already have advanced liver disease. Among the long-term complications of HBV infections, cirrhosis and hepatocellular carcinoma cause a large disease burden. Liver cancer progresses rapidly, and since treatment options are limited, the outcome is generally poor. In low-income settings, most people with liver cancer die within months of diagnosis.
- WHO recommends that all blood donations be tested for hepatitis B to ensure blood safety and avoid accidental transmission to people who receive blood products.
- Refer to the full WHO guidelines for information on who (and how) to test for chronic infection, and further details on diagnostic tests [17].

4.4.4 Hepatitis C virus

The hepatitis C virus (HCV) can cause both acute and chronic hepatitis (liver disease), ranging in severity from a mild illness lasting a few weeks, to a serious, life-long illness. Hepatitis C is a major cause of liver cancer. HCV is a bloodborne virus, most commonly transmitted through sharing injecting equipment for drug use; reuse or inadequate sterilization of medical equipment, especially syringes and needles in healthcare settings; transfusion of unscreened blood and blood products; during pregnancy from the pregnant individual to the fetus; and sexual practices that lead to exposure to blood (e.g. among men who have sex with men, particularly those with HIV infection or those taking PrEP against HIV infection). Although it is less common, HCV can be transmitted sexually as well as perinatally. The incubation period for hepatitis C ranges from 2 weeks to 6 months. Most deaths from chronic hepatitis C are caused by liver cirrhosis and primary liver cancer. Research into a vaccine against HCV is ongoing. Antiviral medicines can cure more than 95 per cent of people with hepatitis C infection, thereby reducing the risk of death, but access to diagnosis and treatment is low [17,19].

Clinical features and associated diseases

- Initial infection: Approximately 80 per cent of people do not exhibit any symptoms. Those who are acutely symptomatic may exhibit fever, fatigue, decreased appetite, nausea, vomiting, abdominal pain, dark urine, grey-coloured faeces, joint pain, and jaundice (yellowing of skin and the whites of the eyes).
- Long-term sequelae: Chronic, life-long liver disease, liver cirrhosis, and hepatocellular carcinoma (primary liver cancer).

Diagnostic tests

- WHO's 2017 guidelines [17] recommend the use of a single quality-assured serological in vitro diagnostic test to detect HCV antibody (to screen for HCV exposure). This test could be an RDT or a laboratory-based enzyme immunoassay (EIA), chemiluminescence immunoassay (CLIA), or electrochemiluminescence immunoassay (ECLIA). RDTs used should meet minimum performance standards and be delivered at the point of care to improve access and linkage to care and treatment.
- If the test is positive for anti-HCV antibodies, a nucleic acid test for HCV ribonucleic acid (RNA) is needed to confirm chronic infection (about 30 per cent of people infected with HCV spontaneously clear the infection by a strong immune response without the need for treatment, but they will still test positive for anti-HCV antibodies). Nucleic

acid tests are also used to determine when antiviral treatment should be discontinued (due to non-response or resistance) and to confirm virological cure (HCV).

- Recent data caution on the need to test for HBV infection and consider antiviral therapy prior to starting direct-acting antiviral therapy in HBV/HCV coinfected clients because of a potential risk of HBV reactivation and worsening of liver disease.

Notes:

- Clients diagnosed with chronic HCV infection should have an assessment of the degree of liver damage (fibrosis and cirrhosis) by liver biopsy or through a variety of non-invasive tests.
- The degree of liver damage is used to guide treatment decisions and management of the disease.
- WHO recommends treatment with pan-genotypic direct-acting antivirals for persons over age 12. Treatment can cure most people after 12–24 weeks of therapy, depending on the absence or presence of cirrhosis.
- Because new HCV infections are usually asymptomatic, few people are diagnosed when the infection is recent. In those people who go on to develop chronic HCV infection, the infection is also often undiagnosed because it remains asymptomatic until decades after infection when symptoms develop secondary to serious liver damage.
- Refer to the full WHO guidelines for information on who (and how) to test for chronic infection, and further details on diagnostic tests [17].

4.5 Emerging infections that are potentially sexually transmissible

Other infectious pathogens are emerging as being potentially sexually transmissible, including Ebola and Zika viruses. Healthcare providers have a role to play in providing appropriate counselling for safer sex practices and advising clients on the need for testing and to avoid travel to affected regions and unprotected sex with those returning from these areas. Other viruses of note include human T-lymphotropic virus type 1 (HTLV-1).

Ebola virus disease is a rare but severe and often fatal illness, with death rates during outbreaks ranging from 25 per cent to 90 per cent. It is generally transmitted through contact with infected animals or with bodily fluids of infected humans or contact with items contaminated with such bodily fluids. WHO states that: "Sexual transmission of the Ebola virus, from males to females, is a strong possibility, but has not yet been proven. Less probable, but theoretically possible, is female to male transmission. More surveillance data and research are needed on the risks of sexual transmission, and particularly on the prevalence of viable and transmissible virus in semen over time" [20].

WHO's interim advice is that, until their semen has twice tested negative for Ebola virus (with one week between RT-PCR tests), or until 12 months have passed since the onset of symptoms, male Ebola virus disease survivors should abstain from all types of sex or practice safer sex with correct and consistent condom use. All Ebola survivors and their sexual partners should thus receive appropriate counselling and be provided with condoms, and males should be offered monthly testing starting at 3 months after disease onset [20].

Zika virus infection during pregnancy can cause congenital abnormalities, including microcephaly, and is also associated with preterm birth and miscarriage (see *Chapter 9: Maternal health*). Most Zika virus infections are asymptomatic, but it can cause generally mild symptoms for up to 1 week, including fever, rash, conjunctivitis, muscle and joint pain, malaise, or headache. Zika virus is primarily transmitted through bites from infected mosquitos from the *Aedes* genus, but it can also be transmitted through sex. WHO states that: "sexual transmission of Zika virus is much more likely from men to women than from women to men, and same-sex transmission, from man to man, has only been documented once" [21].

Advice for the prevention of sexual transmission of Zika virus needs to consider the current and projected rates of mosquito-borne transmission of Zika virus in geographic areas. In areas with no mosquito-borne transmission, sexual transmission from returning

travellers is one of the main routes of Zika virus transmission. WHO has issued detailed guidelines for the prevention of sexual transmission of Zika virus, which include the following:

- People living in areas with ongoing Zika virus transmission AND people travelling to or returning from areas with ongoing Zika virus transmission, and their sexual partners, particularly pregnant individuals, should be informed about the risk of sexual transmission of Zika as well as the risk of vertical transmission to the fetus during pregnancy, and should have access to a full range of contraceptive healthcare, including emergency contraception, to support an informed choice about preventing pregnancy.
- They should also be aware of the potential risk of sexual transmission of Zika virus after known or presumptive infection (3 months for men, 2 months for women) and advised to use condoms correctly and consistently or abstain from sex to prevent sexual transmission, especially during pregnancy [21].

Human T-lymphotropic virus type 1 (HTLV-1) can cause adult T-cell leukaemia/lymphoma (ATL) and a progressive nervous system condition known as HTLV-1-associated myelopathy or tropical spastic paraparesis (HAM/TSP). HTLV-1 is transmitted primarily through infected bodily fluids including blood, breast milk, and semen. Risk factors include unprotected sex, injecting drugs, and transplantation of tissue, blood, and blood products [22].

5. Syndromic management

Syndromic management is widely used to manage people with symptoms of STIs. In most resource-limited settings, syndromic management flow charts are still the standard of care where laboratory diagnosis is not available or, where it is available, getting results takes several days. Although the STI syndromic approach has some shortcomings, it remains an essential component of managing people with symptoms of STIs. Given the existence of RDTs, the syndromic approach can be strengthened by integrating them where possible.

The symptoms and signs documented during history-taking and physical examination can be grouped together into syndromes. Syndromic management provides treatment for the pathogen(s) most commonly responsible for causing the syndrome(s). In some cases, the syndrome may be attributable to more than one possible infection. This approach is mostly used in settings where aetiological tests and laboratory diagnosis are not available to manage clients reporting symptoms or in whom suspicious clinical signs are noted on exam.

For effective syndromic management, providers should know the local disease patterns, antimicrobial susceptibilities, and the appropriate treatment based on national guidance. Flow charts for syndromic management of STIs (see *Appendix 3*) can give clear step-by-step instructions culminating in one or more effective treatment regimens, based on the symptoms, signs, and/or risk factors, with the determination of the most likely infection/pathogen based on the epidemiology of the country, region, or population.

STI risk assessment is particularly important for syndromic management of abnormal vaginal discharge, which can also be caused by non-sexually transmitted (endogenous) RTIs (see *Section 4.3*). For any client with lower abdominal pain or scrotal swelling, the need for emergency surgery must be ruled out, and an early follow-up visit arranged if uncertain.

Although the STI syndromic approach has some shortcomings, it remains an essential component of managing people with symptoms of STIs [23].

Treatment according to national STI/RTI treatment guidelines should start as soon as possible once a syndromic diagnosis has been made. Wherever possible, single-dose oral treatment is recommended to ensure compliance and cure (or suppression for viral STIs). For details per infection/organism, including clinical features and diagnosis, see *Section 4.3*; for treatment information see *Appendix 2*.

5.1 Urethral discharge syndrome

Urethral discharge from the penis is commonly caused by *N. gonorrhoeae* and/or *C. trachomatis* and/or non-gonococcal and non-chlamydial pathogens, such as *M. genitalium* and *T. vaginalis*. Clients with urethritis (inflammation of the urethra) often present with urethral discharge with or without dysuria (pain on urination). Occasionally, dysuria or itching at the tip of the urethra may be the only symptoms. Urethral discharge may range in quantity and in character from being clear to purulent. Distinguishing between discharge caused by gonorrhoea, chlamydia, or any other cause of urethritis is not clinically possible.

Without laboratory diagnosis, treatment of a client with urethral discharge from the penis should adequately cover both gonorrhoea (*N. gonorrhoeae*) and chlamydia (*C.* trachomatis) as these cannot be distinguished from each other by symptoms, clinical presentation, or incubation period (usually shorter for gonorrhoea, 3–7 days versus chlamydia, 5–21 days). Dual infections of gonorrhoea and chlamydia are generally not uncommon. If microscopy is available, the presence of intracellular diplococci on a Gram-stained smear can provide a presumptive diagnosis of gonorrhoea, while their absence means that treatment only for chlamydia can be considered. See *Appendix 3, Figure 1* for management of urethral discharge from the penis.

Persistent or recurrent symptoms of urethritis may result from drug resistance, poor compliance with the treatment regimen, or reinfection. If able to exclude reinfection by taking a thorough sexual history, additional treatment for *T. vaginalis* and *M. genitalium* may be considered. See *Appendix 3, Figure 2* for management of persistent or recurrent urethral discharge from the penis.

Possible diagnoses/pathogens: *N. gonorrhoeae, C. trachomatis, T. vaginalis, M. genitalium* (in cases of persistent urethral discharge, *T. vaginalis* and *M. genitalium* should be suspected).

Recommended treatment

Treat for uncomplicated **gonorrhoea**

PLUS

Treat for **chlamydia**

Special note: Use local guidelines where available to choose the appropriate treatment, especially for gonorrhoea, which is increasingly drug resistant. See *Appendix 2* for recommended treatment options.

5.2 Genital ulcer disease syndrome

The causative pathogens for GUD vary in different regions and may change over time. The five most common STI causes of GUD are genital HSV, syphilis (*T. pallidum*), chancroid (*H. ducreyi*), donovanosis (*K. granulomatis*), and lymphogranuloma venereum (LGV, caused by *C. trachomatis,* L1–L3 serovars). GUD can also be non-STI related (infectious e.g. bacterial skin infections, fungi) or non-infectious aetiologies (e.g. fixed drug eruption, Behçet syndrome, sexual trauma, psoriasis), and distinguishing this from STI-related causes is a major challenge. A client with genital ulcers may also have more than one disease, and clinical manifestations and patterns of GUD may be further altered in the presence of HIV infection. Clinical differential diagnosis may not be accurate, particularly in settings where several aetiological causes are prevalent. The STI causes of GUD have changed over time: chancroid has decreased and herpes and syphilis have increased. Clients with ulcers should be treated for all locally relevant causes.

GUD is of particular concern due to its epidemiological synergy with HIV. People with GUD, such as HSV, are much more likely to become infected with HIV if exposed, and people with both HIV and genital ulcers are more likely to transmit HIV to others [16].

Both an inexpensive rapid dual HIV/syphilis blood test and a single rapid test for syphilis (including

self-administered) are currently available. These are accurate and easy to use with minimal training [7]. These RDTs for syphilis should be used where available. They provide results in 10–20 minutes and can be performed in any setting because they do not require refrigerated storage or laboratory equipment. The sensitivity of the RDTs ranges from 85–98 per cent and the specificity from 93–98 per cent, compared with the *T. pallidum* haemagglutination assay and *T. pallidum* passive particle agglutination assay as reference standards [4]. Laboratory-assisted differential diagnosis is rarely helpful for other causes of GUD. See *Appendix 3, Figure 3* for management of genital ulcer disease including anorectal ulcers.

Possible diagnoses/pathogens: Genital herpes simplex virus (HSV-2, and less often HSV-1), *T. pallidum*, *H. ducreyi*, *K. granulomatis*, *C. trachomatis* serovars L1–L3.

Recommended treatment

Treat for **syphilis**

PLUS

Treat for **genital herpes (HSV)**

PLUS

Treat for **chancroid**, only in geographic settings where cases are reported or emerging

Special notes: Those with suspected HSV need to be advised to keep the affected area clean and dry and should be counselled that there is no definitive cure – although suppressive (antiviral) therapy can control recurrent attacks – along with education about the natural history of HSV-2 infection and the importance of treatment compliance [24].

Syndromic management should include treatment for syphilis, unless the person has been treated for syphilis within the past 3 months, and treatment for herpes.

For people with recurrent ulcers that are too frequent (such as 4–6 episodes or more a year) or with severe symptoms or causing distress, suppressive therapy may be proposed and preferred to episodic treatment. People receiving suppressive therapy may be assessed after 1 year and asked whether they want to continue or to change to episodic therapy. Note that recurrence rates may revert to the period before suppressive therapy started, and clients need to be aware of that.

For people living with HIV and immunosuppressed individuals, dose adjustments are recommended for valaciclovir and famciclovir, but not for acyclovir:

- For recurrent episodes, valaciclovir 500 mg is recommended for 5 days instead of 3 days, and famciclovir is recommended at a dose of 500 mg twice daily for 5 days instead of 250 mg.
- For suppressive therapy, valaciclovir is recommended at 500 mg twice daily instead of once daily, and famciclovir at 500 mg twice daily instead of 250 mg twice daily.

People who report allergies to penicillin should be treated with the effective alternatives for syphilis, which include doxycycline and erythromycin.

5.3 Vaginal discharge syndrome

Vulvovaginal symptoms are one of the most common reasons for attending a health facility. The symptoms include a vaginal discharge perceived by the client to be abnormal, vulval irritation, or itching. Other conditions may include vulvovaginal growths, such as warts and cancer, especially of the cervix.

The symptom of vaginal discharge is highly indicative of vaginitis caused by a vaginal infection, but may also, less commonly, be due to cervicitis caused by a cervical infection. Vaginitis may be caused by trichomoniasis (*T. vaginalis*), bacterial vaginosis (BV), and/or vulvovaginal candidiasis (VVC, caused by *Candida* species, usually *C. albicans*). Trichomoniasis is an STI caused by a flagellated protozoan. It is most often asymptomatic, but some will have a yellow-green, foul-smelling vaginal discharge and vulval itching. BV and VVC are both endogenous RTIs, and both can be asymptomatic. In symptomatic cases, BV is associated with a fishy-smelling, thin, grey-white discharge, while VVC is associated with vulval itching and soreness, and a white, odourless, curdy discharge. Cervicitis can be caused by gonorrhoea (*N. gonorrhoeae*) and/or chlamydia (*C. trachomatis*), and *M. genitalium*, but most

cases are asymptomatic such that only a minority of clients presenting with vaginal discharge syndrome have cervical infections.

The most applicable approach to managing clients presenting with vaginal discharge depends on the diagnostic capacity and expertise within a healthcare delivery point. See *Appendix 3, Figure 4* for a flowchart to help determine which management options to implement for vaginal discharge.

If available, laboratory testing should be used to diagnose clients with vaginal discharge for STIs such as *N. gonorrhoeae* and/or *C. trachomatis*. In the absence of such testing, the syndromic approach for management of vaginal discharge can preferably be based on, where possible, speculum examination for signs of cervical infection, or alternatively on the presence of vaginal discharge, or STI risk assessment if speculum examination is not feasible. Microscopy is accurate for the diagnosis of vaginal infection, if already available. However, setting up microscopy examination and resources required may outweigh just providing treatment for vaginal infection. Knowledge about the local prevalence of trichomoniasis, gonorrhoea, and chlamydia is also useful in deciding syndromic management for clients presenting with vaginal discharge.

Where speculum examination is possible, VVC can often be diagnosed clinically. If a microscope is also available, the presence of motile trichomonads in a wet preparation (wet mount) confirms *T. vaginalis* infection, clue cells suggest BV, and budding yeasts or pseudohyphae confirm the presence of *Candida* species, usually *C. albicans*. The use of Gram staining using vaginal discharge samples is recommended in addition, where possible. In the absence of microscopy, all clients presenting with vaginal discharge should receive treatment for both trichomoniasis and BV, and sexual partners should also be treated for trichomoniasis, unless sexual transmission can be ruled out during history. Clients with vaginal discharge and a positive risk assessment for STIs (and positive signs on pelvic examination if available, i.e. abdominal tenderness and cervical motion tenderness) should also be treated for gonorrhoea and chlamydia. See *Appendix 3, Figure 5* for the management of vaginal discharge.

Possible diagnoses/pathogens: Cervical infections (*N. gonorrhoeae, C. trachomatis, M. genitalium*) and/or vaginal infections (*T. vaginalis, C. albicans*, BV).

Recommended treatment for vaginal infection

Treat for **bacterial vaginosis** and **trichomoniasis**

PLUS

Treat for **yeast infection** if curd-like white discharge, vulvovaginal redness, and itching are present

Recommended treatment for cervical infection

Treat for uncomplicated **gonorrhoea**

PLUS

Treat for **chlamydia**

Special notes:

- A healthy person may have a variable amount of clear and white vaginal discharge (physiological discharge). This discharge usually increases before and after menstruation and becomes more watery in the middle of the menstrual cycle. It also increases during pregnancy, while taking oral contraceptive pills, and when an IUD is in place.
- Treatment of sexual partners of clients with BV has not been demonstrated to be of benefit. It is recommended that predisposing factors such as the use of antiseptic/antibiotic vaginal preparations or vaginal douching be reduced or eliminated.
- Predisposing and underlying factors for VVC include the use of antibiotics, the use of antiseptic/antibiotic vaginal preparations or vaginal douching, uncontrolled diabetes mellitus, immunosuppression, and corticosteroid use [24].
- BV and *T. vaginalis* may be treated simultaneously with the same medicine, metronidazole. Similarly, in the treatment of cervicitis, some medicines, such as doxycycline and azithromycin, can simultaneously treat *C. trachomatis* and *M. genitalium*.

5.4 Lower abdominal pain

This symptom often indicates the presence of PID, referring to infection of the upper part of the female reproductive tract (i.e. the uterus, fallopian tubes, and ovaries). Lower abdominal pain may be accompanied by dyspareunia, dysuria, dysmenorrhoea, abnormal vaginal discharge, bleeding, fever, and sometimes nausea and vomiting. Clients with this syndrome (with PID) may have endometritis, salpingitis, tubo-ovarian abscess, and pelvic peritonitis.

PID is usually caused by an STI, most commonly chlamydia (*C. trachomatis*), but also gonorrhoea (*N. gonorrhoeae*) and *M. genitalium,* but it can also be an endogenous condition caused by organisms in the normal vaginal flora (anaerobic bacteria). PID can also be iatrogenic, following recent instrumentation of the uterus or trauma to the cervix caused by, for example, abortion or insertion of an IUD. PID can cause irreversible damage to the fallopian tubes, leading to tubal infertility, ectopic pregnancy, and/or chronic pelvic pain (for further information on gynaecological issues, see *Chapter 8: Gynaecology and other reproductive healthcare*).

The diagnosis of PID can be made clinically, especially in sexually active clients, based on a speculum and bimanual exam, with findings of lower abdominal tenderness (usually bilateral), often with cervical motion tenderness, adnexal tenderness or uterine tenderness, sometimes accompanied by vaginal/cervical discharge and/or fever. Laparoscopy is helpful when it is available. There is no need to delay treatment for PID by waiting for laboratory test results, but it is important to rule out ectopic pregnancy, appendicitis, and other conditions (see special notes below). See *Appendix 3, Figure 6* for management of lower abdominal pain.

Possible diagnoses/pathogens: *N. gonorrhoeae, C. trachomatis*, *M. genitalium*, anaerobic bacteria.

Recommended treatment for PID

Treat for uncomplicated **gonorrhoea**

PLUS

Treat for **chlamydia**

PLUS

Treat for **anaerobic infections**

Special notes:

- Caution the use of analgesics to avoid masking pain that may indicate need for abdominal surgery.
- If a client with an IUD presents with PID, discuss, and consider removing the device, especially if the symptoms have not resolved with treatment within 72 hours.
- Hospitalization of individuals with acute PID should be seriously considered under the following circumstances:
  - the diagnosis is uncertain
  - surgical emergencies, such as appendicitis and ectopic pregnancy cannot be ruled out
  - a pelvic abscess is suspected
  - severe illness precludes management on an outpatient basis
  - the person is pregnant
  - the person is unable to follow or tolerate an outpatient regimen
  - the person has failed to respond to outpatient therapy
- Inpatient clients should be clinically monitored during admission and be reviewed 24–48 hours after starting intravenous antibiotics therapy.

5.5. Anorectal discharge

Anorectal STIs can be acquired through receptive anal sex but may also be due to contiguous spread from a genital infection. Anorectal STIs are relatively common among men who have sex with men, female sex workers, transgender people, and people who have anal sex.

Anorectal STIs are frequently asymptomatic but can lead to proctitis (inflammation of the distal 10–12 cm of the rectum), which is not always symptomatic. Acute proctitis can present with pain/discomfort, inflammation, cramping/tenesmus, mucopurulent anal discharge, anorectal bleeding, constipation, sensation of rectal fullness or of incomplete defecation. Chronic proctitis due to LGV can present with a history of mucus-streaking of the stool, constipation, and feeling of incomplete defecation.

Proctitis is most often caused by anorectal gonorrhoea (*N. gonorrhoeae*), chlamydia (*C. trachomatis*), but can also be caused by LGV, HSV, syphilis (*T. pallidum*) and *M. genitalium*. HPV infection, meanwhile, can cause benign anogenital warts (*condylomata acuminata*, caused by HPV types 6 and 11) and anal cancer and precancerous lesions (especially HPV type 16) [25].

Anoscopic examination may reveal the presence of mucopus in the rectum, rectal mucosal oedema, and contact bleeding in clients with gonococcal and chlamydial proctitis. In syphilis-, herpes- and LGV-related proctitis, rectal ulceration can be seen. Granulomatous inflammatory masses may also be seen in LGV. Differential diagnosis can include other gastrointestinal infections of the rectum and colon (proctocolitis) including *Shigella*, *Campylobacter*, *Salmonella,* cytomegalovirus, and amoebiasis, as well as neoplastic lesions, perineal abscesses, and chronic conditions such as ulcerative colitis or Crohn's disease. See *Appendix 3, Figure 7* for management of anorectal discharge.

Possible organisms: *N. gonorrhoeae, C. trachomatis,* including LGV (*C. trachomatis* serovars L1, L2), HSV-1, HSV-2, *T. pallidum*, *M. genitalium*, HPV various types.

Recommended treatment

Treat for **gonorrhoea**

PLUS

Treat for **chlamydia**

PLUS

Treat for **herpes (HSV)** if there is anorectal pain

Special notes:

Anorectal infections often go unrecognized and untreated, not only because they can be asymptomatic, but also due to a combination of low levels of clinical suspicion and stigmatization of anal sex.

If ulcerations are seen, treatment should also follow the flow chart for genital ulcers and consider managing the person for syphilis and/or LGV.

5.6 Other common syndromes

5.6.1 Scrotal swelling

Epididymitis (inflammation of the epididymis) usually presents as unilateral testicular pain and swelling with acute onset, often with tenderness of the epididymis and vas deferens. Occasionally, there could be erythema and oedema of the overlying scrotal skin. The adjacent testis is also often inflamed (orchitis) giving rise to epididymo-orchitis.

Epididymitis is commonly caused by gonorrhoea (*N. gonorrhoeae*) or chlamydia (*C. trachomatis*) and should be suspected in clients at high risk for STI infection. Epididymitis can also be a complication of a bacterial urinary tract infection, and can be caused by tuberculosis, filariasis, and infections due to *Escherichia coli*, *Klebsiella* spp., or *Pseudomonas aeruginosa*. If quick and effective treatment is not given, fibrous scarring and destruction of testicular tissue may lead to infertility.

Other possible diagnosis: hydrocele, hernia, varicocele, trauma, tumour, and testicular torsion. In young people, testicular torsion should be suspected when onset of scrotal pain is sudden. *Testicular torsion is a surgical emergency that needs urgent referral and treatment*.

Possible pathogens: *N. gonorrhoeae*, *C. trachomatis.*

Special note: Use local guidelines where available to choose the appropriate treatment, especially for gonorrhoea, which is increasingly drug resistant.

Supportive therapy: Bed rest, antipyretics and analgesics, and scrotal support until local inflammation and fever subside.

5.6.2 Inguinal bubo

Inguinal and femoral buboes are localized enlargements of the lymph nodes (buboes) in the groin (inguinal) area, which are painful and may be fluctuant. They are a common feature of chancroid (*H. ducreyi*) and LGV (*C. trachomatis* serovars L1, L2, and L3). Occasionally, the bubo might have ruptured and pus may be present. Enlarged lymph nodes that are not acutely inflamed (e.g. painless adenopathy due to syphilis) are not buboes.

Non-sexually transmitted local and systemic infections can also cause swelling in the groin area and need to be considered in the differential diagnosis (e.g. inguinal hernia, infections of the lower limb, HIV infection with generalized lymphadenopathy, filariasis, tuberculosis lymphadenopathy, and plague).

Possible diagnoses/pathogens: *H. ducreyi*, *C. trachomatis* serovars L1, L2, and L3.

Special notes:

- Caution is needed in pregnant individuals. Select an appropriate treatment regimen.
- Fluctuant lymph nodes should be aspirated through healthy skin. Incision and drainage or excision of nodes may delay healing and should not be attempted.
- Where there is doubt and/or treatment failure, referral for diagnostic biopsy is advisable.

Table 4 lists the possible aetiologies of the common STI syndromes discussed in Section 5.

TABLE 4: Common STI syndromes and aetiologies

STI syndrome	Possible STI aetiologies
Urethral discharge	*N. gonorrhoeae, C. trachomatis, T. vaginalis, M. genitalium*
Genital ulcer disease	*T. pallidum, H. ducreyi,* HSV, *K. granulomatis, C. trachomatis* (LGV strains L1–L3)
Vaginal discharge	Cervical infections (*N. gonorrhoeae, C. trachomatis, M. genitalium*) and vaginal infections (*T. vaginalis, C. albicans,* bacterial vaginosis)
Lower abdominal pain	Cervical infections (*N. gonorrhoeae, C. trachomatis, M. genitalium*), vaginal infections (*T. vaginalis, C. albicans,* bacterial vaginosis), and anaerobic infections
Anorectal discharge	*N. gonorrhoeae, C. trachomatis,* (LGV strains L1–L3)
Scrotal swelling	*N. gonorrhoeae, C. trachomatis, T. vaginalis, M. genitalium*
Inguinal bubo	*H. ducreyi, C. trachomatis* (LGV strains L1–L3)

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7. Appendices

Appendix 1: List of WHO guidance on STI management

Specific WHO guidance on STI management is provided in the following key documents:

- WHO guidelines for the treatment of *Neisseria gonorrhoeae*. 2016. Available at: https://apps.who.int/iris/bitstream/handle/10665/246114/9789241549691-eng.pdf
- WHO guidelines for the treatment of *Treponema pallidum* (syphilis). 2016. Available at: https://www.who.int/publications/i/item/9789241549714
- WHO guidelines for the treatment of *Genital Herpes Simplex Virus*. 2016. Available at: https://www.who.int/publications/i/item/978924154987
- WHO guidelines for the treatment of *Chlamydia trachomatis*. 2016. Available at: https://apps.who.int/iris/bitstream/handle/10665/246165/9789241549714-eng.pdf
- WHO guideline on syphilis screening and treatment for pregnant women. 2017. Available at: https://www.who.int/publications/i/item/9789241550093
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- Guidelines for the management of symptomatic sexually transmitted infections. 2021. Available at: https://www.who.int/publications/i/item/9789240024168

Appendix 2: Recommended treatment options

Recommended treatment options for urethral discharge syndrome

• Therapy for uncomplicated *Neisseria gonorrhoeae*
Plus
• Therapy for *Chlamydia trachomatis*

Infections covered	First choice	Effective substitutes
In settings in which local antimicrobial resistance data are not available, the WHO STI guideline suggests dual therapy for gonorrhoea.		
N. gonorrhoeae[a]	**Ceftriaxone 250 mg**, intramuscularly, single dose Plus **Azithromycin 1 gram,** orally, single dose	**Cefixime 400 mg**, orally, single dose Plus **Azithromycin 1 gram**, orally, single dose
C. trachomatis	**Doxycycline 100 mg**, orally, twice daily for seven days (to be given only if gonorrhoea therapy did not include azithromycin)	**Azithromycin 1 gram**, orally, single dose **or** **Erythromycin 500 mg**, orally, 4 times a day for 7 days **or** **Ofloxacin 200–400 mg**, orally, twice a day for 7 days. (to be given only if gonorrhoea therapy did not include azithromycin)
In settings in which local antimicrobial resistance data reliably confirm the susceptibility of *N. gonorrhoeae* to the antimicrobial agent, single therapy may be given.		
N. gonorrhoeae	**Ceftriaxone 250 mg**, intramuscularly, single dose	**Cefixime 400 mg**, orally, single dose **or** **Spectinomycin 2 grams**, intramuscularly, single dose (availability makes this antibiotic impractical)
Additional therapeutic options for recurrent or persistent infections		
T. vaginalis	**Metronidazole 2 grams**, orally, single doses	**Metronidazole 400 or 500 mg**, twice daily for 7 days
M. genitalium	**Azithromycin 500 mg**, orally on day 1, **250 mg** daily on days 2–5	

[a] Because of increasing antimicrobial resistance to azithromycin in *N. gonorrhoeae* and *M. genitalium* and reduced susceptibility of *N. gonorrhoeae* to cephalosporins, WHO is in the process of revising current treatment recommendations and dosages.

Source: World Health Organization. Guidelines for the management of symptomatic sexually transmitted infections. Geneva: WHO; 2021. Licence: CC BY-NC-SA 3.0 IGO.

Recommended treatment options for vaginal discharge syndrome

A. Treatment options for vaginal infections

• Therapy for bacterial vaginosis and trichomoniasis
Plus
• Therapy for yeast infection if curd-like white discharge, vulvovaginal redness and itching are present

Infections covered	First-line options	Effective substitutes	*Note:* In pregnancy, metronidazole should, ideally, be avoided in the first trimester
Bacterial vaginosis	**Metronidazole 400 mg or 500 mg**, orally, twice daily for 7 days	**Clindamycin 300 mg**, orally, twice daily for 7 days **or** Metronidazole 2 grams, orally, single dose	**Metronidazole 200 mg or 250 mg**, orally, 3 times a day for 7 days **or** **Metronidazole gel** 0.75%, one full applicator (5 grams) intravaginally, twice a day for 7 days **or** **Clindamycin 300 mg**, orally, twice daily for 7 days
T. vaginalis	**Metronidazole 2 grams**, orally, in a single dose **or** **Metronidazole 400 mg or 500 mg**, orally, twice daily for 7 days	**Tinidazole 2 grams** orally, single dose **or** **Tinidazole 500 mg** orally, twice daily for 5 days	**Metronidazole 200 mg or 250 mg**, orally, 3 times a day for 7 days **or** **Metronidazole gel** 0.75%, one full applicator (5 grams) intravaginally, twice a day for 7 days
***C. albicans* (yeast infection)**	**Miconazole vaginal pessaries, 200 mg** inserted at night for 3 nights **or** **Clotrimazole vaginal tablet, 100 mg**, inserted at night for 7 nights	**Fluconazole 150 mg (or 200mg)**, orally, single dose **OR** **Nystatin, 200,000-unit vaginal tablet**, inserted at night for 7 nights	**Miconazole 200 mg vaginal pessaries** inserted once daily for 3 days **or** **Clotrimazole vaginal tablet 100 mg** inserted at night for 7 days **or** **Nystatin pessaries 200,000 units**, inserted at night for 7 nights

People taking metronidazole should be cautioned to avoid alcohol. Use of metronidazole in the first trimester of pregnancy is not recommended unless the benefits outweigh the potential hazards.

B. Treatment options for cervical infection

• Therapy for uncomplicated *N. gonorrhoeae*
Plus
• Therapy for *C. trachomatis*

Infections covered	First choice (choose one from each cell below)	Effective substitutes	Options for pregnant women or during breastfeeding
In settings in which local antimicrobial resistance data are not available, the WHO STI guidelines suggest dual therapy for gonorrhoea.			
N. gonorrhoeae[a]	**Ceftriaxone 250 mg, intramuscularly, single dose plus Azithromycin 1 gram, orally, single dose**	**Cefixime 400 mg, orally, single dose plus Azithromycin 1 gram, orally, single dose**	**Ceftriaxone 250 mg, intramuscularly, single dose plus Azithromycin 1 gram, orally, single dose or Cefixime 400 mg, orally, single dose plus Azithromycin 1 gram, orally, single dose**
C. trachomatis	**Doxycycline 100 mg, orally, twice daily for 7 days (to be given only if gonorrhoea therapy did not include azithromycin)**	**Azithromycin 1 gram, orally, single dose or Erythromycin 500 mg, orally, 4 times a day for 7 days or Ofloxacin 200–400 mg, orally, twice daily for 7 days (to be given only if gonorrhoea therapy did not include azithromycin)**	**Erythromycin 500 mg, orally, 4 times a day for 7 days or Azithromycin 1 gram, orally, single dose (to be given only if gonorrhoea therapy did not include azithromycin)**
M. genitalium	**Azithromycin 500 gram,** orally day 1, 250 mg daily, days 2–5 (absence of macrolide resistance)		**Azithromycin 500 gram,** orally, day 1, 250 mg daily, days 2–5 (absence of macrolide resistance)

[a] Because of increasing antimicrobial resistance to azithromycin in *N. gonorrhoeae* and *M. genitalium* and reduced susceptibility of *N. gonorrhoeae* to cephalosporins, WHO is in the process of revising current treatment recommendations and dosages.

Source: World Health Organization. Guidelines for the management of symptomatic sexually transmitted infections. Geneva: WHO; 2021. Licence: CC BY-NC-SA 3.0 IGO.

Treatment options for pelvic inflammatory disease

• Therapy for uncomplicated *N. gonorrhoeae*
Plus
• Therapy for *C. trachomatis*
Plus
• Therapy for anaerobic infections

Infections covered	First choice	Effective substitutes
In settings in which local antimicrobial resistance data are not available, the WHO STI guidelines suggest dual therapy for gonorrhoea.		
N. gonorrhoeae[a]	**Ceftriaxone 250 mg**, intramuscularly, single dose plus **Azithromycin 1 gram**, orally, single dose	**Cefixime 400 mg**, orally, single dose plus **Azithromycin 1 gram**, orally, single dose
C. trachomatis	**Doxycycline 100 mg**, orally, twice daily for 14 days	**Erythromycin 500 mg**, four times daily for 14 days (to be given only if gonorrhoea therapy did not include azithromycin)
In settings in which local antimicrobial resistance data reliably confirm the susceptibility of *N. gonorrhoeae* to the antimicrobial agent, single therapy may be given as below.		
N. gonorrhoeae[a]	**Ceftriaxone 250 mg**, intramuscularly, single dose	**Cefixime 400 mg**, orally, single dose
The treatment for anaerobes must be included in either treatment option above.		
Anaerobes	**Metronidazole 400 mg or 500 mg**, orally, twice daily for 14 days	

[a] Because of increasing antimicrobial resistance to azithromycin in *N. gonorrhoeae* and reduced susceptibility to cephalosporins, WHO is in the process of revising current treatment recommendations and dosages.

Source: World Health Organization. Guidelines for the management of symptomatic sexually transmitted infections. Geneva: WHO; 2021. Licence: CC BY-NC-SA 3.0 IGO.

Recommended treatment options for genital ulcer disease

• Multiple-dose therapy for herpes simplex virus infection
plus
• Single-dose long-acting penicillin therapy or multi-dose therapy of alternatives

Infections covered	First-line options	Effective substitutes	For pregnant and breastfeeding women and people younger than 16 years
Genital herpes	**Primary infection** **Acyclovir 400 mg**, orally, 3 times a day for 10 days **or** **Acyclovir 200 mg**, orally, 5 times a day for 10 days	**Primary infection** **Valaciclovir 500 mg**, twice a day for 10 days **or** **Famciclovir 250 mg**, orally, 3 times a day for 10 days	**Primary infection** Use acyclovir only when the benefit outweighs the risk. The dosage is the same as for primary infection in non-pregnancy.
	Recurrent infection – episodic therapy **Acyclovir 400 mg**, orally, 3 times a day for 5 days **or** **Acyclovir 800 mg**, orally, twice daily for 5 days **or** **Acyclovir 800 mg**, 3 times a day for 2 days	**Recurrent infection – episodic therapy** **Valaciclovir 500 mg**, twice daily for 5 days **or** **Famciclovir 250 mg**, orally, twice daily for 5 days	**Recurrent infection – episodic therapy** **Acyclovir 400 mg**, orally, 3 times a day for 5 days **or** **Acyclovir 800 mg**, orally, twice daily for 5 days **or** **Acyclovir 800 mg**, 3 times a day, for 2 days
	Suppressive therapy for recurrent herpes[a] **Acyclovir 400 mg**, orally, twice daily **or** **Valaciclovir 500 mg**, once daily	**Suppressive therapy for recurrences**[a] **Famciclovir 250 mg**, orally, twice daily	**Suppressive therapy for recurrent herpes**[a] **Acyclovir 400 mg**, orally, twice daily **or** **Valaciclovir 500 mg**, once daily
Syphilis (early) (treatment for primary, secondary and early latent [less than two years since infection] syphilis)	**Benzathine penicillin 2.4 million units**, intramuscularly in a single dose	**Doxycycline 100 mg**, orally, twice a day for 14 days **or** **Erythromycin 500 mg**, 4 times a day for 14 days	**Benzathine penicillin 2.4 million units**, intramuscularly in a single dose **or** **Erythromycin 500 mg**, orally, 4 times a day for 14 days[b]

continued

continued

Syphilis (late) (treatment for late latent and tertiary syphilis)	**Benzathine penicillin 2.4 million units** by intramuscular injection, once weekly for 3 consecutive weeks	**Procaine penicillin 1.2 million units** by intramuscular injection, once daily for 20 consecutive days **or** **Doxycycline 100 mg**, orally, twice daily for 30 days	**Erythromycin 500mg** orally, 4 times a day for 30 days[b]

[a] Suppressive therapy for recurrent herpes is recommended for individuals with 4–6 or more recurrent episodes per year, severe symptoms or episodes that cause distress. Increased dosages or duration of treatment are required for people living with HIV (*27*).

[b] Although erythromycin is used to treat pregnant women, it does not cross the placental barrier completely and the fetus is not treated. The newborn infant therefore needs treatment soon after delivery.

Treatment options for people with anorectal discharge

Recommended treatment regimens for anorectal infections		
Infections covered	**Recommended choice**	**Effective substitutes**
N. gonorrhoeae[a]	**Ceftriaxone 250 mg**, intramuscularly, single dose **plus** **Azithromycin 1 gram**, orally, single dose	**Cefixime 400 mg**, orally, single dose **plus** **Azithromycin 1 gram**, orally, single dose
C. trachomatis	**Doxycycline 100 mg** orally, twice daily, for 7 days **or** **Doxycycline for 21 days** (to cover rectal lymphogranuloma venereum) if suspected or confirmed on NAAT (to be given only if dual therapy did not include azithromycin)	**Erythromycin 500 mg**, orally, 4 times a day for 14 days (to be given only if dual therapy did not include azithromycin)
Syphilis (if ulcer present)	**Benzathine penicillin 2.4 million units** intramuscularly, single dose People with a positive syphilis test and no ulcer: administer the same dose at weekly intervals for a total of three doses	**Doxycycline 100 mg** orally, twice daily for 14 days **Erythromycin 500 mg** 4 times a day, orally, for 14 days Extend treatment to 30 days if syphilis serology is positive

continued

continued

Genital herpes	Recurrent infection: **Acyclovir 400 mg**, orally, 3 times a day for 5 days **or** **Acyclovir 800 mg**, orally, 3 times a day for 2 days **or** **Acyclovir 800 mg**, orally, 2 times a day for 5 days	**Recurrent infection:** **Valaciclovir 500 mg**, twice daily for 3 days
	Primary genital herpes: **Acyclovir 400 mg**, orally, 3 times a day for 10 days **or** **Acyclovir 200 mg**, 5 times a day for 10 days	**Primary genital herpes:** **Valaciclovir 500 mg**, orally, twice daily for 10 days
	Suppressive therapy for recurrent herpes **Acyclovir 400 mg**, orally, twice daily **or** **Valaciclovir 500 mg**, once daily For duration, see the genital ulcer disease section	**Suppressive therapy for recurrences** **Famciclovir 250 mg**, orally, twice daily **(Famciclovir 500 mg**, twice daily for people living with HIV or immunocompromised**)**

a Because of increasing antimicrobial resistance to azithromycin in *N. gonorrhoeae* and reduced susceptibility to cephalosporins, WHO is in the process of revising current treatment recommendations and dosages.

Source: World Health Organization. Guidelines for the management of symptomatic sexually transmitted infections. Geneva: WHO; 2021. Licence: CC BY-NC-SA 3.0 IGO.

Treatment for genital warts caused by human papillomavirus (HPV) types 6 and 11

No one treatment is completely satisfactory. Local treatment can remove the warts, but they may recur. This should be explained to the client before commencing therapy. Note that management of vaginal and/or cervical warts, urethral meatal warts, and anal warts should be undertaken in a higher-level or specialist facility.

Chemical methods

a. Podophyllin 25 per cent in compound tincture of benzoin, to be applied *by the healthcare provider* carefully to the warts, avoiding normal tissue. The client should be instructed to wash the podophyllin off after 4–6 hours. Treatment is repeated once a week. If warts persist after 6–8 applications, refer the client to a higher facility.

b. Podophyllotoxin 0.5 per cent solution/gel could be applied *by the client* using a cotton swab to visible genital warts twice a day for 3 days, followed by 4 days of no therapy. This cycle may be repeated, as necessary, for up to 4–5 cycles. The total volume of podophyllin/podophyllotoxin should be limited to 0.5 ml per day and the total wart area treated should not be more than 10 cm^2.

c. Trichloroacetic acid (TCA) 80–90 per cent can be applied *by the healthcare provider* carefully to the warts, avoiding normal tissue, followed by powdering of the treated area with talc or sodium bicarbonate to remove excess acid. Repeat application at weekly intervals. TCA causes immediate chemical cauterization. It is not absorbed systemically and therefore can be safely used in pregnancy.

- If the warts persist after 2 months of treatment with podophyllin, podophyllotoxin, or TCA, refer the client to a higher-level facility for further management.

d. Imiquimod 5 per cent cream can be applied *by the client* with a finger/cotton swab at bedtime, left on overnight, 3 times a week on every other day for as long as 16 weeks. The treated area should be washed with soap and water 6–10 hours after application.

Important: The use of podophyllin/podophyllotoxin is contraindicated during pregnancy and lactation. The safety of imiquimod during pregnancy has not been established.

Physical methods (may not be feasible at the primary healthcare level)

a. Cryotherapy can be given with liquid nitrogen, solid carbon dioxide, or a cryoprobe. Repeat applications every 1–2 weeks. Cryotherapy is non-toxic, does not require anaesthesia and, if carried out properly, does not result in scarring.

b. Electrosurgery

c. Surgical removal

Source: World Health Organization. Regional Office for South-East Asia. Management of sexually transmitted infections: regional guidelines. WHO; 2011. Available at: https://apps.who.int/iris/handle/10665/205471. Accessed 31 March 2020.

Treatment for hepatitis B virus (HBV)

Acute hepatitis B:

- There is no specific treatment, but care can help to maintain comfort and adequate nutritional balance, including replacement of fluids lost from vomiting and diarrhoea.
- Avoid unnecessary medications. Acetaminophen/paracetamol and medication against vomiting should not be given [1].

Chronic hepatitis B (persistence of hepatitis B surface antigen [HBsAg] for 6 months or more):

- Only a proportion (10–40 per cent depending on setting and eligibility criteria) of people with chronic hepatitis B infection will require treatment. Treatment for chronic hepatitis B must be continued for life in most people who start it (cure/clearance of HBsAg is rare). The treatment suppresses the virus and can slow the progression of cirrhosis, reduce incidence of liver cancer, and improve long-term survival. For information on who to treat and who not to treat among people with chronic hepatitis B, monitoring treatment, and when to stop treatment, refer to the full WHO guidelines [2].
- In high-income countries, surgery and chemotherapy can prolong life for up to a few years. Liver transplantation is sometimes used in people with cirrhosis in high-income countries, with varying success.

First-line antiviral therapies for chronic hepatitis B

- In all adults, adolescents, and children aged 12 years or older in whom antiviral therapy is indicated, the nucleos(t)ide analogues (NAs) that have a high barrier to drug resistance (tenofovir or entecavir) are recommended. Entecavir is recommended in children aged 2–11 years.
- NAs with a low barrier to resistance (lamivudine, adefovir, or telbivudine) can lead to drug resistance and are not recommended.

For HBV/HIV-coinfected people (adults/adolescents/children), please check the recommended antiretroviral therapy regimen.

Second-line antiviral therapies for the management of treatment failure

- In people with confirmed or suspected antiviral resistance (i.e. history of prior exposure or primary non-response) to lamivudine, entecavir, adefovir, or telbivudine, a switch to tenofovir is recommended.

Prevention of perinatal HBV transmission using antiviral therapy

- In HBV-monoinfected pregnant individuals, the indications for treatment are the same as for other adults, and tenofovir is recommended. No recommendation was made on the routine use of antiviral therapy to prevent perinatal HBV transmission.

For HIV-infected pregnant and breastfeeding individuals, check the recommended antiretroviral therapy regimen.

References

[1] World Health Organization. Hepatitis B. Key facts. June 2022. Available at: https://www.who.int/news-room/fact-sheets/detail/hepatitis-b. Accessed 20 June 2022.

[2] World Health Organization. Guidelines for the prevention, care and treatment of persons with chronic hepatitis B infection. Geneva: WHO; 2015. Available at: https://www.who.int/publications/i/item/9789241549059. Accessed 31 March 2020.

Treatment for hepatitis C virus (HCV)

WHO recommends offering treatment to all individuals diagnosed with HCV infection who are 12 years of age or older, irrespective of disease stage, as described below.

In adults (aged 18 years and older) with chronic HCV infection, the following pangenotypic direct-acting antiviral regimens can be used:

- For adults without cirrhosis:
  - sofosbuvir/velpatasvir 12 weeks
  - sofosbuvir/daclatasvir 12 weeks
  - glecaprevir/pibrentasvir 8 weeks
- For adults with compensated cirrhosis:
  - sofosbuvir/velpatasvir 12 weeks
  - glecaprevir/pibrentasvir 12 weeks
  - sofosbuvir/daclatasvir 24 weeks
  - sofosbuvir/daclatasvir 12 weeks

In adolescents aged 12–17 years or weighing at least 35 kg with chronic HCV infection:

- sofosbuvir/ledipasvir for 12 weeks in genotypes 1, 4, 5, and 6
- sofosbuvir/ribavirin for 12 weeks in genotype 2
- sofosbuvir/ribavirin for 24 weeks in genotype 3

In children younger than 12 years with chronic HCV infection, WHO recommends:

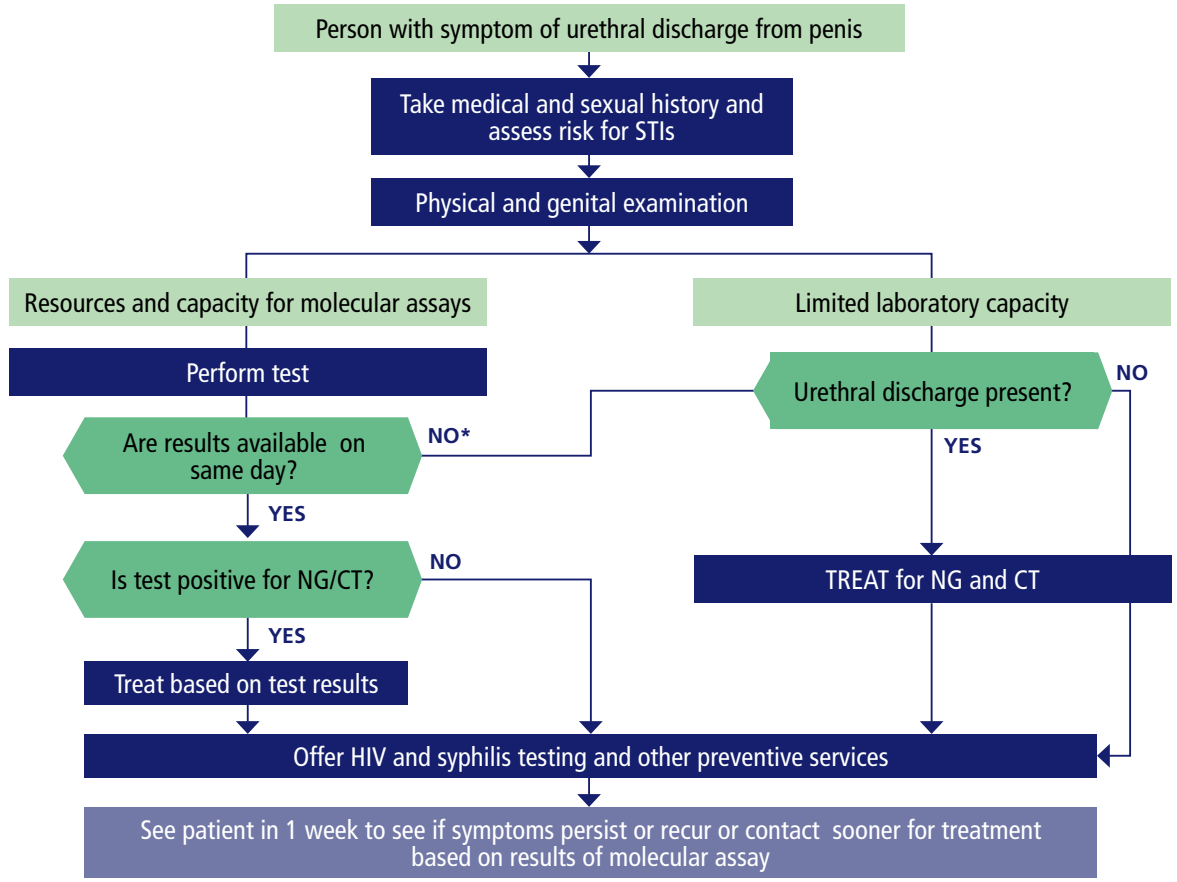
- deferring treatment until 12 years of age (conditional recommendation, very low quality of evidence)
- treatment with interferon-based regimens should no longer be used

For further information on clinical considerations, including coinfections, refer to the source guidelines.

Source: World Health Organization. Guidelines for the care and treatment of persons diagnosed with chronic hepatitis C virus infection. Geneva: WHO; 2018. CC BY-NC-SA 3.0 IGO. Available at: https://www.who.int/publications/i/item/9789241550345. Accessed 31 March 2020.

Appendix 3: Syndromic management flowcharts

Figure 1: Management of urethral discharge from the penis



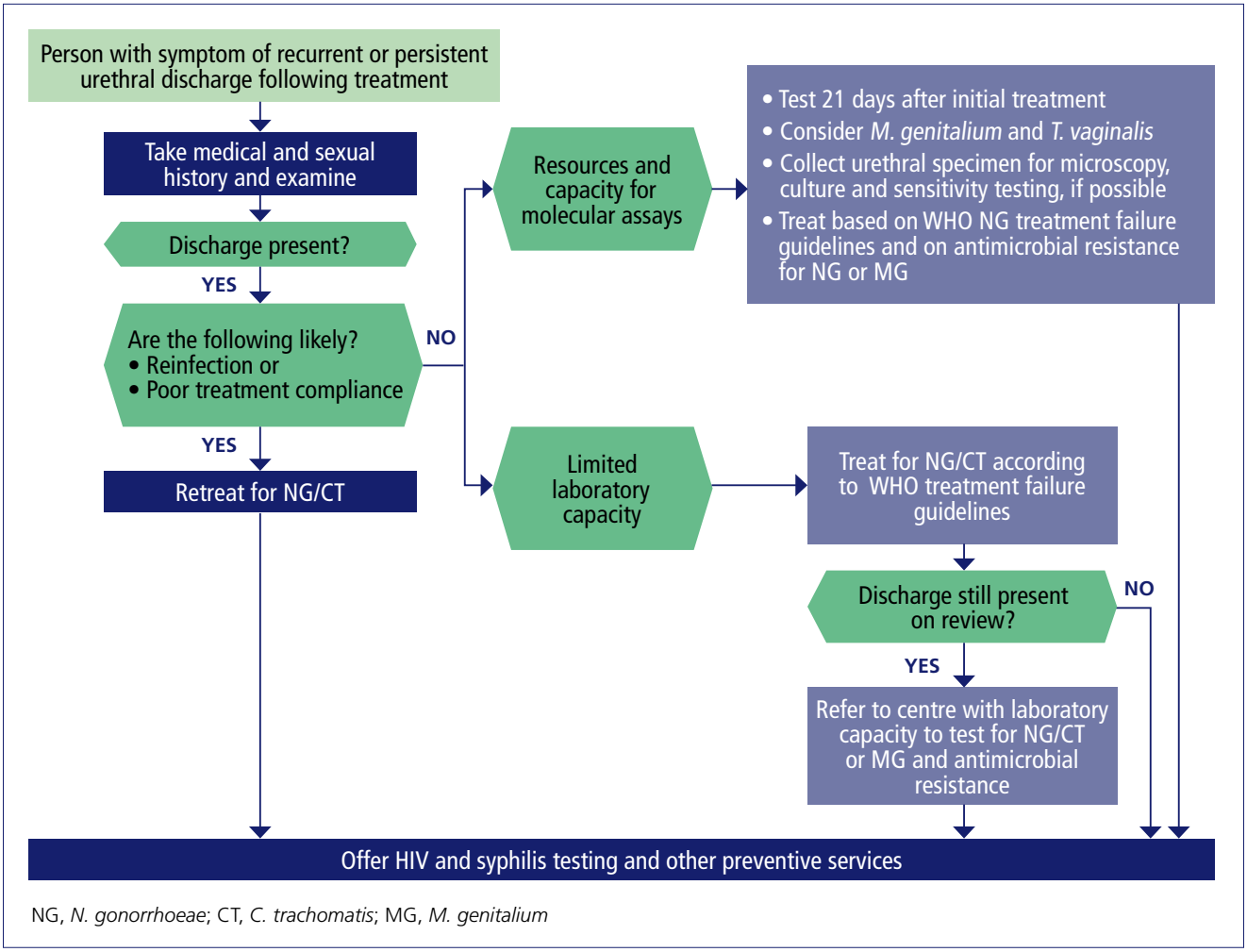
NG, *N. gonorrhoeae*; CT, *C. trachomatis*

* If molecular assay was performed and results were not available on same day, revise the syndromic treatment initially provided according to the test results when available

If test is negative but urethral discharge is present, treat for non-gonococcal/non-chlamydial urethritis (such as *M. genitalium*, *T. vaginalis* or herpes simplex virus)

Source: World Health Organization. Guidelines for the management of symptomatic sexually transmitted infections. Geneva: WHO; 2021. Licence: CC BY-NC-SA 3.0 IGO.

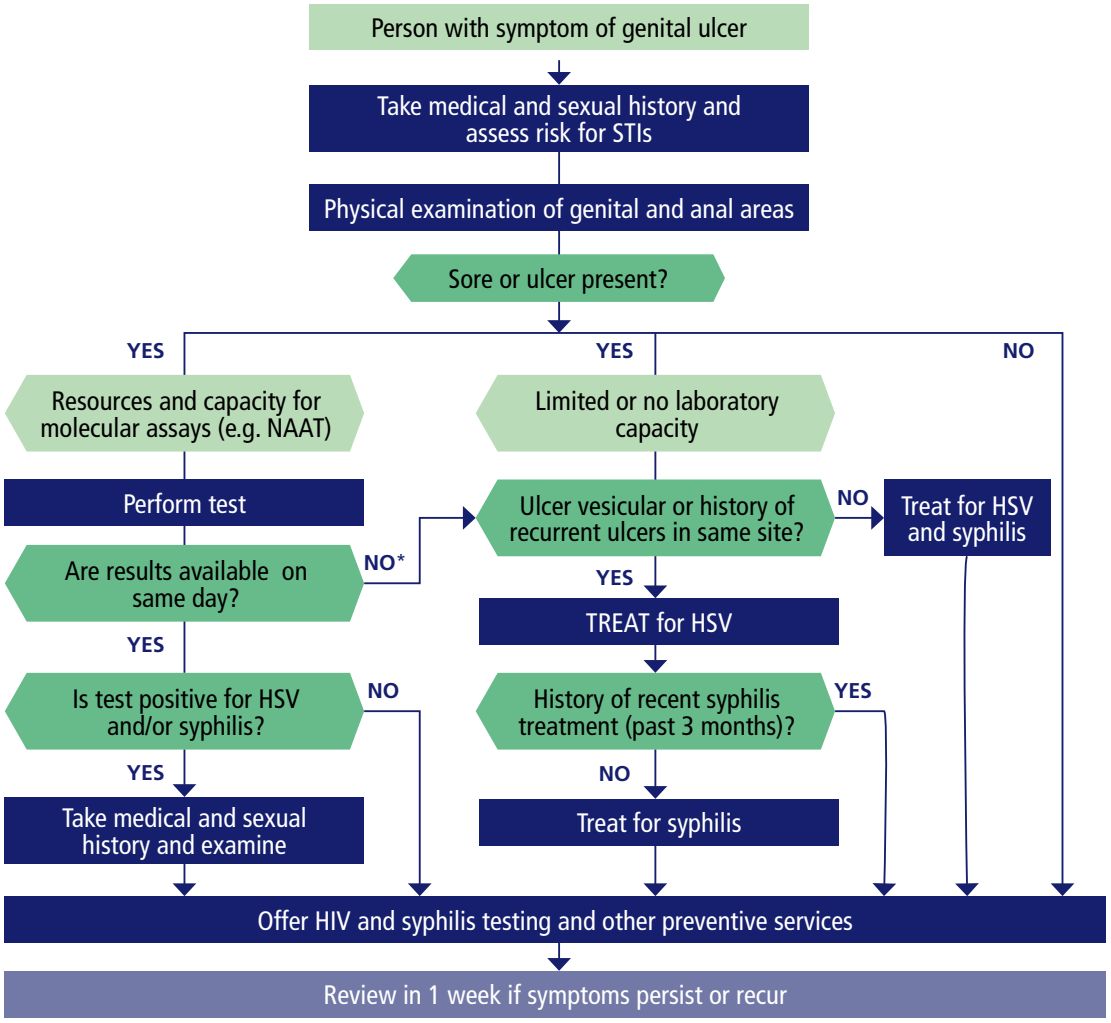
Figure 2: Management of persistent or recurrent urethral discharge from the penis



NG, *N. gonorrhoeae*; CT, *C. trachomatis*; MG, *M. genitalium*

Source: World Health Organization. Guidelines for the management of symptomatic sexually transmitted infections. Geneva: WHO; 2021. Licence: CC BY-NC-SA 3.0 IGO.

Figure 3: Management of genital ulcer disease including anorectal ulcers

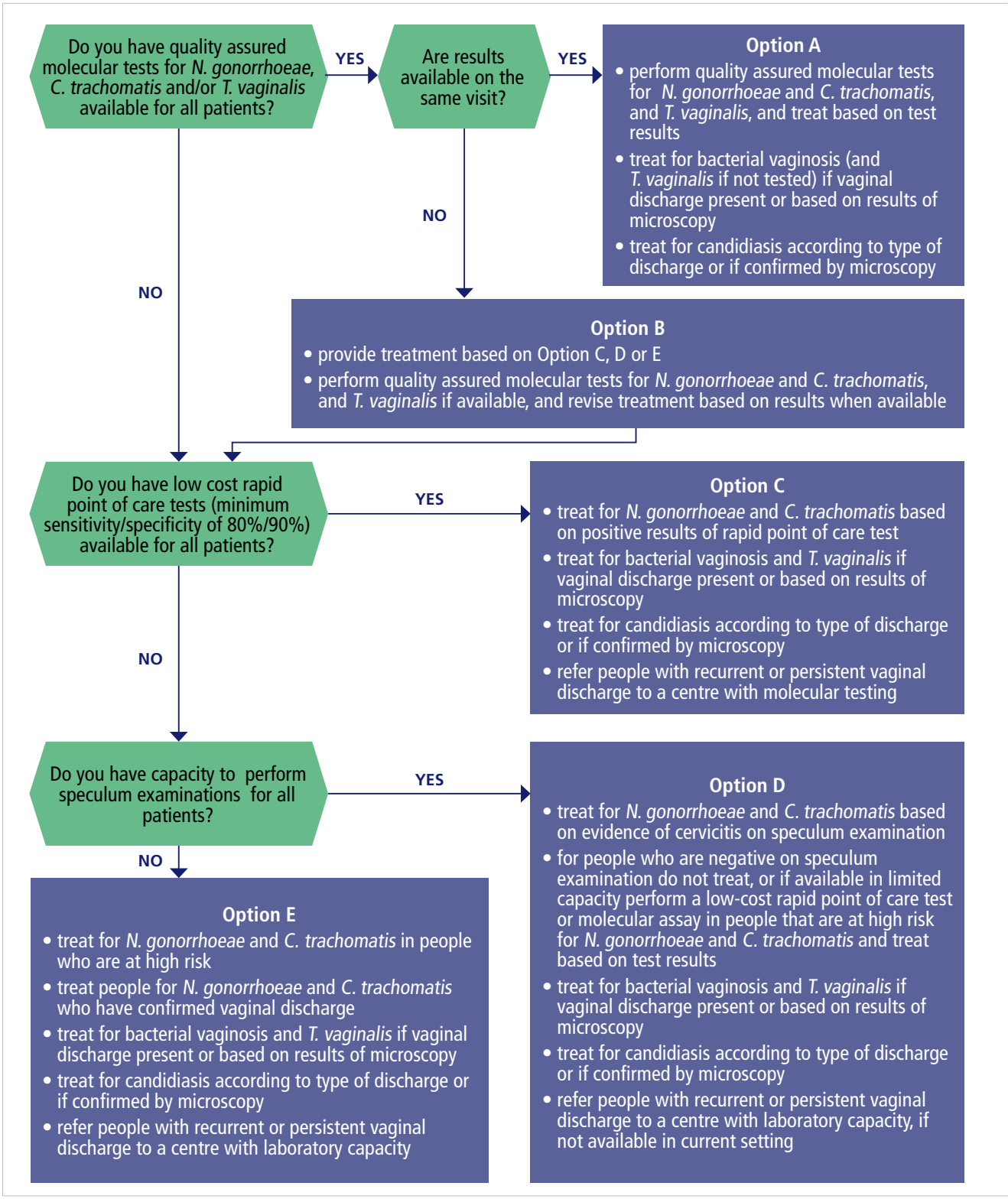


HSV, herpes simplex virus

* If molecular assay was performed and results were not available on same day, revise the syndromic treatment initially provided according to the test results when available

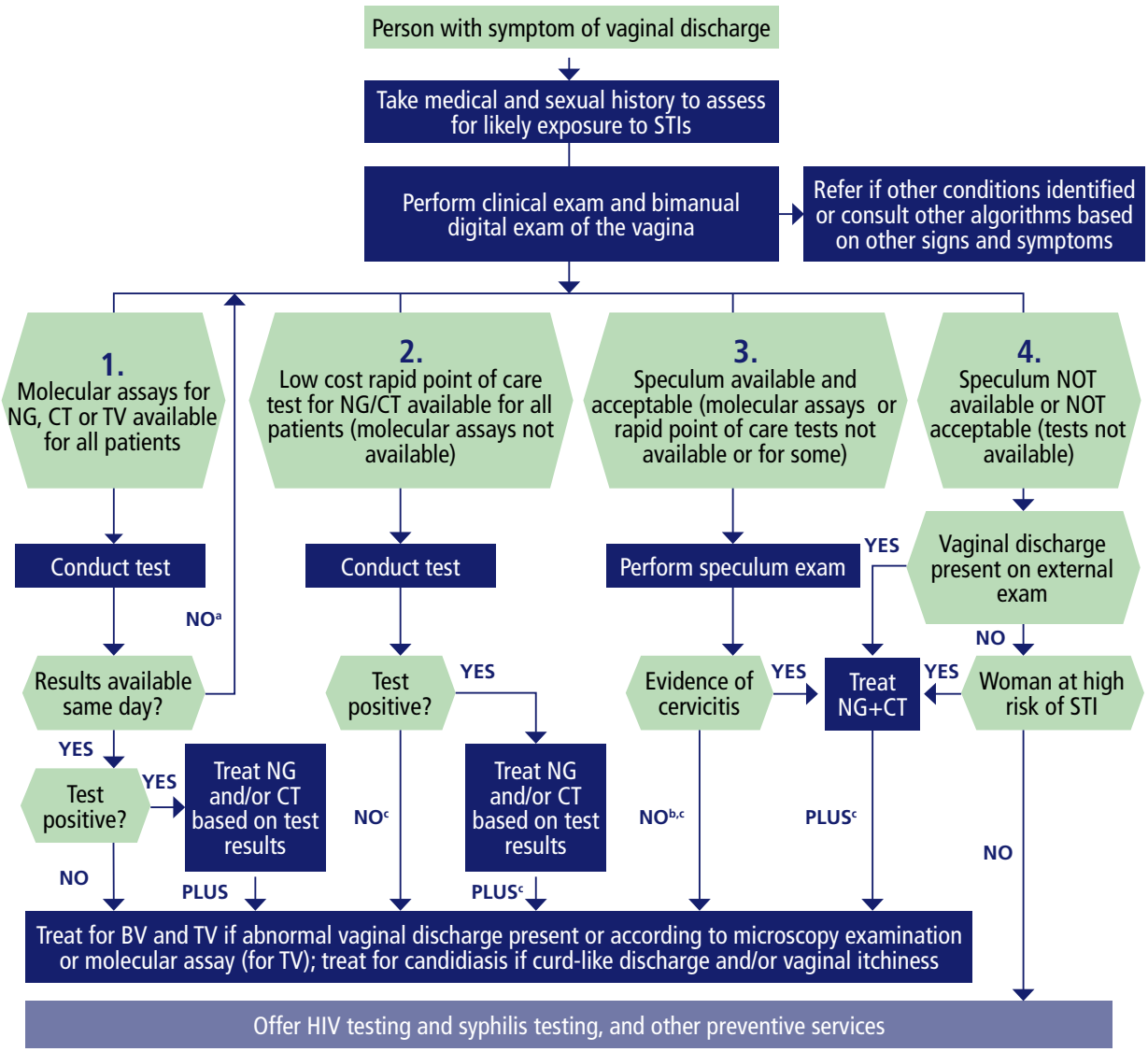
Source: World Health Organization. Guidelines for the management of symptomatic sexually transmitted infections. Geneva: WHO; 2021. Licence: CC BY-NC-SA 3.0 IGO.

Figure 4: Flowchart to determine which management options to implement at a service delivery point for vaginal discharge



Source: World Health Organization. Guidelines for the management of symptomatic sexually transmitted infections. Geneva: WHO; 2021. Licence: CC BY-NC-SA 3.0 IGO.

Figure 5: Management of vaginal discharge



NG, *N. gonorrhoeae*; CT, *Chlamydia trachomatis*; TV, *Trichomonas vaginalis*; BV, *bacterial vaginosis*

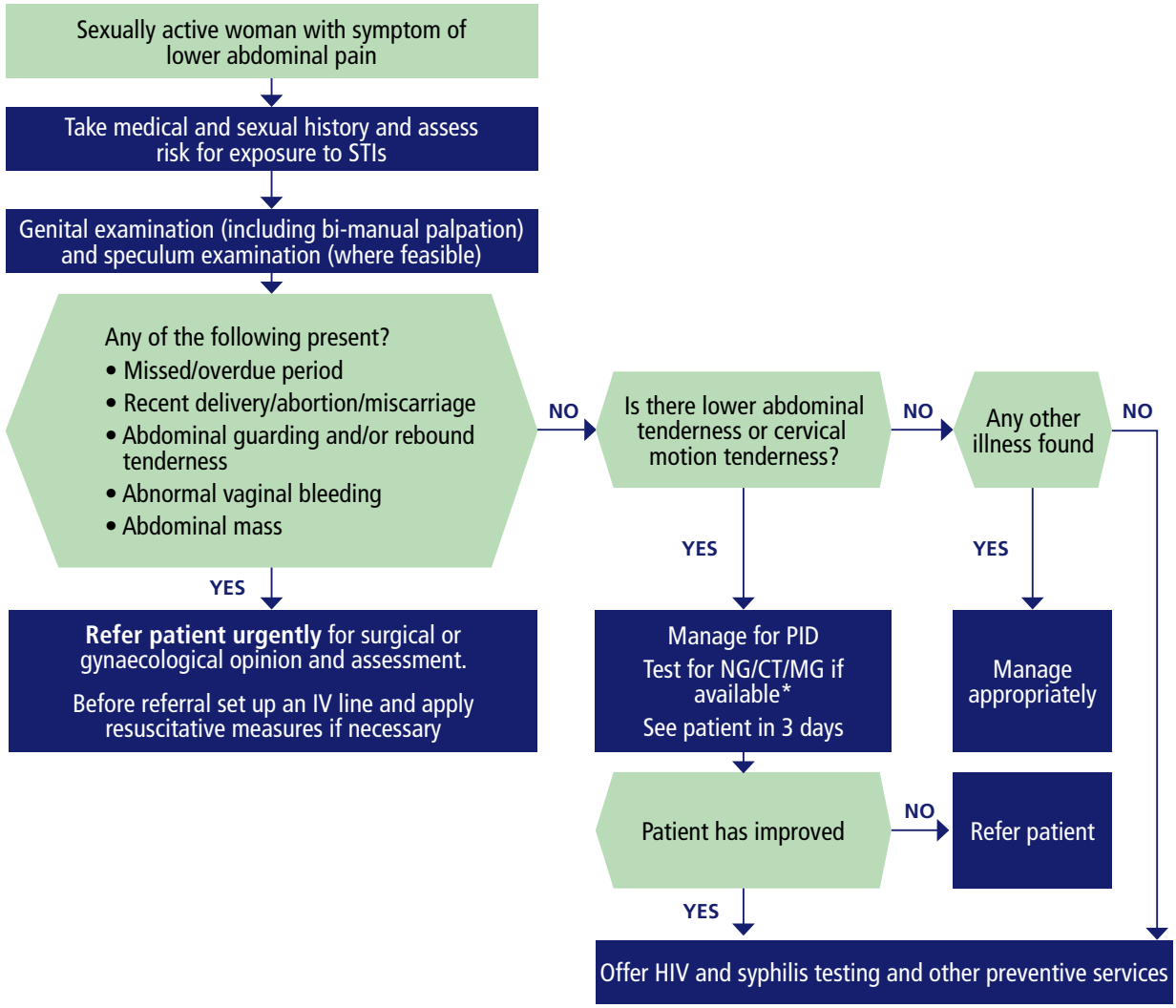
a If molecular assay was performed and results were not available on same day, revise the syndromic treatment initially provided according to the test results when available

b Perform rapid point of care test or molecular assay if available to confirm NG/CT and treat if positive; if negative do not treat and ask woman to return if symptoms recur

c If woman complains of recurrent or persistent discharge refer to a centre with laboratory capacity

Source: World Health Organization. Guidelines for the management of symptomatic sexually transmitted infections. Geneva: WHO; 2021. Licence: CC BY-NC-SA 3.0 IGO.

Figure 6: Management of lower abdominal pain

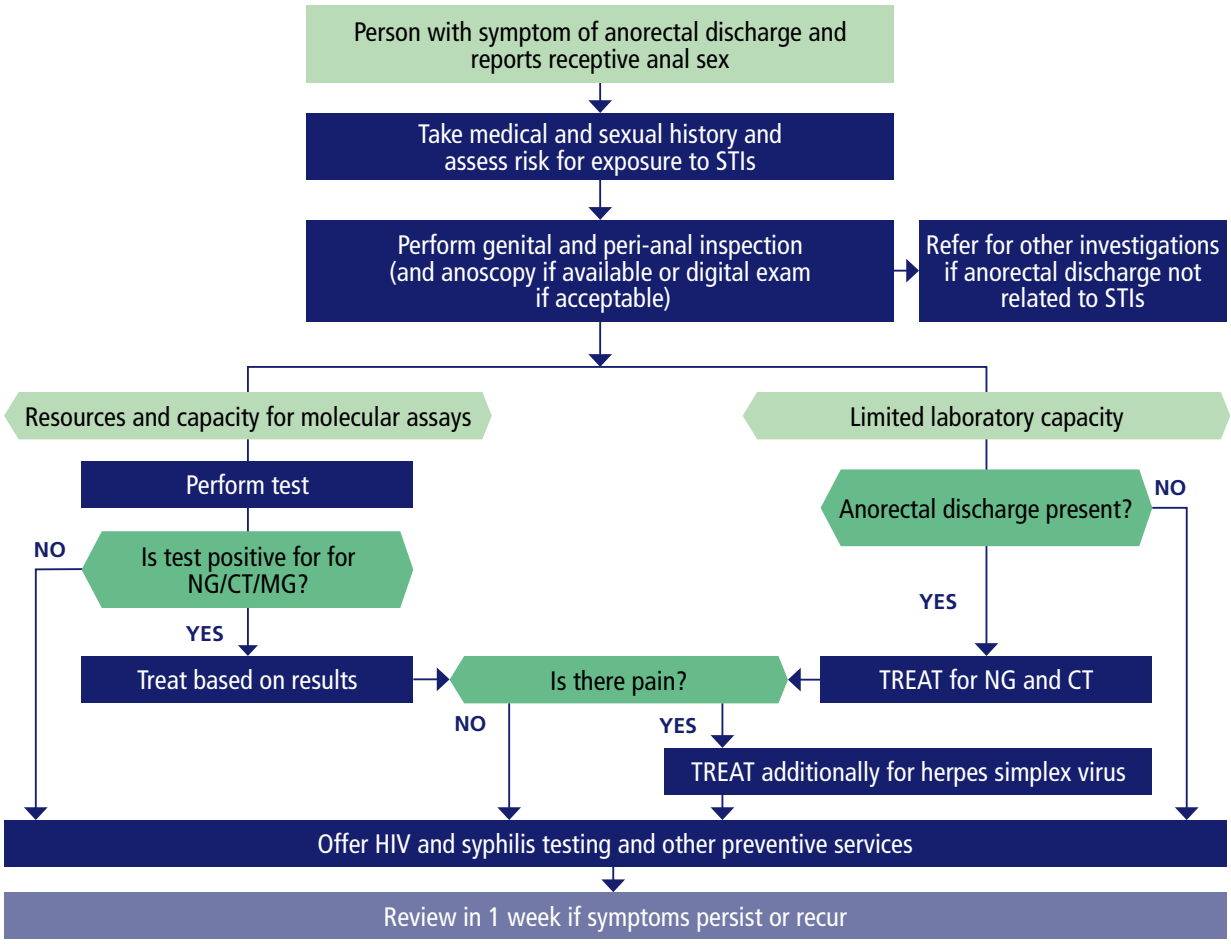


*to support partner notification

NG, *N. gonorrhoeae*; CT, *C. trachomatis*; MG, *M. genitalium*

Source: World Health Organization. Guidelines for the management of symptomatic sexually transmitted infections. Geneva: WHO; 2021. Licence: CC BY-NC-SA 3.0 IGO.

Figure 7: Management of anorectal discharge



NG, *N. gonorrhoeae*; CT, *C. trachomatis*; MG, *M. genitalium*

Source: World Health Organization. Guidelines for the management of symptomatic sexually transmitted infections. Geneva: WHO; 2021. Licence: CC BY-NC-SA 3.0 IGO.

MAIN CONTENTS

Chapter 7:
HIV

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Contents

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1. Introduction

The International Planned Parenthood Federation (IPPF) is committed to ensuring that addressing HIV is clearly part of a comprehensive and integrated response to sexual and reproductive health and rights.

The guidance in this chapter is designed to strengthen the delivery of a comprehensive package of healthcare for HIV prevention, diagnosis, treatment, and care. As the guidance focusses on healthcare delivery, it is not intended to cover every intervention that could be useful in a comprehensive response to HIV. Elements of community empowerment, addressing stigma and discrimination, and others are not included in the chapter.

1.1 Key facts

Human immunodeficiency virus (HIV) continues to be a major global public health issue. The virus targets the immune system and weakens the body's defence systems. As the virus destroys and impairs the function of immune cells, individuals with HIV gradually become immunodeficient, with increased susceptibility to a wide range of infections, cancers, and other diseases that people with healthy immune systems can fight off.

Acquired immunodeficiency syndrome (AIDS) is the most advanced stage of HIV infection and can take from 2–15 years to develop. AIDS is characterized by a CD4 cell count below 200 cells per cubic millimetre of blood or the development of certain cancers, infections, or other severe clinical manifestations. Immune function is typically measured by CD4 cell count.

Antiretroviral therapy (ART) has had a major positive effect on disease progression by reducing viral load, which can greatly extend life and enhance quality of life. HIV treatment is also highly effective in reducing the transmission of HIV, with clear evidence that people living with HIV with an undetectable viral load cannot transmit HIV sexually – simply explained as 'undetectable = untransmittable' [1,2].

ACRONYMS

AIDS	acquired immunodeficiency syndrome
ART	antiretroviral therapy
HBV	hepatitis B virus
HIV	human immunodeficiency virus
IPPF	International Planned Parenthood Federation
PEP	post-exposure prophylaxis
PrEP	pre-exposure prophylaxis
RDT	rapid diagnostic test
SGBV	sexual and gender-based violence
STI	sexually transmitted infection
TDF	tenofovir disoproxil fumarate
VMMC	voluntary medical male circumcision
WHO	World Health Organization

2. Provision of comprehensive HIV healthcare

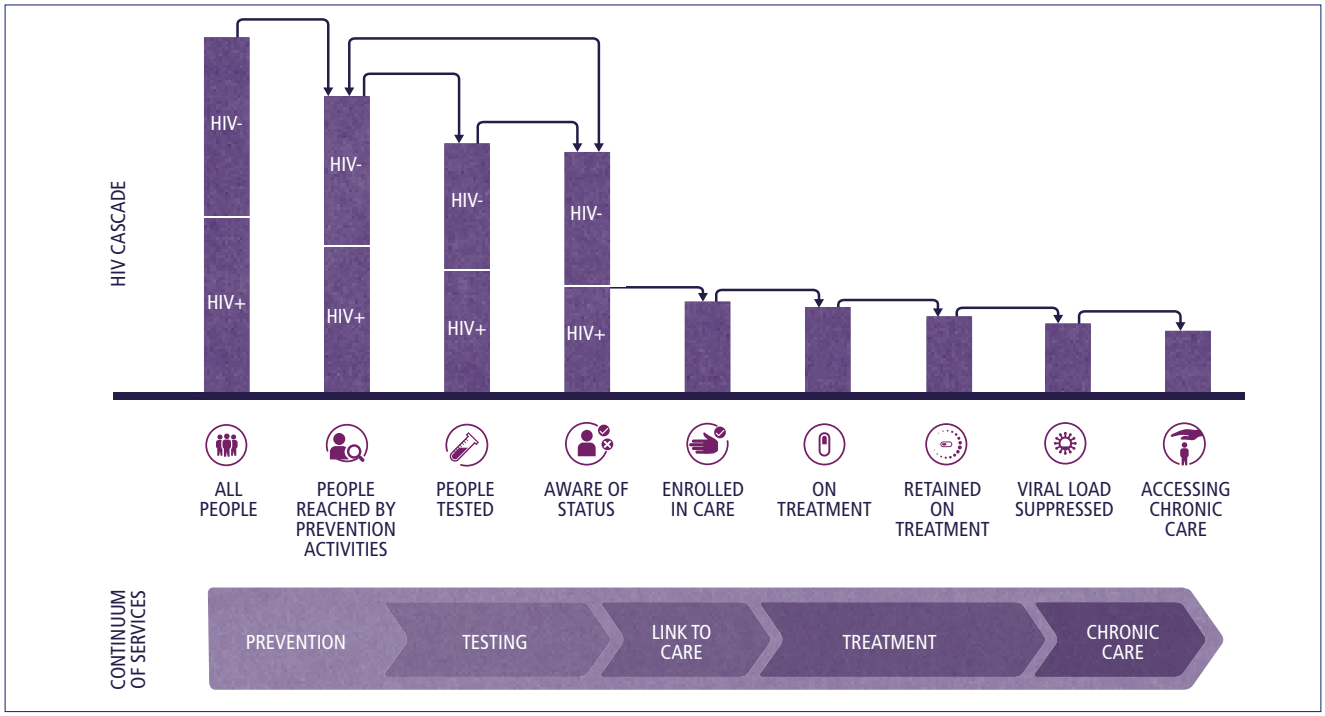
The overarching aims of HIV healthcare are:

- to reach those who are HIV negative with prevention interventions to support them to stay uninfected over time; and
- to diagnose, link, and retain those living with HIV into treatment and care for sustained viral suppression and improve individual health and prevent onward transmission.

To achieve these aims, healthcare delivery for HIV including prevention, testing, treatment, and care is optimally provided as part of a comprehensive approach that considers the risk of transmission in the local population or geographical areas.

Healthcare providers and managers are responsible for reviewing and defining packages of care to ensure that they are up to date and in keeping with any local population changes and national guidelines and regulations. The packages should be regularly reviewed with key stakeholders in relation to effectiveness, cost, cost-effectiveness, acceptability, feasibility, relevance,

FIGURE 1: The continuum of HIV services and retention cascade



Source: Reproduced/translated with permission from WHO [3]: Global health sector strategy on HIV: 2016–2021. Geneva: WHO; 2016.

demand, and ethics. *Figure 1* displays how healthcare should be provided as a continuum across prevention, testing, treatment, and care.

Prevention: HIV prevention is an integral part of a comprehensive package of HIV healthcare. A combination prevention approach comprises a range of biomedical, behavioural, and structural interventions, including efforts to address policy and human rights barriers. Primary prevention remains critical to the HIV response and includes promotion and use of condoms and condom-compatible lubricants, antiretroviral-based prevention (pre-exposure and post-exposure prophylaxis, PEP and PrEP respectively), voluntary medical male circumcision (in contexts where it is applicable), and harm reduction for people who use drugs. Other interventions include risk reduction counselling, screening for other sexually transmitted infections (STIs), and screening for sexual and gender-based violence (SGBV).

Testing: HIV testing is the essential first step for people to know their HIV status, a critical entry point to prevention, treatment, and care, and a core part of comprehensive sexual and reproductive healthcare.

Treatment and care: Following an HIV diagnosis, a package of treatment and care is required for all people living with HIV, including rapid access to ART, to prevent individual disease progression and the onward transmission of HIV. As more people stay on HIV treatment, preventing and managing comorbidities and providing chronic care is important healthcare. This includes meeting the sexual and reproductive health needs of people living with HIV [4].

2.1 What the provider needs to know

Providers should be up to date with evidence-based national clinical protocols and innovations in prevention, testing, and treatment.

Maintaining competence in counselling for HIV testing, risk assessment, and taking consent is essential, as well as general clinical skills to assess a client's physical and psychological health.

HIV care forms part of sexual and reproductive healthcare and should be integrated with STI care (see *Chapter 6: Sexually transmitted infections*) and other

sexual and reproductive healthcare outlined in these guidelines.

For comprehensive care, the provider should:

- Know how to counsel, screen, and treat STIs.
- Adhere to local protocols for diagnosis, treatment of people living with HIV, partner notification, and reporting.
- Know the HIV prevalence and incidence in their locality, which together with assessment of the individual will give an assessment of risk.
- Ensure access to quality-assured, same-day, point-of-care/rapid diagnostic HIV tests; diagnostics for related infections, including hepatitis B and syphilis; and quality, appropriate drugs for PEP, PrEP, and antibiotics.
- Move towards a model of 'test and treat' – immediate access to treatment for people diagnosed HIV positive by providing ART or facilitating referral to an HIV treatment provider.
- Know where to refer and access a range of contraception and barrier methods for HIV prevention and written information on HIV and related healthcare.
- Know the signs of SGBV and what actions to take, including referral.
- Identify whether the client has mental health needs and assess if additional support is required at any stage of prevention, testing, treatment, and care.

2.2 What the provider needs to do

- Determine the main reason why a client is attending a consultation for HIV healthcare. Provide all clients who do not know their HIV status or have previously had a negative test with pre-test information and offer HIV testing.
- Providers need to establish what the key issues are for that individual client. Clients living with HIV may have new concerns, specific complaints, or want to ask further questions.
- All clients should be provided with information on the importance of knowing their HIV status, and how to prevent HIV acquisition or transmission to make informed choices about their sexual health.
- General tips for providers during consultations include (see *Chapter 3: Counselling*):
  - Be interested, empathetic, and not distracted or judgemental, and develop a rapport with the client in an environment that has visual and auditory privacy.
  - Deliver information in a way that is clear, easily understandable, accessible, and appropriate for the client.
  - Assure that the consultation and any outcomes are confidential and will not be disclosed to anyone else without consent.
  - Emphasize that the questions being asked are to ensure that the client receives an accurate diagnosis and the best care.
  - Encourage clients to undergo screening for other STIs, if available, as part of integrated care.

Be aware of different groups who have different needs to provide them tailored, individualized care. Populations at higher risk of HIV acquisition should be reached out to and counselled about the benefits of HIV prevention, testing, and treatment, including:

- Key populations at increased risk of HIV irrespective of epidemic type or local context who may have reduced access to healthcare due to legal and social issues related to their behaviours or identities, including men who have sex with men, people who inject drugs, sex workers and their clients, prisoners, and transgender people [5].
- Other marginalized and under-served groups include young people, older people, people with disabilities, displaced people, survivors of SGBV, and those who are unable to afford healthcare.
- For pregnant individuals, an antenatal clinic is a key opportunity to discuss HIV and its potential consequences for the fetus. It is strongly recommended to offer screening for HIV and syphilis.

- People in serodiscordant sexual relationships where risk of onward transmission to the HIV-negative partner is increased by not using preventive methods or if the HIV-positive partner is not virally suppressed [6].

Attendance for HIV healthcare also provides an opportunity to discuss STI testing, prevention, treatment, and other sexual and reproductive healthcare, such as contraception and cervical cancer screening. The provider should be confident to take opportunities to discuss HIV testing when clients attend for other reproductive healthcare such as safe abortion care and contraception

2.3 History-taking, risk assessment, and clinical examination

It is essential to start assessment of the client by asking about their general health (as outlined in *Chapter 2: Facility requirements and client history/examination*). In addition to this, a sexual history and comprehensive risk assessment is required. See *Chapter 6: Sexually transmitted infections* for detailed information on taking a sexual history.

2.3.1 Risk assessment

For clients who do not know their HIV status, providers should counsel for testing (*Section 3.1*) and establish whether the client is at high risk of HIV acquisition to help tailor preventative care (see *Section 4*). Questions should address the client's individual risk factors:

- Receptive vaginal or anal sex without use of condoms.
- Serodiscordant sexual relationship(s) for the HIV-negative partner.
- Percutaneous needlestick injury for clients who are healthcare providers.
- Perinatal transmission for pregnant individuals with a high maternal viral load.
- Using unsterile injecting equipment for drug use or sharing injecting equipment/needles.

Use local epidemiological data to identify geographical areas or additional risk factors that might also increase a client's risk.

For clients whose last HIV test was negative, another risk assessment should be performed, including whether they have had additional sexual partners since their last test. Recommend another test if risks are present and discuss prevention options (see *Section 4*).

For clients living with HIV, providers should discuss secondary prevention (*Section 4*). For pregnant or non-pregnant individuals living with HIV, see *Section 6* for guidance. This may also be an opportunity to discuss partner notification if this has not been addressed before (see *Section 3.3.3*).

Clients may present with other symptoms that are suspicious of HIV disease progression, and providers should make a clinical assessment and an early referral if required. Symptoms include:

- fevers or night sweats
- sudden weight loss
- recurring symptoms or diagnoses such as candidiasis, mouth ulcers, diarrhoea
- skin changes or rashes

2.3.2 Clinical examination of clients in the context of HIV

Clinical examination is not a routine part of assessment for clients presenting for HIV-related healthcare. However, it can be offered to people living with HIV or clients who have requested testing and are at high risk of acquisition, have reported symptoms, or are in a high prevalence area. Suspicious findings include:

- general appearance of a low body mass index or wasting
- whole body: rashes, Kaposi's sarcoma, lymphadenopathy
- mouth: oral ulcers, thrush, or oral hairy leukoplakia
- chest: signs of infection on auscultation, the presence of axillary or supraclavicular lymph nodes
- presence of STIs or recurrent vaginal candidiasis (see *Chapter 6: Sexually transmitted infections*)

Signs/symptoms of acute HIV infection following possible recent exposure to HIV include flu-like illness. The client could be asked:

- "In the past week, have you had a cold or flu such as sore throat, fevers, sweats, swollen glands, mouth ulcers, headache, or rash?"

Skills for general examination and bimanual and speculum examination are outlined in (*Chapter 8: Gynaecology and other reproductive healthcare*).

3. HIV testing

HIV testing must be voluntary, free from coercion, and guided by the '5 Cs': Consent, Confidentiality, Counselling, Correct results, and Connection to care [7]

Testing for HIV is a critical entry point to comprehensive HIV healthcare. Everyone should be offered an HIV test if they do not know their HIV status, are pregnant, or are at ongoing risk for HIV (outlined in *Section 2.2*).

Refer clients who test HIV positive for further healthcare and offer those testing negative additional prevention care and retesting guidance, especially for those at higher risk of HIV acquisition.

Testing can be *client initiated* (client asks for the test), or *provider initiated* (client attends for other sexual and reproductive healthcare and the provider recommends an HIV test).

Healthcare providers must preserve confidentiality, meaning that what the provider and the client discuss will not be disclosed to anyone else without the expressed consent of the person being tested. Confidentiality applies not only to the HIV test results, but also to all personal information (e.g. sexual behaviours, substance use).

It is crucial to avoid practices that may inadvertently reveal a client's test results or HIV status to others in the waiting room or in the health facility (e.g. counselling all people diagnosed HIV positive in a special room or by a specific provider). Lack of confidentiality discourages people from using HIV testing and other sexual and reproductive healthcare [7,8].

3.1 Pre-test information and counselling

Historically, HIV counselling has been provided both before and after HIV testing. However, with the availability of rapid diagnostic tests (RDTs) for HIV, most people are able to receive their HIV test results during the same visit. Therefore, intensive pre-test counselling is no longer recommended as it can create barriers to healthcare delivery, but can still take place when needed.

While often provided in a one-to-one setting, pre-test information can be provided in a group setting; however, all clients should have the opportunity to ask questions in a private setting [7]. This can also be an opportunity to screen for tuberculosis and other STIs, including viral hepatitis.

3.1.1 What the client needs to know about HIV testing

Offering or recommending HIV testing to a client or a group of clients includes providing clear and concise information on:

- the benefits of HIV testing
- the meaning of an HIV-positive and an HIV-negative diagnosis
- available healthcare in the case of an HIV-positive diagnosis, including where ART is provided
- a brief description of methods of prevention and encouragement of partner testing
- that the test result and any information shared by the client is confidential and will not be disclosed to sexual partner(s) or family members without their consent
- that HIV testing is voluntary – even after counselling and pre-test information, the client can refuse to be tested, and that declining testing will not affect the client's access to any healthcare
- the potential risks of testing to the client in settings where there are legal implications for those who test positive and/or for those whose sexual or other behaviour is stigmatized
- the opportunity to ask the provider questions

Additional information includes:

- Knowing HIV status is an initial step towards preventing HIV. If positive, the client can start ART, which suppresses viral load and helps the individual stay healthy and eliminates HIV transmission (when viral load is undetectable).
- Pregnant individuals can be informed of the benefits to the fetus of knowing their status. If living with HIV, there are proven strategies that will prevent transmission to the fetus and infant.
- The chance that the test result can return as inconclusive, in which case the provider needs to discuss when to retest. Depending on potential exposure or risk, the provider can recommend retesting immediately or in 1, 3, 6, or 12 months.
- If using an RDT, give information about the sample needed (blood drop or saliva) and the amount of time needed.
- Clients should also be aware that they may still be at risk of other STIs.
- Potential for incorrect results (false negative) if a person already on ART is tested.

3.2 HIV diagnostic testing

After history-taking, risk assessment, counselling, and informed consent, an HIV test can be offered to clients who are HIV negative or do not know their status.

While often provided one-to-one in a clinic, other healthcare delivery approaches for HIV testing include:

- Couples testing:
  - Testing together can be mutually supportive and open, joint decisions can be made regarding HIV prevention strategies and ART adherence.
  - HIV testing for couples or partners should be offered to anyone, regardless of how they define their relationships.
  - Provision of couples counselling and testing should only be offered when there is very low risk of resulting violence and risk to either individual [9].
- Community-based testing, including mobile clinics and workplace testing.
- Self-testing or home-based testing.

False-positive results are possible when test kits are of poor quality. Providers should only use quality-assured test kits, stored where ambient temperature does not exceed the manufacturer's recommended storage temperature. To assure test results are accurate and to prevent misdiagnosis, it is critical that providers use testing services that follow validated testing algorithms and testing strategies recommended by the World Health Organization (WHO) (see *Figure 2* – next page).

A common testing strategy is to provide the initial screening using an RDT and, if positive, referral to another service for confirmatory testing and linkage to treatment. A blood sample can be sent for laboratory-based testing as a first line, but this has the disadvantages of delaying results, risking loss of clients to follow-up, and potentially being costlier. National algorithms may also require confirmatory tests.

Example:

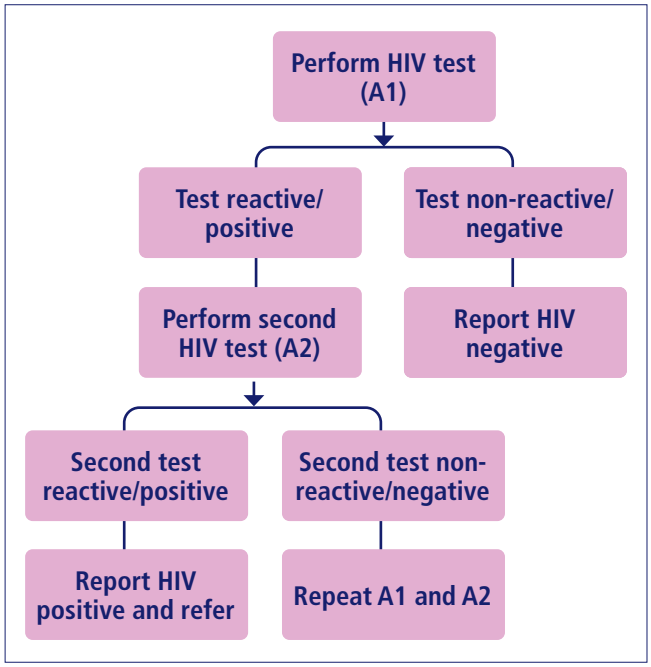
Clients with a positive (or 'reactive') result:

- The client should be retested immediately using another RDT or enzyme immunoassays prior to referral, or directly referred to another service for confirmation.
- If confirmed as positive, perform or refer for next-line interventions: counselling, CD4 test, viral load if available, ART, support partner notification and treatment.

Clients with a negative (or 'non-reactive') result:

- Recommend and offer retesting depending on the client's situation and risk assessment at 3, 6, or 12 months (sooner may also be offered based on exposure history).
- If indicated, make the client aware of symptoms of seroconversion (flu-like illness).
- Provide additional HIV and other STI prevention information and risk reduction counselling materials.

FIGURE 2: HIV testing algorithm for high prevalence settings (>5 per cent prevalence in the population)



Source: Adapted from WHO [10].

Rapid diagnostic tests (RDTs)

HIV testing using RDTs can be carried out by a range of providers, including outreach workers and trained peer educators. These tests are carried out at the time of client counselling to avoid loss to follow-up. Clients with reactive tests should receive other confirmatory tests (as per national testing algorithms). Those who are confirmed to be HIV positive can be offered to start treatment immediately or linked to treatment healthcare. RDTs are inexpensive and easy to use, therefore training is also less intensive.

RDTs should conform to the '5 Cs': Consent, Confidentiality, Counselling, Correct results, and Connection to HIV prevention, treatment, and care [7]

3.3 Post-test interventions

3.3.1 Information and counselling

All HIV testing must be accompanied by quality post-test information and/or counselling, based on the specific HIV test result and HIV status reported.

For clients with a negative result, counsel on risk reduction, on how to stay 'negative' based on the client's circumstances, and offer other prevention healthcare (e.g. PrEP if available).

All clients should be advised that they can return at any time if they have any questions or concerns. Routine follow-up is not essential but regular voluntary testing should be encouraged.

3.3.2 Management of clients with a positive result

The client should be counselled empathetically and offered opportunities for further counselling and to ask questions. Specifically, the provider should discuss with the client:

- The meaning of the test result, how to cope with an HIV diagnosis, and the availability of a network of family and friends who can provide support.
- The benefits of ART, to make an informed decision about treatment.
- How to prevent transmission of HIV (use of condoms with condom-compatible lubricants; no transmission risk when virally suppressed with prescribed use of ART).
- Risks and benefits of disclosure and voluntary assisted partner notification options.
- The recommended follow-up schedule for enrolment in care and timely treatment initiation.

The provider should be familiar with guidelines for onward referral so that the client can be offered access to treatment without delay and directly linked to other specialized HIV treatment and care, including options such as support groups for people living with HIV, where available.

Positive prevention communication and counselling involves a holistic approach to care for people living with HIV and guidance on self-care. This includes STI screening and counselling, and advice on recognition of comorbidities and other infections.

Follow-up of clients diagnosed with HIV:

- Providers should be aware of signs of decline in mental health as clients come to terms with their diagnosis and social impacts related to the HIV diagnosis.
- Prioritize starting ART as soon as possible. Many providers may not have immediate access to all tests or treatments for HIV and should plan a referral pathway for clients who need to be seen or followed-up elsewhere.
- After HIV diagnosis (and preferably treatment has commenced), the provider should provide information, counselling, and support regarding notification of sexual partners and information to prevent onward transmission. This should include referring the client to peer or community-based support where available.
- Reducing stigma is a key component of wider HIV interventions. This is particularly important where disclosure of HIV status is criminalized. Interactions with healthcare providers provide a safe non-judgmental space for people with HIV to talk freely and obtain support.
- Contacting clients when they do not return for follow-up can risk confidentiality breaches. Providers need to communicate the importance of follow-up to maintain long-term health. This can include linking them to any local services for social support.

Follow-up of clients who choose not to start treatment or where treatment is not available:

- Encourage clients to return to clinic if they have any questions or concerns or if they change their minds.
- Be aware of signs and symptoms of advancing disease.
- For management of clients with a positive result in humanitarian settings, see *Chapter 11: Sexual and reproductive healthcare delivery in humanitarian settings*.

3.3.3 Partner notification

Voluntary assisted partner notification options should be offered as part of a comprehensive package of testing and care offered to people with HIV [11]

Partner notification is a voluntary process whereby a trained provider asks people diagnosed with HIV about their sexual partners and/or those with whom they share injectable drug equipment, and then, if the client agrees, offers these partners HIV testing along with relevant prevention and/or treatment. Partner notification is provided using passive or assisted approaches [11].

This process can be challenging for several reasons:

- The concept of notification may be very threatening for the client. It is essential to respect the client's wishes and to maintain their trust. Providers need to recognise that many clients may fear notifying their partner(s) and that they are likely to provide information only if the clinic has earned a reputation for maintaining confidentiality.
- Many clients may find it very difficult to discuss the problem with their partner, especially those at risk of violence.
- Some of the client's sexual partners and/or those with whom they share injectable drug equipment may not believe that they have been exposed to HIV infection, especially if they have no symptoms, and therefore may not accept to come for testing.
- Some clients may not know the names and contact details of their sexual partners and/or those with whom they share injectable drug equipment.

It is critical that the provider does not force clients to make a decision and act against their will. The provider can provide information about why it is important, but ultimately it is the client's choice whether to notify partners.

There are different methods that can be employed for partner notification – passive or assisted – and the provider can discuss these options with clients. *Box 1* (next page) describes passive and assisted partner notifications.

BOX 1. Definitions and approaches of passive and assisted partner notification

Passive HIV partner notification refers to when people living with HIV are encouraged by a trained provider to disclose their status by themselves to their sexual partners and/or partners they share drug injecting equipment with and to suggest HIV testing to the partner(s) given their potential exposure to HIV infection. Examples of passive notification:

- Provider delivers counselling and encourages HIV-positive clients to disclose their HIV status to their partner(s) and notify them of their possible HIV exposure, either in person or by telephone call, text message, e-mail, etc.
- Provider gives HIV-positive clients a letter or card inviting their partner(s) to attend the health facility. When the partner(s) attends the health facility, they are offered HIV testing.
- Clients living with HIV can also use anonymous messaging services such as a phone call, email, or internet to notify their partner(s) on their own.

Assisted HIV partner notification refers to when consenting HIV-positive clients are assisted by a trained provider to disclose their status or to anonymously notify their sexual partners and/or partners they share drug injecting equipment with of their potential exposure to HIV infection. Partner(s) can be contacted either by phone, internet, email, or an in-person home visit. The provider then offers HIV testing to these partner(s).

Assisted partner notification is done using contract referral, provider referral, or dual referral approaches:

- Contract referral: HIV-positive clients enter into a contract with a trained provider and agree to disclose their status and the potential HIV exposure to their partner(s) by themselves and to refer their partner(s) to HIV testing within a specific time period. If the partner(s) of the HIV-positive individual does not access HIV testing or contact the provider within that period, then the provider will contact the partner(s) directly and offer voluntary HIV testing.
- Provider referral: With the consent of the HIV-positive client, a trained provider confidentially contacts the client's partner(s) directly and offers the partner(s) voluntary HIV testing.
- Dual referral: A trained provider accompanies and provides support to HIV-positive clients when they disclose their status and the potential exposure to HIV infection to their partner(s). The provider also offers voluntary HIV testing to the partner(s).

Source: Adapted from WHO [11].

4. HIV prevention

IPPF promotes a combination prevention approach, which recognizes that any one prevention intervention cannot work in isolation.

Combination HIV prevention seeks to achieve maximum impact on HIV prevention by combining human rights-based and evidence-informed structural, behavioural, and biomedical interventions. Structural interventions seek to alter the physical, legal, and social environment in which individual behaviours take place [12].

For healthcare providers, combination HIV prevention refers to an individual's strategy for prevention by combining different tools or approaches (at the same time or in sequence), according to the client's situation, risk, and choices.

Providers have multiple roles in HIV prevention, with the priority to keep clients without HIV, negative. While some healthcare will require referral to higher-level facilities, providers can still arrange effective care packages that are individualized to the client's wishes and clinical situation.

Providers should note that there is a risk of iatrogenic transmission of HIV through invasive medical procedures and robust infection control procedures should always be followed (see *Chapter 2: Facility requirements and client history/examination*).

The core components of HIV prevention include [6]:

- Condoms (male/external and female/internal) and condom-compatible lubricant.
- ART-based prevention: PrEP and PEP.
- Voluntary medical male circumcision (VMMC) in defined areas of high prevalence.
- Harm reduction for people who inject drugs, including the provision of sterile needles and syringes, and access to medication-assisted treatment for opioid dependence.
- Risk reduction information and counselling through a sex-positive approach, including delaying sexual debut, decreasing number of sexual partners, serosorting, and seropositioning (see *Chapter 3: Counselling*).
- Screening, diagnosis, and treatment of STIs and other infections including tuberculosis and viral hepatitis (see *Chapter 6: Sexually transmitted infections*)
- Screening for SGBV (see *Chapter 10: Sexual and gender-based violence*).

4.1 Condoms and lubricants

4.1.1 Key facts (also see *Chapter 4: Contraception*)

- The correct and consistent use of male/external and female/internal condoms – with condom-compatible lubricants – significantly reduces sexual transmission of HIV and other STIs by both vaginal and anal sex and reduces the risk of unintended pregnancy [13].
- A male/external condom fits over an erect penis and is made of very thin latex (rubber), polyurethane (plastic), or polyisoprene. It is a barrier preventing exchange of semen and other body fluids.
- A female/internal condom is made of polyurethane (soft plastic), nitrile polymer (synthetic rubber), or latex. It is inserted into the vagina (or rectum) and loosely lines it.
- Many different kinds and brands of condoms are available. They differ in qualities such as size (slim, normal, large), thickness (ultra-thin to standard), lubrication (with silicone oil, jellies, powders, or non-lubricated), colour (opaque, transparent, various colours), texture (smooth, textured, or ribbed surface).
- Condom-compatible lubricant (water- or silicone-based) should also be available along with condoms and can be distributed in individual sachets or bottles [14].

4.1.2 What the provider needs to do

- Educate clients on why condom use is important, how to use condoms, and empower them to discuss use with their sexual partners.
- Emphasize that condom use is important even if a male client is circumcised. Condoms can fail to protect against pregnancy and STIs, including HIV, if not used correctly and consistently.
- Provide information on how to use condoms correctly, including how to insert and remove a female condom (vaginally or rectally) and/or put on and remove a male condom through demonstration and practice on a penile model (see *Chapter 4: Contraception, Section 6.1* and *Chapter 6: Sexually transmitted infections*). Printed information is also helpful.
- Decisions about whether to use condoms are usually made in the context of a specific interaction between individuals. Help clients build communication skills to navigate this interaction with partners, including confidence to discuss HIV and other STI prevention, to suggest and persuade condom use, and to refuse sex they do not want, including when partners refuse to use a condom.
- Make a variety of male/external and female/internal condoms easily available (ideally at no cost) at all healthcare delivery points and offer condoms to all individuals (including adolescents, men who have sex with men, and any other marginalized or under-served clients). Avoid making assumptions as to who may benefit from information about condoms (e.g. based on age, relationship or marital status, gender). Lubricant can be in individual sachets or in

multiuse bottles. Emphasize the key role of condom-compatible lubricant:

  - Helps to prevent male/external condoms from breaking and slipping, particularly for anal sex, and can increase comfort and pleasure during penetrative sex.
  - Reinforce that oil-based lubricants (including lotion, petroleum jelly, oils) must not be used with latex condoms as they can increase the chance of breakage.
  - Non-latex male/external and female/internal condoms are compatible with oil-based lubricants.
  - Using additional lubrication for vaginal sex may help if there has been repeated condom failure.
- Side effects from use of condoms are infrequent. Occasionally clients are allergic to latex rubber, or to the lubricant or spermicide used with the condom. If this occurs:
  - Recommend a change of condom brand or type, including female condoms.
  - If the client is using a condom with spermicide, recommend a condom without spermicide.
  - If the client is allergic to latex, non-allergenic condoms made of purified rubber are available in some areas.
  - Recommend PrEP use (if available) and regular testing for HIV and other STIs.

4.2 Antiretroviral-based prevention

Antiretroviral-based HIV prevention, including both PrEP and PEP, should be available as choices within a comprehensive HIV prevention package.

It is also important to educate that people living with HIV who are on treatment and have an ongoing undetectable viral load do not transmit HIV to their sexual partners; do not transmit HIV to their infant during pregnancy and delivery; have a reduced chance of transmitting HIV through breastfeeding; and have a reduced chance of transmitting HIV to partners who share drug injecting equipment.

4.2.1 Pre-exposure prophylaxis (PrEP)

4.2.1.1 Key facts

- PrEP is an extremely effective intervention that uses antiretroviral drugs to prevent acquisition of HIV in those who are HIV negative before they are exposed to HIV. Currently, PrEP is available orally or as a vaginal ring, and other methods such as long-acting injectables or implants are being researched.
- WHO currently recommends that **oral PrEP**, containing tenofovir disoproxil fumarate (TDF), should be offered as an additional prevention choice for people at substantial risk of HIV infection.
- PrEP delivered through a vaginal ring containing dapivirine may also be an acceptable option for clients who are unable or do not want to take oral PrEP. WHO recommends that the dapivirine vaginal ring may be offered as an additional prevention choice for clients at substantial risk of HIV infection as part of combination prevention approaches.
- Unlike treatment for HIV infection, PrEP can be started and stopped as a person chooses. To increase adherence and uptake, healthcare providers must promote the benefits of PrEP, namely that it is highly effective and safe, and the great majority of PrEP users experience no side effects. Creating opportunities for PrEP users to share their experiences can also help increase uptake.
- Where PrEP is not yet available or is not available free of charge, those who choose to self-procure PrEP should be advised how to take PrEP safely and assisted with accessing monitoring services (regular testing for HIV and other STIs, annual renal function tests, where available) [6].

4.2.1.2 Who is it suitable for?

PrEP should be offered to HIV-negative clients who are at substantial risk of acquiring HIV. Priority groups include serodiscordant couples, men who have sex with men, transgender women, sex workers, young women (in areas of high prevalence), and other groups with a high HIV incidence (e.g. 3 per 100 person-years or higher). Decisions to offer PrEP should be based on

individual assessment rather than belonging to a specific population group [6].

PrEP is safe to take during pregnancy, or while using hormonal contraception. Women using PrEP should be encouraged to use a contraceptive method. For transgender individuals taking hormones, PrEP does not impact or reduce hormone levels [15].

Clients who request PrEP and are deemed not to be at risk of HIV acquisition can be counselled about the benefits and offered it if requested. These clients may have other anxieties and concerns or may not feel comfortable disclosing risks, and the provider should take time to talk to the client.

4.2.1.3 How effective is PrEP?

PrEP is highly effective for preventing HIV infection when used as prescribed; however, PrEP does not prevent other STIs or pregnancy, and should be offered alongside other prevention methods such as condoms and other contraceptive methods. In clinical trials, the reduction in risk of acquiring HIV was more than 90 per cent when PrEP was used consistently [16].

4.2.1.4 What the provider needs to do

Providers should educate and counsel potential PrEP users about the benefits and risks of PrEP and conduct an individualized assessment of benefit. Providers should counsel clients that PrEP is highly effective when taken correctly and is safe.

Eligibility criteria include:

- HIV negative
- no suspicion of acute HIV infection
- at ongoing risk of exposure to HIV
- no contraindications to PrEP medicines (e.g. TDF/emtricitabine)
- willingness to use PrEP as prescribed, including periodic HIV testing

Screening for ongoing risk of HIV exposure or infection

PrEP should be offered to people who are at risk of acquiring HIV. To determine if someone is at ongoing risk of HIV infection or exposure, the provider should check whether the client has had any of the following risk factors in the past 6 months:

- vaginal or anal sex without a condom with more than one partner, OR
- a recent history (in the last 6 months) of an STI by laboratory testing or self-report or syndromic STI treatment, OR
- use of PEP for sexual exposure in the past 6 months

Indicators of ongoing risk of HIV infection vary depending on local HIV epidemiology and population group.

Screening questions can also be used to introduce PrEP to people who are attending for care but did not attend specifically to access PrEP (see *Box 2* – next page).

See *Box 3* (next page) for examples of brief counselling to promote uptake and help reduce stigma.

Oral tenofovir-based PrEP regimens may take up to 1 week to provide full protection; clients should be advised to use condoms during this time. If exposure occurs during this time, clients should be encouraged to return as soon as possible, and within 72 hours as they may be eligible for PEP, and should consider follow-up HIV testing.

While most PrEP users have no side effects, providers should inform clients about the possible side effects (i.e. headache, nausea, and abdominal discomfort) and reassure that this will likely resolve within 2 weeks.

PrEP is not an isolated intervention. It should be provided in a package of preventative tools that are individualized, such as consistent condom use, regular STI screenings, risk reduction counselling, use of sterile syringes/needles, and referral to specialist SGBV care.

BOX 2: Practical screening questions

Some of the following questions could be used to identify individuals who may benefit from PrEP.

1. **General screening questions.** Any "Yes" answer from a person presenting in a high HIV incidence setting should prompt a discussion and education about PrEP.

   In the past 6 months:

   - Have you had sex with more than one person?
   - Have you had sex without a condom?
   - Have you had sex with anyone whose HIV status you do not know?
   - Have you injected drugs and shared injecting equipment?
   - Are any of your partners at risk of HIV, through sexual or drug-using behaviour?
   - Do you have sex with a person who has HIV or do not know their HIV status?
   - Have you received a diagnosis of a sexually transmitted infection?
   - Do you desire pregnancy?
   - Have you used or wanted to use PrEP or PEP for sexual or drug-using exposure to HIV?

2. **For people who have a sexual partner with HIV**, the following questions will help to ascertain whether that person might benefit from PrEP:

   - Is your partner taking ART for HIV?
   - Has your partner been on ART for more than 6 months?
   - At least once a month, do you discuss whether your partner is taking HIV medication daily?
   - If you know, when was your partner's last HIV viral load test? What was the result?
   - Do you desire pregnancy with your partner?

3. **Additional factors to ask about**, which may indicate situations that confer increased vulnerability to HIV and help to identify someone who may benefit from PrEP:

   Are there aspects of your situation that may indicate risks for exposure to HIV? Have you…

   - Started having sex with a new partner?
   - Ended a long-term relationship and are looking for a new partner?
   - Received money, housing, food, or gifts in exchange for sex?
   - Been forced to have sex against your will?
   - Been physically assaulted, including assault by a sexual partner?
   - Injected drugs or hormones using shared equipment?
   - Used recreational or psychoactive drugs?
   - Been forced to leave your home (especially if due to sexual orientation or violence)?
   - Moved to a new place (possibly having a higher prevalence of HIV exposure)?
   - Lost a source of income (such that you may need to exchange sex for shelter, food, or income)?
   - Left school earlier than you planned?

Source: Adapted from WHO [16].

BOX 3: Brief PrEP counselling and education examples

- PrEP is a daily oral pill *[for tenofovir-based regimens]* that HIV-negative people can take to prevent HIV. PrEP is for people who want to reduce their anxiety/stress about HIV and take control of their sexual health. **Do you think you might benefit from PrEP?**
- PrEP is proven to be highly effective in protecting an individual from HIV.
- PrEP helps build your confidence by knowing that you are safe and healthy, protected from HIV.
- No matter the situation that you find yourself in, whether you can use condoms or not, you can be confident that you have an added layer of protection.
- PrEP can be taken by anyone who is HIV negative, regardless of relationship status or sexual practices engaged in.

4.2.1.5 How to initiate PrEP and follow-up

Contraindications for PrEP are:

- HIV infection
- signs/symptoms of acute HIV infection, probable recent exposure to HIV
- estimated creatinine clearance of less than 60 ml/min (if known, for TDF-based regimens)
- allergy or contraindication to any medicine in the PrEP regimen

Perform HIV testing the same day that PrEP is started using a point-of-care rapid test. If there are signs or symptoms of acute viral syndrome, including a flu-like illness, consider the possibility that acute HIV infection could be the cause. In such circumstances, consider deferring PrEP for 4 weeks and test for HIV again. This allows time for possible seroconversion to be detected.

Creatinine measurements vary from day to day, depending on hydration, exercise, diet, creatine use (by body builders), and other factors. Therefore, if a single creatinine measurement is above the normal range, repeat the measurement before excluding that person from PrEP (for TDF regimens).

Test clients for hepatitis B virus (HBV), so that if they are HBV negative, they can be vaccinated for HBV (tenofovir is also active against HBV).

4.2.1.6 Recommended PrEP regimens

WHO recommends oral PrEP regimens containing TDF, while the recommended vaginal ring contains dapivirine.

For oral PrEP, the selection of a regimen containing TDF depends on which combinations of medicines are available in the country, relative costs, regulatory status, and in-country normative guidance from professional societies or public health officials. Clinical trial results have strongly confirmed the efficacy of TDF alone or in combination with emtricitabine.

The optimal number of tablets to be dispensed will vary by setting and population. Some clinics dispense a 1-month supply at the first visit and then a 3–4-month supply at subsequent visits. If available, providing an extra month's supply at the first visit assures an adequate supply for daily dosing until the next clinic visit [6].

4.2.1.7 Follow-up

Suggested follow-up includes:

- HIV-testing every 3 months (consider also testing at 1 month following initial visit).
- STI screening, every 3 or 6 months depending on risk factors (also national policy).
- Discussion about use of contraception, at every visit.
- Brief adherence counselling and address side effects, at every visit.
- Counselling related to mental health, SGBV, and substance use as needed.
- Estimated creatinine clearance every 6 months (consider more frequently if there is history of conditions affecting the kidney, such as diabetes or hypertension; consider less frequently if the client is younger than 45 years, has baseline estimated creatinine clearance more than 90 ml/min, and weighs more than 55 kg).
- Hepatitis C antibody. For men who have sex with men consider testing every 12 months.

4.2.2 Post-exposure prophylaxis (PEP)

4.2.2.1 Key facts about PEP

- WHO recommends that PEP should be available to all eligible people on a voluntary basis after possible exposure to HIV.
- PEP is an emergency intervention with antiretroviral medication to prevent HIV infection after possible exposure, to stop the replication of HIV.
- A PEP regimen with two antiretroviral drugs is effective, but three drugs are preferred.
- PEP must be given as soon as possible, preferably within 24 hours of exposure but can be offered up to 72 hours.
- PEP is not required if the source of possible exposure is not HIV positive. PEP is often not recommended when the source is a person living with HIV on treatment with a confirmed and sustained undetectable viral load (for over 6 months) [6,17].

4.2.2.2 Who is PEP for HIV prevention suitable for?

- PEP can be offered to all clients who are HIV negative or do not know their status who have been exposed to possible infection through unprotected sex, condom breakage, rape, needlestick injury, and use of unsterile needles.
- Eligibility assessment should be based on the HIV status of the source whenever possible and may include consideration of local prevalence and epidemiological patterns. Clients at risk include those who have been exposed via body fluids to mucous membranes either through sexual or occupational exposure. Exposures that may warrant PEP include the following:
  - Sexual exposure: with individuals at high risk, especially through receptive anal sex.
  - Body fluids: blood, bloodstained saliva, breast milk, genital secretions, and cerebrospinal, amniotic, peritoneal, synovial, pericardial, or pleural fluid. All cases should be assessed clinically, and providers should make decisions as to whether the actual exposure constitutes a significant risk.
  - Types of exposure: (1) mucous membrane (i.e. sexual exposure), splashes to eye, nose, or oral cavity; and (2) parenteral.
- Exposures that do not require PEP include the following:
  - When the exposed individual is already HIV positive; when the source is established to be HIV negative; and exposures to bodily fluids that do not pose a significant risk (i.e. tears, non-bloodstained saliva, urine, and sweat) [17].

4.2.2.3 How effective is PEP?

PEP significantly reduces the risk of HIV infection when taken as soon as possible and within 72 hours of suspected exposure, and the whole 28-day course is taken.

4.2.2.4 What the provider needs to do

Assess exposure and whether a client is at high risk of HIV infection. The provider should know what local drugs are available and have a supply in stock – these should be the WHO recommended regimen or from the local/national protocols.

WHO recommended PEP regimens [6] are:

- **For adults**: Tenofovir disoproxil fumarate (TDF) combined with either lamivudine (3TC) or emtricitabine (FTC) as preferred backbone drugs. The recommended third drug is dolutegravir (DTG).
- **For children**: Zidovudine (AZT) and lamivudine (3TC) backbone drugs for children aged 10 years or younger, with dolutegravir (DTG) recommended as the third drug choice.

Providers should ensure PEP uptake by counselling individuals at high risk about the benefits. After a risk assessment and the client consents, PEP treatment with a 28-day prescription of antiretroviral drugs should be initiated as early as possible within the 72-hour window of exposure. Providers should know where to refer clients if they do not offer PEP themselves.

Recommendations for simplifying prescribing and supporting adherence include:

- **Prescribing**: To improve uptake and completion of PEP, WHO recommends providing the full 28-day course at the first visit, rather than requiring clients to return multiple times.
- **Adherence support**: To improve adherence and completion rates, WHO suggests programmes offer enhanced adherence counselling.

It is critical to counsel that the client must take the full 28-day course of ART for the intervention to be effective. Potential side effects of PEP such as nausea, vomiting, diarrhoea, headache, and lethargy should be discussed, emphasizing that they are not harmful and not a reason to stop PEP.

Follow-up should be offered including for those who have declined PEP and been counselled on risk of future acquisition. HIV retesting should also be offered to all clients at 3 and 6 months.

Clients prescribed PEP and those who decline should be counselled carefully on avoiding further exposure both during and after the course of treatment and the benefits of PrEP should be discussed.

Additional care:

- All clients presenting should be offered STI screening and treatment.
- Clients who have been exposed to the possibility of pregnancy can be offered emergency contraception (*Chapter 4: Contraception*).
- Clients who have been sexually assaulted should be offered further counselling, treatment, and referral (*Chapter 10: Sexual and gender-based violence*).

4.3 Voluntary medical male circumcision for HIV prevention

4.3.1 Key facts

- Voluntary medical male circumcision (VMMC) should be promoted as an additional efficacious HIV prevention option within combination prevention for adolescent boys aged 15 years and older and adult men in settings with generalized epidemics to reduce the risk of heterosexually acquired HIV infection [18].
- Other benefits of medical male circumcision include the reduced risk of some other STIs such as HPV, which causes cervical cancer [19].

4.3.1.1 How effective is VMMC in reducing HIV?

- When provided by trained medical professionals, medical male circumcision reduces the risk of female-to-male transmission of HIV by 60 per cent.
- Evidence on the effects on transmission through anal sex is limited and therefore VMMC is not recommended for men who have sex with men. Circumcision does not prevent men living with HIV from transmitting to partners [20].
- VMMC alone is only partially effective in reducing HIV transmission. It must be delivered as part of a comprehensive package of HIV combination prevention healthcare, e.g. condoms and lubricant.

4.3.1.2 Who is suitable for VMMC?

- VMMC is suitable in countries with a high HIV prevalence among the general population (over 15 per cent) and where most men are not circumcised (80 per cent).
- VMMC is also recommended in countries where HIV prevalence is between 3 per cent and 15 per cent among the general population and where HIV transmission occurs primarily through penile–vaginal sex.
- Within these contexts, suitability for VMMC includes men and adolescent boys who are not circumcised, not known to be living with HIV, and at risk of heterosexual HIV transmission.
- The ages of clients can vary significantly depending on location, and providers must be aware of local guidance for acquiring appropriate legal consent.
- In settings where VMMC is provided, men who have sex with men or men living with HIV should not be excluded.

4.3.1.3 Who can perform VMMC?

- VMMC should be provided by trained medical professionals, competent to provide this healthcare.
- All providers of VMMC should access approved training to ensure safety and quality in accordance with national guidelines. These include standardized equipment, supplies, and high-quality devices and drugs.

4.3.1.4 What providers need to do

The provider should give information about VMMC and refer to other healthcare providers if they cannot provide the surgical procedure.

Assess clinical suitability

- A full history and examination should be taken (see *Chapter 2: Facility requirements and client history/examination*).
- HIV testing should always be offered, unless the client's HIV status is already known.
- Offer STI screening and additional HIV prevention information (e.g. PrEP and PEP).

Ensure informed consent

- Ensure that the client gives informed voluntary consent to the procedure.
- The consent form must be signed by the person undergoing VMMC. For clients who are not literate, the form must be read aloud and explained, and a thumbprint or mark of the client may replace the signature. The signature of literate witnesses is also recommended.
- The surgeon should also sign the consent form, indicating that they have established that the individual choosing VMMC understands and willingly elects to undergo the procedure.

4.3.1.5 What the client needs to know

The client needs to give consent, without any evidence of coercion, after counselling on the risks and benefits in a language that they understand. More details on informed consent can be found in *Chapter 3: Counselling*.

The procedure should not be scheduled during a period of stress.

Specific aspects of circumcision that should be discussed to enable full understanding of the nature and consequences of the procedure include that:

- there is a small risk of infection (reduced by strict infection control procedures) and risk of bleeding and penile damage
- after the procedure the client will have to wait several weeks before resuming sexual activity to avoid risk of acquiring HIV and other STIs, and delayed healing
- post-recovery, there is no effect on libido, erectile function, or pain
- the client should continue to use barrier methods to further reduce the risk of acquiring HIV

4.3.1.6 VMMC procedure

VMMC should only be performed by trained and competent healthcare providers, with the correct equipment and supplies, in an infection-controlled setting, regardless of the method used.

Surgical circumcision

- *Surgical circumcision* procedures include: the forceps-guided method, which requires the least surgical skill, and the dorsal slit and sleeve resection methods, which require higher levels of surgical skill but are more appropriate when medical indications for circumcision are present (e.g. phimosis).
- *Advantages and disadvantages:* Surgical methods are advantageous over circumcision with devices because the foreskin is removed at the time of the procedure and may be less likely to result in tetanus infection. The disadvantage is that they require infiltration of local anaesthesia and, for dorsal slit and sleeve resections, an assistant is required.
- *Before discharging the client:* Counsel on being vigilant about developing complications and to return immediately or seek medical advice if they experience increased bleeding, severe pain in the penis or genital area or when passing urine, inability to pass urine, pus in the surgical wound, and increased swelling. Ask the client to return for follow-up after 7 days, preferably with the same surgeon [20].

Circumcision with devices

Circumcision with devices (including PrePex and Shang Ring) provide a suitable alternative to surgical methods and can be performed by a range of mid-level providers, therefore increasing access to VMMC [21].

It is recommended that these procedures are performed where surgical back-up facilities are available in case of device displacements or placement failures.

Although the time to complete the procedure is approximately half the time required for surgical circumcision:

- the healing process is slower and can take twice as long as the healing process after surgical circumcision
- healing by secondary intention can also lead to odour from the foreskin as it becomes necrotic
- the sexual abstinence interval after circumcision with devices is longer

- some devices (such as PrePex) require a separate visit for device removal after 1 week. There is also increased risk of tetanus (see *Box 4*)

Post-operative advice

- WHO recommends sexual abstinence (including no masturbation) for 6 weeks after circumcision for all clients.
- Follow-up at 7 days is important because early recognition of infection, bleeding, and tight sutures may require additional follow-up [20].

4.4 Harm reduction for people who use drugs

WHO defines harm reduction as "a set of policies, programmes, services and actions that aim to reduce the harm to individuals, communities and society related to drugs, including HIV infection. Harm reduction is key in the prevention of HIV infection among people who inject drugs and their sexual partners" [5].

4.4.1 What the provider needs to know

- Harm reduction interventions are an important and effective component of HIV prevention and often centre around risks related to drug use.
- People who inject drugs are at risk of hepatitis B and C (see *Chapter 6: Sexually transmitted infections*), as well as HIV from bloodborne sources through the sharing of injecting equipment.
- There are multiple interventions within a harm reduction package where providers can give information and counselling.
- The comprehensive harm reduction package includes [5,22]:
  - needle and syringe programmes
  - opioid substitution therapy and other evidence-based drug dependence treatment
  - condom programmes for people who inject drugs and their sexual partners
  - targeted information, education, and communication for people who use drugs and their sexual partners
  - community distribution of naloxone for overdose management
- Clients who use other drugs (such as alcohol, 3,4-methylenedioxy-methamphetamine [MDMA], cocaine, and amyl nitrate) that lower inhibitions and affect the ability to make safer choices may also be at risk from HIV acquisition [23]. Some also have

BOX 4: Circumcision: tetanus and infection control

There is a higher risk of tetanus following circumcision with the elastic collar compression device compared with other circumcision methods that remove the foreskin at the time of the procedure. Circumcision with a device, where the foreskin is left in situ and removed several days after application, should be undertaken only if the client is adequately protected against tetanus by immunization with a tetanus vaccine [20].

A clean care approach should be followed for all circumcision methods [20]. This includes:

- Encouraging personal cleanliness, which includes asking the client to wash their genital area, including under the foreskin, before circumcision and encouraging them to wear clean underwear.
- Following standard surgical protocols on skin preparation of the genital area – this is relevant for all circumcision methods.
- Enhancing individual and community education on clean wound care after circumcision. This includes giving clear and understandable instructions on wound care and genital hygiene, clean or sterile dressings to use at home, clear instructions on when to return to the healthcare facility for post-procedure care, education on the benefits of vaccination against tetanus, and education on the dangers of applying substances that may contain *Clostridium tetani* (e.g. animal dung poultices or herbal remedies) to wounds.

physiological factors that can facilitate transmission of HIV. Therefore, in addition to other strategies for HIV prevention, providers need to be aware of what harm reduction resources are available locally.

4.4.2 What the provider needs to do

- Support clients by providing access to clean needles and syringes, counselling on decreasing opioid use, support to switch to methadone or equivalent (with referral and support where required) – be up to date with overdose management (providing naloxone).
- Consider other harm reduction interventions such as training on safer injecting practices and risk reduction counselling.
- Provide rights-based information about specific drugs and associated risks to empower clients to make informed decisions and healthy choices.
- For clients with alcohol-related issues, offer screening and brief intervention after specific training. This short targeted intervention can reduce alcohol consumption.
- Know where relevant support services are located locally to enable linkage or referral, if necessary, but ensure that an appropriate service takes a rights-based approach.
- Be aware of local and national policies for HIV prevention for those who use drugs and know where key referral linkages are when services are not offered locally, including availability of PrEP for people who inject drugs.

5. HIV treatment

- A package of treatment and support healthcare is required for all people living with HIV, including access to ART.
- As more people start and stay on HIV treatment, preventing and managing comorbidities and providing chronic care are increasingly important services.
- Support to people living with HIV is multidisciplinary and includes counselling, treatment, early diagnosis, and treatment of HIV-related complications, mental health, and nutrition.

5.1 Counselling and supportive interventions for people diagnosed HIV positive

Provide support interventions after an HIV diagnosis, ensuring timely linkage to healthcare for all people living with HIV:

- Support people testing positive for HIV to link to appropriate clinical healthcare.
- Repeated visits for counselling can maximize engagement with multidisciplinary teams.
- Screen for mental health needs such as depression and anxiety (or dementia and cognitive dysfunction as part of disease progression) and provide referrals. It is important to give mental health interventions equal weight as physical needs and to identify healthcare that is easily integrated with other interventions.
- Refer clients to support groups where possible.
- Counsel clients on accessing other sexual and reproductive healthcare including STI prevention and screening.
- Counsel on risks/benefits of HIV status disclosure to partners, family, and employers, as this can lead to a risk of stigma, violence, and isolation. Providers should be aware of the national legal context as safe disclosure may not be possible.

- Counsel clients that they can live a long and good-quality life, still engage in healthy, happy relationships, and prevent HIV transmission to sexual partners (and for pregnant individuals, perinatally) when they adhere to treatment that reduces HIV to an undetectable viral load.

5.2 Antiretroviral therapy

5.2.1 Key facts

- All people living with HIV should have access and support to sustain ART, consisting of a combination of antiretroviral drugs. ART protects the immune system and prevents disease progression and HIV transmission by reducing viral load, greatly reducing morbidity and mortality.
- WHO recommends ART for all people with HIV as soon as possible after diagnosis without any restrictions of CD4 cell counts. The priority is to initiate treatment as soon as possible.
- Providers should be aware of local guidelines for initiation of HIV treatment.
- Global guidance recommends that ART should be initiated in all children, adolescents, pregnant and breastfeeding clients, and adults living with HIV, regardless of WHO clinical stage and at any CD4 cell count [24]. If resources do not permit, ART initiation should be prioritised in:
  - all children, adolescents, and adults with severe or advanced HIV clinical disease
  - adults with a CD4 count ≤350 cells/mm^3
  - children <5 years of age with WHO clinical stage 3 or 4 or CD4 count ≤750 cells/mm^3 [25].

5.2.2 What the provider needs to know

- All people living with HIV should be on ART.
- The local guidelines for treatment should be known.
- ART drug combinations that are available locally and how to source in line with national guidance. If treatment is not provided on-site, know where to refer.
- Viral load monitoring is the recommended method to identify how well ART is working. Viral load can be used to establish if there is treatment failure or non-adherence. When a person living with HIV has a viral load below the detection threshold using viral assays, this is referred to as 'viral suppression'. When the virus is undetectable, it is also untransmittable. Viral load should be measured and reviewed by 6 months after initiation, and if it is undetectable, then at least every 12 months. If viral load is detectable, provide enhanced adherence support and repeat testing in 3 months [26].
- For people living with HIV who have viral loads measured and are stable on ART, it is safe to stop testing CD4, which helps to reduce costs. Point-of-care viral load tests or dried blood spot tests are increasingly available and may improve access and timely care [25].
- Success of ART is dependent on treatment adherence. Adolescents have a high risk of loss to follow-up and suboptimal adherence. Strategies to maintain adherence in all groups can include peer counsellors, mobile phone SMS, reminder devices, and social support.

5.2.3 What the provider needs to do

- Provide information and counselling to clients on why ART is important, its benefits, what the treatment will involve, possible side effects, and to plan follow-up, even if referred elsewhere.
- Clients should be informed that ART can dramatically reduce viral load, that it is only one of a range of interventions that reduce HIV transmission, and that they should continue practicing safer sex to prevent pregnancy and/or other STIs.
- Obtain CD4 counts prior to treatment where available. Counsel on adherence and refer for support if required. Basic strategies that can be suggested to improve adherence include setting an alarm or taking pills immediately after a meal or brushing teeth.
- Monitor clients on ART to encourage adherence, ensure that the treatment is working, and screen for other infections. If it is confirmed that the initial

combination of drugs is not working, the client should be prescribed an alternative regimen or referred for review.

- Recommend first follow-up by 6 months or earlier.

5.2.3.1 CD4 cell count and viral load testing

Viral load is the amount of HIV RNA in a blood sample. CD4 count measures white blood cells (T cells) and is a marker of immune function. As viral load comes down, CD4 count rises.

Where available, CD4 cell count testing is recommended to:

- indicate baseline level of disease at diagnosis for all clients, whether starting ART or not
- assess which clients require urgent referral for ART or prophylaxis (e.g. for PEP)
- assist in diagnosing other comorbidities such as the type of pneumonia

Where CD4 count testing is not available:

- The client should not be denied treatment. They can be monitored clinically and with viral load testing to identify those at high risk of HIV disease progression.
- Providers should be aware of any changes in CD4 testing availability in their locality as this is the optimum method to assess risk of disease progression.

5.2.4 What the client needs to know

- Poor HIV treatment literacy is one cause of poor adherence, leading to treatment failure and drug resistance. Ensure that the information given to clients is understandable, comprehensive, correct, and provided in a positive, stigma-free, and empowering way to support individuals in making their own choices about whether to start treatment.
- ART is successful in preventing the progression of HIV infection by suppressing the HIV virus and protecting the immune system. The shorter the time between diagnosis of HIV and initiating ART, the better the outcomes. This is especially important for pregnant and breastfeeding clients.
- The decision to start ART belongs to the client. Clients should be encouraged to ask questions and to return for further counselling if they are undecided or if they change their minds.
- There may be an increased risk of opportunistic infections in the first 3 months of treatment, and these are more likely in clients with more advanced HIV disease.
- The client will need to take ART for the rest of their life and to return for monitoring as required.
- It is important to take ART regularly to stay healthy – not doing so will increase the risk of treatment failure and the risk of drug resistance.
- Issues related to side effects, drug interactions, and treatment fatigue, and the opportunity to receive adherence support should also be discussed with the client.

5.3 Assessment and management of common coinfections and comorbidities

Various coinfections, comorbidities, and other health conditions are common among people living with HIV and have implications for their treatment and care, including the timing and choice of antiretroviral drugs.

Prevention, screening, and management of various coinfections, comorbidities, and other concomitant health conditions should be available for people living with HIV (see *Appendix 1)*. For further information, also see *Chapter 6: Sexually transmitted infections* and *Chapter 8: Gynaecology and other reproductive healthcare*). *Box 5* (next page) summarizes prophylaxis with co-trimoxazole.

BOX 5: Co-trimoxazole prophylaxis

Co-trimoxazole prophylaxis is a feasible, well-tolerated, and inexpensive intervention to reduce HIV-related morbidity and mortality in people living with HIV. Co-trimoxazole is an off-patent drug and is widely available in resource-limited settings.

It is a fixed-dose combination of two antimicrobial agents (sulfamethoxazole and trimethoprim) used to treat a variety of bacterial, fungal, and protozoan infections.

Co-trimoxazole prophylaxis should be implemented as an integral component of HIV-related healthcare. This includes initiation among adults, adolescents, pregnant individuals, and children living with HIV for prevention of pneumocystis pneumonia, toxoplasmosis, and bacterial infections, and benefits for malaria prophylaxis.

People living with HIV have increased risk of more frequent and higher-density malaria infection, severe malaria, and malaria-related death, depending on the malaria transmission intensity of the area. Key interventions to control malaria include early diagnosis, prompt and effective treatment with artemisinin-based combination therapies, and use of insecticide-treated nets and indoor residual insecticide spraying to control the vector mosquitoes.

In settings where malaria and/or severe bacterial infections are highly prevalent, co-trimoxazole prophylaxis should be initiated regardless of CD4 cell count or stage of disease progression.

Source: WHO [17].

5.3.1 Non-communicable diseases

Providers need to know the following:

- The intersection of HIV and non-communicable diseases is strongly influenced by increasing survival due to effective ART, lifestyle and environmental factors, disease conditions associated with ageing, and in some cases long-term complicaions of ART.
- Compared with HIV-negative individuals, people living with HIV are at higher risk of cardiovascular disease, the causes of which are multifactorial, including increased risk due to smoking and the effects of ageing.
- People living with HIV are also at risk of other age-related conditions such as diabetes, chronic obstructive pulmonary disease, kidney disease, and cancers.
- Providers of sexual and reproductive healthcare have a role in identifying these conditions and referring clients to appropriate locations, where required, to improve the health of people living with HIV [24].
- Where possible, provide integrated interventions such as nutrition counselling, smoking cessation, drug addiction treatment, exercise promotion, and non-communicable disease management (blood pressure, cholesterol).

6. Prevention of perinatal transmission

Perinatal transmission of HIV, also known as vertical transmission, refers to transmission of HIV from an individual living with HIV to their baby during pregnancy, labour, delivery, or breastfeeding. Prevention focuses on early initiation of ART in the individual living with HIV and assuring their health.

Prevention of perinatal transmission should not be solely targeted at pregnant individuals living with HIV. A summary of strategies to reduce transmission is outlined in *Table 1*.

TABLE 1: Four components of a comprehensive strategy for prevention of perinatal transmission

Primary prevention of HIV acquisition among women of reproductive age	This includes healthcare such as information/counselling on HIV, treatment as prevention, STI screening and management, condom promotion, PrEP, HIV testing for women of reproductive age including pregnant and breastfeeding individuals not living with HIV
Prevention of unintended pregnancies among women living with HIV	This includes healthcare such as information and counselling to support rights-based sexual and reproductive health including access to a range of contraceptive options and safe abortion care
Prevention of HIV transmission from women living with HIV to their infants	This includes healthcare such as initiating ART to all pregnant individuals living with HIV (or providing facilitated referrals), treatment literacy, adherence support during pregnancy and breastfeeding, nutrition support during early antiretroviral drug uptake and breastfeeding, advice on breastfeeding and nutrition, HIV prophylaxis for infants exposed to HIV as per guidelines, facilitating or providing institutional delivery
Provision of appropriate treatment, care, and support for women with HIV, their children, and families	For infants exposed to HIV this includes an early infant diagnosis test as per guidelines, initiation of ART for infants diagnosed with HIV as per guidelines. For women and their partners who are HIV positive, this includes couple counselling on family planning and adherence support throughout treatment.

Source: WHO [27].

6.1 Considerations for pregnant individuals

- Pregnant individuals are at a higher risk of acquiring HIV with increased risk of transmission to the baby at delivery and through breastfeeding. Activities for preventing perinatal HIV transmission are rights-based packages of client-centred interventions that reduce the chances of this occurring.
- Women living with HIV are exposed to SGBV and non-equitable access to healthcare.
- Prevention of perinatal transmission includes providing ART to pregnant individuals living with HIV.

- Regular infant follow-up and testing during breastfeeding is critical and should be arranged locally or referred.

What are the benefits of preventing perinatal transmission?

- A reduction in infants acquiring HIV and an increase in the number of infants being tested at birth (early infant diagnosis). Globally, only 50 per cent of infants exposed to HIV are tested in the first 8 weeks of life and only 30 per cent are connected to healthcare providing ART.
- Prevention of perinatal transmission in this context provides an entry point to wider sexual and reproductive healthcare and other medical care for individuals and their babies, and non-pregnant individuals living with HIV. These include STI screening, cervical cancer screening, contraception, safe abortion care, and prevention of SGBV.

Who can provide this healthcare?

- A wide range of healthcare providers as per task sharing and local guidelines.

Recommendations for pregnant individuals are summarized in *Box 6.*

6.2 Contraceptive choices for women at high risk of HIV or living with HIV

Preventing unintended pregnancy also forms part of a package of care to reduce perinatal HIV transmission.

Women at high risk of HIV acquisition:

- An individual's risk of HIV does not restrict their choice of contraceptive method.
- Women at high risk of HIV acquisition are eligible to use all contraceptive methods without restriction (Medical Eligibility Criteria Category 1) including progestogen-only pills; intramuscular and subcutaneous depot medroxyprogesterone acetate (DMPA-IM/SC), norethisterone enanthate injectables; levonorgestrel and etonogestrel implants; copper and levonorgestrel intrauterine devices; and combined hormonal contraception (combined oral contraceptives, combined injectable contraceptives, combined contraceptive patches, and combined vaginal rings) [28] (see *Chapter 4: Contraception, Appendix 1*)

Women living with HIV:

- Use of contraception for those wishing to prevent pregnancy should be offered to women living with HIV; however, its use should never be coercive. For those seeking pregnancy, strategies to decrease

BOX 6: Recommendations for pregnant individuals living with HIV

- WHO recommends that elective caesarean delivery should not be routinely recommended to women living with HIV.
- For all pregnant individuals, regardless of ART initiation timing, conduct viral load testing at 34–36 weeks of pregnancy (or latest at delivery) to identify those at risk of treatment failure and/or who may deliver infants at higher risk of perinatal transmission.
- Late cord clamping (performed approximately 1–3 minutes after birth) is recommended for all births while initiating simultaneous essential newborn care.
- ART should be initiated in all pregnant and breastfeeding individuals living with HIV, regardless of WHO clinical stage and at any CD4 cell count, and continued lifelong.
- For all breastfeeding individuals, regardless of when ART was initiated, conduct a viral load test 3 months after delivery and every 6 months thereafter to detect viremic episodes during the post-natal period.
- Women living with HIV should breastfeed for at least 12 months and may continue breastfeeding for up to 2 years or longer while being fully supported for ART adherence.

Source: WHO [26].

perinatal HIV transmission should be discussed and offered.

- Contraceptive options for women living with HIV are summarized under the Medical Eligibility Criteria for hormonal contraceptive use (see *Chapter 4: Contraception, Appendix 1*).
- Due to possible interactions between certain hormonal contraceptives and certain antiretroviral medicines, providers need to refer to the recommendations on antiretroviral interactions (available in the Medical Eligibility Criteria – see *Chapter 4: Contraception, Appendix 1*) when counselling clients living with HIV on contraceptive efficacy. A client living with HIV and using antiretroviral medications should discuss their potential impact on contraceptive efficacy with their provider, as recommendations differ at different stages of HIV.
- This underscores the need for the availability of a comprehensive range of contraceptives, informed choice, and supportive providers, so that women living with HIV feel that they can explore their options in depth. According to the Medical Eligibility Criteria (see *Chapter 4: Contraception, Appendix 1*), women with asymptomatic HIV infection and women with AIDS can safely and effectively use most methods of contraception.
- Condoms (both male and female) remain the only contraceptive method that can also reduce the transmission of HIV and other STIs.

6.2.1 What the provider needs to do

There are multiple opportunities for providers working in an antenatal clinic setting to provide a package of HIV prevention interventions. These include:

- Preventing HIV acquisition in women at high risk of HIV infection through counselling on HIV testing, use of barrier methods, PrEP and PEP, and STI screening and treatment among those living with HIV.
- Preventing HIV transmission to the fetus by identifying women living with HIV and counselling on the importance of taking ART and adherence.
- Providing ongoing follow-up and support to women living with HIV and their families and arranging and encouraging stronger links to wider sexual and reproductive healthcare for people living with HIV.
- Counselling on post-partum contraception to prevent unintended pregnancy (see *Chapter 4: Contraception*).
- Providing information on infant feeding practices, early infant diagnosis, and referral for follow-up and support if not available locally.

This is a key opportunity for providers to discuss facility-based birth, counsel on safe delivery practice, and screen for SGBV. Clients may require referral to a specialist for further counselling and treatment.

For non-pregnant women, the provider should:

- Counsel all adolescent women on the benefits of ART and contraception.
- Counsel all women living with HIV on the benefits of contraception.
- Counsel all women on wider preventative measures such as use of barrier methods.

6.3 Mobile and digital health and self-care in HIV prevention and treatment

6.3.1 Mobile and digital health

Mobile phones and the internet or other digital platforms (e.g. SMS, social media apps, dating apps/websites) present an unprecedented opportunity to reach and engage communities and clients to help improve sexual and reproductive health, including STI and HIV prevention and care. There are numerous strategies to design and use technology tools to improve outcomes, including how these tools may help clinics improve efficiency, coverage, and quality of care, and address health behaviours in key populations.

For additional information on incorporating mobile and digital health into STI/HIV programmes, see *Chapter 6: Sexually transmitted infections, Section 2.2.1*.

6.3.2 Self-care and HIV self-testing

HIV self-testing is a safe, accurate, and effective way to reach people who may not otherwise test for HIV. HIV self-testing has been shown to be an empowering, discreet, and highly acceptable option for many users, including key populations, such as young people, among other groups. HIV self-testing helps to increase client autonomy, decentralize healthcare, and create demand for HIV testing among those not reached by existing care.

With HIV self-testing, the person uses a simple, rapid HIV test kit to collect their own specimen, perform the test, and interpret their result, at a time and place that is convenient. Individuals with a reactive test result must seek further testing from a healthcare provider. Following a negative self-test result, retesting is only necessary for those at ongoing risk and those reporting potential HIV exposure in the preceding 12 weeks.

WHO recommends that HIV self-testing should be offered as an additional approach to HIV testing [29,30].

6.4 Considerations for humanitarian settings

6.4.1 Prevention and treatment of HIV within humanitarian and crisis settings

The prevalence of STIs including HIV can increase in emergencies if there is a lack of healthcare provision for prevention, screening, and treatment. STIs can seriously impact sexual and reproductive health, and some can increase the risk of HIV acquisition.

For people living with HIV who have already started ART, disruption or discontinuation of treatment could lead to the development of resistance to the antiretroviral medications and significantly increase the likelihood of serious illness or even death. Linking those on antiretrovirals to continued treatment is vital and lifesaving.

Implementing HIV testing for the general client population is not feasible at the onset of a crisis; the only exception is HIV testing and counselling in the context of prevention of perinatal transmission programmes, which must continue, to reduce the risk of fetal and infant acquisition of HIV.

Provision of HIV testing should be re-implemented fully as soon as all other Minimum Initial Service Package (MISP) priorities have been established. This ensures that ART can be initiated quickly for people who are HIV positive. WHO recommends initiation of ART in all people with HIV regardless of WHO clinical stage and at any CD4 cell count [25].

Co-trimoxazole prophylaxis is a simple, well-tolerated medication to prevent opportunistic infections in people living with HIV. It is recommended for adults (including pregnant individuals), infants, children, and adolescents with HIV, as well as clients with HIV and active tuberculosis disease [17].

MISP Objective 3: Prevent the transmission of and reduce morbidity and mortality due to HIV and other STIs

- Establish safe and rational use of blood transfusion
- Ensure application of standard precautions
- Guarantee the availability of free male condoms and, where applicable (e.g. already used by the population), ensure provision of female condoms, as well as condom-compatible lubricants
- Support the provision of antiretrovirals (ARVs) to enable people who were already on antiretroviral therapy (ART) prior to the emergency to continue their treatment without disruption, including women who were enrolled in PMTCT programmes
- Provide PEP to survivors of sexual violence as appropriate, and for occupational exposure
- Support the provision of co-trimoxazole prophylaxis to prevent opportunistic infections for patients diagnosed with HIV or already known to be living with HIV
- Ensure the availability in healthcare facilities of syndromic management for STIs

Source: IAWG [31].

PEP for HIV must be available for survivors of SGBV and for those who may have accidentally been exposed to blood (e.g. a healthcare worker with a needlestick injury).

Measures to reduce STI and HIV transmission must include the abundant availability and distribution of free condoms. Ensuring male and female condoms are available (lubricated, or with condom-compatible lubricants, as needed) in all appropriate locations (on- or off-site) from the earliest days of a humanitarian response is critical as condoms offer the best protection from STIs, including HIV.

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8. Appendices

Appendix 1: Summary of key coinfections and comorbidities among people living with HIV

Infection	Key facts	Clinical features	Screening and diagnosis	Prophylaxis and treatment
Tuberculosis (TB) and cryptococcal disease	• Most frequent life-threatening opportunistic infection for people living with HIV. A leading cause of death • Timely initiation of antiretroviral therapy (ART) and implementation of the 'Three I's' for HIV/TB (Increased TB case-finding, Isoniazid preventive therapy (IPT), and Infection control) are critical to prevent TB and mortality from HIV-associated TB • Providers need to be vigilant about the signs and treat or refer to a specialist centre early if they suspect infection or if it has been diagnosed	• Fever • Cough of any duration • Weight loss • Night sweats	• Routine screening with algorithm containing clinical features • Identify clients expedited for TB diagnosis or given preventive TB therapy	• The combined use of IPT and ART has been shown to have both TB prevention and mortality benefits, including in people with a higher CD4 count • It is recommended that TB should be excluded at the HIV testing stage
Cryptococcal meningitis	• Common opportunistic infection and a leading cause of death in people with HIV before and after ART is initiated, especially in sub-Saharan Africa and South-East Asia		• Requires diagnosis, screening, and prevention of cryptococcal infection	• Induction, consolidation, and maintenance regimens • Monitoring and managing toxicities

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Infection	Key facts	Clinical features	Screening and diagnosis	Prophylaxis and treatment
Sexually transmitted infections (STIs) • STIs can cause complications, be transmitted to sexual partners, and enhance HIV transmission. These have increased incidence in people living with HIV related to the immunosuppressive effect • HIV infection may also alter the natural history of STIs, such as herpes simplex virus infection • In addition, HPV, syphilis, and other STIs are observed among people with advanced HIV disease • It is necessary to appropriately screen, diagnose and treat STIs, as most infections are asymptomatic, especially among women • If present, an STI (whether symptomatic or not) can be a 'red flag' for a higher risk for HIV transmission especially in men who have sex with men and sex workers • Clients attending sexual and reproductive health clinics should be counselled that STIs such as syphilis or gonorrhoea increase the risk of acquiring or transmitting HIV perhaps by two or three times				
Reproductive cancers, including cervical cancer	• Caused by sexual transmission of high-risk HPV (commonly subtypes 16, 18) • Curable if diagnosed and treated early • Women living with HIV have a higher risk of pre-cancer and invasive cervical cancer • The risk and persistence of HPV infection increases with low CD4 count and high HIV viral load	• In pre-cancerous stage, no symptoms • Cancer presents with abnormal vaginal bleeding and discharge	• With cytology or visual inspection with acetic acid as per local protocols, regardless of whether they are taking ART or their CD4 count or viral load • Will require screening more often than women without HIV and at all ages	• With cryotherapy or large loop excision • HPV vaccination recommended before the onset of sexual activity to prevent genital cancers and genital warts
Genital warts	• Caused by sexual transmission of low-risk HPV (commonly subtypes 16, 11)	• Flesh coloured lumps, sometimes cauliflower-like • Occasionally painful	• Clinical examination	• Excision • HPV vaccination as above

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Infection	Key facts	Clinical features	Screening and diagnosis	Prophylaxis and treatment
Viral hepatitis • An increasing cause of morbidity and mortality among people living with HIV in some regions, including among people on ART • A comprehensive approach includes prevention, hepatitis B virus (HBV) and hepatitis C virus (HCV) testing, hepatitis B vaccination, and treatment and care for people with HIV who are coinfected with hepatitis B and/or hepatitis C				
Hepatitis B	• Chronic HBV infection affects 5–20 per cent of people living with HIV worldwide • Bloodborne and transmitted by semen and other body fluids	• Signs of acute and chronic disease (cirrhosis of liver or liver cancer) – jaundice skin and eyes • Weight loss • Abdominal pain • Itchy skin • Dark urine colour and pale/bloody/dark stools • Chronic fatigue • Nausea or vomiting • Swelling in the legs and ankles	• Hepatitis B is diagnosed using blood tests • After diagnosis, an assessment of the degree of liver damage is necessary • Since 2015, WHO has recommended treatment for everyone diagnosed with both HBV and HIV infection, regardless of the stage of liver disease	• Oral treatments are recommended (tenofovir, entecavir) since they are the most potent at suppressing HBV • Prevention with hepatitis B vaccination course
Hepatitis C	• HCV affects 5-15 per cent, rising to 90 per cent among people who inject drugs • An increasing cause of morbidity and mortality among people living with HIV in some regions, including among people on ART, people who inject drugs through the sharing of injection equipment • Bloodborne transmission	• As for HBV	• Diagnosed by screening for anti-HCV antibodies with a serological test. If the test is positive for anti-HCV antibodies, a nucleic acid test for HCV RNA is needed to confirm chronic HCV infection (some people infected with HCV have a strong immune response, clearing the infection without the need for treatment) • After diagnosis, an assessment of the degree of liver damage is necessary	• Antiviral drugs, called direct-acting antiviral (DAA) agents are the newest, more effective therapies • There is no vaccine for hepatitis C

Source: World Health Organization. Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection: Recommendations for a public health approach, second edition. Geneva: WHO; 2016. World Health Organization. Guidelines for the prevention, care and treatment of people with chronic hepatitis B infection. Geneva: WHO; 2015. World Health Organization. Guidelines for the care and treatment of persons diagnosed with chronic hepatitis C virus infect. Geneva: WHO; 2018. World Health Organization [website]. Hepatitis B. Key facts. June 2022. Available at: https://www.who.int/news-room/fact-sheets/detail/hepatitis-b. Accessed 27 June 2022.

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Chapter 8:

Gynaecology and other reproductive healthcare

contents

contents (continued)

1. Introduction

Gynaecology refers to the field of medicine addressing the female reproductive system, while andrology addresses the male reproductive system. Intersex, transgender, and transsexual people may have a combination of female and male reproductive organs and sexual characteristics, whether by birth or due to one or more medical or surgical interventions.

Reproductive health refers to the health of an individual's reproductive system, processes, and functions, at all stages of their life. Good reproductive health implies that an individual has the ability "to have a responsible, satisfying and safe sex life" and "the capability to reproduce and the freedom to decide if, when and how often to do so" [1].

This chapter describes the essentials of reproductive health assessment (screening, investigations, diagnosis) and management (treatment and/or referral) and covers common gynaecological and andrological conditions, cancers of the reproductive tract, and infertility. For information regarding initial assessment of the client, see *Chapter 2: Facility requirements and client history/examination*.

Acronyms

AUB	abnormal uterine bleeding
BPH	benign prostatic hyperplasia
HPV	human papillomavirus
LNG-IUD	levonorgestrel intrauterine device
NSAIDs	non-steroidal anti-inflammatory drugs
PCOS	polycystic ovary syndrome
PDE5	phosphodiesterase type 5
PID	pelvic inflammatory disease
PSA	prostate-specific antigen
STI	sexually transmitted infection
VIA	visual inspection with acetic acid
WHO	World Health Organization

2. Puberty

Puberty is the stage of life when sexual maturity takes place. Girls usually experience puberty earlier than boys. It is a process that usually happens between 8 and 13 years of age for girls and 9 and 14 years of age for boys. It causes physical changes and affects boys and girls differently. Puberty involves a series of biological and physical transformations, including the development of secondary sex characteristics and the achievement of fertility (*Table 1*). Tanner stages are commonly used to describe the onset and progression of pubertal changes [2]. Boys and girls are rated on a five-point scale. Stage 1 is preadolescent, while stage 5 means that genitalia are the final adult form in size and

TABLE 1: Signs and symptoms of puberty

	Boys (9–14 years)	Girls (8–13 years)
Signs and symptoms	• Testicles (scrotum) and penis get bigger • Hair grows in the pubic area and armpits • Facial hair develops • Muscles grow, voice deepens	• Breast development (some may use the term breast 'buds') • Hair grows in the pubic area and armpits • Hips and thighs get bigger (build-up of fat) • Menstruation (this usually happens last)
	Both boys and girls may get acne and experience a growth spurt	

shape. The process usually happens naturally. As well as physical changes, it can impact mental and emotional health, and some adolescents may report depression, anxiety, and risk-taking behaviours, such as substance use and unsafe sex.

Precocious puberty, a condition that occurs when sexual maturity begins earlier than normal, begins before age 8 for girls and before age 9 for boys. Children affected by precocious puberty may fail to reach their full height and experience psychological and social issues related to their appearance. Delayed puberty is the term for a condition in which the body's timing for sexual maturity is later than the normal range of ages (>14 years). Both precocious puberty and delayed puberty can be indicative of hormonal production disorder and genetic disorders. More detailed history-taking, examinations, and investigations are needed to confirm the underlying causes. Counselling and mental support should also be provided to clients and their families during the process. In addition to dealing with the underlying diseases, hormonal products can be used to slow or increase sexual development. If required, clients can be referred to a specialist.

3. Management of common gynaecological conditions

Clients may present with symptoms that require gynaecological examination, assessment, investigation, and treatment. Examination and assessment procedures are described in *Chapter 2: Facility requirements and client history/examination*. This section provides more information on the common gynaecological conditions of abnormal uterine bleeding, uterine fibroids, pelvic pain, menopause, and infertility.

3.1 Abnormal uterine bleeding

Normal menstrual bleeding occurs every 24–38 days with varying amount of flow and generally lasts less than 8 days with no bleeding in between menses. Abnormal uterine bleeding (AUB) is any deviation from the normal menstrual cycle and is categorized according to the PALM-COEIN system (*Table 2*).

Diagnostic terms, such as menorrhagia, metrorrhagia, oligomenorrhea, and dysfunctional uterine bleeding have been abandoned as they had no consistently agreed meaning or definition. Chronic AUB is defined as AUB that has been present for most of the previous 6 months [3,4,5].

3.1.1 Causes and risk factors

There are multiple causes of AUB and each client may have more than one underlying condition. In some cases, no cause may be found. Potential causes of AUB are classified according to structural or non-structural causes in the PALM COEIN classification system (*Table 2*). The most common causes of AUB include structural causes such as polyps (AUB-P), fibroids (AUB-L), and cancers of the uterus or cervix (AUB-M); and non-structural causes such as disorders of ovulation (AUB-O); effects of contraceptive methods, such as intrauterine devices or oral contraceptive pills (AUB-I); and bleeding disorders (AUB-C). This system does not cover vaginal bleeding in pregnancy, such as ectopic pregnancy or incomplete abortion (see *Chapter 9: Maternal health*) or bleeding related to infectious causes (see *Chapter 6: Sexually transmitted infections*).

TABLE 2: PALM-COEIN classification system for abnormal uterine bleeding

PALM (structural causes)	COEIN (non-structural causes)
Polyp (AUB-P)	**C**oagulopathy (AUB-C)
Adenomyosis (AUB-A)	**O**vulatory dysfunction (AUB-O)
Leiomyoma (AUB-L)	**E**ndometrial (AUB-E)
Malignancy and hyperplasia (AUB-M)	**I**atrogenic (AUB-I)
	Not otherwise classified (AUB-N)

Source: Munro et al. [5].

3.1.2 Assessment and management of chronic AUB (symptoms present for ≥6 months)

3.1.2.1 History-taking

In addition to basic history-taking, questions to rule out chronic AUB should focus on excluding pregnancy, infection, and reproductive cancers, and establishing how bothersome the symptoms are for the individual client.

3.1.2.2 Examination

After general physical examination, proceed with examination of the female reproductive tract as described in *Chapter 2: Facility requirements and client history/examination*. It is crucial to identify if there are clinical signs of anaemia, hormonal causes of AUB such as hypothyroidism, or suspicious pathological findings such as polyps and cancer.

Based on the examination result, conduct more examinations such as blood test, thyroid function, ultrasound, endometrial biopsy, or cervical cancer screening to confirm the diagnosis.

3.1.2.3 Management of chronic AUB

Management of chronic AUB depends on the underlying cause. When structural causes, such as fibroids or malignancy are found, surgical procedures may be necessary (see *Section 3.2.2* for details on management options for uterine fibroids). When the underlying cause is non-structural, treatment should be focused on improving any detrimental effects on quality of life (social life, employment, psychological well-being, and sex life) rather than focusing on menstrual blood loss. Discuss the range of treatment options with the client. If necessary, offer a follow-up contact for reassessment.

While dilatation and curettage may be used to assess the endometrium for hyperplasia or malignancy, it is not an effective treatment for AUB. Aspiration using a manual vacuum aspirator may be used to sample endometrial tissue for biopsy.

Hysterectomy is not a first-line treatment for AUB and is not recommended unless other treatments have failed and the client desires it after appropriate counselling.

In adolescents, AUB most frequently occurs as a result of persistent anovulation due to the immaturity or dysregulation of the hypothalamic–pituitary–ovarian axis. AUB in adolescents may also be due to hormonal contraceptive use, pregnancy, pelvic infection, coagulopathies, or tumours. As many as 19 per cent of adolescents with AUB who require hospitalization may have an underlying coagulopathy, which emphasizes the importance of screening for coagulation disorders in these clients [6].

AUB most frequently occurs in women aged 19–39 years as a result of pregnancy, structural lesions (e.g. leiomyomas or polyps), anovulatory cycles (e.g. polycystic ovary syndrome [PCOS]), use of hormonal contraception, and endometrial hyperplasia. Endometrial cancer is less common but may occur in this age group. In women aged 40 years to menopause, AUB may be due to anovulatory bleeding, which represents normal physiology in response to declining ovarian function. It may also be due to endometrial hyperplasia or carcinoma, endometrial atrophy, and leiomyomas [6].

First-line treatments for chronic AUB in non-pregnant clients without underlying structural causes (for bleeding during pregnancy, see *Chapter 9: Maternal health*)

For clients who do not currently want to get pregnant:

- The levonorgestrel-releasing intrauterine device (LNG-IUD) reduces blood loss, although it can take up to 12 months to achieve the maximum effect [7].
- If LNG-IUD is not acceptable, oral norethisterone and medroxyprogesterone acetate can decrease bleeding volume.

For clients who have a regular menstrual cycle and who wish to become pregnant and do not wish to take hormones or in whom hormone treatment is contraindicated, offer the following during menstruation as first-line treatments:

- Non-steroidal anti-inflammatory drugs (NSAIDs), such as mefenamic acid and ibuprofen, if clients are not allergic to NSAIDs.
- Antifibrinolytics, such as tranexamic acid.
- Refer clients who wish to become pregnant but who experience irregular cycles suggestive of anovulation to a specialist for further assessment, while also offering temporary treatment using the options above.

Second-line treatments

- Combined oestrogen and progestin therapies, such as combined oral contraceptive pills, are effective when progestins alone (e.g. LNG-IUD) have not been successful or are not acceptable to the client.
- Less invasive surgical treatments in the form of endometrial ablation and resection may be preferred by clients and are becoming more widely available in higher-level facilities.

3.1.3 Assessment and management of acute AUB

A small number of clients present with acute AUB either as a new episode of bleeding or on top of a known history of chronic AUB.

The immediate management depends on the client's clinical stability (exclude signs of hypovolaemic shock) and haemoglobin levels. The immediate reduction of bleeding can be achieved with the combination of norethisterone or medroxyprogesterone acetate and oral tranexamic acid. LNG-IUD is not the first option for acute AUB. If bleeding is excessive, intravenous oestrogen or gonadotropin-releasing hormone (GnRH) may be considered at specialist centres.

3.2 Uterine fibroids

Fibroids, also called leiomyomas, are a common benign tumour of the uterus consisting of smooth muscle cells and fibroblasts, ranging in size from a few millimetres to 30 cm or larger. They generally develop slowly and persist until menopause, after which they usually shrink. Their prevalence is unknown as they are often asymptomatic.

Fibroids can cause heavy menstrual bleeding, pelvic pain, secondary dysmenorrhoea, urinary tract problems (frequency, urgency, urinary incontinence, or hydronephrosis) and non-specific bowel problems (e.g. bloating, constipation). Fibroids can also be associated with subfertility and, rarely, pregnancy-related problems, such as need for caesarean or preterm delivery, malpresentation, miscarriage, or acute pain caused by degenerative changes when a fibroid grows rapidly in the presence of high levels of sex hormones during pregnancy, outgrowing its blood supply [8].

3.2.1 Causes and risk factors

Fibroids develop in women of reproductive age and are "promoted and maintained by exposure to oestrogen and progestogen" [8]. Risk factors include increasing age (from puberty to menopause), early puberty, obesity, black ethnicity, and family history [8], while increasing parity and use of oral or injectable hormonal contraception decrease the risk [9].

3.2.2 Management and treatment

Healthcare providers should take a complete client history and perform relevant examination. Diagnostic evaluation should exclude other causes of AUB and pelvic masses [6]. Assess how fibroids affect the client's quality of life and whether the client wishes to get pregnant. If surgery is considered, assess surgical suitability (e.g. obesity, presence of multiple comorbidities, or previous abdominal surgery).

There are three pathways to manage uterine fibroids [10]:

- *Expectant management* is suitable for clients who have no symptoms or those with AUB without anaemia who wish to 'watch and wait'.
- *Medical management* of AUB associated with fibroids is the same as for other causes of AUB.
- *Surgical management* may be needed to address complications of fibroids that are detrimental to quality of life. Refer to a specialist for consultation about surgery.
    - Myomectomy removes the fibroids only and is the preferred method for clients who wish to preserve their fertility.

Hysterectomy or ablation may be appropriate for clients who have completed childbearing. Clients should be counselled on all treatment options that are available and accessible, with a discussion of the risks and benefits of the treatment options to guide counselling and shared decision-making [11].

3.3 Pelvic pain

Pelvic pain can be acute or chronic and can arise from the digestive, urinary, or reproductive system. This section focuses on gynaecological conditions and causes, but for both acute and chronic pelvic pain it is important to consider non-gynaecological causes as part of the assessment.

3.3.1 Acute pelvic pain

3.3.1.1 Causes

Acute pelvic pain may be due to pelvic inflammatory disease (PID), ectopic pregnancy, miscarriage, intrauterine fetal death, menstrual cramps (dysmenorrhea), ovarian torsion, ruptured ovarian cysts, or other causes, including non-gynaecological causes [12].

3.3.1.2 History-taking, examination, and investigations

In addition to general history-taking, it is essential to assess the severity, location, frequency, and duration of the pain and associated symptoms, such as dyspareunia, dysuria, and nausea/vomiting. Healthcare providers should keep in mind that other non-gynaecological causes, including appendicitis, may also cause acute lower abdominal pain. *Table 3* shows the differential diagnoses of acute pelvic pain.

Perform relevant examination and test to confirm the diagnosis, such as pregnancy testing and bimanual pelvic examination. The absence of a palpable mass does not exclude ovarian cysts or ectopic pregnancy as a cause of pain. *Table 4* (next page) provides clinical clues from client history and examination to aid diagnosis of acute pelvic pain.

3.3.1.3 Management

When a client presents with acute pelvic pain, healthcare providers must be alert to the possibility that surgery may be required urgently (e.g. for ovarian torsion, ectopic pregnancy). When there is strong suspicion of serious complications and surgery is not available at the facility, prepare the client and arrange referral/transfer as soon as possible.

3.3.2 Chronic pelvic pain

Chronic pelvic pain is a symptom, defined as "intermittent or constant pain in the lower abdomen or pelvis of a woman of at least 6 months in duration, not occurring exclusively with menstruation or intercourse and not associated with pregnancy" [13].

TABLE 3: Differential diagnosis of acute pelvic pain

Women of reproductive age
Gastrointestinal: Appendicitis; bowel obstruction; diverticulitis; gastritis; inguinal hernia; irritable bowel syndrome; mesenteric venous thrombosis; perirectal abscess
Gynaecologic: Adenomyosis; degenerating uterine fibroid; ectopic pregnancy; endometriosis; mittelschmerz; ovarian torsion; pelvic inflammatory disease; ruptured ovarian cyst; tubo-ovarian abscess
Urinary: Cystitis; pyelonephritis; ureterolithiasis
Other: Dissecting aortic aneurysm; lead poisoning; malingering; narcotic seeking; porphyria; sickle cell crisis; somatization disorder
Pregnant women
Corpus luteum haematoma; ectopic pregnancy, endometritis (post-partum); ovarian torsion; ovarian vein thrombosis (post-partum); placental abruption; uterine impaction
Adolescents
Similar to women of reproductive age, with the addition of imperforate hymen and transverse vaginal septum
Post-menopausal women
Similar to women of reproductive age, minus ectopic pregnancy and ovarian torsion

Source: Reproduced/translated with permission from Kruszka PS, Kruszka SJ. Evaluation of acute pelvic pain in women. Am Fam Physician. 2010;82(2):141-7.

TABLE 4: History and physical examination clues to the diagnosis of acute pelvic pain

Clinical clues	Suggested diagnosis
History	
Bilateral pelvic pain	PID
Dysmenorrhoea	Endometriosis, uterine fibroid
Dyspareunia	Endometriosis, ovarian cyst
Dysuria	PID, UTI
Gross haematuria	Kidney stone, UTI
Left-sided pelvic pain	Diverticulitis, kidney stone, ruptured ovarian cyst
Midcycle pain	Mittelschmerz
Nausea and vomiting	Appendicitis, ovarian torsion
Pain migration from periumbilical area to right lower quadrant of abdomen	Appendicitis
Radiation of pain to groin	Kidney stone, ovarian torsion
Right-sided pelvic pain	Appendicitis, kidney stone, ovarian torsion, ruptured ovarian cyst
Urinary frequency	UTI
Vaginal bleeding	Ectopic pregnancy, uterine fibroid
Vaginal discharge	PID
Physical examination	
Adnexal mass	Corpus luteum cyst, diverticula of colon, ectopic pregnancy, endometriosis, follicular cyst, PID, uterine fibroids
Bilateral abdominal tenderness	PID
Cervical motion, uterine, or adnexal tenderness	PID
Fever	Appendicits, PID, pyelonephritis
Hypotension	Ectopic pregnancy, ruptured haemorrhagic ovarian cyst
Left lower quadrant abdominal tenderness	Diverticulitis
Right lower quadrant abdominal tenderness	Appendicitis
Vaginal mucopurulent discharge	PID

PID = pelvic inflammatory disease, UTI = urinary tract infection.

Source: Reproduced/translated with permission from Kruszka PS, Kruszka SJ. Evaluation of acute pelvic pain in women. Am Fam Physician. 2010;82(2):141-7.

3.3.2.1 Causes

There is often more than one component or contributing factor to chronic pelvic pain and the cause(s) may not be identifiable at initial assessment. Some causes of chronic pelvic pain include endometriosis, chronic PID, fibroids, pelvic congestion syndrome, and psychological factors [14].

3.3.2.2 History-taking, examination, and investigations

Healthcare providers should ask about the pattern of the pain and its association with other problems, including psychological, bladder, and bowel symptoms, the effect of movement and posture on the pain, if it radiates, and if anything improves or worsens it.

Provide necessary examinations and investigations to confirm the diagnosis, including ultrasound. Diagnostic laparoscopy carries risks and should only be used as a second-line investigation.

3.3.2.3 Management and treatment

Treat the underlying conditions. Even if no explanation for the pain can be found initially, attempts should be made to treat the pain empirically and to develop a management plan in partnership with the client, including pain control.

3.3.3 Pelvic inflammatory disease

3.3.3.1 Causes and risk factors

Pelvic inflammatory disease (PID) refers to infection of the upper reproductive tract caused by ascending infection from the cervix or vagina. There is also a risk of formation of tubo-ovarian abscess leading to scarring and deformation of the fallopian tubes, which in turn can lead to tubal infertility and an increased risk of ectopic pregnancy, as well as chronic pelvic pain. It is most commonly caused by the cervical sexually transmitted infection (STI) *Chlamydia trachomatis* (chlamydia), but it can also be caused by *Neisseria gonorrhoeae* (gonorrhoea), *Mycoplasma genitalium*, *Gardnerella vaginalis*, *Haemophilus influenzae,* and *Ureaplasma urealyticum* (see *Chapter 6: Sexually transmitted infections*) [15]. Risk factors for PID include age younger than 25 years, new or multiple sexual partners, unprotected sex, sex with a symptomatic partner, and young age at onset of sexual activity (younger than 15 years) [16].

3.3.3.2 History-taking

Healthcare providers should be vigilant in assessing clients presenting with any degree of lower abdominal pain as symptoms may not be severe. Ask about history of previous STIs and/or PID. A thorough sexual history will assess the most common risk factors for PID. This involves sensitive questioning techniques (see *Chapter 3: Counselling* and *Chapter 6: Sexually transmitted infections*).

3.3.3.3 Examination and investigations

A thorough general physical and gynaecological examination is essential to exclude other causes of lower abdominal pain, such as endometriosis, ovarian cyst rupture, and torsion. Pregnancy should be ruled out as symptoms could be due to an ectopic pregnancy.

3.3.3.4 Management and treatment

Treat mild to moderate PID with oral antibiotics, without admission. There is no added benefit to administering intravenous antibiotics if the client is able to take them orally. Global recommended parenteral antibiotic regimens for PID are summarized in *Box 1* (next page). However, consult and adhere to local guidance for antibiotic treatment.

Counselling points to discuss with the client on starting treatment:

- The benefits of telling their partner about the presence of an STI and the risks if their partner is not also tested or treated.
- The long-term risks of pelvic infection (possible effects on fertility, risk of ectopic pregnancy, chronic pelvic pain) and the increased risks of reinfection.
- Unprotected sex should be avoided until the client and their partner's treatment is complete.

BOX 1: Global guidelines for parenteral treatment of acute pelvic inflammatory disease		
Basic parenteral regimen options (one of the following):		
1. Cefotetan 2 g IV every 12 hours	**PLUS**	Doxycycline 100 mg orally[a] or IV every 12 hours
2. Cefoxitin 2 g IV every 12 hours	**PLUS**	Doxycycline 100 mg orally[a] or IV every 12 hours
3. Clindamycin 900 mg IV every 8 hours	**PLUS**	Gentamicin loading dose IV or IM (2 mg/kg), followed by a maintenance dose (1.5 mg/kg) every 8 hours; single daily dosing (3–5 mg/kg) can be substituted
Alternative parenteral regimen:		
Ampicillin/sulbactam 3 g IV every 6 hours	**PLUS**	Doxycycline 100 mg orally[a] or IV every 12 hours

Abbreviations: IV, intravenous; IM, intramuscular.

[a] Doxycycline should be administered orally if possible due to the pain of intravenous infusion.

Source: Workowski et al. [17].

3.3.4 Endometriosis and adenomyosis

Endometriosis is a disease where tissue similar to the lining of the uterus grows outside the uterus, causing pain and/or infertility [18]. Adenomyosis is characterized by endometrial tissue growing into the muscular uterine wall (myometrium) resulting in heavy or prolonged menstrual bleeding, dysmenorrhea, dyspareunia, bleeding between menstruation, infertility, or it can be asymptomatic [18].

3.3.4.1 History-taking

During history-taking, the provider should suspect these conditions in clients who have one or more of the following symptoms:

- endometriosis: cyclical/chronic pelvic pain, painful periods, pain with sex, pain with bowel movements, painful urination, abdominal bloating, and infertility
- adenomyosis: heavy menstrual bleeding, painful periods, pain with sex, and abdominal bloating [19,20]

3.3.4.2 Examination and investigations

The provider should conduct a general physical examination, abdominal examination, and examination of the reproductive tract, including bimanual pelvic examination. Pelvic ultrasound can be arranged if indicated [19,20].

3.3.4.3 Diagnosis

Diagnosis can be delayed for many years because the examination and investigations may appear normal, although normal findings do not rule out these conditions.

A careful history of menstrual symptoms and chronic pelvic pain provides the basis for suspecting endometriosis or adenomyosis. Although several screening tools and tests have been proposed and tested for endometriosis, none are currently validated to accurately identify or predict individuals or populations that are most likely to have the disease. Early suspicion of endometriosis is a key factor for early diagnosis, as endometriosis can often present symptoms that mimic other conditions and contribute to a diagnostic delay. In addition to medical history, referral from the primary healthcare level to secondary centres where additional investigations (such as pelvic ultrasound) are available may be needed [19,20]. Imaging studies, such as ultrasonography, magnetic resonance imaging, and computed tomography are useful only in the presence of a pelvic or adnexal mass [21].

Histologic verification, usually following surgical visualization, confirms the diagnosis of endometriosis, particularly for the most common superficial lesions. The need for additional investigations or histologic confirmation should not prevent starting empirical medical treatment.

3.3.4.4 Management and treatment

The first-line treatment for endometriosis or suspected endometriosis is simple analgesia, such as paracetamol and/or NSAIDs. Hormonal treatments such as combined oral contraceptives or progestogen-only contraceptives, including LNG-IUD, can be offered to all clients with suspected or confirmed endometriosis if they are not trying to get pregnant. These treatment options are not a cure for endometriosis but instead help to manage symptoms and improve quality of life. These treatments may be started without a formal diagnosis of endometriosis.

If symptoms do not respond to medical therapies, surgery may be an option and direct visualization of endometriotic lesions on organs or the pelvic walls along with histologic confirmation provides definitive diagnosis of endometriosis. During surgery, adhesions (scar tissue) and/or ovarian cysts can also be directly visualized and treated by excision and ovarian cystectomy. This should be conducted in a well-equipped facility with trained surgeons. Surgical management carries risk, including the risk of additional adhesion formation which can worsen pelvic pain.

Similar management, including expectant management, medical management, and surgical management (such as hysterectomy) can be used to treat clients with adenomyosis.

For both, a multidisciplinary treatment approach addressing different symptoms and overall health is often needed and requires referral to different specialists, such as physiotherapists and psychologists, in addition to gynaecologists/infertility specialists.

Endometriosis/adenomyosis and infertility: Refer clients with known endometriosis or adenomyosis who wish to become pregnant to a specialist facility, if needed. Additional information can be found in *Section 6: Infertility*.

3.4 Menopause

Menopause is the natural and permanent cessation of menstruation due to the loss of ovarian follicular activity. It can be diagnosed after 12 months of amenorrhoea, at which time the individual enters the post-menopausal state. Menopause, or the last menstrual period, usually occurs in the early 50s. If it occurs before the age of 40 it is defined as premature menopause.

The perimenopause refers to the years before menopause is diagnosed, characterized by increasingly irregular ovulation and menstruation cycles, prolonged episodes of amenorrhoea, and finally the total cessation of menses.

Clients experiencing early perimenopause or premature menopause are at increased risk of mortality and serious morbidity, including cardiovascular disease, cognitive decline, dementia, Parkinsonism, and osteoporosis due to the decrease in oestrogen levels. Post-menopause also leads to a higher risk of osteoporosis, cardiovascular disease, stroke, and atrophic changes in the vagina and bladder, due to the decrease in oestrogen and other effects of ageing [22,23].

3.4.1 History-taking, examination, investigations, and diagnosis

Diagnosis of menopause is clinical and retrospective based on absence of menses for 12 months. Not everyone will have symptoms, but some may experience hot flushes, night sweats, mood changes, sexual disorders, and sleep disturbance. Providers should assess the severity of the symptoms and to what extent they are affecting the client's quality of life.

Blood test, such as follicle-stimulating hormone, is not always needed but can confirm the diagnosis of menopause if needed.

Examinations and investigations are generally only needed to exclude other possible causes of the symptoms (e.g. pregnancy, thyroid disease, PCOS) [22,23].

3.4.2 Management and treatment

Care for clients with menopausal symptoms should be individualized dependent on the nature of their symptoms and their preference.

Hormone replacement therapy in the form of combination oestrogen/progestin formulations, if available, can reduce hot flushes by 80–90 per cent and increase the client's sense of well-being. Consider

antidepressants if the symptoms are psychological and mood-related.

Provide general advice on stages and symptoms of the menopause, available treatments and their associated risks, advice on bone health, and support groups.

Offer general non-medical advice on managing hot flushes/night sweats with self-care measures and behaviour changes, including avoiding alcohol, caffeine, warm clothing, and stress [22,23].

3.4.3 Contraception around the menopause

Clients can be advised that they can stop contraception at 55 years of age as spontaneous conception after this age is very rare [24]. Inform the client that while fertility will decline naturally, effective contraception is still needed before the menopause if they wish to avoid pregnancy.

Clients using combined hormonal contraception may find that their symptoms in the perimenopause are masked and may only present themselves if the method is stopped. Combined hormonal contraception can be used as an alternative to hormone replacement therapy for control of vasomotor symptoms and to prevent loss of bone mineral density. The use of antidepressants (selective serotonin reuptake inhibitors and serotonin-norepinephrine reuptake inhibitors) may also have some effect in treating vasomotor symptoms associated with menopause [25].

3.4.4 Post-menopausal bleeding

All bleeding after the menopause (12 months or more after the last menstrual period) should be considered abnormal. The most common cause for light or scanty bleeding after menopause is atrophy of the lower genital tract or irregular ovulation. Less commonly, postmenopausal bleeding can be caused by endometrial hyperplasia and endometrial cancer.

Initial assessment should include a thorough history of the bleeding (including review of a bleeding diary if available) and gynaecologic exam including speculum exam and bimanual pelvic exam to evaluate the vagina, cervix, and uterus. If the bleeding persists and/or no cause of bleeding is identified through history and physical exam, endometrial biopsy or dilation and curettage may be warranted to evaluate for endometrial hyperplasia or cancer.

4. Management of common andrological conditions

Andrology is a medical specialty that focuses on male health, including the male reproductive and urological systems. Different from gynaecology, andrology has only been studied as a distinct specialty since the late 1960s. Andrology covers a wide number of conditions and functions, including penile issues, genitourinary disorders, and male fertility. Common procedures are vasectomy, circumcision, and prostatectomy. This section covers benign prostatic hyperplasia (BPH), hydrocele, testicular torsion, and erectile dysfunction. Prostate cancer is discussed with other reproductive cancers. For STI infection, see *Chapter 6: Sexually transmitted infections*.

4.1 Benign prostatic hyperplasia

BPH is also called prostate gland enlargement. This is a common condition when men get older. It can cause urinary bladder, ureteral, or even kidney problems. The risk factors include ageing, family history, obesity, and underlying medical diseases (e.g. diabetes) [26].

4.1.1 History-taking, examination, investigations, and diagnosis

The common signs and symptoms include frequency and urgency, nocturia, and difficulty starting urination. The size of the prostate gland is not relevant to the severity of symptoms. It is essential to exclude other possible causes, such as urinary tract infection, kidney stones, and cancers during history-taking and assessment.

Healthcare providers can perform rectal examination or ultrasound to check the prostate for enlargement. Prostate-specific antigen test and prostate biopsy can assess for prostate cancer [26].

4.1.2 Medical and surgical treatments

A variety of treatments are available for BPH. The goal is to relieve symptoms. If there are no symptoms or symptoms are tolerable, treatment is not necessary.

Medical therapy is the most common option for mild to moderate BPH. The options include alpha blockers, 5-alpha reductase inhibitors, and tadalafil. In addition to BPH, tadalafil can also treat erectile dysfunction. For clients with moderate to severe symptoms, minimally invasive and surgical approaches, such as transurethral resection of the prostate and laser therapy, can be considered.

Follow-up care is essential, whether clients choose to observe symptoms or take medical or undergo surgical treatments. Healthcare providers should review the severity of symptoms and give the most appropriate suggestion based on the client's quality of life.

4.2 Hydrocele

A hydrocele is a collection of serous fluid between the layers of the membrane that surrounds the testis or along the spermatic cord. This commonly happens to male infants and in newborns. In most cases, the situation will resolve spontaneously within the first year of life. In adolescent and adult males, hydrocele is usually related to history of trauma, infection, surgery, and tumour. Hydroceles usually do not affect fertility [27].

4.2.1 Examination and diagnosis

The clinical presentation is painless and swollen scrotum(s). The diagnosis can be made by physical examination. Ultrasound scan is not always needed but can be used to support the diagnosis. There are two types of hydroceles, communicating and non-communicating. A non-communicating hydrocele usually remains similar size, whereas a communicating hydrocele has contact with the abdominal fluid, which results in size change and potential hernia development [27].

4.2.2 Treatment

Treatment depends on the client's age and the symptoms caused by the hydrocele. Usually it can resolve when the underlying condition improves. Medication can treat the underlying condition but not a hydrocele. If the symptoms remain, the healthcare provider should discuss surgical repair with the client. This can prevent further complications, such as hernia [27].

4.3 Testicular torsion

Testicular torsion, a twisting of the spermatic cord and its contents, is a surgical emergency. It usually happens to boys and adolescent males. Torsion must be excluded when clients present with acute scrotal pain. Timely recognition and treatment are necessary for testicular salvage [28].

4.3.1 History-taking, examination, and diagnosis

Clients with testicular torsion typically present with severe acute unilateral scrotal pain, nausea, and vomiting. Some other non-specific symptoms include fever or urinary complaints. Physical examination may reveal a high-riding testicle with an absent cremasteric reflex. The affected testicle can also have an abnormal horizontal orientation. Testicular torsion is a clinical diagnosis therefore image studies, such as ultrasound, are not necessary. The window for treatment is 4–8 hours only for testicular salvage. When torsion is suspected, healthcare providers should arrange surgical exploration as soon as possible to avoid permanent ischaemic damage. A negative surgical exploration is preferable to a missed diagnosis. Refer clients if needed [28].

4.3.2 Management

Manual detorsion should be attempted if surgery is not available immediately; however, it should not replace or delay surgical intervention. Detorsion of the affected spermatic cord is performed until no twists are present. Orchiectomy should be considered when the affected testicle appears grossly necrotic. Contralateral orchiopexy should be performed regardless of the viability of the affected testicle [28].

4.4 Erectile dysfunction

Erectile dysfunction is the inability to achieve or maintain an erection. Male erection occurs reflexively or psychogenically. This means erectile dysfunction can be a psychogenic, endocrine, non-endocrine, or mixed disorder. Regardless of the causes, erectile dysfunction imposes negative effects on interpersonal relationships, mood, and quality of life. Erectile dysfunction is more prevalent in older people; more than half of males aged 40–70 years have mild to moderate erectile dysfunction [29].

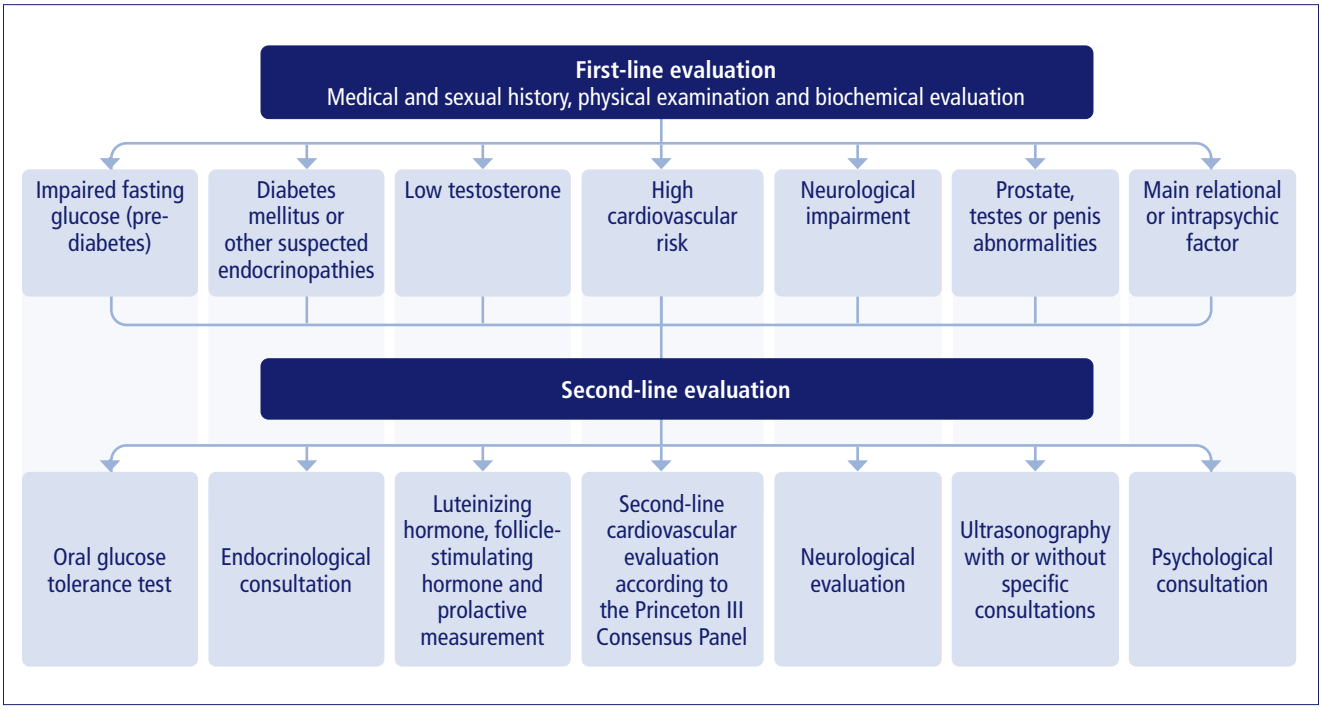
4.4.1 History-taking, examination, and diagnosis

Many factors can result in erectile dysfunction. Healthcare providers should take a detailed history to identify the underlying cause and propose relevant treatment. Alcohol, smoking, overweight/obesity, and unhealthy diet habits can affect erectile function. Other risk factors include diabetes, cardiovascular diseases, BPH, medications, and psychogenic reasons. Healthcare providers should be aware that all sexual dysfunctions are stressful and can lead to psychological disturbances. *Figure 1* provides a suggested diagnostic work-up for clients with erectile dysfunction [29].

4.4.2 Management

If a specific aetiology is identified, treat the underlying situation. In most cases, the management of erectile dysfunction is empirical. Healthcare providers can start from lifestyle modification and review the client's medications and add first-line therapies using phosphodiesterase type 5 (PDE5) inhibitors or suggest vacuum erection devices to improve the client's quality of life. Different PDE5 inhibitors have different

FIGURE 1: Suggested diagnostic work-up for clients with erectile dysfunction



Source: Reproduced/translated with permission from Yafi FA, Jenkins L, Albersen M, et al. [29]: Erectile dysfunction. Nat Rev Dis Primers. 2016;2:16003.

TABLE 5: Properties of available phosphodiesterase type 5 inhibitors

Drug name	Trade name (company)	Peak absorption post ingestion (hours)	Serum half-life (hours)	Take on empty stomach?
Sildenafil*	Viagra (Pfizer)	1–2	3–5	Yes
Vardenafil*	Levitra (GlaxoSmithKline)	1–2	3–5	Yes
Tadalafil	Cialis (Lilly)	2–4	18	No
Avanafil	Stendra (Mitsubishi Tanabe)	0.5	6	No

* Consider taking 1–2 hours prior to a meal.

Source: Reproduced/translated with permission from Yafi FA, Jenkins L, Albersen M, et al. [29]: Erectile dysfunction. Nat Rev Dis Primers. 2016;2:16003.

strengths. *Table 5* compares different PDE5 inhibitors. Healthcare providers should explain the effects and side effects of PDE5 inhibitors and let clients choose the medication that suits them. Vacuum erection devices are a non-pharmacologic option, which create a negative pressure vacuum to draw blood into the penis. Clients should use them carefully, as incorrect use can cause haematoma and petechiae. Other options include intracavernosal injection and surgical procedures, such as penile implants, which require care from a specialist.

Many people with erectile dysfunction experience depressive symptoms and anxiety. Sexual dysfunction is not only an issue for the individual but also for their partner(s). Sexual function improvement is significantly relevant to treatment responses in their partner. Healthcare providers should provide support to both individuals, if needed [29].

5. Transgender groups

Gender is a social construct whereas sex is typically assigned at birth based on characteristics of the genitalia. Gender identity reflects an individual's internal sense of self. Transgender refers to an individual whose self-gender identity differs from the sex that was assigned at birth. For example, a transgender woman or a male-to-female transgender person is an individual who was assigned as a male at birth but self-identifies as a woman. Healthcare providers should be aware of the importance of transgender health issues, including mental health support, availability of hormone therapy and surgical therapy, and follow-up. Healthcare providers caring for transgender clients would benefit from gender sensitization training in counselling, history-taking, physical exam, and treatment. In general, healthcare professionals' knowledge about reproductive options in the transgender community could be improved. Pregnancies are possible after transitioning and therefore contraceptive counselling remains a crucial part of healthcare [30,31,32].

5.1 History-taking and physical examination

Healthcare providers should address transgender clients with the name, pronouns, and gender identity that the client prefers. The physical examination should refer to the anatomy that is present rather than the gender presentation. Chest and genital examination can be distressing for clients. Healthcare providers should explain the importance of the examination before carrying out any examination.

5.2 Surgical therapy and medical treatment

Medical treatment and surgical therapy are not essential for transgender individuals. However, for some clients, these additional supports can help them adapt their appearance to better match their gender self-identify. Before the treatment, healthcare providers should make sure that clients understand what effects are reversible and what are irreversible. Fertility preservation options

should also be discussed during the counselling. For example, some transgender male clients may consider preserving their uterus and ovaries.

Medical treatment is used to reduce the endogenous hormone level and to replace it with other hormones. Clients who decide to accept hormone replacement treatment need to be monitored regularly (see *Appendix 1* for regimens and monitoring of hormone therapy). For transgender men, physical changes, such as cessation of menses, can happen during the first 6 months of testosterone therapy. Deepening of the voice and clitoromegaly are irreversible with discontinuation of hormonal therapy. For transgender women, decreased spontaneous erections and increased breast tissue growth are common in the first year of oestrogen and anti-androgen therapy. However, hormonal therapy cannot change the voice therefore some individuals may wish to have additional speech therapy.

Transgender men and women may ask for different surgical procedures to change their physical appearance: chest/breast surgery, genital surgery, or non-genital and non-breast interventions. For instance, a transgender woman may undergo augmentation mammoplasty, penectomy, vaginoplasty, facial feminization surgery, etc. These surgical procedures are usually carried out at higher-level health facilities rather at the primary care level. However, healthcare providers should be aware of the possible need for mental health support, preoperative assessment, and postoperative care.

5.3 Routine health maintenance

Hormone therapy may have side effects therefore healthcare providers should ensure that clients are aware of the importance of regular follow-up. For instance, transgender women exposed to endogenous oestrogen should receive regular breast cancer screening. The Pap smears of transgender men may have inadequate cytology if they are being treated with testosterone therapy, which causes cervical atrophy. Furthermore, oestrogen hormone therapy may increase the risk of venous thromboembolism and deep vein thrombosis, particularly among clients who smoke.

In addition to hormone-related sexual and reproductive healthcare, providers should know that transgender people are vulnerable to STIs including HIV and sexual and gender-based violence, and should provide relevant support and counselling when needed. Some presentations of STIs, including HIV, may not be typical due to surgeries, medications, and sexual practices.

6. Infertility

Infertility is defined by the World Health Organization (WHO) as "a disease of the reproductive system defined by the failure to achieve a clinical pregnancy after 12 months or more of regular unprotected sexual intercourse" [33].

Primary infertility is when pregnancy has never been achieved by a person. Secondary infertility is infertility after at least one prior pregnancy has been achieved [34].

Some individuals or couples may seek fertility care for reasons other than infertility; for example, same-sex partners, HIV serodiscordant heterosexual couples, or before or after cancer treatment [34].

6.1 Causes and risk factors

While the results manifest in women, it should be emphasized that infertility is an issue for both members of a couple and the causes may relate to either or both partners. Risk factors that can affect fertility in both men and women include age, smoking, alcohol use, obesity, and exposure to environmental pollutants and toxins.

6.1.1 Causes of infertility in women

- Tubal factors: blocked fallopian tubes caused by untreated STIs, complications of unsafe abortion, post-partum sepsis, endometriosis, or abdominal/pelvic surgery.
- Uterine factors: uterine malformations, fibroids, endometriosis.
- Ovarian factors: anovulation or irregular ovulation due to PCOS or other ovulatory disorders such as perimenopausal hormonal changes.
- Endocrine factors: pituitary tumours, underactive or overactive thyroid [34].

6.1.2 Causes of infertility in men

Infertility in men can be related to either endogenous (internal) or exogenous (external) factors. These include:

- Obstruction of the reproductive tract (ejaculatory ducts and seminal vesicles) commonly due to injuries or infections.
- Hormonal disorders: pituitary tumour, testicular cancers, or hypogonadism (abnormally low testosterone).
- Varicoceles leading to reduction or failure of sperm production.
- Abnormal sperm function and quality that may be due to medications (i.e. anabolic steroids) or environmental exposures [34].

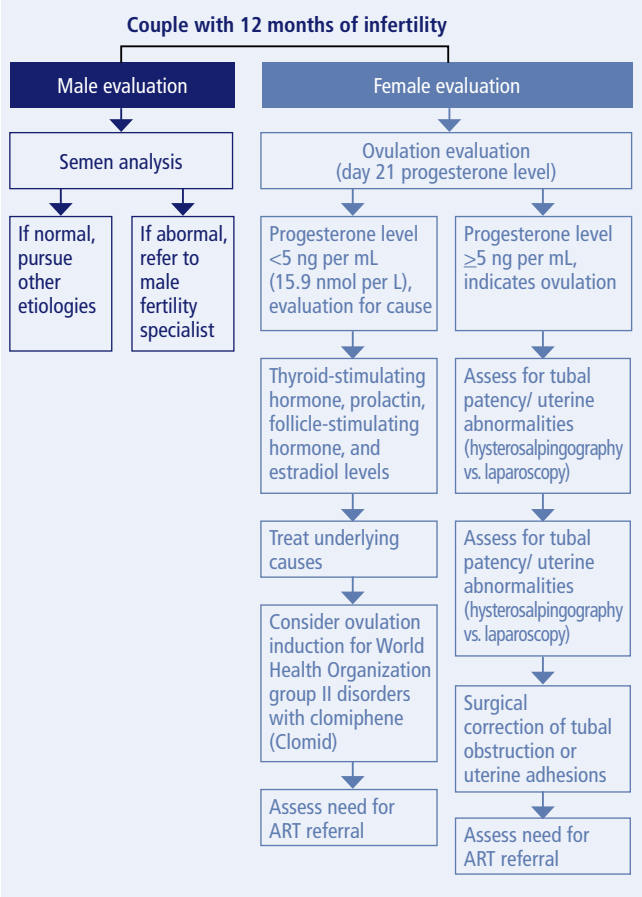
6.2 Assessment in a couple

It is imperative that each case of infertility is investigated and managed as a couple. The couple should be seen together because they will both be affected by the investigation. The first step for the healthcare provider is to take a thorough history including any past pregnancies achieved for both partners and their outcomes, past medical and surgical history, menstrual and gynaecologic history for the female partner (infertility may be the presenting symptom of endometriosis), and current occupation (assessing for occupational/environmental exposures). Based on the history and physical exam, the healthcare provider can establish what simple tests can be performed and if there are any treatments that can be initiated locally and assess whether there is value in referring to a specialist, if available.

6.3 Counselling and medical advice for couples living with infertility

Counselling is essential throughout the process and may initially be required to dispel myths about the cause of infertility, such as prior contraceptive use or sexual history, and to decrease the stigma associated with infertility that clients may experience.

FIGURE 2: Infertility evaluation



Source: Reproduced/translated with permission from Lindsay TJ, Vitrikas KR [35]: Evaluation and treatment of infertility. Am Fam Physician. 2015;91(5):308–14.

Figure 2 summarises the initial evaluation of male and female infertility.

After history-taking, basic exam and investigations such as STI testing should be carried out to exclude some possible causes of infertility. Treat underlying diseases if any. Starting with evaluation of male factors (through semen analysis) before undertaking more expensive investigation of female factors can be more cost-effective. The other commonly used investigation options for female factors include ultrasound scan, hysterosalpingogram (X-ray to detect the patency of fallopian tubes), and diagnostic laparoscopy.

Stress resulting from infertility can adversely affect a couple's relationship, thereby increasing fertility difficulties. Advice on general lifestyle and well-being, such as body weight control, regular exercise, and avoiding use of harmful substances during investigation and treatment of infertility can be helpful.

6.4 Management and treatment

Treatment is dependent on aetiology. Some treatments can be carried out at primary care level whereas others may require referral to specialist facilities. All healthcare providers can counsel clients and their partner early in the investigation process about optimum timing for sex during the menstrual cycle, and reinforce the importance of lifestyle changes before, during, and after treatment, including abstinence from smoking and maintaining a healthy body weight.

There are three main types of fertility treatment:

- Medicine: Common treatment for clients with ovulatory dysfunction, prescribed orally or intramuscularly. Clomifene, an oral medication to stimulate ovulation, is a commonly used. Metformin or letrozole is common for clients with PCOS.
- Surgery: Different aetiologies or diseases can be managed by various surgical treatments including myomectomy, resection of endometrial lesions, or lysis of reproductive tract adhesion/obstruction.
- Assisted reproductive care: Not all assisted options are complicated and expensive. Intrauterine insemination is a simple process in which quality prepared sperm is inserted into the uterus directly. In vitro fertilization is more complicated; mature eggs are retrieved from the ovary and fertilized by sperm in a quality-controlled laboratory. The fertilized egg(s) are then transferred into the uterus. The process of in vitro fertilization is generally expensive and is performed by specialists.

7. Common reproductive tract cancers

Comprehensive control of any cancer consists of prevention, early detection, timely diagnosis and treatment, and access to palliative care. Healthcare providers should be familiar with national cancer prevention and control protocols and local referral pathways for clients who require further treatment or palliative care.

7.1 Cervical cancer

Although a preventable disease, cervical cancer is the fourth most frequent cancer in women and of the estimated deaths from cervical cancer in 2020, about 90 per cent of these occurred in low- and middle-income countries. Most cervical cancer (95 per cent) is caused by the human papillomavirus (HPV), which is the most common viral infection of the reproductive tract [36] (see *Chapter 6: Sexually transmitted infections*). HPV types 16 and 18 cause over 70 per cent of cervical cancer cases. In most cases, HPV infection (including high-risk types) will resolve without treatment. In a minority of cases, HPV does not resolve and chronic infection with a high-risk HPV type can lead to the development of precancer and cancer. People who are immunocompromised, such as those living with HIV, are more likely to have HPV infections that develop rapidly into precancer and cancer. Other risk factors include HPV type, coinfection with other STIs, higher parity, young age at first birth, and tobacco use [37].

7.1.1 HPV vaccination

Early HPV vaccination protects against particular types of HPV infection prior to exposure. Provision of HPV vaccination for girls aged 9–14 years is recommended by WHO and should be implemented based on national guidelines [36].

Cervical screening is still required for vaccinated individuals because the vaccines do not protect against all HPV types that may cause cervical cancer.

7.1.2 Cervical screening and treatment

WHO recommends that cervical cancer screening should be performed in women between the ages of 30 and 49 years (25–49 years in women living with HIV). Screening can stop at age 50 when there have been two consecutive negative screening results. If resources are available, screening can also be offered to women aged 50–65 years who have never been screened [38].

Screening tests that can be used to identify precancerous cervical lesions include HPV DNA testing, visual inspection with acetic acid (VIA), and cytology. WHO recommends HPV DNA testing as the preferred screening methodology, where available.

For cervical cancer prevention to have maximum impact, screening must be linked to treatment and post-treatment follow-up. To reduce health facility visits and prevent loss to follow-up, a **single-visit approach** is recommended to ensure affected populations receive quality and timely cervical cancer screening and treatment at the same visit. If a single-visit approach is not feasible, clinics should develop and maximize communication channels, including digital health interventions (DHIs), such as via social media or hotlines, to deliver screening results, plan treatment if needed, and organize any necessary referrals for cancer treatment [39].

There are two different options for combining screening and treatment: Screen-and-Treat or Screen, Triage, and Treat.

Screen-and-Treat approaches include:

- HPV DNA (self- or clinician collected) as the primary screening test followed by treatment.
- VIA as the primary screening test followed by treatment.

Screen, Triage, and Treat approaches include:

- HPV DNA as the primary screening test, followed by HPV 16/18 triage, followed by treatment and using VIA triage for those who screen negative for HPV 16/18.
- HPV DNA as the primary screening test followed by VIA triage, followed by treatment.
- High-risk HPV DNA as the primary screening test, followed by colposcopy triage, followed by treatment.
- HPV DNA as the primary screening test, followed by cytology triage, followed by colposcopy and treatment.
- Cytology as the primary screening test, followed by colposcopy triage, followed by treatment.

Seven algorithms describing the screening and treatment approaches listed above are available in the WHO guideline for screening and treatment of cervical precancer lesions [38].

BOX 2: Self-care in cervical cancer screening

HPV self-sampling gives individuals the control and privacy to collect their own specimens for screening for cervical cancer, while the health system will review the results and assist them in interpreting and acting on these results, including accessing treatment when applicable. If this is available in the country, healthcare providers including IPPF Member Associations should support clients to have adequate information, make informed choices, and receive the healthcare and follow-up if needed.

Source: IPPF [39].

7.1.2.1 HPV testing

This test uses molecular testing methods to detect DNA from high-risk HPV types in vaginal and/or cervical samples. While HPV testing younger women is likely to detect transient HPV infections that will be spontaneously cleared, a positive HPV test in a woman aged over 30 years is more likely to indicate a persistent or chronic HPV infection that may cause cervical precancer and cancer.

The test can be performed by any trained healthcare provider or self-collected by the client (*Box 2*) [38].

7.1.2.2 Visual inspection with acetic acid (VIA)

VIA can be performed by trained mid-level providers such as nurses and midwives. With VIA, early cell changes on the cervix can be seen with the naked eye, using a speculum, after application of dilute acetic acid. The results are immediate, therefore treatment for precancerous lesions (see *Section 7.1.3*) can be performed at the same time. The process and how to assess the findings are described in *Appendix 2*.

WHO recommends rapidly transitioning away from VIA as the primary screening test due to inherent challenges with quality assurance [38].

7.1.2.3 Cytology

A sample of cells is taken from the cervix and either fixed on a slide (Pap smear) or placed in a transport

medium (liquid-based cytology) and sent to be examined for abnormal cells using a microscope.

Cytology is more resource intensive than other cervical screening methods because of the laboratory costs, transportation, supplies, and expertise required.

While HPV DNA testing is the preferred method for primary screening, WHO notes that existing programmes with quality-assured cytology as the primary screening test should continue until HPV DNA testing is operational [38].

7.1.3 Treatment options for precancerous cervical lesions

Once a decision to treat is made, it is good practice to treat as soon as possible within 6 months to reduce the risk of loss to follow-up. In circumstances when treatment is not provided within this time frame, it is good practice to re-evaluate the client before treatment. For clients who are pregnant, good practice includes deferral until after pregnancy [38].

Treatment options include ablative treatments (cryotherapy, thermal ablation) and excisional treatments (loop electrosurgical excision procedure [LEEP] also known as large loop excision of the transformation zone [LLETZ], cold-knife conization) [38,40] (see *Appendix 3*). For clients who are eligible for ablative treatments (see *Box 3*), or in settings where LEEP is available for those who are not eligible for an ablative treatment, a single-visit screen and treat approach is preferred.

BOX 3: Eligibility for ablative treatments

- There is no suspicion of invasive cancer or glandular disease (i.e. adenocarcinoma or adenocarcinoma in situ).
- The transformation zone is fully visible, the whole lesion is visible, and it does not extend into the endocervix.
- The lesion is type 1 transformation zone (the transformation zone is entirely visible and only ectocervical).

Source: WHO [38].

Choice of treatment may be constrained by cost and the resources required to provide the treatment, while the treatment itself may be limited by feasibility, training, and quality-assurance resources [38].

Management of abnormal/positive screening results for clients living with HIV is the same as in the local general population.

Refer any client with suspected cancer to a specialist as soon as possible.

7.1.4 Follow-up guidance on cervical screening

The recommended intervals between screening depend on the screening test used. For HPV DNA testing, the recommended interval following a negative screening for women aged 30–49 years in the general population is every 5–10 years. For VIA or cytology, the recommended interval is every 3 years. Clients with HIV should be screened for cervical cancer starting at age 25 every 3–5 years following negative screening with HPV DNA testing and every 3 years with VIA or cytology [38].

7.2 Breast cancer

Breast cancer is the leading cause of cancer death among women globally. Early detection of breast cancer is the key to breast cancer control. Less than 1 per cent of all breast cancer cases occur in men [41]. Most clients presenting with breast cancer will not have specific, identifiable risk factors (see *Appendix 4*). A small proportion of breast cancer cases can be linked to family history and specific genetic mutations (BRCA1, BRCA2, and tumour protein) that put these individuals at high risk of breast cancer [42]. Key risk factors, such as prolonged oestrogen exposure (early menarche/late menopause), family history of breast or ovarian cancer or other hereditary breast/ovarian syndrome, nulliparity, high body mass index, tobacco use, or harmful use of alcohol can be identified and discussed during a consultation.

7.2.1 Screening and early detection

Breast inspection includes observation of the skin, nipples, and areolae. Some warning signs include symptoms of Paget's disease (eczema on one nipple),

asymmetrical nipple retraction, and unexplained nipple discharge [43]. Clinical breast examination is a low-cost method of screening for breast cancer and is the same procedure for examining clients presenting with breast symptoms (see *Chapter 2: Facility requirements and client history/examination, Section 4.4*).

Breast self-examination (see *Appendix 5*) has not been assessed as a method of routine screening but is recommended for raising awareness among people at risk.

Mammography and ultrasound can be used for routine screening for early detection of breast cancer, but mammography is resource intensive and therefore only used in screening programmes in high-resource settings.

Early diagnosis programmes based on awareness of early signs and symptoms and prompt referral for diagnosis and treatment are important for breast cancer control [42].

7.2.2 Diagnosis and management of abnormal findings on breast examination

The presentation of key pathologies, their history, clinical presentation, and diagnostic tests are summarized in *Table 6*. Not all breast lesions are malignant. If unsure or unable to make a diagnosis, healthcare providers should refer the client. Refer any client with suspected cancer to a specialist as soon as possible.

In men, the cancer generally develops in the small amount of breast tissue behind the nipples [44]. Presentation and clinical examination are similar to breast cancer in women, with the nipples affected primarily.

TABLE 6: Differential diagnosis of breast pathologies

Pathology	History and presentation	Diagnostic tests and signs to look for
Fibroadenoma	*History:* there may be nothing significant in the client's history *Examination:* smooth rubbery mobile mass	• *Mammogram:* oval or round, circumscribed, may have coarse calcifications • *Breast ultrasound:* solid, oval or round, circumscribed, lobulated, width greater than height

Fibrocystic changes	*History:* often accompanied by breast pain; symptoms (pain) typically fluctuate with menstrual cycles
	Examination: rubbery, well-circumscribed, mobile masses
		• Breast ultrasound:
		  ◦ simple cysts: well-circumscribed with sharp borders, no internal echoes
		  ◦ complex cysts: cystic and solid components
		• *Mammogram:* cannot distinguish between cystic and solid masses, but may be indicated after ultrasound
		• *Breast aspiration:* will confirm that the mass is a cyst and can lead to resolution of cyst

Fat necrosis	*History:* prior breast trauma, surgical breast reduction or augmentation *Examination:* firm mass, irregular border	• *Breast ultrasound:* indistinct margins, solid • *Mammogram:* indistinct margins, sometimes with calcifications • *Biopsy:* fat necrosis

continued

TABLE 6: Differential diagnosis of breast pathologies *continued*

Pathology	History and presentation	Diagnostic tests and signs to look for
Intraductal papilloma	*History:* bloody nipple discharge *Examination:* mass, usually small, may not be palpable	• *Mammogram:* may be negative • *Breast ultrasound:* dilated duct with oval mass • *Breast ductogram:* filling defect in the duct • *Biopsy:* papillary growth pattern; benign intraductal papilloma, papilloma with atypia (atypical papilloma), papilloma with ductal carcinoma in situ (DCIS), papillary DCIS, or invasive papillary carcinoma
Breast abscess	*History:* breast pain, fever, alarming and rapid enlargement *Examination:* breast lump is fluctuant and tender, skin erythema, mastitis	• *Breast ultrasound:* fluid-filled cavity containing debris • *Breast aspiration:* purulent fluid
Invasive breast cancer	*History:* gradual breast enlargement noted, personal or family history of breast cancer *Examination:* hard fixed mass, nipple inversion, nipple discharge, skin retraction, *orange peel appearance*, lymphadenopathy	• *Mammogram:* indistinct or spiculated margins, increased density, fine pleomorphic calcifications • *Breast ultrasound*: irregular shape, ill-defined margins, height greater than width, punctate calcifications, hypoechogenicity
Ductal carcinoma in situ (DCIS)	*History:* usually incidental finding in asymptomatic client *Examination:* there may be a breast mass and/or nipple discharge, breast tenderness, cracking of skin	• *Mammogram:* often associated with microcalcifications • *Biopsy:* for histopathological investigation to confirm diagnosis

7.3 Prostate cancer

Prostate cancer is the most common type of cancer in men, and the second most common cause of cancer death in males in the UK (after lung cancer) [45].

Prostate cancer usually develops slowly and presents late, with symptoms only appearing when the prostate is enlarged enough to affect the urethra, causing problems with urination, or when the cancer has metastasized to the bones, causing pain. Prostate enlargement and ensuing urination symptoms occur frequently with benign prostate enlargement, and thus is not always indicative of cancer [45].

Most cases of prostate cancer are detected in men aged 50 years or older and incidence increases with age. Risk factors for developing prostate cancer include black ethnicity and genetic causes/family history of prostate cancer (in the father or brother).

7.3.1 History-taking

Diagnosis of prostate cancer based on history is challenging. Most symptoms are not specific, including problems with urination, erectile dysfunction, haematuria (blood in urine), or bone pain, especially in the lower back.

7.3.2 Examination and investigations

Digital rectal examination can be used to assess for prostate cancer in clients with unexplained symptoms (as listed above) and/or in those with raised or rising prostate-specific antigen (PSA) levels (see *Chapter 2: Facility requirements and client history/examination, Section 4.5*).

A PSA test measures the levels of PSA in the blood, which may be present in increasing levels in the presence of prostate cancer. However, the PSA test can be affected by other conditions (e.g. prostate enlargement) and give a false-negative or false-positive result. PSA testing should not be routinely offered to asymptomatic clients.

Refer to national guidance on the use of PSA, digital rectal examination, and other tests for screening and/or for investigation of symptoms of prostate cancer, such as biopsy and ultrasound.

7.3.3 Management and treatment

Clients with suspected prostate cancer can be offered a prostate biopsy to confirm diagnosis and imaging to assess the stage of prostate cancer. If a facility cannot provide the appropriate diagnostic and/or treatment healthcare, providers should refer the client to a specialist.

7.4 Other cancers of the reproductive tract

Clinical signs and symptoms and investigations for other cancers of the reproductive tract are summarized in *Table 7*.

Investigations will likely take place at higher-level or specialist facilities. After assessment by a specialist, and histological diagnosis (if available), treatments for all cancers can involve a combination of surgery, chemotherapy, and radiotherapy, depending on the stage of the disease, the health status of the client, and the availability of expertise, equipment, and facilities.

TABLE 7: Clinical signs and investigations for other cancers of the reproductive tract

Location	Risk factors, signs, and symptoms	Investigations
Endometrium	• Age over 50 years, nulliparity, obesity, use of unopposed oestrogens, tamoxifen use • Intermenstrual bleeding, post-menopausal bleeding • If early, there may be no signs • Later, a large irregular uterus may be palpable	• Ultrasound may show thickened endometrium especially in postmenopausal clients; uterine mass if advanced • Endometrial biopsy to confirm diagnosis histologically
Ovary	• Family history of ovarian or breast cancer • Symptoms (often vague): lower abdominal discomfort, alteration in bowel habit, bloating, nausea, dyspepsia, or distension; as disease advances, there is weight loss and anorexia • If early, there may be no signs on examination; adnexal mass may be detected on a bimanual examination • In advanced disease, there are ascites and a tense, distended abdomen • Client may appear cachectic (emaciated)	• Ultrasound will show the presence of a complex mass with a mixture of solid cystic elements

continued

TABLE 7: Clinical signs and investigations for other cancers of the reproductive tract *continued*

Location	Risk factors, signs, and symptoms	Investigations
Vagina	• Irregular vaginal bleeding especially after sex • On speculum examination there may be a suspicious lesion, which is likely to be irregular, highly vascular, and bleeds readily when touched; care must be taken not to cause bleeding	• Colposcopy will show abnormal vessels • Biopsy is required for specific diagnosis
Testicles	• Age 15–55 years • Painless testicular swelling or dull ache/scrotal heaviness • Well-circumscribed testicular lump • Late presentation relates to presence of metastases – cough or breathlessness if spread to lung lymph nodes, pain in abdomen from abdominal node spread	• Ultrasound • Blood tests for tumour markers such as alpha-fetoprotein; if available, this can differentiate the type of cancer (seminoma or non-seminoma) • Biopsy and histology
Penis	• Men aged over 50 years, smokers, men with phimosis, associated with HPV infection • Presents with penile growths, change in colour, bleeding, discharge, and phimosis	• Biopsy of abnormal areas for diagnosis and staging • Treatment depends on stage, from topical therapy to surgery and radiotherapy
Anus	• Slightly more common in women than men; associated with HPV infection • Pain or pressure in the anus or rectum, a change in bowel habits, a lump near the anus, rectal bleeding, itching, and/or discharge	• Anoscopic assessment and biopsy • Anal Pap smears when anal colposcopy is available, for early detection of anal cancer in high-risk individuals

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9. Appendices

Appendix 1: Treatment options for transgender clients and monitoring of transgender hormone therapy

TABLE 1: Treatment options for transgender clients

Type	Dose	Comments
Male to female		
Estrogen		
Oral estradiol	2.0–6.0 mg/d	Consider sublingual use to avoid first-pass effect
Transdermal estradiol patch	0.025–0.4 mg/d twice wk	Preferred to oral to prevent thrombotic events
Parenteral estradiol valerate or cypionate	5–30 mg IM every 2 wk	
2–10 mg IM every wk	Preferred to oral to prevent thrombotic events	
Anti-androgen		
Spironolactone	100–300 mg/d	Check potassium 1–2 wk after initiating
Cyproterone acetate	25–100 mg/d	Not available in US
GnRH agonist (leuprolide)	3.75–7.5 mg IM mo	Often do not use
Female to male		
Testosterone		
Parenteral testosterone Enanthate or cypionate	100–200 mg IM (or SQ) every 2 wk	If serum testosterone is in lower normal range but patient still has low libido, dose can be titrated slowly while monitoring for AEs
Transdermal testosterone gel	2.5–10 g/d	Gives smoother levels but can rub off on partner or children
Testosterone undecanoate	1,000 mg every 12 wk	Not available in US

Abbreviations: AE, adverse effects; GnRH, gonadotropin-releasing hormone agonist; IM, intramuscular; SQ, subcutaneous.

Source: Reproduced with permission from Frontline Medical Communications Inc. Transgender Care in the Primary Care Setting: A Review of Guidelines and Literature. California: Hashemi et al; 2018.

TABLE 2: Monitoring of transgender hormone therapy

Male to female	Female to male
Evaluate the patient every 2–3 months in first year, then 1–2 times per year	Evaluate the patient every 2–3 months in first year then 1–2 times per year
Measure serum testosterone and estradiol every 3 months during the first year, then every 6 months in the 2nd year, and then yearly; goal total testosterone level should be < 50 ng/dL and estradiol < 200 pg/mL; prolactin should be checked at baseline and then at least annually during the transition and then every 2 years	Measure testosterone every 2–3 months until level in normal physiologic range, then every 6 months in the 2nd year, then yearly; check prolactin if patient has any symptoms
If on spironolactone: check serum electrolytes every 3 months for the first year and then yearly	Measure estradiol level during first 6 months of treatment or until no bleeding for 6 months
Check CBC, LFT at baseline and follow-up visits	Check CBC, LFT at baseline and follow-up
Lipid panel: based on USPSTF recommendations	Lipid panel: based on USPSTF recommendations
HbA_{1c}: based on USPSTF recommendations	HbA_{1c}: Based on USPSTF recommendations

Abbreviations: CBC, complete blood count; HbA1c, hemoglobin A1c; LFT, liver function test; USPSTF, US Preventive Services Task Force.

Source: Reproduced with permission from Frontline Medical Communications Inc. Transgender Care in the Primary Care Setting: A Review of Guidelines and Literature. California: Hashemi et al; 2018.

Appendix 2: Visual inspection with acetic acid (VIA)

A. Before applying acetic acid

- With the speculum in place, observe the size and shape of the cervix.
- Identify the external os. Note any normal (non-pathological) as well as any pathological features of the cervix: columnar epithelium (red), squamous epithelium (pink), squamocolumnar junction (SCJ), transformation zone.
- Assess the characteristics of discharge: quantity, colour, odour, and thickness.

TABLE 1: Findings of visual inspection BEFORE applying acetic acid

Normal findings (non-pathological features of the cervix)	• **Post-menopausal**: thinning and atrophy of the squamous epithelium; the cervix appears pale and brittle • **Ectropion:** large area of red appearance around the external os with SCJ far away from the os • **Nabothian cysts**: bulging blue-white or yellow-white nodules, with a smooth delicate lining with branching blood vessels; can be large and distort the shape of the cervix • **Healed laceration** of the cervical lips, external os

Pathological findings	**Non-cancerous:**
	• **Condylomata (genital warts)**: raised, grey-white areas within or outside the transformation zone in the squamous epithelium, similar lesions in the vagina and vulva
	• **Cervicitis:** extensive erosive red areas extending to the vagina in severe infection/ inflammation; bleeding from the cervix; contact bleeding; multiple small ulcers; signs of small blisters containing fluid
	• **Cervical polyp**: smooth mass protruding from the cervical canal beyond the external os, which may appear dark red or pink-white; necrotic polyp resembles a cervical cancer
	• **Leukoplakia** appears as a smooth-surfaced, white area on the cervix that cannot be removed or scraped off
	
	Invasive cancer:
	• Very early invasive cancer: rough, reddish, granular area, possible contact bleeding
	• Advanced invasive cancers: contact bleeding and necrosis and
	  ◦ a large exophytic growth with an ulceroproliferative bulging mass with polypoid or papillary excrescences, arising from the cervix or
	  ◦ a predominantly ulcerating growth replacing most of the cervix
	  ◦ foul-smelling discharge from secondary infection
	• Occasionally presents as an infiltrating lesion with a grossly enlarged irregular cervix

B. After applying acetic acid

Apply dilute (3–5 per cent) acetic acid using a swab and wipe away any secretions. Wait 1 minute, and observe the characteristics of the acetowhite lesion(s):

- **Number of lesions**.
- **Size, extent, dimensions:** cover the entire or part of the transformation zone; cover entire cervix.
- **Location**: in, near, or far from the transformation zone touching the SCJ.
- **Intensity and uniformity of the white colour**: shiny white, cloudy white, pale white, dull white.
- **Borders and demarcations**: clear and sharp or indistinct diffuse margins; raised or flat margins; regular or irregular margins; areas of erosion within the lesion.
- **Extension**: into the endocervical canal.

TABLE 2: VIA results 1 minute AFTER applying acetic acid

VIA negative (-) (normal) findings	• No acetowhite lesions on cervix • Polyps protrude from the cervix with bluish-white acetowhite areas • Nabothian cysts appear as button-like areas, as whitish acne, or pimples • Dot-like areas in the endocervix (due to grape-like columnar epithelium staining with acetic acid) • Shiny, pinkish-white, cloudy-white, bluish-white, faint patchy, or doubtful lesions with ill-defined, indefinite margins, blending with the rest of the cervix • Angular, irregular, digitating acetowhite lesions, resembling geographical regions, distant (detached) from the SCJ (satellite lesions) • Faint line-like or ill-defined acetowhitening is seen at the SCJ • Streak-like acetowhitening is visible in the columnar epithelium • Ill-defined, patchy, pale, discontinuous, scattered acetowhite areas
VIA positive (+) findings	**VIA + for precancer** • Distinct, well-defined, dense (opaque, dull- or oyster-white) acetowhite areas with regular or irregular margins, close to or abutting the SCJ in the transformation zone or close to the external os if the SCJ is not visible • Strikingly dense acetowhite areas seen in the columnar epithelium • Entire cervix becomes densely white • Condyloma and leukoplakia occur close to the SCJ, turning intensely white after application of acetic acid **VIA + for invasive cancer** • Clinically visible ulceroproliferative growth on the cervix that turns densely white after application of acetic acid and bleeds on touch

Source: Adapted from Sankaranarayanan R, Wesley RS. A Practical Manual on Visual Screening for Cervical Neoplasia. IARC Technical Publication No. 41. Lyon: International Agency for Research on Cancer (IARC); 2003. Available at: http://screening.iarc.fr/viavili.php. Accessed 3 January 2020.

Appendix 3: Description of cryotherapy and loop electrosurgical excision procedure

	Cryotherapy	LEEP
Description	An ablative method that eliminates precancerous/abnormal areas on the cervix by freezing them (along with normal areas), when a highly cooled metal disc (cryoprobe) is applied to the cervix. Supercooling of the cryoprobe is accomplished using a tank with compressed carbon dioxide (CO_2) or nitrous oxide (N_2O) gas	An excision method that removes precancerous/abnormal areas – and the entire transformation zone – from the cervix using a loop made of thin wire powered by an electrosurgical unit. The loop tool both cuts and coagulates, followed by use of a ball electrode to complete the coagulation In addition to treating (removing) the precancer, LEEP also produces a tissue specimen that can be sent to a pathology laboratory for the extent of the lesion to be assessed. However, the specimen can have charred borders, making lesion margins difficult to interpret
Provider/ facility	Cryotherapy can be performed at any level of the health system, by a healthcare provider (doctor, nurse, midwife) that is skilled in pelvic examination and trained in cryotherapy	It should only be performed by a trained and competent healthcare provider, such as a gynaecologist, in a facility where back-up is available for management of potential problems, i.e. at least a secondary-level facility (i.e. a district hospital)
Client eligibility	Screen-positive clients (i.e. by HPV test, VIA, or cytology) or clients with histologically confirmed CIN2+ are eligible for cryotherapy if the entire lesion and squamocolumnar junction are visible, and the lesion does not cover more than three-quarters of the ectocervix. If the lesion extends beyond the cryoprobe being used, or into the endocervical canal, or if the lesion is suspicious for invasive cancer, then the client is not eligible for cryotherapy. Eligibility can be determined using VIA	Screen-positive clients (i.e. by HPV test, VIA, or cytology), or those with histologically confirmed CIN2+ are eligible for LEEP if the lesion is not suspicious for invasive cancer
Anaesthesia	Treatment takes about 15 minutes and is associated with only mild discomfort, so no anaesthesia is required	The procedure can be performed under local anaesthesia on an outpatient basis and usually takes less than 30 minutes

continued

Appendix 3: Description of cryotherapy and loop electrosurgical excision procedure *continued*

Post-procedure	Following cryotherapy, the frozen area regenerates to normal epithelium; this takes 1 month. The client should be advised that during this time they may have a profuse watery discharge and should avoid sex until all discharge stops or use a condom if sex cannot be avoided	Following LEEP, the client should stay at the outpatient facility for a few hours to assure bleeding does not occur. The client should be advised to expect mild cramping for a few days and some vaginal discharge for up to a month while the tissue regenerates. There can be bloody discharge for 7–10 days, which can transition to yellowish discharge. The client should avoid sex for a month or use a condom if sex cannot be avoided

Source: Adapted from World Health Organization. Comprehensive Cervical Cancer Control: A Guide to Essential Practice. Second edition. Geneva: WHO; 2014. Available at: http://apps.who.int/iris/bitstream/handle/10665/144785/9789241548953_eng.pdf. Accessed 31 January 2020.

Appendix 4: Summary of breast cancer risk

Risk factors a client cannot change:

- **Getting older.** The risk for breast cancer increases with age; most breast cancers are diagnosed after age 50.
- **Genetic mutations.** Inherited changes (mutations) to certain genes, such as BRCA1 and BRCA2. Women who have inherited these genetic changes are at higher risk of breast and ovarian cancer. Men who have inherited them, especially BRCA2, are at higher risk of breast and prostate cancer.
- **Early menarche (before age 12) and late menopause (after age 55).** This exposes the individual to endogenous oestrogens for longer, raising the risk for breast cancer by a small amount.
- **Having dense breasts.** Dense breasts have more connective tissue than fatty tissue, which can sometimes make it hard to see tumours on a mammogram. Women with dense breasts are more likely to get breast cancer.
- **Personal history of breast cancer.** Individuals who have had breast cancer are more likely to get breast cancer a second time.
- **Personal history of certain non-cancerous breast diseases.** Some non-cancerous breast diseases, such as atypical hyperplasia or lobular carcinoma in situ, are associated with a higher risk of getting breast cancer.
- **Family history of breast cancer.** An individual's risk for breast cancer is higher if they have a first-degree relative or multiple family members on either their mother's or father's side of the family who have had breast cancer. Having a first-degree male relative with breast cancer also raises the risk.
- **Previous treatment using radiation therapy.** Individuals who have had radiation therapy to the chest or breasts (such as treatment for Hodgkin lymphoma) before age 30 have a higher risk of getting breast cancer later in life.
- **Men with conditions that increase systemic oestrogen:** Klinefelter syndrome and cirrhosis of the liver (as well as obesity).

Risk factors a client can change:

- **Not being physically active.** Women who are not physically active have a higher risk of getting breast cancer.
- **Being overweight or obese after menopause.** This is associated with a higher risk of getting breast cancer, compared with those who are not obese. Obesity is also a risk factor in men.
- **Using combination hormone therapy.** Taking hormones to replace missing oestrogen and progesterone in menopause for more than 5 years raises the risk for breast cancer. The hormones that have been shown to increase risk are o*estrogen* and *progestin* when taken together.
- **Taking oral contraceptive pills.** Certain OCPs have been found to raise breast cancer risk.
- **Late or no pregnancy.** Having the first pregnancy after age 30 and never having a full-term pregnancy can raise breast cancer risk.
- **Drinking alcohol.** Studies show that drinking alcohol increases a woman's risk of developing breast cancer. The same may be true in men.

Sources: Adapted from Centers for Disease Control and Prevention [website]. What Are the Risk Factors for Breast Cancer? Available at: https://www.cdc.gov/cancer/breast/basic_info/risk_factors.htm. Accessed 4 February 2020; National Cancer Institute [website]. BRCA Mutations: Cancer Risk and Genetic Testing. Available at: https://www.cancer.gov/about-cancer/causes-prevention/genetics/brca-fact-sheet. Accessed 4 February 2020; and National Health Service [website]. Breast Cancer in Men. Available at: https://www.nhs.uk/conditions/breast-cancer-in-men/. Accessed 4 February 2020.

Appendix 5: Steps for breast self-examination

Examine breasts monthly, after a menstrual period.

For all steps of breast self-examination, the client should be advised that the breast tissue on each side extends from the collarbone down to the bra-strap line below the breasts, and from the central breastbone to the right and left into the armpits (axillae).

Step 1: Visually inspect breasts in a mirror

- Start with arms down by the sides, then straight up in the air and finally with hands pressed firmly on hips. Take note of any:
- lump or thickening in the breasts, whatever their size
- change in the appearance or shape of the breasts
- alteration in the position or level of the nipples
- dimpling of the skin surface
- retracted nipples
- discharge or bleeding from the nipples
- puckering of the skin surface like that of an orange (*peau d'orange*)

Step 2: Examine breasts while lying down

Place a pillow under the left shoulder and the left arm under the head. Use the right hand to feel the left breast with the pads of the middle three fingers, keeping the hand flat. Repeat vice versa to examine the right breast with the left hand. The breast should be palpated lightly but firmly in a systematic way, e.g. in concentric circles or quadrants.

Step 3: Examine breasts while standing up

Follow a systematic approach to palpation as in Step 2, but standing up, e.g. in the shower.

MAIN CONTENTS

Chapter 9:
Maternal health

contents

contents (continued)

1. Introduction

Maternal health refers to the health of an individual during pregnancy, delivery, and the post-partum period (also known as the puerperium, lasting approximately 6 weeks or 42 days after birth). While the events of this span of time are often positive and fulfilling experiences, for too many this period is associated with suffering, ill health, and even death.

A positive pregnancy experience requires maternity care to be responsive to an individual's values, beliefs, and needs. A systematic review by the World Health Organization (WHO) found that what matters to women in relation to childbirth is underpinned by three phenomena: the physical and psychosocial nature of birth as an embodied experience; local familial and sociocultural norms that legitimate or reframe expectations about labour and birth; and how maternity care provision enables or restricts what matters to them [1]. There is evidence from a wide range of sources to suggest that it is imperative that maternity care recognizes the benefits of providing what matters to all pregnant individuals (and the risks of not doing so). These factors should become a central component of care provision to ensure the optimum uptake of effective and respectful maternity care and, as a consequence, the health of women of reproductive age and their infants and families, in both the short and longer term [1,2].

This chapter addresses some of the key interventions for maternal and newborn health that are essential to saving the lives of women and their infants and improving their health and well-being, including early detection of risk factors and timely provision of relevant preventive interventions and treatment during pregnancy, labour, and delivery, and the immediate and extended post-partum/post-natal period. This chapter aims to provide guidance for lower-level clinics and facilities who have referral networks that would include more specialized obstetric care for individuals at high risk or with complications.

Acronyms

ANC	antenatal care
ASB	asymptomatic bacteriuria
BEmONC	basic emergency obstetric and newborn care
BMI	body mass index
CEmONC	comprehensive emergency obstetric and newborn care
EmONC	emergency obstetric and newborn care
FGM	female genital mutilation
GDM	gestational diabetes mellitus
PPH	post-partum haemorrhage
PPROM	preterm prelabour rupture of membranes
PROM	prelabour rupture of membranes
SGBV	sexual and gender-based violence
WHO	World Health Organization
ZVD	Zika virus disease

2. Antenatal care

2.1 Purpose of antenatal care

Antenatal care (ANC) can be defined as the care provided by skilled healthcare professionals to pregnant individuals to ensure the best health conditions for both the individual and the fetus during pregnancy. The components of ANC include risk identification, prevention and management of pregnancy-related or concurrent diseases, and health education and promotion [3].

Adequate and appropriate ANC, also known as prenatal care, saves lives. When provided along with other essential healthcare, ANC has the potential to have far-reaching benefits for individuals, families, and communities. For the care of pregnant individuals who do not wish to continue a pregnancy, see *Chapter 5: Abortion care*.

2.2 Number and components of antenatal contacts

The WHO recommends a minimum of eight ANC contacts. This approach replaces the 'focused' or 'basic' four-visit ANC model, with the aim of reducing perinatal mortality and improving experiences of care during pregnancy [3].

Each contact focuses on assessments and interventions that support positive pregnancy outcomes. Each ANC contact must involve the following tasks (see *Appendix 1* for WHO's recommended schedule of interventions for ANC visits):

1. Confirm the diagnosis of pregnancy (see *Appendix 2*) and establish accurate gestational age.
2. Develop or review the birth plan, giving consideration to any clinical changes or mobility difficulties, the appearance of warning signs, or changes in the client's wishes (see *Appendix 3*).
3. Assess (screen) for risk factors (see *Section 2.3*), including reassessment of any risks identified at previous contacts.
4. Give nutritional advice and promote healthy behaviours, where appropriate (see *Section 2.4*).
5. Update the client's notes, including history, examination, investigation results and discussions, and schedule the next ANC contact.

2.3 Routine investigations and screening for risk factors

Antenatal care contacts provide the opportunity to assess signs and symptoms and to identify and treat any complications of pregnancy in a timely and appropriate manner. A thorough antenatal history including medical issues (and use of medicines) at the first contact gives the healthcare provider the opportunity to assess the pregnant individual for any risk factors, to manage and reassess them during the pregnancy, and to make referrals for specialist care, when indicated.

2.3.1 Routine investigations

The following investigations are **recommended** during pregnancy [3]:

- Regular measurement of blood pressure, weight, and presence of proteinuria.
- Full blood count (preferred) or haemoglobin level (via haemoglobinometer preferred over haemoglobin colour scale method) at visits 1, 3, and 6 (12, 26, and 36 weeks of pregnancy).
- Midstream urine culture (preferred) or urine Gram staining (preferred over urine dipstick) at visits 1, 3, and 5 (12, 26, and 34 weeks). Provider-initiated testing and counselling for HIV and syphilis testing (rapid plasma reagin test or VDRL test) at visit 1 (12 weeks). An on-site rapid syphilis test is recommended in settings of low coverage of syphilis screening, limited laboratory capacity, or high prevalence of syphilis (≥5 per cent) [4].
- Screening for gestational diabetes (between 24 and 28 weeks of pregnancy), or if hyperglycaemia is first detected at any time during pregnancy.
- Screening for tobacco, alcohol, and other drug use at each antenatal visit.
- One ultrasound scan before 24 weeks to determine gestational age, improve detection of fetal anomalies and multiple pregnancies, reduce induction of labour for post-term pregnancy, and improve an individual's pregnancy experience.

The following investigations and interventions are recommended in specific contexts and repeated when clinically indicated:

- Routine vaginal examinations, breast examination, weighing, and ultrasound scans.
- Tuberculosis screening is recommended at the first visit (12 weeks) in high-prevalence settings.
- Clinical enquiry about the possibility of sexual and gender-based violence (SGBV) should be strongly considered at ANC visits when assessing conditions that may be caused or complicated by SGBV to improve clinical diagnosis and subsequent care, where there is the capacity to provide a supportive

response (including referral where appropriate, see *Chapter 10: Sexual and gender-based violence*).

- Listening to the fetal heart rate may be reassuring for the client and can be offered; however, it is not a predictor of fetal well-being and is not recommended as a routine investigation.
- Although daily fetal movement counting may cause anxiety, asking the client to monitor fetal movements is an option in settings where no other facilities for fetal assessment are available.

2.3.2 Screening for risk factors

2.3.2.1 Factors that may increase the risk of caesarean delivery or preterm birth

Previous caesarean delivery: Pregnant individuals with no risk factors other than previous caesarean delivery can plan for delivery in a comprehensive emergency obstetric and newborn care (CEmONC) facility, where a trial of vaginal birth can be attempted and caesarean performed, if needed. This should be noted on the birth plan.

High-risk factors: Pregnant individuals with high-risk factors identified in the antenatal period that could make a normal delivery difficult or unlikely should be referred to a specialist facility (CEmONC facility). Delivery should take place in a facility that can perform a caesarean, if necessary. These risk factors include:

- malpresentation within 1 month of expected delivery
- multiple pregnancy
- previous third- or fourth-degree tear
- age younger than 14 years

Other risk factors: Pregnant individuals with other risk factors can be advised that delivery should occur with a skilled attendant in a facility. These risk factors include previous stillbirth or early neonatal death; history of pregnancy complications, such as haemorrhage or pre-eclampsia; age younger than 16 years; diabetes mellitus; cardiac disease; contracted pelvis; haemoglobinopathies; and first-time pregnancy or grand multiparity. During labour and delivery, some individuals with disabilities may require specialized care that needs to be organized in advance to ensure that the relevant support is available when needed. Identify providers who are knowledgeable or willing to learn about how to provide the best support to these clients during antenatal, labour and delivery, and post-natal care.

2.3.2.2 Mental health

Assessment: The antenatal period is an opportunity to assess the pregnant individual's mental health and their risk of developing mental illness during pregnancy and the post-partum period. Key screening questions are summarized in *Box 1*.

BOX 1: Recognizing mental health disorders in the antenatal care (ANC) setting

Recognize that people who have a mental health disorder may be:

- unwilling to disclose or discuss their illness because of fear of stigma or due to a negative perception by their family or the community
- reluctant to engage in treatment because of their mental health disorder or dependence on drugs and/or alcohol

Screening questions to ask at the first ANC contact:

1. During the past month, have you been feeling down, depressed, or hopeless?
2. Recently, have you had little interest or pleasure in doing things?

If the answer is "Yes" to either of the above two questions, continue by asking the following:

3. During the past 2 weeks, have you been bothered by not being able to control worrying or being anxious?
4. Have you had severe mental illness in the past?
5. Has your mother/sister/daughter experienced mental illness in pregnancy?

Discuss with the individual whether they can positively involve friends or family members for support, if possible, and refer if necessary.

2.3.2.3 Sexual and gender-based violence

Sexual and gender-based violence (SGBV) can have a negative impact on maternal and fetal health. The healthcare provider should be aware of whether a partner or husband present at consultations is behaving intrusively, and should never ask the client about violence if the partner is present. For detailed guidance on screening and managing SGBV, see *Chapter 10: Sexual and gender-based violence*.

2.3.2.4 Female genital mutilation

Clients with the most severe forms of female genital mutilation (FGM) – type III, also referred to as infibulation – are at greater risk for a range of obstetric complications during delivery, including caesarean delivery, post-partum haemorrhage (PPH), episiotomy, and prolonged or difficult labour. Similarly, their infants have an increased risk of stillbirth, early neonatal death, asphyxia at birth, and resuscitation at birth [5,6].

WHO recommends deinfibulation for preventing and treating obstetric complications and to facilitate delivery in clients living with type III FGM. The decision about the timing of the procedure (antepartum or intrapartum) should be based on client preference, access to healthcare facilities, place of delivery, and skill levels of the healthcare provider [7]. Counselling on physiological changes after deinfibulation must be offered to all clients undergoing the procedure [5]. For further information see *Chapter 10: Sexual and gender-based violence*.

2.3.2.5 Hypertensive disorders

Hypertensive disorders of pregnancy including pre-eclampsia, eclampsia, gestational hypertension, and chronic hypertension are among the main causes of maternal and neonatal mortality and morbidity and stillbirth.

2.3.2.6 Anaemia

The most common anaemia in pregnancy is iron deficiency anaemia, which can be due to poor diet or an infection such as a parasitic or chronic infection. Full blood count testing is recommended at the first ANC visit. In settings where full blood count testing is not available, on-site haemoglobin testing with a haemoglobinometer is recommended. Healthcare providers should recheck haemoglobin levels at a subsequent visit if anaemia is suspected, but not delay giving iron supplements.

2.3.2.7 Gestational diabetes mellitus

Gestational diabetes mellitus (GDM) occurs when a pregnant individual develops hyperglycaemia with no history of diabetes mellitus. Individuals with GDM are at greater risk of pre-eclampsia and other hypertensive disorders, fetal macrosomia, and shoulder dystocia. GDM can also persist as diabetes mellitus after delivery.

Follow local protocols for screening all pregnant individuals for diabetes. Those found to have hyperglycaemia may need nutritional counselling (see *Section 2.4.2*), exercise, and medication. GDM can be diagnosed at any time in pregnancy if one or more of the following criteria are met:

- fasting plasma glucose 5.1–6.9 mmol/l (92–125 mg/dl)
- 1-hour plasma glucose ≥10.0 mmol/l (180 mg/dl) following a 75 g oral glucose load
- 2-hour plasma glucose 8.5–11.0 mmol/l (153–199 mg/dl) following a 75 g oral glucose load

Individuals with values above the range would be diagnosed with diabetes mellitus.

2.3.2.8 Asymptomatic bacteriuria

Asymptomatic bacteriuria (ASB) is a common condition of the urinary tract that is associated with an increased risk of infection in pregnant individuals. Midstream urine culture is the recommended method for diagnosing ASB in pregnancy. In settings where urine culture is not available, on-site midstream urine Gram staining is recommended over the use of dipstick tests as the method for diagnosing ASB in pregnancy. If ASB is diagnosed in a pregnant individual, a 7-day antibiotic regimen is recommended to prevent persistent bacteriuria and preterm birth.

2.3.2.9 Group B streptococcus

Group B streptococcus is associated with preterm labour. However, routine screening at any gestation is not recommended, except in areas where there is a high

local prevalence of Group B streptococcus and preterm labour, or if national guidelines recommend it.

2.3.2.10 Syphilis

The specific risk of syphilis (see *Chapter 6: Sexually transmitted infections)* in pregnancy is perinatal transmission (congenital syphilis), which can cause fetal death, stillbirth, and premature birth.

- Provide screening for syphilis with the rapid plasma reagin test at first ANC contact (or the on-site rapid syphilis test where there is low prevalence of syphilis or limited laboratory capacity). If positive, check whether the client and their partner have had treatment. A positive rapid plasma reagin test result means that they require a confirmatory test for syphilis and, if positive, should be treated, and that the infant should be screened after delivery.

Management and treatment:

- Give the client 2.4 million units of benzathine benzylpenicillin by intramuscular injection: 5 ml split in half and given as two injections in different sites.
- If allergic to penicillin, give 500 mg of erythromycin orally, four times daily for 14 days.
- Ensure anaphylactic shock treatment is available during treatment, although it is extremely rare.
- Provide counselling for the client on why it is also important to bring their sexual partner for testing and treatment and advise using barrier methods of contraception to prevent reinfection.
- After delivery, the newborn should be screened, and treated if:
  - congenital syphilis is confirmed; or
  - the newborn is clinically normal but the mother was untreated or inadequately treated for syphilis, or was treated with non-penicillin regimens [8].

2.3.2.11 HIV

Testing for HIV during pregnancy at the first ANC visit offers the opportunity for individuals who test positive to initiate antiretroviral treatment, which improves individual health outcomes, prevents vertical transmission of HIV to the fetus, and horizontal transmission to an uninfected sexual partner [3] (see *Chapter 7: HIV*). In addition, healthcare providers should counsel on the benefits of involving and testing the client's partner and using barrier methods of contraception. Explain that vaginal delivery may be possible, but local protocols will need to be followed. Provide counselling on breastfeeding and infant feeding options later in pregnancy, considering the risk of HIV transmission via breastfeeding (see *Chapter 7: HIV, Section 6*).

2.3.2.12 Tuberculosis

Tuberculosis increases the risk of preterm birth, perinatal death, and other adverse pregnancy outcomes and complications. Local protocols should be used to screen for active tuberculosis at the first ANC contact, where appropriate.

2.4 Preventive health interventions

Antenatal care contacts offer the opportunity to provide some preventive health interventions, including tetanus toxoid vaccination, nutritional counselling and supplementation, HIV screening, context-specific interventions (Zika virus disease, malaria, helminth infections, and seasonal influenza), and assistance for common physiological symptoms of pregnancy.

2.4.1 Tetanus toxoid vaccination

Tetanus toxoid vaccination can prevent neonatal tetanus, which is almost always fatal, as well as maternal tetanus (i.e. tetanus during pregnancy or the post-partum period). Tetanus-toxoid-containing vaccines are safe to give in pregnancy. It is an essential antenatal intervention, especially in settings where tetanus is common and where people are unlikely to have already received a full course (three primary plus three booster doses) of tetanus vaccine by the age of 15 years through routine immunization [9].

2.4.2 Nutritional counselling and supplementation

A healthy diet is essential to meet maternal and fetal needs. Maternal undernutrition and maternal obesity are both associated with poor perinatal outcomes [3].

Healthcare providers should give tailored nutritional advice and supplementation to ensure that interventions are appropriate for the individual and explain the benefits. See *Appendix 1* for recommended dietary interventions and nutritional supplements mapped to ANC visits.

Weight gain generally begins after 20 weeks of pregnancy, and the definition of 'normal' weight gain varies but should take pre-pregnant body mass index (BMI) into consideration. *Table 1* provides an approximate guide.

2.4.3 Context-specific preventive measures

Healthcare providers should be aware of local protocols for preventing a range of infections that may be harmful to pregnant individuals and which are endemic in the local areas they work in.

2.4.3.1 Zika virus disease

Zika virus disease (ZVD) is primarily transmitted by the bite of an infected female *Aedes* mosquito *(Ae. aegypti* and *Ae. albopictus)*. ZVD can also be transmitted through sexual contact, to the fetus during pregnancy, and through blood transfusion and organ transplantation [10].

Infection with ZVD in pregnancy can result in congenital brain abnormalities such as microcephaly and other birth defects. It is also associated with miscarriage, stillbirths, and preterm birth. Currently, there is no vaccine against ZVD, nor any treatment for the infection [10].

TABLE 1: Recommended ranges for weight gain during pregnancy

Body mass index (BMI, kg/m^2) at the start of pregnancy	Recommended weight gain during pregnancy
Underweight: BMI <18.5	12.5–18 kg
Normal weight: BMI 18.5–24.9	11.5–16 kg
Overweight: BMI 25–29.9	7–11.5 kg
Obese: BMI >30	5–9 kg

Source: WHO [3].

For clients in affected areas, healthcare providers should counsel on the risks of ZVD during pregnancy and infection prevention measures, including minimizing the risk of mosquito bites [10,11]. Providers should also conduct the following assessments:

- At each visit, pregnant individuals should be asked about the occurrence of any of the symptoms or signs of Zika virus infection since their last ANC visit. They should be counselled to present early for diagnostic work-up and treatment if they develop any of these symptoms between scheduled ANC visits.
- Perform fetal anomaly ultrasound scan between 18 and 20 weeks. Careful attention should be paid to the fetal central nervous system. A repeat ultrasound for fetal morphology should be performed between 28 and 30 weeks.
- If the fetal head circumference decreases, the prognosis worsens [12].

Provide counselling on the options in accordance with local laws, ensuring accessible, easy-to-understand communication:

- All pregnant individuals, regardless of their individual choices concerning their pregnancies, must be treated with respect and dignity.
    - Those who decide not to continue the pregnancy should receive accurate information and support (see *Chapter 5: Abortion care*).
    - Those who carry their pregnancy to term should receive appropriate care and support to manage anxiety, stress, and the birth environment. Plans for neonatal care and management should be discussed during the pregnancy and in consultation with a paediatrician or paediatric neurologist, where available. Consider referral to any local social support services.

2.4.3.2 Malaria

For all pregnant individuals in malaria-endemic areas, WHO recommends intermittent preventive treatment with sulphadoxine-pyrimethamine (IPTp-SP), starting in the second trimester (13 weeks), with doses given at least 1 month apart, with the objective of ensuring that at least three doses are received. Pregnant individuals

should also be advised to use insecticide-treated nets [13].

In all settings, clinical suspicion of malaria, based on fever or a history of fever, should be confirmed with a parasitological diagnosis.

2.4.3.3 COVID 19

COVID-19 vaccination in pregnant individuals is currently indicated in most countries, where vaccines are available.

- While overall the benefits of vaccination against COVID-19 in pregnant individuals are thought to outweigh the potential risks, given the lack of extensive clinical data in pregnancy, clients should make a joint decision with their healthcare provider based on their individual circumstances, having understood the benefits and risks.
- There is no need to stop breastfeeding before or after being vaccinated against COVID-19.
- Reported side effects of COVID-19 vaccinations in pregnant individuals do not differ from those reported by non-pregnant individuals [14].

2.4.3.4 Helminth infections

Preventive anthelminthic treatment is recommended for pregnant individuals in endemic areas after the first trimester [3].

2.4.3.5 Seasonal influenza

Vaccination against seasonal influenza with inactive virus is recommended for pregnant individuals where available.

2.4.4 Interventions for common physiological symptoms of pregnancy

Many individuals suffer from one or more symptoms of pregnancy that are not harmful but can affect physical and mental well-being, including nausea and vomiting, constipation, heart burn, low back and pelvic pain, varicose veins and oedema, and vaginal discharge. It is critical to support each individual client and to provide care and treatment options as well as reassurance that symptoms are self-limiting and generally resolve later in the pregnancy or after delivery (see WHO [3] for interventions during pregnancy that are safe and evidence based).

3. Management of labour, delivery, and the immediate post-partum period

3.1 General principles and emergency preparedness

Care of individuals during labour and delivery should be provided in a supportive and encouraging atmosphere that is respectful of the client's wishes.

Use the triage assessment for clients attending ANC visits, in labour, or post-partum to exclude any dangerous conditions (*Appendix 4*).

Depending on their capacity and the signal function they can perform, facilities will provide different levels of care for emergency obstetric and newborn care (EmONC): basic emergency obstetric and newborn care (BEmONC) or comprehensive emergency obstetric and newborn care (CEmONC) (see *Table 2* – next page).

Facilities that provide only BEmONC should have a referral protocol in place including a memorandum of understanding with a referral (CEmONC) facility, telephone numbers of ambulances, other transport arrangements, and emergency supplies and equipment for the transfer.

3.2 Management of labour and prelabour ruptured membranes

Take a careful history and conduct a thorough clinical examination and record review to establish the clinical state of the pregnant individual presenting with possible labour or with prelabour rupture of membranes (PROM) and assess any risks of obstetric complications. Use *Appendix 5* as a guide.

TABLE 2: Signal functions of basic and comprehensive emergency obstetric and newborn care (BEmONC and CEmONC)

	Emergency obstetric and newborn care (EmONC)	
Basic EmONC	1. Administer parenteral antibiotics	Comprehensive EmONC
	2. Administer uterotonics (i.e. parenteral oxytocin)	
	3. Administer parenteral anticonvulsants for pre-eclampsia and eclampsia (i.e. magnesium sulphate)	
	4. Manually remove the placenta	
	5. Remove retained products (e.g. manual vacuum aspiration, dilatation and curettage)	
	6. Perform assisted vaginal delivery (e.g. vacuum extraction, forceps delivery)	
	7. Perform basic neonatal resuscitation (e.g. with bag and mask)	
	8. Perform surgery (e.g. caesarean delivery)	
	9. Perform blood transfusion	
BEmONC facility = all functions 1–7 are performed		
CEmONC facility = all functions 1–9 are performed		

Source: WHO [15].

3.2.1 Prelabour rupture of membranes at term

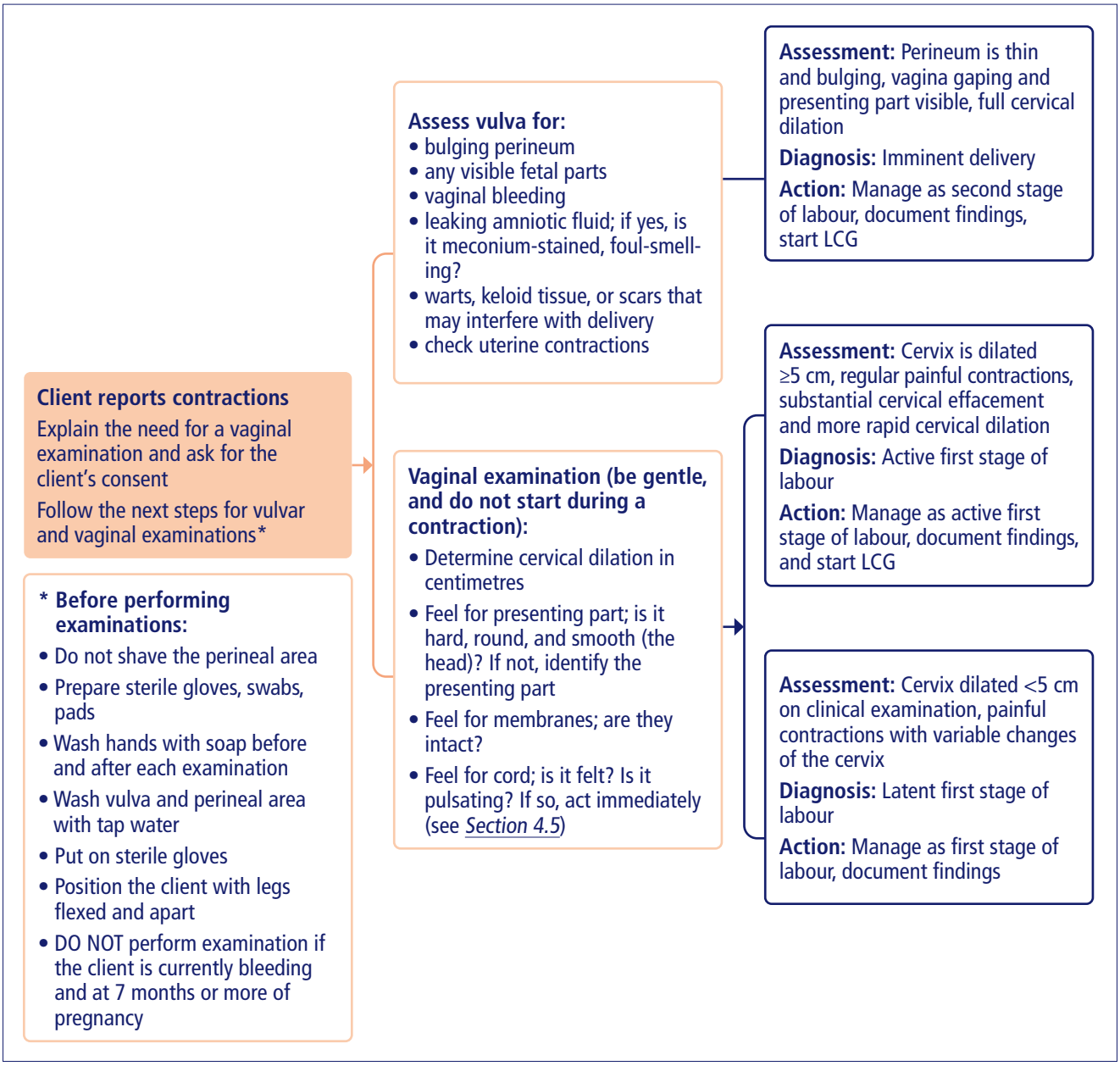
If pregnancy is term (37 weeks of gestation or more), PROM refers to the rupture of membranes before the onset of labour. If the pregnancy is preterm (less than 37 weeks), rupture of membranes before labour is referred to as preterm PROM (or PPROM, see *Section 4.4*).

- Check history of rupture of members and perform essential examination (Note! Do NOT perform a digital vaginal examination if there is no sign of labour).
- Provide reassurance that PROM can be normal and that in the absence of infection it is fine to wait for labour to start and progress naturally. Counsel the client about induction of labour if needed. The most significant maternal consequence of term PROM is intrauterine infection, the risk of which increases with the duration of membrane rupture.
- Routine antibiotic administration is NOT recommended.

3.2.2 Establish stage of labour

Individuals reporting regular contractions at term are likely to be in labour. Establish the stage of labour (see *Figure 1*).

FIGURE 1: Establishing the stage of labour



Abbreviation: LCG, labour care guide.

Source: WHO [16].

3.3 Management of normal labour

Routine management of normal labour for pregnancies at term (37 weeks or more) is summarized in *Table 3*.

TABLE 3: Management of normal labour

Stage of labour	Key points for routine care	Additional interventions
First stage – Period from start of labour to a fully dilated (10 cm) cervix	Do not leave the client alone, provide supportive care, ideally with their companion of choice How is the client coping? Assess every hour in latent and every 30 minutes in active labour Check blood pressure, pulse, temperature at least every 4 hours during latent phase; then blood pressure every 4 hours, temperature every 2 hours, and pulse every 30 minutes during active labour Consider the positioning/mobility of the client, hydration, and pain management Assess uterine contractions (strength, frequency) over a 10-minute period: hourly during latent phase and every 30 minutes during active phase Be flexible in letting the client choose positions that make them feel most at ease. Clients with disabilities/difficulties moving may need help exploring alternative positions Fetal assessment: Assess fetal lie, position, descent, and development of caput. Listen immediately after contraction for one full minute, at least every 15 minutes. Record accelerations or decelerations Start Labour Care Guide (LCG) tool when cervical dilation ≥5 cm Document all findings and times of any counselling, physical change, or warning signs	Do not shave the perineal or pubic area Do not give routine enemas Do not perform vaginal examination if not necessary If rising baseline fetal heart rate or decelerations, perform intermittent auscultation more frequently Consider arranging transfer to a facility that can perform caesarean delivery, if required

continued

TABLE 3: Management of normal labour ***continued***

Stage of labour	Key points for routine care	Additional interventions
Second stage		
Early (non-expulsive) second stage: Full dilation of the cervix without expulsive contractions or urge to push	Client and baby should be monitored every 5 minutes with documentation on the LCG Never leave the client alone during the second stage	Perform vaginal examination to confirm full dilation after 30 minutes of expulsive contractions if perineum is not stretched
Late (expulsive) second stage: Fetal head is visible with expulsive contractions with full dilation of the cervix. May last up to 2 hours (multiparas) or 3 hours (nulliparas)	Bladder is empty; if the client cannot pass urine, empty their bladder Ensure all equipment and supplies including newborn resuscitation equipment are available and that the room is warm During expulsive phase, encourage the client to push when they feel the urge, and to adopt their preferred position Do not perform routine episiotomy	If not fully dilated, lie the client on their left side and ask them not to push No descent of the head after 2 hours, consider operative delivery or caesarean delivery
	Actions for client after delivery Give 10 IU oxytocin intramuscularly to client in the upper thigh if there is no second baby within 1 minute of birth Change gloves, clamp and cut the cord after 1–3 minutes Encourage breastfeeding within the first hour **Actions for baby after delivery** Dry baby immediately, change towel if wet Assess baby's breathing while drying: is the baby breathing well with rising of the chest? Wipe eyes Keep baby warm, preferably on the client's chest in skin-to-skin contact	**After delivery:** **Baby not breathing or gasping?** Stimulate by rubbing back 2–3 times; cut cord quickly, transfer to a firm warm surface and start resuscitation Call for help Do not perform routine suction or aspiration; this should only be performed in the presence of dense substances blocking the nose and mouth Do not apply any substance to the stump Do not remove bandage or bind the stump Do not remove vernix Do not bathe or wash the baby until at least 6 hours of age (and delay to 24 hours if possible)

continued

TABLE 3: Management of normal labour ***continued***

Stage of labour	Key points for routine care	Additional interventions
Third stage: Period between the birth of the baby and the delivery of the placenta	Never leave the client alone Estimate and record blood loss Examine the perineum, lower vagina, and vulva for tears Verify uterine tone Await a strong contraction, usually 2–3 minutes after delivery of the baby, observe signs of placental separation and deliver the placenta by controlled cord traction **Do not** attempt controlled cord traction unless trained	**Client:** If there is a third- or fourth-degree tear and the provider cannot repair the laceration appropriately, refer/transfer for care If after 30 minutes of giving intramuscular oxytocin the placenta has not delivered and the client is not bleeding, empty the client's bladder, encourage breastfeeding, repeat controlled cord traction, if trained If the placenta has not delivered within 1 hour after delivery, remove the placenta manually and refer the client to a hospital. Insert an intravenous line and give intramuscular/intravenous antibiotics and 20 IU oxytocin at 30 drops per minute Do not squeeze or push the uterus to deliver the placenta **Baby:** Listen for grunting and look for indrawing of chest and fast breathing
Immediate post-partum care of the client: 1–2 hours after delivery	Clean the client and the area beneath them, help them to change clothes, and supply a sanitary pad Estimate and record blood loss. If total blood loss is approximately 250 ml but bleeding has stopped, plan to keep the client in the facility for 24 hours Monitor vital signs, vaginal bleeding, and uterine contraction Keep the client in the delivery room with their baby for a minimum of 1 hour after delivery of the placenta	If bleeding is excessive, manage post-partum haemorrhage with uterine massage, uterotonics, and verification of no genital tract tears
First 24 hours after delivery	All post-partum clients should have regular assessment routinely during the first 24 hours starting from the first hour after birth Discuss post-partum contraception	

Source: Adapted from WHO [17].

3.3.1 Use of the Labour Care Guide

The WHO Labour Care Guide (LCG) tool is designed for the care of pregnant individuals and their babies during labour and delivery [16]. It includes assessments and observations that are essential for the care of all pregnant individuals. The LCG is designed for health personnel to monitor the well-being of clients and their babies during labour through regular assessments to identify any deviation from normal circumstances. The tool aims to stimulate shared decision-making by healthcare providers and clients, and to promote client-centred care. However, the LCG is primarily designed for the care of apparently healthy pregnant individuals and their babies (i.e. those with low-risk pregnancies). Clients at high risk of developing labour complications may require additional specialized monitoring and care.

Documentation on the LCG of the well-being of the client and baby, as well as progression of labour, should be initiated when the client enters the active phase of the first stage of labour (5 cm or more cervical dilation), regardless of their parity and membranes status. The aims of the LCG are:

- To guide monitoring and documentation of the well-being of clients and babies, and progress through labour.
- To guide skilled personnel to offer supportive care throughout labour.
- To assist skilled personnel to promptly identify and address emerging labour complications by providing thresholds for observations and action for abnormal observations.
- To prevent unnecessary use of interventions.
- To support audit and quality improvement of labour management.

Per the LCG, the use of the partograph is now no longer recommended routinely by WHO. Healthcare professionals should continue to plot cervical dilation versus time on the cervicograph as well as other partograph parameters (including fetal heart rate, caput succedaneum, moulding, status of amniotic fluid, fetal descent, maternal temperature, blood pressure, and urinary output) to monitor the well-being of the client and their baby and identify risks for adverse birth outcomes. In healthcare facilities where interventions such as augmentation and caesarean delivery cannot be performed and where referral-level facilities are difficult to reach, the alert line could still be used for triaging clients who may require additional care. In this instance, plotting should commence from a cervical dilation of 5 cm, which signifies the onset of the active first stage of labour for most pregnant individuals.

4. Complications during pregnancy

Clients presenting with complications during labour, delivery, or the immediate post-partum period should receive care at a facility that provides CEmONC or be referred to one as soon as possible.

It is important to initiate resuscitation and stabilize the client's condition before transfer. This includes insertion of a large bore intravenous cannula with intravenous fluids, antibiotics if there is a sign of intrauterine infection or sepsis, and treatment for pre-eclampsia or eclampsia if present.

4.1 Hyperemesis gravidarum

Nausea and vomiting in pregnancy affect up to 80 per cent of pregnant individuals in early pregnancy. Hyperemesis gravidarum is diagnosed when nausea and vomiting are protracted and there is more than 5 per cent weight loss, as well as dehydration and electrolyte imbalance [18]. Vomiting arising late in pregnancy, however, should trigger investigation for other pathologies (pre-eclampsia, eclampsia, HELLP syndrome, and/or diabetic ketoacidosis in diabetic clients).

Assess all antenatal clients reporting excessive nausea and vomiting for hyperemesis gravidarum via history-taking and examination/clinical assessment. A healthcare provider can use a urine dipstick test to identify presence or absence of ketones to confirm the diagnosis if needed. Blood urea and electrolytes can be measured (if available) to assess severity.

Hospital admission is not always needed if clients can rehydrate themselves and take anti-emetic medications. Treatment should be given based on what is available and in accordance with local protocols.

- Clients who have prolonged symptoms requiring intravenous fluids should have their electrolyte levels measured regularly to ensure that sodium and potassium deficiencies are detected and corrected.
- If there is no response to treatment with intravenous fluids and anti-emetics, then steroids and referral may be required.
- Consider a non-urgent ultrasound scan, if available, to establish a viable pregnancy and to exclude multiple pregnancy and trophoblastic disease.

4.2 Hypertensive disorders in pregnancy

Hypertensive disorders are an important cause of maternal and neonatal morbidity and mortality, stillbirth, and long-term disability – outcomes that can be avoided with treatment of the disorder [19].

The types of hypertensive disorder during pregnancy are:

- **Pre-eclampsia (and eclampsia, its main complication):** Pre-eclampsia is diagnosed as a new episode of hypertension during pregnancy (with persistent diastolic blood pressure >90 mm Hg) accompanied by the occurrence of substantial proteinuria (>0.3 g/24 hours). Eclampsia is "characterized by the occurrence of generalized seizures in women with pre-eclampsia, provided that the tonic–clonic seizures are not attributable to other causes (e.g. epilepsy)" [19].
- **Gestational hypertension**: New high blood pressure with onset after 20 weeks of pregnancy with no heavy proteinuria.
- **Chronic hypertension**: High blood pressure before pregnancy, which continues during pregnancy.

See *Section 4.4* for guidance on managing hypertension in pregnancy when there is an imminent risk of preterm birth.

4.2.1 Eclampsia and pre-eclampsia

Individuals at risk of pre-eclampsia should be identified as early as possible in the antenatal period based on risk factors and history. Risk factors for pre-eclampsia include current gestational hypertension, chronic hypertension, history of hypertensive disease during a previous pregnancy, renal disease, autoimmune disease, diabetes, and multiple pregnancies [19]. Other risks for pre-eclampsia include first pregnancy at age 40 or older, pregnancy interval of more than 10 years, body mass index of 35 kg/m^2 or greater at first ANC visit, and family history of pre-eclampsia.

4.2.1.1 Prevention of pre-eclampsia

Once the risk of pre-eclampsia has been identified, evidence-based interventions, such as low-dose aspirin (75 mg), and antihypertensive drugs can be initiated to mitigate its development. The client's birth plan should be developed and adjusted, as needed, with a consulting specialist team and the client. In areas where dietary calcium intake is low, calcium supplementation during pregnancy (1.5–2.0 g elemental calcium/day) is recommended for the prevention of pre-eclampsia in all clients, in addition to those at high risk of developing pre-eclampsia [20].

4.2.1.2 Management of pre-eclampsia

The only definitive treatment for pre-eclampsia is delivery of the fetus and placenta; although in some cases, the disease can worsen temporarily after delivery.

If the client presents at less than 34 weeks of pregnancy with pre-eclampsia, counsel and refer to higher-level care for stabilization and consider early delivery after administration of corticosteroids for fetal lung maturation (see *Section 4.4*).

Clients should deliver in higher-level health facilities. After delivery, they remain at high risk of eclampsia and will continue to require intensive monitoring with regular blood pressure checks and treatment with magnesium sulphate to prevent eclampsia in the immediate post-partum period [19].

All clients who have had pre-eclampsia should have an individualized care plan at time of discharge.

4.2.1.3 Severe pre-eclampsia and eclampsia

Eclampsia is a complication of pre-eclampsia, characterized by the occurrence of generalized seizures/convulsions.

Once a diagnosis of severe pre-eclampsia or eclampsia is made, the client should not be left alone; the healthcare team must act promptly to avoid serious complications and death. *Appendix 6* provides further details on the treatment of severe pre-eclampsia and eclampsia.

- Magnesium sulphate is recommended for the prevention of eclampsia in clients with severe pre-eclampsia and for treatment of eclampsia, in preference over any other anticonvulsants. The healthcare provider should call for help if required, seek expert assistance (if available), and consider transferring the client to a higher-level facility.
- If the client is transferred, always accompany them to the referral facility. Keep the client positioned on their left side and if a convulsion occurs during the journey, give magnesium sulphate and protect the client from fall and injury.

4.3 Bleeding in pregnancy

When a client presents with vaginal bleeding, the healthcare provider should provide a rapid evaluation of the client's general condition, vital signs, level of consciousness, presence of anxiety and/or confusion, blood loss, and colour/temperature of skin. If shock is suspected or develops, treatment should begin immediately, starting with initiation of intravenous fluids. If the client is stable, ask about menstruation history, pregnancy history, and bleeding patterns. After history-taking, the healthcare provider should assess uterine size and tenderness, including a bimanual examination if needed, and perform a speculum examination if needed.

4.3.1 Vaginal bleeding in early pregnancy (less than 22 weeks)

Table 4 (next page) provides details of presenting signs and symptoms associated with vaginal bleeding at less than 22 weeks of pregnancy and likely diagnoses.

4.3.1.1 Management

For information on management of inevitable and incomplete abortion, see *Chapter 5: Abortion care*.

If complications from an unsafe abortion are suspected, examine for signs of infection or uterine, vaginal, or bowel injury and thoroughly irrigate the vagina to remove any herbs, local medications, or caustic substances

4.3.1.2 Ectopic pregnancy

Ectopic pregnancies occur when the embryo implants outside the uterus. This is typically in a fallopian tube, but can also occur on the ovary, cervix, caesarean delivery scar, or even within the abdominal cavity. Risk factors for ectopic pregnancy include previous ectopic pregnancy, history of tubal surgery, or tubal damage from pelvic infections or endometriosis [21].

Healthcare providers need to be competent to diagnose ectopic pregnancy based on history, clinical examination, laboratory testing, and ultrasound (if available). Signs and symptoms are extremely variable depending on whether the ectopic pregnancy has ruptured (see *Table 5*).

Where the healthcare facility is not adequately equipped to perform ultrasound or laparotomy, the provider should refer the client to a higher-level facility. The urgency of the referral depends on the clinical situation (whether the client is haemodynamically stable, for example). Ensure that the client is accompanied on transfer, wherever possible.

- Insert an intravenous line, administer fluids, and prepare the client for surgery/referral if needed. Prepare blood transfusion, if needed.
- For ruptured ectopic pregnancies with unstable vital signs, surgery is needed immediately.
- Surgical options for tubal ectopic pregnancy are salpingectomy (removal of the whole fallopian tube) or salpingotomy (incision of the fallopian tube and removal of the ectopic pregnancy).

TABLE 4: Diagnosis of vaginal bleeding in early pregnancy

Presenting symptom and other symptoms and signs typically present	Symptoms and signs sometimes present	Probable diagnosis
• Light bleeding • Closed cervix • Uterus corresponds to dates	• Cramping/lower abdominal pain • Uterus softer than normal	Threatened abortion (pregnancy may continue)
• Light bleeding • Abdominal pain • Closed cervix • Uterus smaller than normal • Uterus softer than normal	• Fainting • Tender adnexal mass • Amenorrhoea • Cervical motion tenderness	Ectopic pregnancy
• Light bleeding • Closed cervix • Uterus smaller than dates • Uterus softer than normal	• Light cramping/lower abdominal pain • History of expulsion of products of conception	Complete abortion (products of conception completely expelled)
• Heavy bleeding • Dilated cervix • Uterus corresponds to dates	• Cramping/lower abdominal pain • Tender uterus • No expulsion of products of conception	Inevitable abortion (pregnancy will not continue and will proceed to incomplete/complete abortion)
• Heavy bleeding • Dilated cervix • Uterus smaller than dates	• Cramping/lower abdominal pain • Partial expulsion of products of conception	Incomplete abortion (products of conception partially expelled)
• Heavy bleeding • Dilated cervix • Uterus larger than dates • Uterus softer than normal • Partial expulsion of products of conception which resemble grapes	• Nausea/vomiting • Spontaneous abortion • Cramping/lower abdominal pain • Ovarian cysts (easily ruptured) • Early onset pre-eclampsia • No evidence of a fetus	Molar pregnancy

Source: Adapted from WHO [17].

TABLE 5: Symptoms and signs of unruptured and ruptured ectopic pregnancy

Unruptured ectopic pregnancy	Ruptured ectopic pregnancy
• Symptoms of early pregnancy (irregular spotting or bleeding, nausea, swelling of breasts) • Abdominal and pelvic pain • Exam: Bluish discoloration of vagina and cervix, slight uterine enlargement, +/- tender adnexal mass	• Collapse and weakness • Fast weak pulse (110 bpm or more) • Hypotension • Hypovolaemia • Acute abdominal and/or pelvic pain • Abdominal distension • Rebound tenderness

Source: Adapted from WHO [17].

4.3.1.3 Molar pregnancy

If diagnosis of molar pregnancy is certain, cross-match blood if possible and arrange for evacuation of the uterus. See *Chapter 5: Abortion care* for additional information on recommended methods for uterine evacuation. The type of procedure for molar pregnancy depends on uterine size (>13 weeks versus <13 weeks). Oxytocin may be infused (20 units in 1 litre of intravenous fluids at 60 drops/minute) to prevent haemorrhage (particularly with uterine size >13 weeks) once evacuation is underway [17].

4.3.2 Placental abruption or placenta praevia

The most serious causes of antepartum or intrapartum haemorrhage are placental abruption and placenta praevia. The healthcare provider should not perform a routine speculum examination if an individual presents with antepartum or intrapartum vaginal bleeding after 22 weeks of pregnancy, until placenta praevia has been excluded. Perform a rapid evaluation of the client's general condition, as noted for bleeding in early pregnancy (see *Section 4.3.1*). It is essential to keep vital signs stable, initiate intravenous fluid infusion, and organize transfer to a higher-level facility for further investigation and management, such as caesarean delivery.

4.3.3 Post-partum haemorrhage

Post-partum haemorrhage (PPH) is defined as blood loss of 500 ml or greater and is considered to be severe when loss is 1000 ml or greater.

Primary PPH is the most common form of major obstetric haemorrhage that occurs from the genital tract *within 24 hours of delivery*. The main causes are uterine atony, genital tract trauma, uterine rupture, retained placenta (complete or partial), and maternal coagulation disorders [22]. Secondary PPH is defined as abnormal or excessive vaginal bleeding *between 24 hours and 12 weeks after delivery*. In addition to the causes given above, secondary PPH can be caused by vascular abnormalities and unrecognized surgical injury or complications.

4.3.3.1 Prevention of primary PPH

The use of an effective uterotonic for the prevention of PPH during the third stage of labour is recommended for all births. To effectively prevent PPH, only one of the flowing uterotonics should be used: oxytocin, carbetocin, misoprostol, ergometrine/methylergometrine, or oxytocin and ergometrine fixed dose (last two options only where hypertensive disorders can be safely excluded before use). Injectable prostaglandins are not recommended for the prevention of PPH.

In settings where multiple uterotonic options are available, oxytocin (10 IU, intramuscular/intravenous) is the recommended uterotonic agent for the prevention of PPH for all births.

In settings where oxytocin is unavailable (or its quality cannot be guaranteed), the use of other injectable uterotonics (carbetocin, or if appropriate ergometrine/methylergometrine, or oxytocin and ergometrine fixed-dose combination) or oral misoprostol is recommended for the prevention of PPH.

In settings where skilled health personnel are not present to administer injectable uterotonics, the administration of misoprostol (either 400 µg or 600 µg, orally) by community health workers and lay health workers is recommended for the prevention of PPH.

If the placenta is retained and with significant bleeding, manual placental removal should be expedited, accompanied by a single dose of prophylactic antibiotics [22,23,24].

4.3.3.2 Management of PPH

Immediate action:

- Insert two intravenous lines and administer fluids (normal saline or Ringer's lactate). Take vital signs regularly.
- Initial fluid resuscitation is performed together with intravenous administration of uterotonics and 1 g tranexamic acid (100 mg/ml) intravenously at 1 ml per minute over 10 minutes. If intravenous uterotonics are not available, fluid resuscitation and tranexamic acid should be started in parallel with sublingual misoprostol or other parenteral uterotonics. If PPH is in the context of placental retention, the placenta should be extracted and a single dose of antibiotics should be administered.
- Perform bimanual uterine massage as soon as PPH is diagnosed and exclude vaginal or cervical laceration.
- Measure or estimate the blood loss.
- Check haemoglobin level and blood group and cross-match if facilities are available. Consider transfer to another facility.
- Catheterize the bladder.
- Check to see if the placenta has been expelled and examine the placenta to ensure it is complete.
- Examine the cervix, vagina, and perineum for tears.
- Determine the cause of PPH (*Table 6*) and manage accordingly.

TABLE 6: Differential diagnosis of post-partum haemorrhage

Presenting symptoms and other symptoms and signs typically present	Symptoms and signs sometimes present	Probable cause
• Primary PPH • Uterus soft and not contracted	• Shock	Uterine atony
• Primary PPH	• Complete placenta, uterus contracted	Tears of cervix, vagina, or perineum
• Placenta is not delivered within 30 minutes of birth • Portion of maternal surface of placenta missing or torn membranes containing vessels	• Primary PPH • Uterus contracted	Retained placenta/ fragments
• Uterine fundus not felt on abdominal examination • Slight or intense pain	• Inverted uterus apparent at vulva • Primary PPH	Inverted uterus
• Primary PPH (bleeding may also be intra-abdominal) • Severe abdominal pain (may decrease after rupture)	• Shock • Tender abdomen • Rapid maternal pulse	Ruptured uterus
• Bleeding occures more than 24 hours after delivery • Uterus softer and larger than expected for elapsed time since delivery	• Bleeding is variable and foul-smelling • Anaemia	Secondary PPH

Source: Adapted from WHO [17].

Uterine atony:

- Palpate for the fundus and massage to stimulate contractions (uterine massage).
- Use uterotonic drugs:
  - Intravenous oxytocin (preferred)
    - 20 units/1 litre at fastest flow rate possible for first litre; continuing dose at 40 drops per minute for each additional litre up to 3 litres total.
    - Do not give as intravenous bolus.
    - Intramuscular oxytocin (10 units) can be given (if the intravenous route is not available).
  - If oxytocin is not available or the bleeding does not respond to oxytocin:
    - Ergometrine/methylergometrine, intravenous (slowly, preferred) or intramuscular 0.2 mg. Repeat 0.2 mg intramuscularly after 15 minutes.
      - If required can give 0.2 mg intramuscularly or intravenously (slowly) every 4 hours up to 5 doses total.
      - Do not use in setting of high blood pressure, pre-eclampsia, heart disease, or retained placenta.
    - 15-methyl prostaglandin F2 alpha: 0.25 mg intramuscularly every 15 minutes up to 8 doses (2 mg) total.
      - Do not give to clients with asthma.
      - Do not give intravenously.
    - Misoprostol: sublingual 800 µg. Can repeat 200–800 µg up to 1600 µg.
  - Early use of intravenous tranexamic acid within 3 hours of birth in addition to standard care is recommended for clients with clinically diagnosed PPH following vaginal birth or caesarean delivery.
    - Tranexamic acid 1 g intravenously (slowly), repeat after 30 minutes if bleeding continues up to no more than 10 mg/kg of body weight, 3–4 times daily.
    - Do not use in history of coagulopathy or active clotting or convulsions [17].

Retained placenta:

- Ensure that the bladder is empty and catheterize if necessary.
- Avoid forceful cord traction with fundal pressure as this may cause uterine inversion or cord avulsion.
- Give an additional 10 units oxytocin intramuscularly/intravenously in combination with controlled cord traction.
- If the placenta has been expelled but is incomplete (or not available for inspection):
  - Perform uterine massage to expel clots/retained fragments.
- If the placenta is not expelled (or incomplete) and bleeding is ongoing, manually remove the placenta/fragments or use manual vacuum aspiration.
  - A single dose of antibiotics (ampicillin or first-generation cephalosporin) is recommended if manual removal of the placenta is attempted.
  - Very adherent tissue may be placenta accreta. If the placenta does not separate easily, stabilize and refer the client urgently to hospital for treatment [17].

Genital tract bleeding:

Check for perineal and lower vaginal tears. Apply pressure with sterile gauze and put the client's legs together for 5 minutes. If bleeding continues, suture the tear.

If heavy bleeding continues:

Stabilize the client and refer them to a higher-level facility with two intravenous lines and fluids.

4.4 Preterm labour

Preterm labour is defined as the onset of labour before 37 completed weeks of pregnancy, and preterm or premature births refer to babies born at this time. History-taking should include the due date, gestational age, and if the membranes have ruptured. Physical assessment should include the client's vital signs, abdominal tenderness, rupture of membranes, and fetal assessment (heart tones, position). Routine antibiotic administration is not recommended for clients in preterm labour with intact amniotic membranes and no clinical signs of infection. Antenatal corticosteroid therapy (intramuscular dexamethasone or intramuscular betamethasone 24 mg in divided doses) is recommended for clients at risk of preterm birth from 24–34 weeks of pregnancy when the following conditions are met: gestational age assessment can be accurately undertaken, preterm birth is considered imminent, there is no sign of maternal infection, adequate delivery care is available (including for preterm birth), and the preterm newborn can receive adequate care if needed.

Additionally, the use of magnesium sulphate is recommended for clients at risk of imminent preterm birth before 32 weeks of pregnancy for prevention of cerebral palsy in the infant/child. Magnesium sulphate for neuroprotection should only be given if preterm birth is likely to occur within 24 hours.

If these interventions are not available locally, consider transfer [25].

4.5 Prolapsed cord

Prolapsed cord is a complication of pregnancy that occurs when the umbilical cord lies below the presenting fetal part. It may happen following artificial rupture or an early rupture of membranes if the fetus is not up against the internal os of the cervix [17].

4.5.1 Immediate actions to manage prolapsed cord

- Administer oxygen.
- If the cord is pulsing and the client is in the first stage of labour:
  - Insert a gloved (sterile) hand into the vagina and push the presenting part of the fetus up to decrease the pressure on the cord. The other hand can be placed on the abdomen to keep the fetus elevated. Keep the fetus elevated from the pelvis until a caesarean delivery can be performed.
  - Give tocolytics to reduce contractions while preparing for the surgery.
  - Perform immediate caesarean delivery.
- If the cord is pulsating and the client is in the second stage of labour:
  - Expedite delivery with obstetric vacuum or forceps.
  - Prepare for newborn resuscitation.
- If the cord is not pulsing when the prolapsed cord is diagnosed, the fetus is already dead and an expedited delivery is no longer necessary [17].

4.6 Obstructed labour

Obstructed labour occurs when the presenting part of the fetus cannot progress through the birth canal, despite strong uterine contractions. The most common cause of obstructed labour is cephalopelvic disproportion. Other causes of obstructed labour include malpresentation or malposition and, rarely, locked twins or pelvic tumours [17,26].

4.6.1 Immediate actions to manage obstructed labour (when the fetus is alive)

Either:

- Prepare as soon as possible for a caesarean or instrumental delivery (forceps, vacuum extraction, or symphysiotomy), depending on fetal position/descent

or:

- Refer urgently to a higher-level facility, if the facility does not provide CEmONC.

Prolonged labour due to obstructed labour can result in life-threatening complications and disability including sepsis, injuries to the bladder and/or rectum, and ruptured uterus, which can result in severe haemorrhage, shock, and death. Prolonged obstructed labour can also cause obstetric fistula, stillbirth, brain damage in the infant, and neonatal death.

4.7 Maternal sepsis

Maternal sepsis is a life-threatening condition defined as organ dysfunction resulting from infection during pregnancy or delivery or during the post-abortion or post-partum period [27].

4.7.1 Prevention of maternal infection

Each client should be assessed for **risk** of infection before, during, and after delivery by reviewing their history and clinical records. If one or more risk factors are identified, **prevent** infection by administering antibiotic prophylaxis. See *Table 7* for recommended regimens for preventing maternal infection in a range of situations.

4.7.2 Diagnosis and management of sepsis

If the client's temperature is over 38°C and they have any one of the following (high respiratory rate, lethargy, stiff neck, unable to stand), the healthcare provider should suspect the possibility of sepsis. Sepsis may also eventually drop the body temperature to one of hypothermia.

Make regular observations of vital signs (pulse rate, blood pressure, temperature, respiratory rate); if the client is in shock (systolic blood pressure <90 mm Hg, pulse >110/minute):

- Insert an intravenous line and give fluids.
- Monitor blood pressure and pulse every 15 minutes.
- Monitor urine output.
- Record fluid replacement, urine output, and vital signs.

At the same time, the healthcare provider should perform diagnostic tests based on clinical suspicion, if available (e.g. blood cultures, high vaginal swabs, throat swabs, midstream urine). These must not delay antibiotic treatment.

TABLE 7: Prophylactic antibiotic regimens

Situation	Antibiotic treatment (refer to local protocols)
Preterm prelabour rupture of membranes (PPROM) (see *Section 4.4*)	Oral erythromycin 500 mg orally, every 6 hours for 10 days (or until birth **OR** Ampicillin 2 g intravenously every 6 hours
Undergoing removal of the placenta	Ampicillin 2 g intravenous/intramuscular, single dose **OR** First generation cephalosporin, e.g. cefazolin 1 g intravenous/intramuscular, single dose
Third- or fourth-degree perineal tear	Broad-spectrum antibiotics, e.g: Cephazolin 2 g intravenous single dose preoperative followed by amoxycillin + clavulanate (875 mg + 125 mg orally), every 12 hours for 7 days **OR** Cephalexin 500 mg orally, every 6 hours for 7 days **PLUS** metronidazole 400 mg orally, every 12 hours for 7 days
Post-partum endometritis or chorioamnionitis	Clindamycin 600 mg intravenously every 8 hours **PLUS** gentamicin 5 mg/kg or 60–80 mg intravenously/intramuscularly, every 24 hours

If the client's temperature remains above 38°C and any of the following signs such as chills, foul-smelling vaginal discharge, fetal tachycardia, and rupture of membranes of more than 18 hours are present, the following management is recommended:

- Insert an intravenous line and give fluids rapidly.
- Give intramuscular or intravenous antibiotics.
- If the baby and placenta have been delivered, give oxytocin 10 mg intramuscularly and assess the newborn for signs of infection and treat if required.
- Refer the client urgently to a higher-level facility if required.

4.8 Fetal complications

4.8.1 Fetal distress

Fetal distress is defined as fetal heart rate below 120 or above 160 beats/minute. If fetal heart rate remains below 120 or above 160 beats/minute after 30 minutes of observation, the healthcare provider should take the following steps for early or late active labour:

- Early active labour (dilation of at least 4 cm):
  - Keep the client lying on their left side.
  - Consider initiating intravenous fluids and stop oxytocin (if started).
  - Prepare for caesarean delivery or refer the client urgently to a higher-level facility for caesarean delivery.
- Late active labour (dilation between 7 cm and 10 cm):
  - Call for help during delivery as needed. Refer if needed.
  - Monitor fetal heart rate after every contraction.
  - Prepare for newborn resuscitation (see *Appendix 7*).

4.8.2 Managing stillbirth

A stillbirth is a baby born with no signs of life after 28 weeks of gestation. In about half of all stillbirths, fetal death occurs during labour [28].

Risk factors for stillbirth include maternal age over 35 years, maternal infections, presence of maternal disability, non-communicable diseases, and nutrition and lifestyle factors [17,29].

The loss of a baby is devastating for any parent. When stillbirth has occurred, the parent(s) should be informed as soon as possible. They should be offered a chance to hold the baby for as long as they need, with privacy if requested. Bereavement care and support services for parent(s) should be offered. Advise clients on physical care for themselves as for any other birth, with the offer of contraceptive counselling (see *Section 5.2: Postnatal care*).

The healthcare provider should be aware of local protocols for recording of stillbirths and completing any perinatal death notification.

5. Post-natal care

The post-natal period (client and baby) or post-partum period (client only) is the period immediately after the birth of the baby and up to 6 weeks (42 days) after birth. This is a critical period for both the client and the baby as most maternal and infant deaths occur during this period [30,31].

Following an uncomplicated vaginal birth in a healthcare facility, the client and baby should receive post-natal care for 24 hours after birth and should be observed for any warning signs (see *Sections 5.2 and 5.1.1*, respectively). All post-partum clients should have regular assessment of vaginal bleeding, uterine contraction, fundal height, temperature, and heart rate (pulse) routinely during the first 24 hours starting from the first hour after birth. Blood pressure should be measured shortly after birth. If normal, the second blood pressure measurement should be taken within 6 hours. The client should have voided their bladder within 6 hours. If the birth was at home, the first post-natal contact should be as soon as possible within 24 hours after birth. Three additional post-natal care contacts are recommended on day 3, between days 7 and 14 after birth, and 6 weeks after birth.

5.1 Post-natal care for the newborn

The neonatal or newborn period refers to the first 28 days after birth. The first days, the first week, and the first month are the most crucial. Almost half of all deaths of children under the age of 5 years occur in the first month [32].

5.1.1 Assessment of the newborn

Assess the newborn at every post-natal contact for warning signs (*Box 2*) and consider referring the newborn for further assessment and management if any of the signs are present. All newborns should be given 1 mg vitamin K intramuscularly after birth (i.e. after the first hour by which time skin-to-skin contact and breastfeeding should be initiated).

Communicate these warning signs to the client and family so that they can be vigilant and seek care if any of them occur.

Box 2: Warning signs in newborn babies

- Fast/difficult breathing (breathing rate ≥60 per minute)
- Slow breathing or gasping
- Severe chest in-drawing
- No spontaneous movement
- Fever (temperature ≥37.5°C) or unusually cold (temperature <35.5°C)
- Abdominal overdistension
- Not feeding well or stops feeding well
- Fits or convulsions
- Jaundice in the first 24 hours of life, yellow palms and soles at any age
- Umbilicus is red or draining pus or blood
- Pallor
- Swollen eyes, draining pus

5.1.2 Cord care

Advise the client to keep the cord clean and dry at all times. In settings with high neonatal mortality, daily application of chlorhexidine (7.1 per cent chlorhexidine digluconate aqueous solution or gel, delivering 4 per cent chlorhexidine) to the umbilical cord stump is recommended during the first week of life.

5.1.3 Breastfeeding

Babies should be exclusively breastfed from birth until 6 months of age, if possible. The healthcare provider has a significant part to play by encouraging and supporting breastfeeding at each post-natal contact. Clients with disabilities may need support in carrying or positioning the baby for breastfeeding.

If the client is living with HIV (see *Chapter 7: HIV, Section 6.1*):

- Refer to national guidance on feeding babies born to individuals living with HIV.
- If the client is taking antiretroviral medication, they should be supported to fully breastfeed as the chance of transmission of HIV to the baby through breast milk is minimal.
- In settings where there is a high burden of infant mortality from undernutrition and infectious diseases and the client is not taking antiretroviral medication, breastfeeding may be the most appropriate option for feeding the baby and should therefore be encouraged.

5.1.4 Other post-natal care for the newborn

- Advise the parent(s) on the need to use a bed net (long-lasting insecticide-treated nets) for the baby when sleeping in high-risk areas; position the baby to sleep on its back; ensure that the baby is kept a safe and comfortable temperature.
- Bathing should be delayed for at least 6 hours, and optimally 24 hours after birth.
- Immunizations should be promoted according to local guidelines.

- For all newborns, the WHO guidelines for treatment of STIs recommend topical ocular prophylaxis for the prevention of gonococcal and chlamydial ophthalmia neonatorum [33,34]. For suspected gonococcal eye infection, give antibiotics in accordance with local protocols and review after 48 hours.
- Preterm babies born weighing 2000 g or less also benefit from 'kangaroo care' (see *Box 3*).

Box 3: Key facts about kangaroo care

- Kangaroo care (skin-to-skin contact on the client's chest) is recommended for the routine care of newborns weighing 2000 g or less at birth and should be initiated in healthcare facilities as soon as a newborn is clinically stable.
- Unstable newborns weighing 2000 g or less at birth or stable newborns weighing less than 2000 g who cannot be given kangaroo care should be cared for in a thermoneutral environment under radiant warmers or in incubators.

Source: WHO [23].

5.2 Post-natal care for the client

5.2.1 Discharge from the facility

- Before discharge, an individualized post-natal care package should be provided that is a continuation of antenatal and intrapartum care. This should include contraception counselling and healthcare when desired (see *Chapter 4: Contraception*), and information about other sexual and reproductive healthcare.
- Clients should receive a card stating the details of the delivery, any complications that occurred and how they were treated, dates for post-partum follow-up appointments, phone numbers in case of emergencies, and any special instructions for specialist post-natal follow-up care for client or baby.
- Advise clients to seek care if they experience any warning signs, such as heavy bleeding, severe pain, fever, etc.
- There is no required waiting period before a client can resume sexual activity; however, most individuals need 4–6 weeks before they recover and feel ready.

5.2.2 Post-natal visits

At each post-natal care visit, healthcare providers should:

- Enquire about the client's general well-being and assess breastfeeding progress, physical function, and wound healing if needed.
- Provide counselling on nutrition, hygiene, safer sex, and contraception.
- Ask about the client's emotional well-being, what support they have, and how they are coping.

5.2.3 Mental health and puerperal psychosis

Mental health is an important part of health and well-being during the post-natal period. Healthcare providers should encourage clients to be aware of their own mental state and encourage them to seek assistance if they feel disheartened, anxious, or depressed. Pos-partum depression is an uncommon but serious mood disorder that requires treatment.

Puerperal psychosis is a serious mental illness that requires immediate medical intervention. It usually starts within the first 2 weeks after giving birth. Symptoms can include hallucinations, delusions, mood change, and behaviour change. Puerperal psychosis is a medical emergency. Clients should be referred for treatment immediately to avoid the illness worsening and to prevent harm to themselves or their babies.

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The 2016 WHO ANC model for a positive pregnancy experience: recommendations mapped to eight scheduled ANC contacts

Overarching aim: To provide pregnant women with respectful, individualized, person-centred care at every contact, with implementation of effective clinical practices (interventions and tests), and provision of relevant and timely information, and psychosocial and emotional support, by practitioners with good clinical and interpersonal skills within a well functioning health system.

Notes:

- These recommendations apply to pregnant women and adolescent girls within the context of routine ANC.
- This table does not include good clinical practices, such as measuring blood pressure, proteinuria and weight, and checking for fetal heart sounds, which would be included as part of an implementation manual aimed at practitioners.
- Remarks detailed in the shaded box with each recommendation should be taken into account when planning the implementation of these recommendations.

Type of intervention	Recommendation	Type of recommendation	Eight scheduled ANC contacts (weeks of gestation)							
			1 (12 weeks)	**2** (20 weeks)	**3** (26 weeks)	**4** (30 weeks)	**5** (34 weeks)	**6** (36 weeks)	**7** (38 weeks)	**8** (40 weeks)
A. Nutritional interventions										
Dietery interventions	**A.1.1:** Counselling about healthy eating and keeping physically active during pregnancy is recommended for pregnant women to stay healthy and to prevent excessive weight gain during pregnancy.[a]	Recommended	X	X	X	X	X	X	X	X
	A.1.2: In undernourished populations, nutrition education on increasing daily energy and protein intake is recommended for pregnant women to reduce the risk of low-birth-weight neonates.	Context-specific recommendation	X	X	X	X	X	X	X	X
	A.1.3: In undernourished populations, balanced energy and protein dietary supplementation is recommended for pregnant women to reduce the risk of stillbirths and small-for-gestational-age neonates.	Context-specific recommendation	X	X	X	X	X	X	X	X
	A.1.4: In undernourished populations, high-protein supplementation is not recommended for pregnant women to improve maternal and perinatal outcomes.	Not recommended								
Iron and folic acid supplements	**A.2.1:** Daily oral iron and folic acid supplementation with 30 mg to 60 mg of elemental iron[b] and 400 µg (0.4 mg) of folic acid[c] is recommended for pregnant women to prevent maternal anaemia, puerperal sepsis, low birth weight, and preterm birth.[d]	Recommended	X	X	X	X	X	X	X	X

continued

a. A healthy diet contains adequate energy, protein, vitamins and minerals, obtained through the consumption of a variety of foods, including green and orange vegetables, meat, fish, beans, nuts, whole grains and fruit.
b. The equivalent of 60 mg of elemental iron is 300 mg of ferrous sulfate hepahydrate, 180 mg of ferrous fumarate or 500 mg of ferrous gluconate.
c. Folic acid should be commenced as early as possible (ideally before conception) to prevent neural tube defects.
d. This recommendation supersedes the previous recommendation found in the 2012 WHO publication *Guideline: daily iron and folic acid supplementation in pregnant women* (36).

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continued

Type of intervention	Recommendation	Type of recommendation	Eight scheduled ANC contacts (weeks of gestation)							
			1 (12 weeks)	**2** (20 weeks)	**3** (26 weeks)	**4** (30 weeks)	**5** (34 weeks)	**6** (36 weeks)	**7** (38 weeks)	**8** (40 weeks)
Iron and folic acid supplements	**A.2.2:** Intermittent oral iron and folic acid supplementation with 120 mg of elemental iron[e] and 2800 µg (2.8 mg) of folic acid once weekly is recommended for pregnant women to improve maternal and neonatal outcomes if daily iron is not acceptable due to side-effects, and in populations with an anaemia prevalence among pregnant women of less than 20%.[f]	Context-specific recommendation	X	X	X	X	X	X	X	X
Calcium supplements	**A.3:** In populations with low dietary calcium intake, daily calcium supplementation (1.5–2.0 g oral elemental calcium) is recommended for pregnant women to reduce the risk of pre-eclampsia.[g]	Context-specific recommendation	X	X	X	X	X	X	X	X
Vitamin A supplements	**A.4:** Vitamin A supplementation is only recommended for pregnant women in areas where vitamin A deficiency is a severe public health problem,[h] to prevent night blindness.[i]	Context-specific recommendation	X	X	X	X	X	X	X	X
Zinc supplements	**A.5:** Zinc supplementation for pregnant women is only recommended in the context of rigorous research.	Context-specific recommendation (research)								
Multiple micronutrient supplements	**A.6:** Multiple micronutrient supplementation is not recommended for pregnant women to improve maternal and perinatal outcomes.	Not recommended								
Vitamin B6 (pyridoxine) supplements	**A.7:** Vitamin B6 (pyridoxine) supplementation is not recommended for pregnant women to improve maternal and perinatal outcomes.	Not recommended								

continued

e. The equivalent of 120 mg of elemental iron equals 600 mg of ferrous sulfate heptahydrate, 360 mg of ferrous fumarate or 1000 mg of ferrous gluconate.
f. This recommendation supersedes the previous recommendation in the 2012 WHO publication *Guideline: intermittent iron and folic acid supplementation in non-anaemic pregnant women* (55).
g. This recommendation is consistent with the 2011 *WHO recommendations for prevention and treatment of pre-eclampsia and eclampsia* (57) and supersedes the previous recommendation found in the 2013 WHO publication *Guideline: calcium supplementation in pregnant women* (38).
h. Vitamin A deficiency is a severe public health problem if 5% of women in a population have a history of night blindness in their most recent pregnancy in the previous 3–5 years that ended in a live birth, or if 20% of pregnant women have a serum retinol level < 0.70 µmol/L. Determination of vitamin A deficiency as a public health problem involves estimating the prevalence of deficiency in a population by using specific biochemical and clinical indicators of vitamin A status.
i. This recommendation supersedes the previous recommendation found in the 2011 WHO publication *Guideline: vitamin A supplementation in pregnant women* (60).

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Type of intervention	Recommendation	Type of recommendation	Eight scheduled ANC contacts (weeks of gestation)							
			1 (12 weeks)	**2** (20 weeks)	**3** (26 weeks)	**4** (30 weeks)	**5** (34 weeks)	**6** (36 weeks)	**7** (38 weeks)	**8** (40 weeks)
Vitamin E and C supplements	**A.8:** Vitamin E and C supplementation is not recommended for pregnant women to improve maternal and perinatal outcomes.	Not recommended								
Vitamin D supplements	**A.9:** Vitamin D supplementation is not recommended for pregnant women to improve maternal and perinatal outcomes.[j]	Not recommended								
Restricting caffeine intake	**A.10.1:** For pregnant women with high daily caffeine intake (more than 300 mg per day),[k] lowering daily caffeine intake during pregnancy is recommended to reduce the risk of pregnancy loss and low-birth-weight neonates.	Context-specific recommendation	X	X	X	X	X	X	X	X
B. Maternal and fetal assessment[l]										
Anaemia	**B.1.1:** Full blood count testing is the recommended method for diagnosing anaemia in pregnancy. In settings where full blood count testing is not available, on-site haemoglobin testing with a haemoglobinometer is recommended over the use of the haemoglobin colour scale as the method for diagnosing anaemia in pregnancy.	Context-specific recommendation	X		X			X		
Asymptomatic bacteriuria (ASB)	**B.1.2:** Midstream urine culture is the recommended method for diagnosing asymptomatic bacteriuria (ASB) in pregnancy. In settings where urine culture is not available, on-site midstream urine Gram-staining is recommended over the use of dipstick tests as the method for diagnosing ASB in pregnancy.	Context-specific recommendation	X		X		X			

continued

j. This recommendation supersedes the previous recommendation found in the 2012 WHO publication Guideline: vitamin D supplementation in pregnant women (75).
k. This includes any product, beverage or food containing caffeine (i.e. brewed coffee, tea, cola-type soft drinks, caffeinated energy drinks, chocolate, caffeine tablets).
l. Evidence on essential ANC activities, such as measuring maternal blood pressure, proteinuria and weight, and checking for fetal heart sounds, was not assessed by the GDG as these activities are considered to be part of good clinical practice.

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Type of intervention	Recommendation	Type of recommendation	Eight scheduled ANC contacts (weeks of gestation)							
			1 (12 weeks)	**2** (20 weeks)	**3** (26 weeks)	**4** (30 weeks)	**5** (34 weeks)	**6** (36 weeks)	**7** (38 weeks)	**8** (40 weeks)
Intimate partner violence (IPV)	**B.1.3:** Clinical enquiry about the possibility of intimate partner violence (IPV) should be strongly considered at antenatal care visits when assessing conditions that may be caused or complicated by IPV in order to improve clinical diagnosis and subsequent care, where there is the capacity to provide a supportive response (including referral where appropriate) and where the WHO minimum requirements are met.m n	Context-specific recommendation	X	X	X	X	X	X	X	X
Gestational diabetes mellitus (GDM)	**B.1.4:** Hyperglycaemia first detected at any time during pregnancy should be classified as either, gestational diabetes mellitus (GDM) or diabetes mellitus in pregnancy, according to WHO 2013 criteria.o	Recommended	X	X	X	X	X	X	X	X
Tobacco use	**B.1.5:** Health-care providers should ask all pregnant women about their tobacco use (past and present) and exposure to second-hand smoke as early as possible in the pregnancy and at every antenatal care visit.p	Recommended	X	X	X	X	X	X	X	X
Substance use	**B.1.6:** Health-care providers should ask all pregnant women about their use of alcohol and other substances (past and present) as early as possible in the pregnancy and at every antenatal care visit.q	Recommended	X	X	X	X	X	X	X	X

continued

m. Minimum requirements are: a protocol/standard operating procedure; training on how to ask about IPV, and on how to provide the minimum response or beyond; private setting; confidentiality ensured; system for referral in place; and time to allow for appropriate disclosure.

n. This recommendation is consistent with the 2013 publication *Responding to intimate partner violence and sexual violence against women: WHO clinical and policy guidelines* (86).

o. This is not a recommendation on routine screening for hyperglycaemia in pregnancy. It has been adapted and integrated from the 2013 WHO publication Diagnostic criteria and classification of hyperglycaemia first detected in pregnancy (94), which states that GDM should be diagnosed at any time in pregnancy if one or more of the following criteria are met:
- fasting plasma glucose 5.1–6.9 mmol/L (92–125 mg/dL)
- 1-hour plasma glucose ≥10.0 mmol/L (180 mg/dL) following a 75g oral glucose load
- 2-hour plasma glucose 8.5–11.0 mmol/L (153–199 mg/dL) following a 75g oral glucose load.

Diabetes mellitus in pregnancy should be diagnosed if one or more of the following criteria are met:
- fasting plasma glucose ≥7.0 mmol/L (126 mg/dL)
- 2-hour plasma glucose ≥11.1 mmol/L (200 mg/dL) following a 75g oral glucose load
- random plasma glucose ≥11.1 mmol/L (200 mg/dL) in the presence of diabetes symptoms.

p. Integrated from the 2013 publication WHO recommendations for the prevention and management of tobacco use and second-hand smoke exposure in pregnancy (96).

q. Integrated from the 2014 WHO publication *Guidelines for the identification and management of substance use and substance use disorders in pregnancy* (97).

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			1 (12 weeks)	**2** (20 weeks)	**3** (26 weeks)	**4** (30 weeks)	**5** (34 weeks)	**6** (36 weeks)	**7** (38 weeks)	**8** (40 weeks)
Human immunodeficiency virus (HIV) and syphilis	**B.1.7:** In high prevalence settings,[r] provider-initiated testing and counselling (PITC) for HIV should be considered a routine component of the package of care for pregnant women in all antenatal care settings. In low-prevalence settings, PITC can be considered for pregnant women in antenatal care as a key component of the effort to eliminate mother-to-child transmission of HIV, and to integrate HIV testing with syphilis, viral or other key tests, as relevant to the setting, and to strengthen the underlying maternal and child health systems.[s]	Recommended	X							
Tuberculosis (TB)	**B.1.8:** In settings where the tuberculosis (TB) prevalence in the general population is 100/100 000 population or higher, systematic screening for active TB should be considered for pregnant women as part of antenatal care.[t]	Context-specific recommendation	X							
Daily fetal movement counting	**B.2.1:** Daily fetal movement counting, such as with "count-to-ten" kick charts, is only recommended in the context of rigorous research.	Context-specific recommendation (research)								
Symphysis-fundal height (SFH) measurement	**B.2.2:** Replacing abdominal palpation with symphysis-fundal height (SFH) measurement for the assessment of fetal growth is not recommended to improve perinatal outcomes. A change from what is usually practiced (abdominal palpation or SFH measurement) in a particular setting is not recommended.	Context-specific recommendation	X	X	X	X	X	X	X	X
Antenatal cardio-tocography	**B.2.3:** Routine antenatal cardiotocography[u] is not recommended for pregnant women to improve maternal and perinatal outcomes.	Not recommended								

continued

r. High-prevalence settings are defined in the 2015 WHO publication *Consolidated guidelines on HIV testing services as settings with greater than 5% HIV prevalence in the population being tested* (98). Low-prevalence settings are those with less than 5% HIV prevalence in the population being tested. In settings with a generalized or concentrated HIV epidemic, retesting of HIV-negative women should be performed in the third trimester because of the high risk of acquiring HIV infection during pregnancy; please refer to Recommendation B.1.7 for details.

s. Adapted and integrated from the 2015 WHO publication *Consolidated guidelines on HIV testing services* (98).

t. Adapted and integrated from the 2013 WHO publication *Systematic screening for active tuberculosis: principles and recommendations* (105).

u. Cardiotocography (CTG) is a continuous recording of the fetal heart rate and uterine contractions obtained via an ultrasound transducer placed on the mother's abdomen.

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Ultrasound scan	**B.2.4:** One ultrasound scan before 24 weeks of gestation (early ultrasound) is recommended for pregnant women to estimate gestational age, improve detection of fetal anomalies and multiple pregnancies, reduce induction of labour for post-term pregnancy, and improve a woman's pregnancy experience.	Recommended	X	X	X	X	X	X	X	X
Doppler ultrasound of fetal blood vessels	**B.2.5:** Routine Doppler ultrasound examination is not recommended for pregnant women to improve maternal and perinatal outcomes.[v]	Not recommended								
C. Preventive measures										
Antibiotics for asymptomatic bacteriuria (ASB)	**C.1:** A seven-day antibiotic regimen is recommended for all pregnant women with asymptomatic bacteriuria (ASB) to prevent persistent bacteriuria, preterm birth and low birth weight.	Recommended	X		X		X			
Antibiotic prophylaxis to prevent recurrent urinary tract infections	**C.2:** Antibiotic prophylaxis is only recommended to prevent recurrent urinary tract infections in pregnant women in the context of rigorous research.	Context-specific recommendation (research)								
Antenatal anti-D immunoglobulin administration	**C.3:** Antenatal prophylaxis with anti-D immunoglobulin in non-sensitized Rh-negative pregnant women at 28 and 34 weeks of gestation to prevent RhD alloimmunization is only recommended in the context of rigorous research.	Context-specific recommendation (research)								
Preventive anthelminthic treatment	**C.4:** In endemic areasw, preventive anthelminthic treatment is recommended for pregnant women after the first trimester as part of worm infection reduction programmes.x	Context-specific recommendation		X						

continued

v. Doppler ultrasound technology evaluates umbilical artery (and other fetal arteries) waveforms to assess fetal well-being in the third trimester of pregnancy.

w. Areas with greater than 20% prevalence of infection with any soil-transmitted helminths.

x. Consistent with the 2016 WHO publication *Guideline: preventive chemotherapy to control soil-transmitted helminth infections in high-risk groups* (140).

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Type of intervention	Recommendation	Type of recommendation	Eight scheduled ANC contacts (weeks of gestation)							
			1 (12 weeks)	**2** (20 weeks)	**3** (26 weeks)	**4** (30 weeks)	**5** (34 weeks)	**6** (36 weeks)	**7** (38 weeks)	**8** (40 weeks)
Tetanus toxoid vaccination	**C.5:** Tetanus toxoid vaccination is recommended for all pregnant women, depending on previous tetanus vaccination exposure, to prevent neonatal mortality from tetanus.[y]	Recommended		X						
Malaria prevention: Intermittent preventive treatment in pregnancy (IPTp)	**C.6:** In malaria-endemic areas in Africa, intermittent preventive treatment with sulfadoxine-pyrimethamine (IPTp-SP) is recommended for all pregnant women. Dosing should start in the second trimester, and doses should be given at least one month apart, with the objective of ensuring that at least three doses are received.[z]	Context-specific recommendation	X (13 weeks)	X	X	X		X		X
Pre-exposure prophylaxis for HIV prevention	**C.7:** Oral pre-exposure prophylaxis (PrEP) containing tenofovir disoproxil fumarate (TDF) should be offered as an additional prevention choice for pregnant women at substantial risk of HIV infection as part of combination prevention approaches.[aa]	Context-specific recommendation								
D. Interventions for common physiological symptoms										
Nausea and vomiting	**D.1:** Ginger, chamomile, vitamin B6 and/or acupuncture are recommended for the relief of nausea in early pregnancy, based on a woman's preferences and available options.	Recommended	X	X	X	X	X	X	X	X
Heartburn	**D.2:** Advice on diet and lifestyle is recommended to prevent and relieve heartburn in pregnancy. Antacid preparations can be used to women with troublesome symptoms that are not relieved by lifestyle modification.	Recommended	X	X	X	X	X	X	X	X
Leg cramps	**D.3:** Magnesium, calcium or non-pharmacological treatment options can be used for the relief of leg cramps in pregnancy, based on a woman's preferences and available options.	Recommended	X	X	X	X	X	X	X	X

continued

y. This recommendation is consistent with the 2006 WHO guideline on *Maternal immunization against tetanus* (134). The dosing schedule depends on the previous tetanus vaccination exposure; please refer to Recommendation C.5 for details.

z. Integrated from the 2015 WHO publication *Guidelines for the treatment of malaria*, which also states: "WHO recommends that, in areas of moderate-to-high malaria transmission of Africa, IPTp-SP be given to all pregnant women at each scheduled antenatal care visit, starting as early as possible in the second trimester, provided that the doses of SP are given at least 1 month apart. WHO recommends a package of interventions for preventing malaria during pregnancy, which includes promotion and use of insecticide-treated nets, as well as IPTp-SP" (153). To ensure that pregnant women in endemic areas start IPTp-SP as early as possible in the second trimester, policy-makers should ensure health system contact with women at 13 weeks of gestation.

aa. Integrated from the 2015 WHO publication *Guideline on when to start antiretroviral therapy and on pre-exposure prophylaxis for HIV* (99). Substantial risk of HIV infection is defined by an incidence of HIV infection in the absence of PrEP that is sufficiently high (> 3% incidence) to make offering PrEP potentially cost-saving (or cost–effective). Offering PrEP to people at substantial risk of HIV infection maximizes the benefits relative to the risks and costs.

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Type of intervention	Recommendation	Type of recommendation	Eight scheduled ANC contacts (weeks of gestation)							
			1 (12 weeks)	**2** (20 weeks)	**3** (26 weeks)	**4** (30 weeks)	**5** (34 weeks)	**6** (36 weeks)	**7** (38 weeks)	**8** (40 weeks)
Low back and pelvic pain	**D.4:** Regular exercise throughout pregnancy is recommended to prevent low back and pelvic pain. There are a number of different treatment options that can be used, such as physiotherapy, support belts and acupuncture, based on a woman's preferences and available options.	Recommended	X	X	X	X	X	X	X	X
Constipation	**D.5:** Wheat bran or other fibre supplements can be used to relieve constipation in pregnancy if the condition fails to respond to dietary modification, based on a woman's preferences and available options.	Recommended	X	X	X	X	X	X	X	X
Varicose veins and oedema	**D.6:** Non-pharmacological options, such as compression stockings, leg elevation and water immersion, can be used for the management of varicose veins and oedema in pregnancy, based on a woman's preferences and available options.	Recommended	X	X	X	X	X	X	X	X
E: Health systems interventions to improve utilization and quality of antenatal care										
Woman-held case notes	**E.1:** It is recommended that each pregnant woman carries her own case notes during pregnancy to improve continuity, quality of care and her pregnancy experience.	Recommended	X	X	X	X	X	X	X	X
Midwife-led continuity of care	**E.2:** Midwife-led continuity of care models, in which a known midwife or small group of known midwives supports a woman throughout the antenatal, intrapartum and postnatal continuum, are recommended for pregnant women in settings with well functioning midwifery programmes.	Context-specific recommendation	X	X	X	X	X	X	X	X
Group antenatal care	**E.3:** Group antenatal care provided by qualified health-care professionals may be offered as an alternative to individual antenatal care for pregnant women in the context of rigorous research, depending on a woman's preferences and provided that the infrastructure and resources for delivery of group antenatal care are available.	Context-specific recommendation (research)	X	X	X	X	X	X	X	X

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			1 (12 weeks)	**2** (20 weeks)	**3** (26 weeks)	**4** (30 weeks)	**5** (34 weeks)	**6** (36 weeks)	**7** (38 weeks)	**8** (40 weeks)
Community-based interventions to improve communication and support	**E.4.1:** The implementation of community mobilization through facilitated participatory learning and action (PLA) cycles with women's groups is recommended to improve maternal and newborn health, particularly in rural settings with low access to health services.ab Participatory women's groups represent an opportunity for women to discuss their needs during pregnancy, including barriers to reaching care, and to increase support to pregnant women.	Context-specific recommendation	X	X	X	X	X	X	X	X
	E.4.2: Packages of interventions that include household and community mobilization and antenatal home visits are recommended to improve antenatal care utilization and perinatal health outcomes, particularly in rural settings with low access to health services.	Context-specific recommendation	X	X	X	X	X	X	X	X
Task shifting components of antenatal care delivery[ac]	**E.5.1:** Task shifting the promotion of health-related behaviours for maternal and newborn healthad to a broad range of cadres, including lay health workers, auxiliary nurses, nurses, midwives and doctors is recommended.	Recommended	X	X	X	X	X	X	X	X
	E.5.2: Task shifting the distribution of recommended nutritional supplements and intermittent preventive treatment in pregnancy (IPTp) for malaria prevention to a broad range of cadres, including auxiliary nurses, nurses, midwives and doctors is recommended.	Recommended	X	X	X	X	X	X	X	X
Recruitment and retention of staff in rural and remote areas[ae]	**E.6:** Policy-makers should consider educational, regulatory, financial, and personal and professional support interventions to recruit and retain qualified health workers in rural and remote areas.	Context-specific recommendation	X	X	X	X	X	X	X	X
Antenatal care contact schedules	**E.7:** Antenatal care models with a minimum of eight contacts are recommended to reduce perinatal mortality and improve women's experience of care.	Recommended	X	X	X	X	X	X	X	X

ab. Integrated from the 2014 publication WHO recommendations on community mobilization through facilitated participatory learning and action cycles with women's groups for maternal and newborn health (183).

ac. Including promotion of the following: care-seeking behaviour and ANC utilization; birth preparedness and complication readiness; sleeping under insecticide-treated bednets; skilled care for childbirth; companionship in labour and childbirth; nutritional advice; nutritional supplements; other context-specific supplements and interventions; HIV testing during pregnancy; exclusive breastfeeding; postnatal care and family planning; immunization according to national guidelines.

ad. Recommendations adapted and integrated from the 2012 WHO guideline on Optimizing health worker roles to improve access to key maternal and newborn health interventions through task shifting (OptimizeMNH) (201).

ae. Adapted and integrated from the 2010 WHO publication Increasing access to health workers in remote and rural areas through improved retention: global policy recommendations (202).

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Appendix 2: Diagnosis of pregnancy

It is important that providers of maternity care can reliably confirm pregnancy. A broad range of techniques are available for the diagnosis of pregnancy and different methods may be used in particular settings depending on their affordability and feasibility.

Clinical diagnosis of pregnancy

Diagnosis of pregnancy by clinical (non-laboratory) means relies on the detection, through a careful medical history and physical examination, of the signs and symptoms associated with pregnancy.

The most important symptom is amenorrhoea which, when it is accompanied by other symptoms, is highly suggestive of pregnancy. Pelvic examination by a trained provider is useful in the diagnosis of pregnancy after 6 weeks of gestation; however, it is dependent on the skill of the provider, gestational age, and physique/build/body shape of the pregnant individual.

It should be remembered that characteristic findings on history and physical examination are not highly sensitive for diagnosis but help the healthcare provider distinguish normal pregnancy from coexisting disorders.

Symptoms of pregnancy

- Absent menses (amenorrhoea)
  - Pregnancy should be suspected whenever an individual in their reproductive years has a delay or new irregularities in menstruation if they have been sexually active (even if using contraception)
  - Irregular and/or painful bleeding can be a sign of ectopic pregnancy or miscarriage
    - Nausea (with or without vomiting) and changes in appetite
    - Persistent fatigue
    - Breast tenderness and breast enlargement
    - Increased frequency of urination
    - Perception of fetal movements (a late sign, between 16 and 20 weeks of pregnancy)

Signs of pregnancy

- Uterine softness, roundness, and enlargement begins to be noticeable at 6 weeks of pregnancy
- Hegar's sign becomes manifest at about 6 weeks of pregnancy. The isthmus between the cervix and the body of the uterus is felt to be soft and compressible on bimanual pelvic examination
- Uterine pulsations may be a helpful sign of pregnancy at less than 6 weeks
- The enlarged uterus is palpable above the pubic symphysis after 12 weeks
- Fetal heart tones are detectable with a stethoscope starting at 18–20 weeks
- Fetal movements can be perceived by the examiner starting at 18–20 weeks

If there is any lack of certainty, the next step is to confirm the pregnancy using clinical examination with laboratory methods and/or ultrasound (see *Chapter 4: Contraception, Box 3*).

Appendix 3: Birth and emergency plan

A birth and emergency plan is a document recording the pregnant individual's preferences and plans for labour and delivery, including what to do in possible emergency situations.

At the first antenatal contact, the healthcare provider should initiate discussions with the client using the information below, as the basis for developing a detailed birth and emergency plan. The provider should support the client by reviewing the birth and emergency plan at each subsequent contact to further develop and adjust it, considering any changes in risk factors for the client or fetus or changes in the client's wishes.

Explain why birth in a facility is recommended

- Any complication can develop during delivery – they do not happen only to those with risk factors and are often unpredictable.
- A facility should have required staff, equipment, supplies, and drugs available to provide the best care if needed, as well as a referral system.
- Clients who are living with HIV will need appropriate antiretroviral treatment for themselves and for the baby during childbirth.
- Complications are more common in pregnant individuals who are living with HIV and their newborns. These deliveries should take place in a facility.

Review and advise on arrangements for delivery and preparations in case of emergency

- How will the client get to the facility?
- Will they have to pay for transport, and/or for delivery at the facility? If so, how much?
- How will they pay? (e.g. do they need to start saving)
- Who will provide companionship/support during labour and delivery?
- Who will help care for their home and other children in their absence?

Advise when to go to the facility

- Clients who live near the facility should go at the first signs of labour or if there are any danger signs (see below).
- Clients who live far from the facility should go 2–3 weeks before the baby's due date and stay at the maternity waiting home, if there is one, or with family or friends near the facility.

Advise what to take to the facility

- Home-based maternal record.
- Clean cloths, towels, and/or blankets for washing, drying, and wrapping the baby.
- Sanitary pads, if available, or additional clean cloths to use as sanitary pads after the birth.
- Cloth or newborn-size disposable nappies for baby.
- Clothes for themselves and the baby, including a hat and socks for baby.
- Food and water for themselves and the support person.

Advise on signs of labour

Advise to go to the facility or contact the skilled birth attendant if they experience any of the following signs:

- a bloody, sticky discharge
- painful contractions every 20 minutes or less
- waters have broken

Advise on danger signs

Advise to go to the health facility ***immediately*** *if they experience any of the following signs:*

- vaginal bleeding
- convulsions
- severe headache with blurred vision
- fever and too weak to get out of bed
- severe abdominal pain
- fast or difficult breathing

Advise to go to the health facility ***as soon as possible*** *if they experience any of the following signs:*

- fever
- abdominal pain
- feeling ill
- swelling of fingers, face, legs

Source: Adapted from World Health Organization, United Nations Population Fund, World Bank and United Nations Children's Fund. Pregnancy, childbirth, postpartum and newborn care: a guide for essential practice. Third edition. Geneva: WHO; 2015. https://apps.who.int/iris/handle/10665/249580. Accessed 19 November 2019.

Appendix 4: Triage for antenatal, intrapartum, and post-natal care

The healthcare provider responsible for initial reception of pregnant individuals and newborns should be competent to conduct triage and to start resuscitation if required.

The healthcare facility should have a clear policy on:

- when to refer, and
- the referral procedure, including:
  - agreement with suitable facilities for upward referral
  - transport arrangements including who should accompany the client
  - copies of record card or notes
  - follow-up of those clients referred for care in other facilities

Key principles

- Assess the general condition of any pregnant, labouring, or post-partum individual arriving at the facility (see details below).
- If the client is unable to speak because they are too unwell, ask the accompanying person to describe the client's condition and needs and refer to written health records.
- Repeat the assessment periodically until medical issues are resolved.

Clinical assessment

History: Why did you come? Is it for youself or the baby? What is the concern? How old is the baby?

Examination:

- Assess the client's general condition.
- Assess the baby's condition.
- Observe vital signs: take temperature and blood pressure.

What to do	
Adult pregnant or post-partum individual	**Newborn**
TREAT AS EMERGENCY IF • unconscious (unable to talk) • bleeding vaginally • convulsing • severe abdominal pain • fever • headache and visual disturbance • severe difficulty breathing • severe vomiting	**TREAT AS EMERGENCY IF** • very small • having convulsions • difficulty breathing • heavy hypotonia • hypothermia (moderate <36°C; severe <32°C) • just been delivered • any maternal concern
ACTION • call for help • transfer immediately to treatment room for full assessment and management • ensure that the client and/or companion are fully informed • transfer to delivery room for assessment if in labour or delivery is imminent	**ACTION** • ask parent to stay with the baby • transfer the baby to the treatment room for immediate newborn care
TREAT AS ROUTINE IF • no danger signs	**TREAT AS ROUTINE IF** • no danger signs or maternal complaints

Source: Adapted from World Health Organization, United Nations Population Fund, World Bank and United Nations Children's Fund. Pregnancy, childbirth, postpartum and newborn care: a guide for essential practice. Third edition. Geneva: WHO; 2015. https://apps.who.int/iris/handle/10665/249580. Accessed 26 November 2019.

Appendix 5: Initial assessment of an individual presenting with possible labour or ruptured membranes

History: Ask the client	• Are you having contractions? If so: How strong? How often? How long do they last? When did they begin? • Have your waters broken (prelabour rupture of membranes)? If yes, when? Were they clear or green? (see *Section 3.2.1* on PROM at term) • Have you had any bleeding? If yes, when? How much? • Is the baby moving? • Is there anything else you are concerned about?
Check the record (or ask the client/ accompanying person	• Based on estimated date of delivery, calculate current weeks of pregnancy to check if preterm (<37 weeks) (if preterm, refer to *Section 4.4*) • Review the birth plan • If any prior pregnancies: How many prior pregnancies/deliveries? Any prior caesarean deliveries, forceps or vacuum, or other complications such as post-partum haemorrhage? Any prior third- or fourth-degree tears? • Current pregnancy: Rapid plasma reagin status, haemoglobin results, tetanus immunization status, HIV status • Infant feeding plan • Any current medication
Examination	• Observe response to contractions: Coping well or distressed? Pushing or grunting? • Check abdomen for caesarean delivery scar and/or horizontal ridge across lower abdomen; this may be a sign of obstructed labour (if present, empty bladder and observe again) • Feel abdomen for frequency and duration of contractions: Are there any continuous contractions? Is the fetal lie longitudinal or transverse? Is fetal presentation head, breech, other? • If no ultrasound of this pregnancy, check for >1 fetus (3 fetal poles on palpation) and for fetal movement • Listen to fetal heartbeat with Pinard or Doppler: Count number of beats in 1 minute; if <100 or >180 beats/minute, turn the client on their left side and count again • Measure blood pressure • Measure temperature • Look for pallor • Look for sunken eyes, dry mouth • Pinch the skin of the forearm: Does it go back quickly?
Warning signs to look out for during admission and labour	• Bleeding • Severe abdominal pain • Severe headache or visual disturbance • Breathing difficulty • Fever or chills • Difficulty emptying bladder • Epigastric pain

Source: World Health Organization, United Nations Population Fund, World Bank and United Nations Children's Fund. Pregnancy, childbirth, postpartum and newborn care: a guide for essential practice. Third edition. Geneva: WHO; 2015. https://apps.who.int/iris/handle/10665/249580. Accessed 25 April 2022.

Appendix 6: Treatment of severe pre-eclampsia and eclampsia

1: Give magnesium sulphate intravenous (IV) + intramuscular (IM) combined dose (loading dose) (see *Table 1*)

- Insert IV line and:
  - give fluids slowly (normal saline or Ringer's lactate): 1 litre over 6–8 hours (3 ml/minute)
  - give 4 g magnesium sulphate (20 ml of 20 per cent solution) slowly over 20 minutes

AND

- Administer IM injection:
  - 10 g magnesium sulphate: 5 g (10 ml of 50 per cent solution) IM deep in upper outer quadrant of each buttock with 1 ml of 2 per cent lignocaine in the same syringe.

If unable to give IV, only give the IM dose as above.

Also:

- Help the client onto their left side and protect them from fall and injury.
- Place padded tongue blades between the client's teeth to prevent a tongue bite and secure it to prevent aspiration (DO NOT attempt this during a convulsion).

Antihypertensive medications should be started if the systolic blood pressure is 160 mm Hg or higher and/or the diastolic blood pressure is 100 mm Hg or higher (see *Table 2* – next page). It is important to maintain blood pressure above the lower limits of normal. While the intravenous route is preferred for acute treatment of severe hypertension, if this is not available or feasible, oral treatment can be given.

TABLE 1: Formulations of magnesium sulphate

		50 per cent solution	20 per cent solution
Route	Dose	Vial containing 5 g in 10 ml (1 g/2 ml)	To make 10 ml of 20 per cent solution, add 4 ml 50 per cent solution to 6 ml sterile water
IM	5 g	10 ml + 1 ml 2 per cent lignocaine in the same syringe	Not applicable
IV	4 g	8 ml	20 ml
IV	2 g	4 ml	10 ml

TABLE 2: Antihypertensive medications and dosing options for acute treatment of severe hypertension

Antihypertensive option	Dosing
Hydralazine	Intravenous treatment: • Administer 5 mg IV, slowly • Repeat every 5 minutes until the blood pressure goal has been achieved • Repeat hourly as needed or give 12.5 mg IM every 2 hours as needed • Maximum dose is 20 mg per 24 hours
Labetalol	Oral treatment: • Administer 200 mg • Repeat dose after 1 hour until treatment goal is achieved • Maximum does is 1200 mg in 24 hours Intravenous treatment: • Administer 10 mg IV • If response is inadequate after 10 minutes, administer 20 mg IV • The dose can be doubled to 40 mg and then 80 mg with 10-minute intervals between each increased dose until blood pressure is lowered below threshold • Maximum total dose in 300 mg; then switch to oral treatment Note: Clients with congestive heart failure, hypovolaemic shock, or predisposition to bronchospasm (asthma) should not receive labetalol
Nifedipine immediate-release capsule	Oral treatment: • Administer 5–10 mg orally • Repeat dose after 30 minutes if response is inadequate until optimal blood pressure is reached • Maximum total dose is 30 mg in the acute treatment setting – other options should be considered if blood pressure is not lowered within 90 minutes of receipt of 30 mg
Alpha methyldopa	Oral treatment: • Administer 750 mg orally • Repeat dose after 3 hours until the treatment goal is achieved • Maximum dose is 3 g in 24 hours

2: If convulsions recur

- After 15 minutes of treatment, give an additional 2 g magnesium sulphate IV (10 ml of 20 per cent solution) slowly over 20 minutes (rapid injection can cause respiratory failure or death).
- If convulsions continue, give diazepam.*

  Loading dose IV:
  - Give 10 mg diazepam IV, slowly over 2 minutes.
  - If convulsions recur, give a repeat dose of 10 mg.

* Guidance is to give diazepam if convulsions occur in early pregnancy or if magnesium sulphate toxicity occurs or magnesium sulphate is not available.

Maintenance dose:

- Give 40 mg diazepam in 500 ml IV fluids (normal saline or Ringer's lactate), titrated over 6–8 hours to keep the client sedated but rousable.
- Stop the maintenance dose if breathing less than 16 breaths/minute.
- Assist ventilation, if necessary, with mask and bag.
- Do not give more than 100 mg in 24 hours.

3: If referral is not possible, or if delayed, or the client is still in labour, continue treatment

- Give 5 g magnesium sulphate IM (10 ml of 50 per cent solution) with 1 ml of 2 per cent lignocaine in the same syringe every 4 hours in alternate buttocks until 24 hours after birth or after the last convulsion (whichever is later).
- Monitor urine output: collect urine; measure and record the quantity.
- Before giving each subsequent dose of magnesium sulphate, ensure:
  - knee-jerk reflex is present
  - urine output is greater than 100 ml/4 hours
  - respiratory rate is greater than 16 breaths/minute.
- DO NOT give the next dose if there are any signs of magnesium toxicity:
  - knee-jerk reflex is absent
  - urine output less than 100 ml/4 hours
  - respiratory rate is less than 16 breaths/minute
- If there are signs of magnesium toxicity, give 1 g calcium gluconate IV (10 ml of 10 per cent solution) over 10 minutes.

Source: World Health Organization, United Nations Population Fund, World Bank and United Nations Children's Fund. Pregnancy, childbirth, postpartum and newborn care: a guide for essential practice. Third edition. Geneva: WHO; 2015. https://apps.who.int/iris/handle/10665/249580. Accessed 26 November 2019. World Health Organization. Managing complications in pregnancy and childbirth: a guide for midwives and doctors. Second edition. Geneva: WHO; 2017. https://apps.who.int/iris/bitstream/handle/10665/255760/9789241565493-eng.pdf. Accessed 26 November 2019.

Appendix 7: Basic newborn resuscitation

Some babies may require help to establish normal breathing at delivery. Most of these infants only need supported perinatal transition into the extra-uterine environment rather than resuscitation.

Babies born at less than 37 weeks of gestation have a higher chance of requiring resuscitation, particularly if the individual has an infection or a multiple pregnancy (twins or more), and the baby has any signs during delivery of abnormal fetal heart rate or the presence of meconium.

What is normal and what is abnormal?

- A healthy infant might be born with a bluish hue but will have good tone, will cry within a few seconds of delivery, and will have a good heart rate within a few minutes of birth (the heart rate of a healthy newborn is about 120–150 beats/minute).
- A less healthy infant will be blue at birth, will have less good tone, may have a slow heart rate (less than 100 beats/minute), and may not establish adequate breathing by 90–120 seconds after birth.
- An unwell infant will be born pale and floppy, not breathing, and with a slow, very slow, or undetectable heart rate.

Key principles

- **Be prepared**: Be aware that resuscitation may be required (call for help in advance if needed) if there have been any antenatal or intrapartum events or concerns regarding the fetal condition.
- **Delay cord clamping**: The cord should not be clamped earlier than 1 minute after birth (preferably 3 minutes) to increase the transition time to the extra-uterine environment for uncompromised term or preterm babies.
- **Keep the baby warm**: Keep the baby's temperature between 36.6°C and 37.5°C and stimulate breathing with thorough drying, removing any wet towels.
- **Rub the baby's back and use positive pressure ventilation**: Newly born babies who do not breathe spontaneously after thorough drying should be stimulated by rubbing the back 2–3 times before clamping the cord and initiating positive pressure ventilation.
- **Assessment**: Assess breathing, heart rate (with a stethoscope), and tone.

What to do for newborns who do not start breathing despite thorough drying and additional stimulation

- Positive pressure ventilation should be initiated within 1 minute after birth after opening the airway by giving five inflation breaths.
- This should not be delayed, but if the baby is floppy and was born through thick meconium it is reasonable to first inspect the oropharynx rapidly to remove potential obstructions.
- Positive pressure ventilation should be initiated with air using a self-inflating bag and face mask (not nasal tubing).
- Adequacy of positive pressure ventilation should be assessed by measurement of the heart rate after 60 seconds of ventilation with visible chest movements.
- If the newborn does not start breathing within 1 minute after birth, give priority to providing adequate ventilation rather than chest compressions.
- Reassess heart rate every 30 seconds.
- If there is no increase in heart rate, look for chest movements:
  - If the chest is not moving, recheck the head position, consider if help is required to keep the airway open, and repeat inflation breaths.
  - If the chest is moving but heart rate is not detectable, or very slow (<60 beats/minute), ventilate for 30 seconds.
  - Reassess heart rate. If it is still <60 beats/minute start chest compressions with inflation breaths using a ratio of 3:1.

When to stop resuscitation

- In newborns with no detectable heart rate after 10 minutes of effective ventilation, resuscitation should be stopped.
- In newborns who continue to have a heart rate below 60 beats/minute and no spontaneous breathing after 20 minutes of resuscitation, resuscitation should be stopped.
- Tracheal intubation should not be routine in the presence of meconium and should only be performed for suspected tracheal obstruction.

Note: If available, nasal continuous positive airways pressure (CPAP) rather than routine intubation may be used to provide initial respiratory support of all spontaneously breathing preterm infants with respiratory distress.

Recommendations on use of suction

The healthcare provider should use a bulb syringe (single use or easy to clean) rather than a mucous extractor with a trap to generate suction by aspiration if there is no mechanical equipment to generate negative pressure for suctioning.

Do	Do not	Not recommended
• Perform tracheal suctioning before initiating positive pressure ventilation in neonates born through meconium-stained amniotic fluid who do not start breathing on their own	• Suction mouth and nose in neonates born through clear amniotic fluid who start breathing on their own after birth • Suction the mouth and nose routinely before initiating positive pressure ventilation in neonates born through clear amniotic fluid who do not start breathing after thorough drying and rubbing the back 2–3 times (suctioning should be done only if the mouth or nose is full of secretions) • Perform tracheal suctioning in neonates born through meconium-stained amniotic fluid who start breathing on their own	• Intrapartum suctioning of the mouth and nose at the delivery of the head in the presence of meconium-stained amniotic fluid • Suctioning of the mouth or nose in neonates born through meconium-stained amniotic fluid who start breathing on their own

Source: World Health Organization. Guidelines on Basic Newborn Resuscitation. Geneva: WHO; 2012. Available at: http://apps.who.int/iris/bitstream/10665/75157/1/9789241503693_eng.pdf. Accessed 5 June 2020. Fawke J, Wyllie J, Madar J, et al. Newborn resuscitation and support of transition of infants at birth Guidelines. Resuscitation Council UK. May 2021. Available at: https://www.resus.org.uk/library/2021-resuscitation-guidelines/newborn-resuscitation-and-support-transition-infants-birth. Accessed 27 April 2022.

MAIN CONTENTS

Chapter 10:

Sexual and gender-based violence

contents

contents (continued)

1. Introduction

Sexual and gender-based violence (SGBV) is a major public health problem, a clinical health problem, and a violation of human rights. It is rooted in gender inequities, and further promotes them. Globally the scale is impressive, with approximately one in three women affected by SGBV. Such violence results in, or may result in, physical, sexual, or psychological harm, causing suffering and poor health.

The objectives of this chapter are to provide insight into the definition and diagnosis of SGBV, as well as evidence-based recommendations for care and treatment of those suffering from abuse.

1.1 Definition of terms

- *Sexual and gender-based violence (SGBV)* refers to any harmful act that is perpetrated against a person's will and is based on gender norms and unequal power relationships [1].
- *Gender-based violence (GBV)* is an umbrella term for any harmful act that is perpetrated against a person's will and that is based on socially ascribed (gender) differences between males and females. It includes acts that inflict physical, sexual, or mental harm or suffering, threats of such acts, coercion, and other deprivations of liberty. These acts can occur in public or in private [2].
- *Violence against women (VAW).* The United Nations defines VAW as "any act of gender-based violence that results in, or is likely to result in, physical, sexual or mental harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life" [3]. About 1 in 3 (30 per cent) of women worldwide have experienced either physical and/or sexual intimate partner violence (IPV, see *Section 1.4*) or non-partner sexual violence in their lifetime [3]. It is important to emphasize, however, that VAW includes not only physical and sexual violence, but also controlling behaviour, emotional and psychological abuse, verbal threats, and open humiliation.

Acronyms

FGM	female genital mutilation
HIV	human immunodeficiency virus
IPPF	International Planned Parenthood Federation
IPV	intimate partner violence
SGBV	sexual and gender-based violence
STI	sexually transmitted infection
VAW	violence against women

The International Planned Parenthood Federation (IPPF) prefers the term 'sexual and gender-based violence' rather than 'gender-based violence' or 'violence against women', because it emphasizes the sexual violence component. Different organizations prefer to use SGBV, GBV, or VAW, depending on the organization's mandate and activities, but SGBV and GBV can be used interchangeably, as can VAW, when focusing on female survivors.

SGBV is a human rights violation associated with death, injury, and a broad range of negative sexual and physical health issues and socioeconomic impacts. SGBV occurs in many forms, including sexual violence, IPV, and reproductive coercion, and can be perpetrated by any individual, whether strangers, relatives, colleagues, acquaintances, or intimate partners. SGBV is an inclusive term that includes violence perpetrated against those who identify as women and girls, men and boys (including transgender women, girls, men, and boys), as well as against non-binary individuals who do not conform to predominant (binary) gender roles or identities. The most common perpetrators of violence against women are male intimate partners or ex-partners. By contrast, men are far more likely to experience violent acts by strangers or acquaintances than by someone close to them.

SGBV can affect anyone, but women and girls are affected and suffer at disproportionately higher rates with more severe and long-lasting health outcomes, including an increased risk of HIV and other sexually transmitted infections (STIs), unintended pregnancies, gynaecological disorders, obstetric complications,

depression, anxiety, and reduced uptake and use of contraceptives.

This chapter uses the terms 'survivor (of SGBV)' to refer to all individuals who have experienced a form of SGBV, in line with global practice, and 'a client who has experienced SGBV' to refer specifically to someone who is receiving sexual and reproductive health and rights healthcare. However, the 'correct' term to use when speaking directly to someone is whatever they prefer to use. Some people will use victim to refer to themselves and their experience, some might choose survivor, and others may not use either of those terms. The healthcare provider must actively listen to the language being used by the client and mirror it as appropriate.

1.2 Causes of sexual and gender-based violence

The root causes of SGBV are abuse of power, gender inequalities, discrimination, and harmful societal norms.

During emergencies such as conflicts, natural disasters, or infectious disease outbreaks such as coronavirus disease (COVID-19), the risk of violence, exploitation, and abuse is heightened, particularly for women and girls, as national systems and community and social support networks may weaken and gender inequalities are exacerbated [4]. The breakdown of these networks increases the risks of SGBV to women, girls, and at-risk groups as protection mechanisms are weakened. For more information on providing SGBV healthcare in emergency settings, see *Chapter 11: Sexual and reproductive healthcare delivery in humanitarian settings*.

1.3 Risks and vulnerabilities to sexual and gender-based violence

Anyone can experience SGBV and this underlines the issues of intersectionality. Intersectionality is a framework for understanding that people experience overlapping (i.e. intersecting) forms of oppression, discrimination, and marginalization based on their coexisting identities (e.g. discrimination based on both gender and ethnicity) [4]. Individuals are multifaceted and have different experiences, backgrounds, identities, and characteristics that are complex and overlap, which may increase their risks and vulnerabilities to SGBV.

Not all individuals will experience these inequalities in the same way. However, these inequalities profoundly impact the SGBV experiences survivors face [4].

Besides women and girls, other at-risk groups who also have a heightened risk for SGBV include:

- lesbian, gay, bisexual, transgender, intersex, non-binary, and gender-fluid people
- people with disabilities
- adolescents and children
- people living with HIV
- elderly people
- women and children heads of households
- girls and women who bear children of rape, and their children born of rape
- indigenous people, and ethnic and religious minorities
- separated or unaccompanied children, including orphans and children associated with armed forces/groups
- migrants, refugees, asylum seekers, and internally displaced people
- people without fixed housing
- people involved in forced and/or coerced sex work, including child victims of sexual exploitation
- people of all ages in detention [5]

1.4 Forms of sexual and gender-based violence

SGBV includes violent acts that are physical, emotional/psychological, and sexual, or deprivation of opportunities and access to resources. Forms of SGBV include:

- *Intimate partner violence (IPV)* refers to "behaviour by an intimate partner or ex-partner that causes physical, sexual or psychological harm, including

physical aggression, sexual coercion, psychological abuse and controlling behaviours" [3]. Indeed, most SGBV is perpetrated by a current or former intimate partner. Globally, almost one-third (27 per cent) of women aged 15–49 years who have been in a relationship report that they have experienced some form of IPV in their lifetime [3].

- *Reproductive coercion* is a form of abuse perpetrated by an individual(s) to exert power and control over another's reproductive health and choices, predominantly by men against women. Forms of reproductive coercion include pregnancy coercion (pressure to become pregnant), contraceptive sabotage (direct interference with contraception), and control of pregnancy outcomes (forcing the pregnant person to have an abortion or to continue with a pregnancy that they do not want) [6,7].
- *Homophobic and transphobic violence* refers to attacks on people because of their perceived sexual orientation or gender identity. This type of violence – which can take diverse forms – is often driven by a desire to punish or to 'cure' those who defy traditional gender norms.
- *Psychological and/or emotional abuse* refers to the infliction of mental or emotional pain or injury; for example, threats of physical or sexual violence, controlling behaviour, verbal abuse, intimidation, humiliation, forced isolation, stalking, harassment, defamation, and exploitation. Psychological abuse may include reproductive coercion (as above). Another example is technology-facilitated SGBV, which is when the internet or a mobile technology is used to harm others based on their sex or sexual orientation or gender identity.
- *Socioeconomic abuse or neglect* is the intentional deprivation of opportunities and resources that are needed for one to exercise their human rights motivated by perspectives on sex or gender identity or sexual orientation; examples include denial of food; denial of education or opportunities to work or own property; restricting access to money, healthcare, or social services.
- *Physical assault* is an act of physical violence that involves intentionally using or threatening to use physical force, strength, or a weapon to harm or injure a person (e.g. hitting, choking, slapping, strangulation, burning, cutting).
- *Sexual violence* (or sexual abuse) is any sexual act, attempt to obtain a sexual act, unwanted sexual comments or advances, or acts to traffic, directed against a person's sexuality using coercion or manipulation, by any person regardless of their relationship to the survivor, in any setting. Rape, sexual assault, and sexual exploitation are all forms of sexual violence.
- *Sexual slavery* is a form of enslavement and sexual violence that includes limitations on an individual's autonomy, freedom of movement, and power to decide matters relating to their sexual activity. Forced marriage, domestic servitude, and trafficking for sex work are often associated with sexual slavery.
- *Child sexual abuse* is a type of sexual violence that involves a child or an adolescent in sexual activity that they do not fully comprehend, have not or are unable to give informed consent to, and/or for which the child or adolescent is not developmentally prepared and cannot give consent, or that violates the law or societal norms.
- *Harmful traditional practices* are accepted forms of violence in a specific culture or society that have taken place over time, predominately against women and girls, and carried out in the name of tradition. Such acts include forced marriage, 'honour' killing, and female genital mutilation (FGM).
- *Female genital mutilation (FGM)* is a term that encompasses "all procedures that involve the partial or total removal of external genitalia or other injury to the female genital organs for non-medical reasons" [8]. The procedure is common in 30 countries across Africa and in some parts of the Middle East and Asia. It also exists in communities originating from these countries living in other countries.

2. Guiding principles, provider knowledge and skills

2.1 Guiding principles

IPPF acknowledges that SGBV is a key barrier to fully accessing sexual and reproductive healthcare and affects both the general health and sexual and reproductive health of survivors. IPPF advocates a human rights-based, client-centred, 'do-no-harm' approach to providing healthcare and supporting all survivors affected by SGBV.

2.1.1 Survivor-centred approach

When working with clients who have experienced SGBV, both clinical and non-clinical staff must practise a survivor-centred approach and implement the SGBV guiding principles of safety, confidentiality, respect, and non-discrimination. A survivor-centred approach creates a supportive environment in which survivors' rights and wishes are respected, their safety is ensured, and they are treated with dignity and respect.

A survivor-centred approach is based on the following guiding principles:

- *Safety:* The safety and security of survivors and their children are the primary considerations.
- *Confidentiality:* Survivors have the right to choose with whom they will or will not share their story, and any information about them should only be shared with their informed consent.
- *Respect:* All actions taken should be guided by respect for the choices, wishes, rights, and dignity of the survivor. The role of helpers is to facilitate recovery and provide resources to aid the survivor.
- *Non-discrimination:* Survivors should receive equal and fair treatment regardless of their age, disability, gender identity, religion, nationality, ethnicity, sexual orientation, or any other characteristics [4].

2.2 Provider knowledge

All staff should be aware of SGBV as a public health and human rights issue, as well as having relevant knowledge, clinical skills, and competencies. Safe and ethical care must be provided for people who have experienced SGBV by ensuring adherence to the facility's agreed procedures as well as the SGBV guiding principles for responding to the needs of survivors of sexual violence (safety, confidentiality, respect, and non-discrimination [2]), take a survivor-centred approach (see *Section 2.1.1*), and always believe the survivor.

Healthcare providers should know about and understand the wider issues related to SGBV, including:

- the political, social, and economic determinants of SGBV, both nationally and regionally
- the legal definition of SGBV, both nationally and regionally
- the legal age of consent
- the different forms of SGBV and the circumstances under which they are perpetrated, including physical, sexual, psychological, emotional, and socioeconomic violence against people of all ages, genders, and sexual orientations
- the prevalence and incidence of various forms of SGBV within local communities, including populations at risk of experiencing SGBV (see *Section 1.3*)
- the stigma and discrimination associated with SGBV in a range of geographic, social, and cultural settings
- cultural myths and misconceptions relating to the normalization of rape and sexual violence, e.g. attitudes to rape within marriage
- harmful sociocultural norms and beliefs relating to FGM, as well as common methods used and types of FGM practised in the community or country
- the national and/or regional legal and regulatory frameworks for reporting SGBV (including rape) and requirements and standards for collection of forensic evidence

- the national legislation, standards, and clinical guidelines for managing the medical consequences of rape
- appropriate referral pathways to apply, with the survivor's consent

In humanitarian or crisis settings, healthcare providers should also be trained on the Minimum Initial Service Package (MISP) [9] and the Inter-Agency Minimum Standards for Gender-Based Violence in Emergency Programming [4]. See *Chapter 11: Sexual and reproductive healthcare delivery in humanitarian settings* for more information.

2.3 Provider skills and competencies

Healthcare providers should be appropriately skilled, knowledgeable of SGBV root causes and myths, and prepared to identify, manage, and support clients experiencing SGBV; to perform screening where appropriate; and refer clients as appropriate for clinical care, psychological support, legal counselling, and shelter or protection services. Asking clients questions relating to SGBV can be upsetting and potentially dangerous for both client and provider, and therefore all screening must be carried out in an appropriate and survivor-centred manner. See International Rescue Committee [10] for further guidance and screening tools for SGBV in primary health facilities.

The World Health Organization (WHO) does not recommend screening all women who attend all healthcare settings for SGBV (i.e. 'universal screening') [11]. However, as many primary healthcare facilities, such as IPPF Member Associations' clinics, provide specialist care for sexual and reproductive health and rights, and clients presenting for many aspects of sexual and reproductive health and rights care are at higher risk for SGBV, selective screening of clients presenting for this care is recommended, provided appropriate training, facilities (such as private screening rooms and safe storage methods for sensitive data), and referral pathways are in place.

Providers must be mindful that screening is not an SGBV service, but rather a route to supporting further care and referrals. If specialized care or referral pathways will not be available, then screening of any kind should not be undertaken, as this can be harmful for survivors. IPPF does not recommend any screening in humanitarian settings (see *Chapter 11: Sexual and reproductive healthcare delivery in humanitarian settings*).

Counsellors, or anyone who will be screening or otherwise interacting with a client who has experienced SGBV, must be trained, skilled, and competent in up-to-date basic counselling techniques (see *Chapter 3: Counselling*) as well as in the provision of first-line support (an adaptation of 'psychological first aid'), i.e. the minimum level of psychosocial and emotional support that should be received by all clients who disclose abuse to the provider. First-line support includes practical care and responds to a client's emotional, physical, safety, and support needs, without violating their privacy [12]. WHO suggests that first-line support is often the most important care that a healthcare provider can provide.

In addition to the structural needs of private rooms where clients can speak without being overheard, building rapport and trust with the client is critical so that they feel comfortable and, if they choose, self-report the SGBV they are experiencing or are at risk of (see *Chapter 2: Facility requirements and client history/examination*). For survivors, disclosing this information is very personal and sensitive, therefore they may need extra time to talk and may be visibly upset. Through creation of a safe and empowering environment for the client, the healthcare provider will be able to make a clear assessment that will enable the provider to initiate appropriate and timely actions according to the survivor's wishes and consent [13,14].

As part of ensuring client safety and comfort, assumptions should not be made about gender identity or sexual orientation; use of gender-neutral language is recommended, where possible, e.g. 'partner' and they/them/their pronouns, until the client uses their own terms, in which case these should be mirrored.

2.3.1 Screening and clinical assessment

Healthcare providers must have skills and training in screening and clinical assessment relevant to SGBV, including:

- identifying genito-anal anatomy and assessing for clinical signs and symptoms of physical and sexual violence
- conducting a physical assessment and documenting injuries using standard terminology for classification
- assessing STI risks and having knowledge of the natural history of STIs and local protocols for testing and management
- providing first-line clinical care, such as emergency contraception and pregnancy testing

2.3.2 Referral

Healthcare providers must understand the criteria to be used as a basis for referral, with reference to the results of the screening and assessment for SGBV. Healthcare providers should also be aware of follow-up procedures after a client has been referred.

If healthcare providers have not been trained in screening and assessment for SGBV and/or do not have the appropriate survivor-centred attitude, then this process should not be implemented.

3. Caring for clients at risk of or affected by sexual and gender-based violence

3.1 Identifying clients experiencing or at risk of sexual or gender-based violence

Some clients will self-report experience or risk of SGBV themselves. Please note that providers must request time to speak privately with clients who are accompanied by a support person to provide an opportunity to disclose any experience of SGBV. Providers should nurture a safe space for clients to feel able to disclose their experiences and ensure that relevant healthcare, such as emergency contraception and post-exposure prophylaxis, is available regardless of a survivor's decision to disclose or not. However, the sensitivity of SGBV means that many clients may not want to share their information, and care must be taken to try to ensure that all clients have access to SGBV care and support.

Keep the survivor-centred approach in mind:

- If a client shares their worries, the healthcare provider should provide a safe environment for the client to feel safe and secure in sharing more information.
- If the client chooses not to disclose their situation or does not want to take up any interventions offered, essential SGBV information should be provided and another appointment offered, with the provision that they can come back at any time for information and healthcare.
- Only discuss SGBV when alone with the client or when there is no one else present over the age of 2 years, unless the client has requested the presence of a chaperone or a specific friend/relative.
- Maintain strict confidentiality of the client's health records, never leaving them out unattended on the desk.
- Before offering screening or asking any questions, providers must explain any mandatory reporting laws that affect their conversation or limit its confidentiality so that the client can make an informed choice about whether to disclose. Wherever possible, access to care and support should not rely on self-disclosure or screening.

The healthcare provider may be alerted to a client who has not self-reported experiencing SGBV, based on psychological or physical signs and symptoms that the client presents with. More than one factor may be present and correct identification will depend on the healthcare provider remaining vigilant and looking at the whole clinical and psychological picture. This may include clients:

- who engage in self-destructive or self-harming behaviours, such as substance misuse, acts of self-harm, or thoughts and plans about committing suicide
- with persistent anxiety or depression
- with recurring physical complaints such as physical injuries that are not well explained
- with repeated STIs (see *Chapter 6: Sexually transmitted infections*), as well as unintended pregnancies
- with chronic pain conditions or vague complaints for which no diagnosis can be found

Physical and psychological issues related to SGBV may only become apparent over a series of visits by the client. It may also take time for clients to trust a particular healthcare provider and disclose their situation, even when sensitive screening and counselling techniques are employed. Because of this, it is crucial that the information from the consultation is documented in the medical record (while ensuring data confidentiality) so that the conversation can be continued at the following visits, if the client wishes. It is important to note that screening is a method of offering clients who have experienced SGBV an opportunity to disclose, and not a list of questions that they must answer (see *Box 1* – next page).

In a country or region with a designated government agency that leads on SGBV, or in an emergency setting with an activated humanitarian coordination network (protection cluster or SGBV sub-cluster) there may already be a referral pathway available for the area. The healthcare provider should ensure that the details of their organization are correct and available so that survivors needing referrals to sexual and reproductive health and rights care can be safely referred, and that healthcare providers are fully aware of the options for outward referrals. If there is no current referral pathway then one should be developed using the example in *Appendix 1*, completing it with the contact details of each referral agency available.

3.2 First-line support

Healthcare providers should be trained and provide first-line support that is tailored to the individual client and is survivor-centred. This includes provision of essential practical care and action to support the client's immediate emotional and physical safety needs, bearing in mind that, where possible, survivors should be referred for comprehensive expert care and follow-up. Care will not be a 'one size fits all' model, and providers should ensure that their care (and referrals offered) is equally accessible to marginalized and under-served groups, such as those from indigenous communities, people with disabilities, displaced people, and people with diverse sexual orientations, gender identities and expressions, and sex characteristics. *Table 1* summarizes the key areas of initial support for a client, based on the acronym LIVES: Listen, Inquire, Validate, Enhance safety, Support. These were originally developed for women, but the wording here is gender neutral. Healthcare providers are encouraged to adapt the five tasks for all clients experiencing SGBV according to culture and local language.

BOX 1: Suggested screening questions to identify sexual and gender-based violence (SGBV)

1. Is it okay for us to ask you questions on sexual and gender-based violence? Yes/No

   If "YES" proceed to question 2. If "NO", offer further information, make it clear that help is available at any time, and respect the client's decision not to be asked about violence.

2. Are you currently in an intimate relationship with a person (e.g. spouse, partner) who physically hurts you? Yes/No

   If "YES", did this happen within the last 6 months? Yes/No

3. Are you currently in an intimate relationship with a person (e.g. spouse, partner) who threatens, frightens, or insults you, or treats you badly? Yes/No

   If "YES", did this happen within the last 6 months? Yes/No

4. Are you currently in an intimate relationship with a person (e.g. spouse, partner) who forces you to participate in sexual activities that make you feel uncomfortable? Yes/No

   If "YES", did this happen within the last 6 months? Yes/No

5. Have you ever been forced to have sex with someone that you were NOT in an intimate relationship with (i.e. not your spouse or partner)? Yes/No

   If "YES", did this happen within the last 6 months? Yes/No

Note to healthcare provider: If one or more "Yes" options are selected, after obtaining the client's consent, offer a referral for further SGBV care if they indicate that they have never been referred before. Once a referral has been given, do not ask this client these questions again.

Additional questions to identify reproductive coercion:

1. Has anyone, such as your partner or another person/ relative, ever forced you to do something sexually that you did not want to do or refused your request to use condoms or other contraception?
2. Has anyone, such as your partner or another person/ relative, ever tried to get you pregnant when you did not want to be pregnant? Or tried to get you to continue a pregnancy that you wished to end?
3. Are you worried anyone will hurt you if you do not do what they (the perpetrator) wants?
4. Does your partner support your decision about when or if you want to become pregnant?

Note to healthcare provider: Not all clients who live with reproductive coercion are affected by other forms of SGBV, but if there is coexistence, the risks to the client are higher.

Source: Adapted from Undie et al. [15], ACOG [16], and Silverman et al. [17].

TABLE 1: LIVES – First-line client-centred support for sexual and gender-based violence

Action	Key points
LISTEN Listen to the survivor closely, with empathy and without judging	Be aware of body language and what the client does not say Be sensitive about what you say and how it is said Use client-focused questions such as, "Would you like to tell me more?" Give the client time and do not interrupt; silence is fine as this gives the survivor time and space to think
INQUIRE ABOUT NEEDS AND CONCERNS Assess and respond to the client's various needs and concerns: emotional, physical, social, and practical (e.g. childcare)	Ask open-ended questions to encourage the client to talk Avoid "Why" questions Help the client to identify and express their needs and concerns
VALIDATE Validation is important for those who disclose violence Show them that you understand and believe them Reassure them that they are not to blame	Examples of what the healthcare provider can say: • "It's not your fault, you are not to blame" • "It's okay to talk" • "No one deserves to be hit by their partner in a relationship"
ENHANCE SAFETY Discuss a plan for the client to protect themself from further harm if violence occurs again This can include drafting a safety plan, which should be reviewed regularly The healthcare provider should be aware of what referral options are available if not all healthcare is provided by the facility, e.g. shelters offering respite from threats and providing targeted support from staff trained in SGBV case management	• Knowledge of the national SGBV protocol • Knowledge of local protocols including SGBV referral pathways • Knowledge of other partner organizations involved in SGBV survivor support • Knowledge of safe homes/shelters for SGBV survivors
SUPPORT Healthcare providers should prioritize the client's safety by helping to connect them to information, healthcare, and social support mechanisms For those living with reproductive coercion, contraceptive choices that are not visible (e.g. three-monthly injectables, implants, intrauterine device) can be offered (see further information in *Chapter 4: Contraception*)	Knowledge of other partner organizations involved in SGBV support in the area

Source: Adapted from WHO [14].

3.3 Assessing safety

To provide first-line clinical healthcare and psychosocial support (*Section 3.2*), healthcare providers should first assess the client's safety. If it becomes apparent that the client has concerns for their safety, the healthcare provider should establish whether the client is in immediate danger; the questions in *Box 2* can be used for this. The healthcare provider must avoid putting the client at any further risk. They may need to offer to see the client on their own or with a chaperone, friend, or family member of the client's choosing. If a specialised SGBV case management agency or other provider is operating in the area, then with the client's consent they should be involved at this stage so that they can lead on safety planning and ongoing support.

If the client is in immediate danger of violence, the provider should discuss with the client whether it is safe to go home or not. If not, appropriate referrals for shelter or safe housing should be made, or the client may know a safe place where they can go to.

If the client is not facing an immediate serious threat, the healthcare provider can support them to develop a safety plan should the situation escalate. Healthcare providers should be trained in how to support survivors develop safety plans to best minimize the risks and circumstances the survivor faces. This plan should include a safe place to go, whether or not to take the children (if any), transport, money, what to pack, and arranging for support from a neighbour who might hear sounds of violence from the client's home [14]. It is also important to assess the client's risk of suicide or self-harm, and the chance of putting themselves, and their children, at risk.

BOX 2: Screening questions to assess immediate risk of violence

Clients who answer "Yes" to at least three of the following questions may be at especially high, immediate risk of violence:

- Has the physical violence happened more often or worsened over the past 6 months?
- Has this person ever used a weapon or threatened you with a weapon?
- Has this person ever tried to strangle you?
- Do you believe this person could kill you?
- Has this person ever hit or beaten you when you were pregnant?
- Is this person violently and constantly jealous of you?

Source: Adapted from WHO [14].

3.4 Referral to other services

Once the immediate danger has been assessed, discussed, and first-line support offered, the healthcare provider should ensure that the client receives all relevant information and care available at the facility, as well as information about additional services that the client can be referred for, should they wish to access them. These include:

- social support (e.g. women's empowerment groups, women lawyers association)
- specialist psychological support
- survivor support groups
- police and legal support, as well as any internet-based (online) services that are available
- mental health services
- referral hospitals
- sexual assault referral centres where they exist

The healthcare provider should allow the client to lead the discussion and decide what further support they require. They may need time to think about their options. It cannot be assumed that the client will immediately make up their mind to go to the police, to a shelter, or seek psychological counselling. *Appendix 2* and *Appendix 3* summarize suggested pathways for care and referral for IPV and for immediately after assault.

The client should be advised that rejecting any referral support services will not affect their immediate care given by healthcare providers. If the client declines onward referral, the healthcare provider or assigned social worker should offer a follow-up contact and information on emergency contacts should they decide

to access services later. They should be made aware that if they have any questions or concerns, or if there is a chance that the violence could escalate, they can come back at any time, and they should be reassured that they will not be treated differently because they initially declined assistance. This gives the opportunity for the healthcare provider who assessed the client at the initial consultation to monitor the psychological state of the client with encouragement and reassurance.

3.5 Care and management of individuals subjected to sexual violence and rape

Any client who is a survivor of sexual violence has the right to receive all the clinical healthcare and support that they need. Healthcare providers who attend to SGBV survivors should be trained and skilled to provide clinical examination and care for rape survivors (*Table 2*).

Providers should explain clearly what is going to happen before and during the examination and obtain informed consent at every stage. This is especially important for survivors of sexual violence for whom the examination may be traumatic and remind them of their experience. Similarly, where a client experienced their consent being violated, they must be able to trust that their consent will be respected at every stage of their interaction with a healthcare provider. Providers must show empathy and be sensitive to the emotions of the client. The client should be asked if they would like a support person with them during any procedures or intimate examinations. If the client refuses physical examination, respect their choice, and suggest that it can be done as soon as the client feels better but make the client aware that some interventions are time sensitive. Provide referral if the client would prefer to be referred to another facility.

TABLE 2: Clinical examination and care for rape survivors

Examination or treatment	Perform as soon as possible, or within the time specified since the assault (0 hours = time of assault)
• Vaginal examination • General examination • Forensic examination • HIV post-exposure prophylaxis • Medico-legal documentation • STI prevention and treatment • Wound management • Tetanus vaccination	• 72 hours (3 days)
• Emergency contraception	• 120 hours (5 days)
• Pregnancy test • Hepatitis B vaccination	• 2 weeks • 6 weeks
• HIV counselling and referral • HIV testing	• 3–6 months
• Referral • Private counselling • STI prevention and treatment • Contraceptive counselling and healthcare • Safe abortion care	• Any time

3.6 Documentation and reporting

Clients have the right to know what information will be written and documented about their experiences, and to decide what information is and is not shared with others. Although IPPF does not support mandatory reporting because it undermines self-determination, providers must also inform survivors about limitations to confidentiality systems including mandatory reporting laws at the beginning of the consultation.

Consultation details including physical findings should be noted in the client's record and kept safely in a locked cabinet. Providers should use systems such as number identification to maximize confidentiality. Providers should also discuss with the client the content of any documentation that might be sent home with the client, to police, or other special services. Refer to the local or national SGBV protocol regarding documenting and reporting.

4. Female genital mutilation

IPPF's position on FGM is as follows:

- Individuals affected by FGM have experienced a harmful practice. They should not be stigmatized and they have equal rights of access to quality healthcare.
- FGM-related care must be rights-based, gender-sensitive, client-centred, evidence-based, stigma-free, universally accessible, and offered through the continuum of care.
- Medicalization of FGM* is never acceptable because it violates medical ethics.

4.1 Provider knowledge and skills related to female genital mutilation

Healthcare providers should understand that FGM may be considered an important part of the cultural and gender identity of girls and women in many communities, and healthcare must be sensitive to the specifics of each context, including:

- Existing laws relating to FGM in the local and national context and what the reporting requirements are to national authorities.
- The possibility, in the local context, for healthcare providers to work with community organizations or national bodies to identify children at risk and take appropriate action.
- Whether healthcare providers involved in healthcare provision are also part of the culture in which FGM is practised, in which case they may have experienced FGM themselves or subjected their dependents to it.

Healthcare providers should be familiar with FGM types and the associated complications (see *Sections 4.2 and 4.3*). They should know where to refer clients if additional clinical intervention is required (e.g. urogynaecology, assisted reproductive care, psychological or psychosexual care, and/or other SGBV care). They should also know where FGM clients can get help and support outside of the clinical settings (e.g. support groups).

However, healthcare providers should remember that not every individual who has undergone FGM has symptoms or clinical signs that need treatment. If the client is well and does not feel the need for any intervention, then this should be respected.

Healthcare providers should not recommend the implementation of medicalization of FGM, less harmful types of FGM, or any form of FGM. Similarly, requests for reinfibulation (e.g. the reinstatement of type III FGM after childbirth) by the client or a relative are unacceptable and healthcare providers must refuse any such request.

* Medicalization of FGM: "Situations in which the procedure (including re-infibulation) is practised by any category of health-care provider, whether in a public or a private clinic, at home or elsewhere" [8].

4.2 Screening and classification of female genital mutilation

When clients attend for any sexual and reproductive healthcare, particularly in areas with a high prevalence of FGM, the healthcare provider can ask sensitively and in private whether they have undergone FGM. If they disclose that they have, or are not sure (or not sure of the extent), they can be offered a gynaecological examination. *Table 3* summarizes the four main types of FGM.

4.3 Sequelae of female genital mutilation

Information on the health sequelae of FGM is summarized in *Table 4*.

TABLE 3: Classification of female genital mutilation

Type	Description
Type I	Partial or total removal of the clitoris (clitoridectomy) and/or the prepuce
Type II	Partial or total removal of the clitoris and the labia minora, with or without excision of the labia majora (excision)
Type III	Narrowing of the vaginal orifice with creation of a covering seal by cutting and appositioning the labia minora and/or the labia majora, with or without excision of the clitoris (infibulation)
Type IV	All other harmful procedures to the female genitalia for non-medical purposes, for example pricking, pulling, piercing, incising, scraping, and cauterization

Source: WHO [8].

TABLE 4: Health risks of female genital mutilation

Complications	Examples
Immediate	Haemorrhage, pain, shock (haemorrhagic, neurogenic, or septic), genital tissue swelling, infection (acute local infection, abscess formation, sepsis, genital and reproductive tract infections, urinary tract infections), urination problems (acute urine retention, pain passing urine, injury to the urethra), wound healing problems, death (due to severe bleeding or sepsis)
Obstetric	Caesarean delivery, post-partum haemorrhage, episiotomy, prolonged labour, obstetric tears/lacerations, instrumental delivery, difficult labour/dystocia, extended hospital stay, stillbirth and early neonatal death, infant resuscitation at delivery
Sexual functioning	Dyspareunia (pain during sex), decreased sexual satisfaction, reduced sexual desire and arousal, decreased lubrication during sex, reduced frequency of orgasm or anorgasmia
Psychological	Post-traumatic stress disorder, anxiety disorders, depression
Long-term	Genital tissue damage (chronic vulvar and clitoral pain), scaring and retention cyst Vaginal discharge (due to chronic genital tract infections) Vaginal itching Menstrual problems (dysmenorrhoea, irregular menses, difficulty in passing menstrual blood) Reproductive tract infections (and chronic pelvic pain) Chronic genital infections (increased risk of bacterial vaginosis) Urinary tract infections (often recurrent) Painful urination (due to obstruction, recurrent urinary tract infections)

Source: WHO [8].

4.4 Information, counselling, and referral for clients with female genital mutilation

Clients who have undergone FGM must not be stigmatized or discriminated against but must receive care and support from any healthcare provider involved in their care.

If a client is confirmed to have undergone FGM, the healthcare provider can offer information and referral to relevant healthcare, if requested or required, with the client's consent. Clients with type III FGM (infibulation) can be given information on and referred for deinfibulation (see *Section 4.5*) if they wish to have this corrected for their own well-being, to address any comorbidities, or before first vaginal sex or childbirth (see following paragraphs).

Healthcare providers should offer the same comprehensive sexual and reproductive healthcare to clients affected by FGM as for any other client, such as HIV and STI testing and treatment, hepatitis B and C testing, contraceptive counselling and healthcare, safe abortion care, and cervical cancer screening. There may be difficulty performing a speculum examination for clients with type III FGM. In these cases, contraceptives other than intrauterine devices can be offered, and alternatives to cervical smear testing can be offered for cervical cancer screening, such as DNA testing for HPV. The healthcare provider can also discuss with the client the possibility of performing a speculum examination using the smallest size speculum, if available.

Pregnant individuals or those considering a pregnancy should be counselled that they need to plan to deliver in a healthcare facility that is equipped to manage complications such as post-partum haemorrhage and perform caesarean delivery (i.e. comprehensive emergency obstetric and newborn care). Pregnant individuals with type III FGM should also be counselled on deinfibulation (see *Section 4.5*); they must be provided with information on the serious risks that they and their baby face during childbirth if deinfibulation is not performed in good time.

Healthcare providers should be aware that any client who has undergone FGM may have chronic physical and psychological complications that require specialist counselling or surgical treatment (see *Table 4* – previous page). The provider may need to enquire sensitively to establish to what extent the client's life is affected. Whether for physical, psychological, or psychosexual issues, the client should be provided with appropriate counselling, support, and treatment or referral; however, if the client does not wish to be treated or referred after information and counselling, their decision should be respected.

For clients who are engaged to be married, premarital counselling with the couple can address the psychosexual complications commonly associated with FGM. This can be achieved using a sex-positive approach that focuses on sexual pleasure rather than the negative experience of FGM [18,19].

4.5 Deinfibulation for type III female genital mutilation

Deinfibulation (repair of infibulation) is also known as anterior episiotomy. The procedure consists of cutting and opening the narrowed vaginal opening. Deinfibulation may be required before first vaginal sex or before childbirth, and it may also be needed to prevent and manage some immediate or long-term health consequences. While it is often performed during childbirth, deinfibulation can be offered in the antenatal period or at any time in the non-pregnant client, when requested.

The procedure can be performed at an approved location, such as a clinic, under local anaesthetic; however, there are risks attached, such as injury to the urethra and bleeding. It must, therefore, be performed by a trained specialist healthcare provider, and referral to a higher-level facility may be required.

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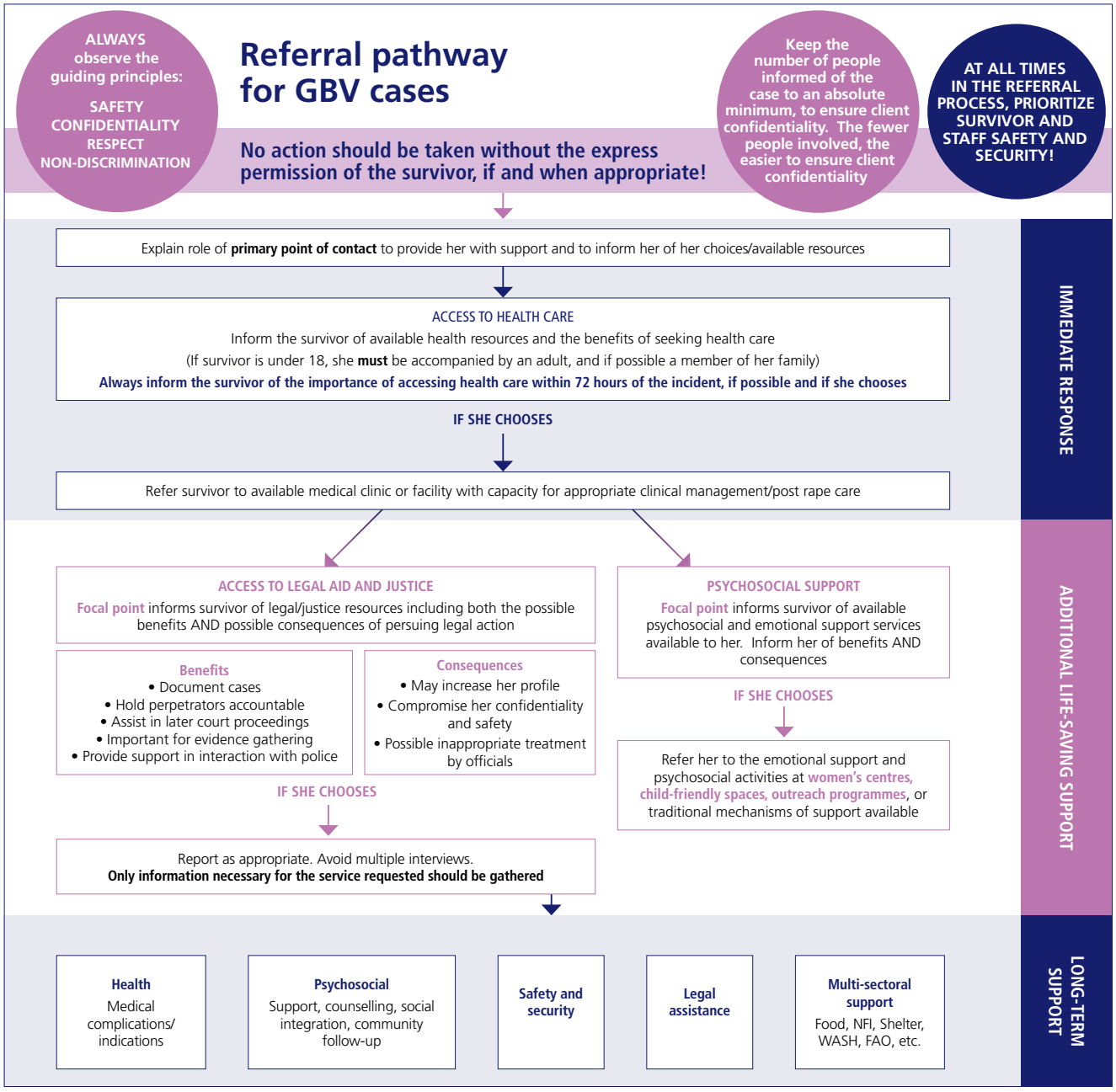
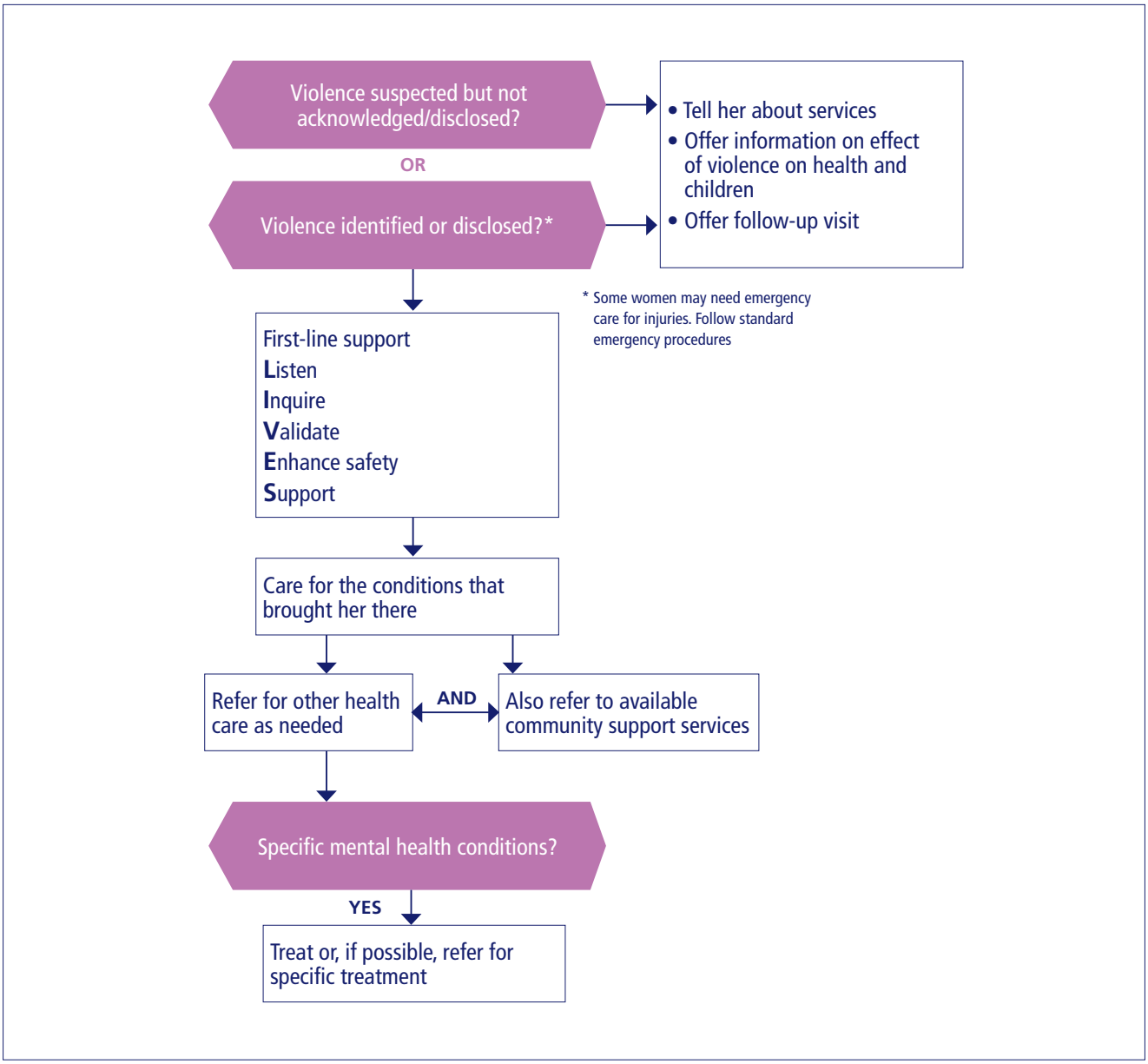
6. Appendices

Appendix 1: Example of a referral pathway for sexual and gender-based violence



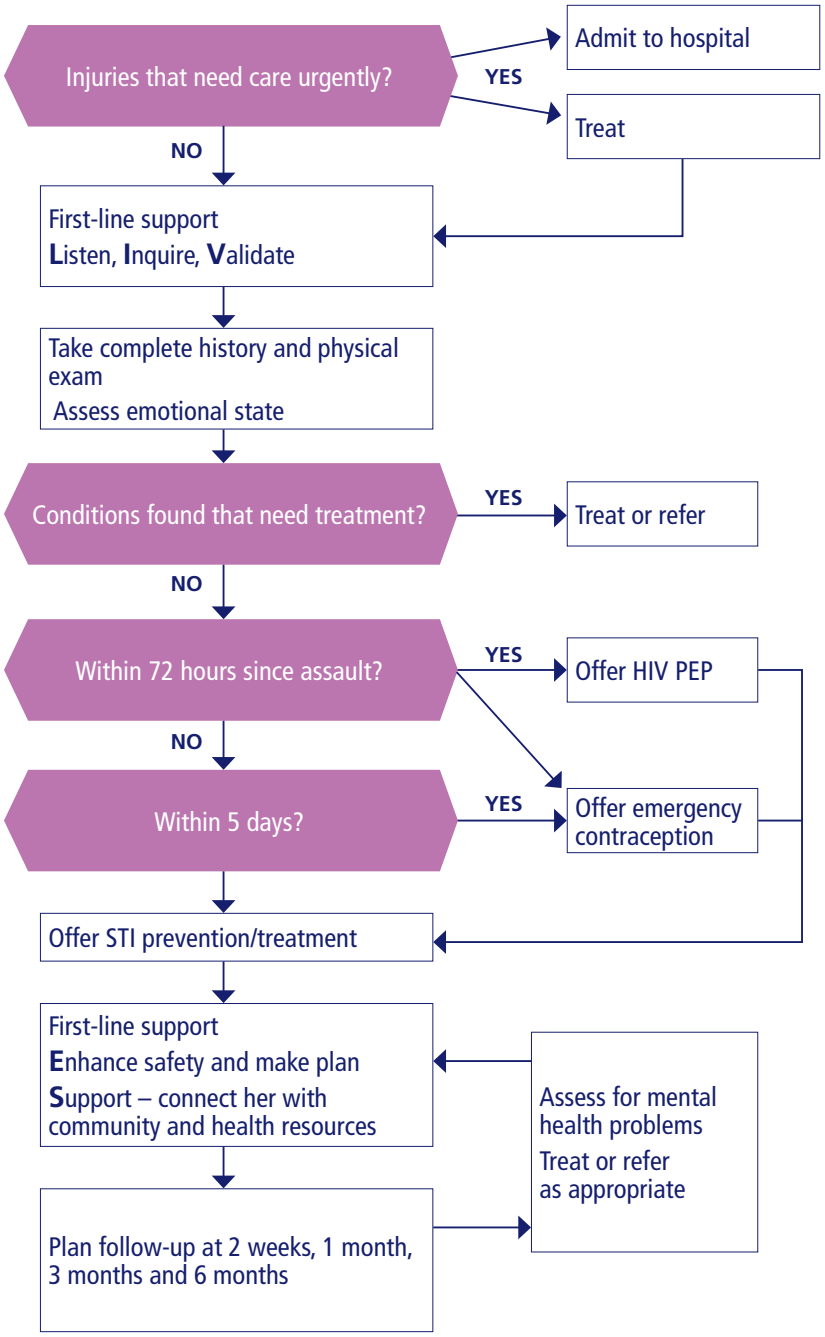
Source: Aadapted with permission from the Global Protection Cluster. Handbook for coordinating gender-based violence interventions in humanitarian settings. Geneva: Global Protection Cluster; 2010. Available at: https://gbvresponders.org/wp-content/uploads/2014/04/Handbook-for-Coordinating-Gender-based-Violence-in-Humanitarian-Settings-GBV-AoR-2010-ENGLISH.pdf. Accessed 28 April 2022. Note: Based on the referral pathway for GBV cases in Darfur

Appendix 2: Pathway for care for clients experiencing violence by an intimate partner



Source: Reproduced/translated with permission from World Health Organization. Health care for women subjected to intimate partner violence or sexual violence: a clinical handbook. Geneva: WHO; 2014. Available at: https://apps.who.int/iris/handle/10665/136101. Accessed 28 April 2022.

Appendix 3: Pathway for initial care after assault



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MAIN CONTENTS

Chapter 11:

Sexual and reproductive healthcare delivery in humanitarian settings

contents

1. Introduction

Sexual and reproductive health is a human right for all, including people who are refugees and/or living in humanitarian settings. Given the nature of these challenging settings, provision of healthcare requires a multisectoral and integrated approach to meet the needs of affected communities. The goal of this chapter is to describe the application and adaptation of global sexual and reproductive healthcare standards into humanitarian settings.

Humanitarian crises occur within a range of contexts and situations. They may result from natural disasters, conflict, slow- or rapid-onset events, infectious disease outbreaks, and complex political emergencies, and they can occur in rural and urban environments. Crises can occur at any time, in any country [1].

In 2021, an estimated 235 million people required humanitarian assistance [2]. In general, populations seeking such assistance comprise approximately 25 per cent women and girls of reproductive age [3].

In 1994 – for the first time in history – reproductive health was clearly defined and sexual and reproductive rights were recognized at the International Conference on Population and Development (ICPD) held in Cairo, Egypt. This included specific acknowledgement that sexual and reproductive health and rights would not cease during periods of conflict and disaster (*section A 7.11*) [4]. The definition was further updated in 2018 to integrate components of sexual health, sexual rights, reproductive health, and reproductive rights [5].

The Minimum Initial Service Package (MISP) – a minimum set of standards for sexual and reproductive healthcare that must be available to people at the onset of an emergency – was first released by the Inter-Agency Working Group (IAWG) on Reproductive Health in Crises in 1996.* Since then, the MISP has been included in global humanitarian standards including the Sphere Standards,† which are the global guidelines for humanitarian response. The International Planned Parenthood Federation (IPPF) is a member of the IAWG Steering Committee, which shapes the IAWG's strategic priorities and provides overall governance, ensuring that priority activities, advocacy, and external communications align with IAWG principles [6].

The IAWG's *Inter-Agency Field Manual on Reproductive Health in Humanitarian Settings* [7] functions as the humanitarian standard for sexual and reproductive health and recognizes that those in humanitarian settings face heightened risks and additional barriers to accessing sexual and reproductive healthcare. First released in 1999, the field manual was updated in 2010 and again in 2018 [7]. In the 2018 edition, the fundamental principles of sexual and reproductive health programming in humanitarian settings are described in chapter 2: (1) work in respectful partnership; (2) advance human rights and reproductive rights through sexual and reproductive health programming; (3) ensure technical soundness, human rights, and financial accountability; and (4) share information and results. Additionally, the MISP

Acronyms

BEmONC	basic emergency obstetric and neonatal care
CEmONC	comprehensive emergency obstetric and neonatal care
IARH	Inter-Agency Reproductive Health
IAWG	Inter-Agency Working Group on Reproductive Health in Crises
IPPF	International Planned Parenthood Federation
MISP	Minimum Initial Service Package
PEP	post-exposure prophylaxis
SGBV	sexual and gender-based violence
STI	sexually transmitted infection
WHO	World Health Organization

* The IAWG is an international coalition of organizations and individuals working together to collectively advance sexual and reproductive health and rights in humanitarian settings. IAWG was formed in 1995 and since then and has grown to a network of over 2,500 individual members. IAWG is led by a Steering Committee comprised of 21 member agencies, representing the United Nations, governmental, non-governmental, and research organizations (further information is available at: https://iawg.net/about).

† Further information is available at: https://spherestandards.org/.

is incorporated as chapter 3 and has been updated to reflect the good practices documented in crisis settings around the world. An additional objective (prevention of unintended pregnancies) was added, as well as an additional priority: to ensure that safe abortion care is available, to the full extent of the law. The MISP is discussed in detail in *Section 2*.

2. Minimum Initial Service Package (MISP) for sexual and reproductive health

Sexual and reproductive healthcare provides essential and life-saving care, and access to it is a human right. Sexual and reproductive healthcare must be available for people, including at the onset of a crisis, within 48 hours if possible. However, in an emergency, only the most crucial, life-saving sexual and reproductive health priorities should be focused on, as defined by the MISP. The MISP is based on well-documented evidence of sexual and reproductive health needs in humanitarian settings and World Health Organization (WHO) normative standards. The package includes the minimum and highest priority services and activities that will have the maximum impact on reducing morbidity and mortality related to sexual and reproductive health, and therefore should be available as soon as possible at the onset of a crisis. The MISP guides healthcare providers on priority sexual and reproductive healthcare and on planning for transition to comprehensive sexual and reproductive healthcare as soon as possible for the recovery phase of the crisis, or during protracted humanitarian situations. The MISP recognizes the importance of including underserved and marginalized populations in all aspects of the disaster response cycle.

Plans for the MISP should be undertaken during stable times, as part of disaster preparedness efforts, so that rapid responses can be initiated at the onset of a crisis. Building the capacity of teams, from decision-makers to healthcare providers, is important to rapidly make the switch from routine programming to emergency response programming. The MISP Readiness Assessment [8] can support Member Associations to identify and prioritize areas that need work. It is based on a questionnaire that explores readiness regarding policy, coordination, data, resources, and healthcare delivery across the MISP objectives at national or sub-national level. Additional training modules and resources are available through the Ready to Save Lives training curriculum [9] and the MISP training packages for policy makers, programme managers, and healthcare providers available on the IPPF website [10].

Healthcare delivered via a MISP programme can be achieved through various delivery modalities, such as static clinics, mobile clinics, and support to ministry of health facilities. Member Associations may be unable to provide every service listed under the MISP objectives; however, mapping healthcare provision at the onset of a response is important to develop referral mechanisms for all MISP services, as well as to avoid duplication. During implementation of the MISP, it is also important to provide consistent messaging to target populations about sexual and reproductive health topics and the healthcare that is available through information, education, and communication tools [11]. Additional resources to complement the MISP and IAWG field manual exist for newborn care [12] and adolescent sexual and reproductive health [13], and to implement emergency sexual and reproductive health programmes during the COVID-19 pandemic [14]. Engagement with IAWG to remain updated on advocacy and guidance developed for a new, specific emergency (e.g. Ebola virus, COVID-19, etc) is recommended.

At the onset of crisis, it is essential to focus on the defined minimum package of sexual and reproductive healthcare (as described in the MISP); however, it is important to remember the need for extension (or return) to comprehensive sexual and reproductive healthcare as soon as possible after the crisis. Once the MISP is in place, healthcare providers can then start to implement more comprehensive sexual and reproductive healthcare (see *MISP Objective 6*). The full MISP is found in chapter 3 of the IAWG field manual [7]. Refer to other chapters of the field manual for further guidance on comprehensive sexual and reproductive healthcare.

The 6+ objectives of the MISP are shown in *Figure 1*. Safe abortion care is now included as an additional priority. Key elements of the MISP objectives and activities are summarized in *Section 2.1*.‡ The Inter-Agency Reproductive Health (IARH) kits to support MISP activities in crisis situations are described in *Section 2.2*.

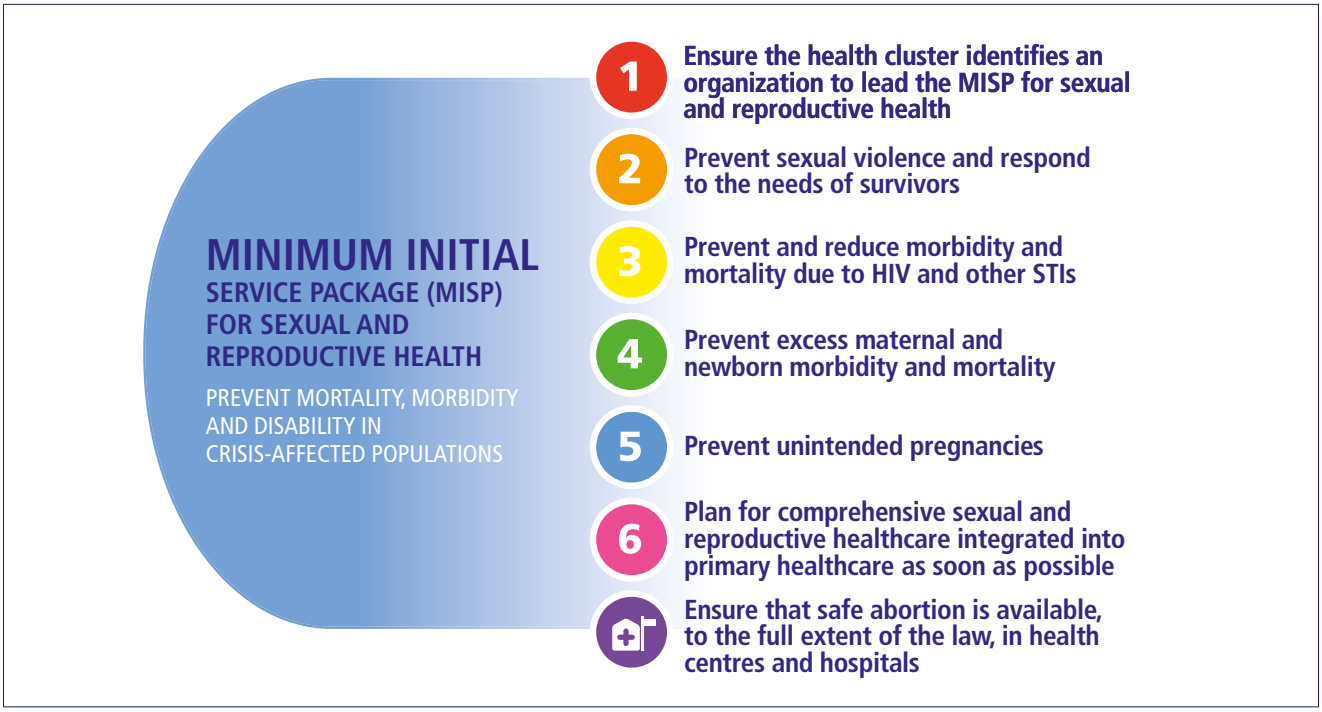
Not all Member Associations have the resources and capacity to deliver all objectives of the MISP. However, it is vitally important to map healthcare provision and coordinate with other agencies, through the IAWG or other coordination mechanisms, to ensure that all MISP objectives are implemented in the field and to establish referral pathways to enable access to all MISP healthcare. In addition, if gaps in MISP implementation are identified, it is essential to advocate for these services via the IAWG, health cluster, ministry of health, and other partners.

2.1 MISP objectives and activities

MISP Objective 1: Ensure the health sector/cluster identifies an organization to lead the implementation of the MISP

With a focus on coordination, Objective 1 involves nominating a sexual and reproductive health coordinator (a leading sexual and reproductive health organization) to provide technical and operational support to all agencies concerned (governmental and non-governmental) and to prevent duplication and gaps in healthcare, as well as to ensure that healthcare and activities carried out between agencies are complementary. The sexual and reproductive health working group is frequently co-led by the ministry of health and a UN agency, but other organizations can also co-lead.

FIGURE 1: Objectives of the Minimum Initial Service Package (MISP) for sexual and reproductive health



‡ While most information in *Section 2.1* has been drawn from the MISP [7], additional information has also been included, as cited in the text.

IPPF Member Associations must identify a humanitarian focal point within their organization that will be responsible for ensuring that MISP activities are undertaken during the response, and for reporting the Association's humanitarian work to both the sexual and reproductive health working group and the Protection Cluster (or similar mechanism).

The Cluster Approach was established in 2005 as part of the UN Humanitarian Reform agenda to ensure more effective coordination in the humanitarian context [15]. At the onset of an emergency, agencies meet in their respective cluster groups to ensure a coordinated, effective, timely, and better-resourced response.

Under the Protection Cluster (or equivalent), a sexual and gender-based violence (SGBV) sub-cluster may be formed, usually under the leadership of the national ministry of women's affairs (or equivalent) and/or a UN agency. Regardless of whether the Member Association is directly implementing SGBV healthcare, it is recommended that it attends the protection or SGBV clusters to better integrate sexual and reproductive health and rights and SGBV work.

MISP Objective 1

The lead sexual and reproductive health organization:

- Nominates a sexual and reproductive health coordinator to provide technical and operational support to all agencies providing health services
- Hosts regular meetings with all relevant stakeholders to facilitate coordinated action to ensure implementation of the MISP
- Reports back to the health cluster, GBV sub-cluster, and/or HIV national coordination meetings on any issues related to MISP implementation
- In tandem with health/GBV/HIV coordination mechanisms ensures mapping and analysis of existing sexual and reproductive healthcare
- Shares information about the availability of sexual and reproductive healthcare and commodities
- Ensures the community is aware of the availability and location of reproductive health services

Source: IAWG [7].

MISP Objective 2: Prevent sexual violence and respond to the needs of survivors

More information on SGBV work can be found in *Chapter 10: Sexual and gender-based violence*. This section focuses specifically on actions to be taken for SGBV within a humanitarian setting.

The MISP focuses on survivor-centred treatment and prevention of sexual violence.

While the MISP refers specifically to sexual violence, Member Associations should use a survivor-centred approach that addresses all forms of SGBV. IPPF prefers the term 'sexual and gender-based violence' (SGBV) rather than 'gender-based violence' (GBV) or 'violence against women' (VAW), because it emphasizes the sexual violence component. Different organizations prefer to use SGBV, GBV, or VAW, depending on the organization's mandate and activities, but SGBV and GBV can be used interchangeably, as can VAW, when focusing on female survivors (see more information in *Chapter 10: Sexual and gender-based violence*).

SGBV covers four categories of violence: sexual violence, physical violence, emotional/psychological violence (including threats and coercion), and arbitrarily depriving a person of economic/social access and opportunities. The majority of SGBV incidents are perpetrated by men against women and girls§ in stable times as well as during emergencies. Globally, an estimated one in three women has experienced SGBV in their lifetime [16].

§ Men and boys do experience sexual violence and therefore may also need relevant healthcare. However, SGBV is disproportionately perpetrated against women and girls. Men and boys should have access to the same support and healthcare as women and girls, as needed.

Due to stigma, shame, fear, victim blaming, and lack of social support services, SGBV survivors may be unwilling or unable to report SGBV incidents. Other contributing factors that negatively affect SGBV survivors and their ability to report are government structures and laws that promote gender inequality, do not protect SGBV survivors, and do not hold perpetrators accountable for their violence. Within humanitarian contexts, survivors' healthcare and support systems are further disrupted. All of these issues lead to under-reporting and lack of accurate data on the prevalence of SGBV. Nevertheless, it is globally recognized and agreed that despite the lack of adequate data, it can be assumed that SGBV is happening in all settings [17].

Survivors of SGBV can experience various negative health-related consequences, especially those who have experienced sexual violence, and they may have sexual and reproductive health-related needs. These may include, but are not limited to, forced and unintended pregnancies, unsafe abortions, traumatic fistula, sexually transmitted infections (STIs) including HIV, damage to reproductive organs, and even death [18]. While the root causes of SGBV are gender inequality and harmful gender roles, there are specific factors in a humanitarian setting that contribute to an increase in SGBV:

- Disruption of communities, with populations on the move and systems for protection not fully in place [19].
- Disruption of law enforcement mechanisms, such as police and legal support, and other services [20].
- Displacement of people, both in initial temporary shelters and when displacement becomes protracted [20].
- Separation of family and community members from each other, resulting in the further breakdown of community support and protection mechanisms [21].
- Conflict and displacement, with their resultant socioeconomic impacts (loss of work and income, as well as changes in social roles and status), destabilization of communities and societies, and the creation of divisions; this can potentially establish violence as a societal norm [19].
- Lack of privacy and disruption of family units during displacement both in camps and urban settings (e.g. multiple families – who may or may not know each other – may have to live in the same space) [17].
- Extended interviews at checkpoints and subsequent separation from family members can leave displaced individuals vulnerable, especially if their identification cards/passports have been lost or confiscated [17].
- A context where there is impunity for perpetrators [17].

Clinical management of sexual assault

Work to respond to the needs of SGBV survivors is undertaken by Member Associations in every context (see *Chapter 10: Sexual and gender-based violence*). However, in humanitarian settings additional considerations are needed to effectively support survivors. Clinical considerations include:

- Uphold the SGBV guiding principles for responding to the needs of survivors of sexual violence (safety, confidentiality, respect, and non-discrimination [7]), take a survivor-centred approach, and always believe the survivor. The LIVES (Listen, Inquire, Validate, Enhance safety, and Support) approach [16] is the standard for healthcare providers to support SGBV survivors.
- Healthcare delivery must be adjusted to meet the communication needs of the SGBV survivor by using auditory, visual, or translation support, as needed.
- Healthcare should be available for SGBV survivors presenting for care, including emergency contraception, safe abortion care, post-exposure prophylaxis (PEP) for HIV, treatment for STIs, preventive treatment for hepatitis B and tetanus, and first-line psychological support (see *Chapter 10: Sexual and gender-based violence* for further details).

When working with SGBV survivors, there must be a safe, confidential, and private space available where the client and healthcare professional can meet. Prior to initiating treatment or examination, the healthcare provider should ensure that the client provides informed consent regarding the healthcare that will be provided and what information will be stored in their notes.

The provider must respect the client's decision if they do not provide consent. Consent must be sought at every stage of an examination, and the client can stop at any time (see further information in *Chapter 2: Facility requirements and client history/examination* and *Chapter 3: Counselling*).

Referrals

If a Member Association is unable to directly provide care for clinical management of sexual assault, they must be able to offer timely referrals. Every Member Association must additionally be able to refer survivors to specialist SGBV care that can meet their non-medical needs.

- Update the existing referral pathway for SGBV to reflect any change in availability of care and how to access or create a new referral pathway if none exists for this location. All staff and volunteers who may work with survivors must be trained in the updated pathway and how to use it.
- Ensure that staff who will use this pathway are aware of potential barriers for clients (for example which languages are spoken, how people with disabilities are supported, whether men can access the service or if it is female only).
- When a Member Association is providing services for clinical management of sexual assault, they should proactively share the details of how these services can be accessed with SGBV and other healthcare providers, survivors, and communities.

SGBV screening

Globally, SGBV screening in healthcare settings is the subject of ongoing research to determine best practices and effectiveness in terms of the well-being of SGBV survivors [22,23]. Given the current research and data**, IPPF does not recommend screening for SGBV survivors in the humanitarian context**. However, if SGBV screening is implemented, the following three prerequisites must be met before selective screening or case finding¶ can be implemented in a healthcare setting:

- A clinic can ensure the privacy, safety, and confidentiality of clients.
- A clinic can ensure that providers have appropriate attitudes and skills.
- A clinic can ensure that providers have something to offer survivors (e.g. a referral pathway).

If these three conditions cannot be ensured, then SGBV screening should not take place as this may cause further harm to SGBV survivors and go against the humanitarian principle of 'do no harm'. There is limited evidence on SGBV screening in emergency settings. Nevertheless, the three key criteria listed above are typically disrupted in an emergency, in which case SGBV screening should not take place. This is especially true when there is a need to provide SGBV survivors with referrals to other services, as developing a referral pathway in an emergency can be difficult and takes time. Identifying survivors of SGBV through screening while being unable to meet their needs with actual health and psychosocial support is not only unethical, but it also goes against the main objective of SGBV screening [24].

¶ Selective screening, also known as case finding, involves asking survivors about violence when a healthcare provider has reason to suspect violence/abuse based on signs and symptoms [23].

As far as possible, both clinical and non-clinical staff need to have a gender balance proportionate to that in the client population. All of these staff members need to be trained on SGBV fundamentals and management of SGBV cases, and especially on how to communicate sensitively with SGBV survivors. If your facility/location cannot meet the above requirements, work with other providers in the area to develop a safe, reliable, and confidential referral pathway for SGBV survivors so that they can receive appropriate healthcare.

MISP Objective 2

- Work with other clusters, especially the protection or GBV sub-cluster, to put in place prevention measures at community, local, and district levels including health facilities to protect affected populations, particularly women and girls, from sexual violence
- Make clinical care and referral to other supportive services available for survivors of sexual violence
- Ensure confidential and safe spaces within the healthcare facilities to receive and provide survivors of sexual violence with appropriate clinical care and referral (if informed consent is provided by the survivor)

Source: IAWG [7].

MISP Objective 3: Prevent the transmission of and reduce morbidity and mortality due to HIV and other STIs

The prevalence of STIs including HIV can increase in emergencies if there is a lack of prevention, screening, and treatment services. STIs can seriously impact sexual and reproductive health, and some can increase the risk of HIV acquisition.

In a crisis, and in low-resource settings, syndromic management of STIs is used. This involves managing cases based on clinical presentation (symptoms and signs) with reference to a decision-making flowchart, and with the use of on-site microscopy if available and appropriate. The additional resources needed for aetiological testing of STIs are not justified in emergencies. See *Chapter 6: Sexually transmitted infections* for more details on the symptoms, signs, and clinical management of STIs, including the flowcharts for syndromic management (see *Appendix 3 of Chapter 6*).

In a crisis, standard precautions and infection control measures must be maintained. Healthcare managers, healthcare providers, and the sexual and reproductive health coordinator must work together to reduce the transmission of HIV and other STIs through adherence to standard precautions protocols, use of personal protective equipment (gowns, gloves, etc), access to handwashing facilities, and availability of condoms and medicines (STI medicines, antiretroviral drugs including PEP for HIV, as well as co-trimoxazole prophylaxis to prevent opportunistic infections in people living with HIV). Additionally, Member Associations may want to coordinate with national HIV/AIDS control programmes, such as the Global Fund and the U.S. President's Emergency Plan for AIDS Relief (PEPFAR). These bodies may provide guidance, national protocols, testing kits, and drugs.

Safe and rational blood transfusion means that all blood donations must be tested for HIV, and other tissue-transmissible infections (TTIs). Blood should be screened for HIV, hepatitis B and C, and syphilis. Systems should be in place to ensure referral-level hospitals have

sufficient blood, supplies, and qualified staff to provide safe and rational blood transfusion [7,25].

HIV-specific considerations (see *Chapter 7: HIV* for further information):

- For people living with HIV who have already started antiretroviral therapy, disruption or discontinuation of treatment could lead to the development of resistance to the antiretroviral drugs and significantly increase the likelihood of serious illness or even death. Linking those on antiretroviral drugs to continued treatment is vital and life-saving.
- Implementing provider-initiated testing and counselling or providing voluntary counselling and testing upon request to the general client population is not feasible at the onset of a crisis. The only exception is HIV testing and counselling in the context of prevention of perinatal transmission programmes, which must continue, to reduce the risk of transmission to the fetus/infant.
- Provision of provider-initiated testing and counselling and voluntary counselling and testing should be re-implemented fully as soon as possible when all other MISP priorities have been established. This ensures that antiretroviral therapy can be initiated as soon as possible for those people who are HIV positive. WHO recommends initiation of antiretroviral therapy for all people with HIV regardless of WHO clinical stage and at any CD4 cell count [26].
- Co-trimoxazole prophylaxis is a simple, well-tolerated medication to prevent opportunistic infections in people living with HIV. It is recommended for adults (including pregnant individuals), infants, children, and adolescents with HIV, as well as people with HIV and active tuberculosis disease (for further details, see *Chapter 7: HIV, Box 2*, or WHO's guidelines on PEP and co-trimoxazole prophylaxis [27].
- PEP for HIV must be available to survivors of SGBV and to those who may have accidentally been exposed to blood (e.g. a healthcare worker with a needle-stick injury).

Measures to reduce STI and HIV transmission must include the abundant availability and distribution of free condoms. Ensuring male and female condoms are available (lubricated or with condom-compatible lubricants, as needed) in all appropriate locations (on- or off-site) from the earliest days of a humanitarian response is critical, since condoms offer the best protection from STIs, including HIV.

MISP Objective 3

- Establish safe and rational use of blood transfusion
- Ensure application of standard precautions
- Guarantee the availability of free male condoms and, where applicable (e.g. already used by the population), ensure provision of female condoms, as well as condom-compatible lubricants
- Support the provision of antiretroviral medicines (ARVs) to enable people who were already on antiretroviral therapy (ART) prior to the emergency to continue their treatment without disruption, including women who were enrolled in prevention of mother-to-child transmission (PMTCT) programmes
- Provide PEP to survivors of sexual violence as appropriate and for occupational exposure
- Support the provision of co-trimoxazole prophylaxis to prevent opportunistic infections for clients diagnosed with HIV or already known to be living with HIV
- Ensure the availability in healthcare facilities of syndromic management for STIs

Source: IAWG [7].

MISP Objective 4: Prevent excess maternal and newborn morbidity and mortality

Globally, one in seven pregnant women (approximately 15 per cent) will face a complication during pregnancy or childbirth, and two-thirds of preventable maternal deaths and 45 per cent of newborn deaths take place in countries affected by recent conflict, natural disaster, or both [7]. Global maternal mortality remains high, with an estimated 295,000 deaths in 2017 from causes "related to or aggravated by the pregnancy or its management" occurring during pregnancy and up to 42 days after the end of pregnancy [28]. For every maternal death, a further 20–30 women experience serious disability, infection, or injuries [29].

Almost three-quarters of maternal deaths are due to direct obstetric causes, primarily from:

- haemorrhage (severe bleeding), mostly just after delivery
- infection/sepsis (usually after delivery)
- high blood pressure during pregnancy (pre-eclampsia and eclampsia)
- complications of delivery (e.g. obstructed labour)
- unsafe abortion [30]

In addition, just over one-quarter of maternal deaths are due to indirect causes, such as infections (e.g. malaria, HIV) or pre-existing chronic conditions (e.g. cardiac or renal disease, diabetes) that have become aggravated due to the pregnancy [30]. During crises, pregnant individuals have less opportunity to visit a healthcare facility and receive medical support. Healthcare facilities may have been destroyed, operation theatres and labour and delivery rooms may not function, essential medicines may not be available, and trained medical staff may have left the area. Aid agencies should extend their capacities to offer life-saving healthcare. Care provided during emergencies should focus on labour, delivery/intrapartum care, and the immediate post-partum/post-natal period, as this is the period when most mortality occurs.

Newborn care is part of the life cycle continuum of care for sexual and reproductive health. Newborn care is critical to ensure a safe and healthy start to life. Essential newborn care is basic care that should be provided for every baby, including thermal care, infection prevention, initiation of breathing, feeding support, monitoring for danger signs, post-natal care checks, identifying complications in the newborn, and providing emergency referrals [31]. Additional material on newborn care is also available in the IAWG newborn health field guide [12].

Seven basic signal functions (actions) address the leading causes of maternal mortality – collectively termed *basic* emergency obstetric and neonatal care (BEmONC) (see *Table 1* – next page). An additional two signal functions should be available at the secondary level and, together with the basic seven signal functions, these are collectively termed *comprehensive* emergency obstetric and neonatal care (CEmONC) (see *Table 1* – next page). When regular services are disrupted due to a crisis, a 24-hour referral system needs to be established to ensure that individuals in labour, childbirth, and immediately post-partum still have access to both BEmONC and CEmONC, as needed. This healthcare should be provided at no cost to the client. To ensure access to this healthcare, the lead sexual and reproductive health organization (or coordinator) identifies the closest capable facility or facilities, provides this information to clients, offers transport to the nearest appropriate facility, ensures that a responsible staff member receives the client at the referral site, and seeks follow-up information about the client's care and outcome to improve the referral system if needed.

Post-abortion care reduces the risk of potentially fatal complications arising from spontaneous and unsafe abortion, and therefore must also be available as soon as possible during a crisis. Treatment may include medications and manual vacuum aspiration. See *Chapter 5: Abortion care* for more details.

An estimated 10–15 per cent of deliveries need to be conducted by caesarean to prevent maternal and neonatal deaths [32]. Therefore, CEmONC (including surgical and blood transfusion facilities) is life-saving and services or a referral system need to be established.

At the onset of a crisis, pregnant individuals may not have access to health facilities and may be forced to deliver at home without the assistance of skilled birth

attendants. To improve birth practices, clean delivery kits and newborn care kits should be made available in the third trimester to pregnant individuals who do not have 24-hour access to a BEmONC facility [7,12]. However, pregnant individuals should always be advised to deliver at a health facility and information about obstetric danger signs and access to obstetric facilities must be made available.

TABLE 1: Basic and comprehensive emergency obstetric and newborn care (BEmONC and CEmONC) signal functions

BEmONC – Health centres should have the resources to offer these seven BEmONC functions	CEmONC – Hospitals should have the resources to offer all nine CEmONC functions
1. Administer parenteral antibiotics for treatment of sepsis	1 – 7. Same as BEmONC
2. Administer uterotonic drugs (i.e. parental oxytocin or misoprostol tablets) for treatment of post-partum haemorrhage and administer intravenous tranexamic acid in addition to standard care for those with clinically diagnosed post-partum haemorrhage	8. Perform surgery (e.g. caesarean delivery) 9. Perform safe blood transfusion observing universal infection prevention precautions
3. Administer parenteral anticonvulsant drugs (i.e. magnesium sulphate) to manage severe pre-eclampsia and eclampsia	
4. Perform assisted vaginal delivery (e.g. vacuum extraction)	
5. Manually remove the placenta	
6. Remove retained products of conception after delivery or an incomplete abortion	
7. Perform basic neonatal resuscitation (e.g. with bag and mask)	

Source: IAWG [7].

MISP Objective 4

- Ensure availability and accessibility of clean and safe delivery, essential newborn care, and life-saving *emergency* obstetric and newborn care (EmONC) services, including:
  - **At referral hospital level:** Skilled medical staff and supplies for provision of *comprehensive* emergency obstetric and newborn care (CEmONC)
  - **At healthcare facility level:** Skilled birth attendants and supplies for uncomplicated vaginal births and provision of *basic* emergency obstetric and newborn care (BEmONC)
  - **At community level:** Provision of information to the community about the availability of safe delivery and EmONC services and the importance of seeking care from healthcare facilities. Clean delivery kits should be provided to visibly pregnant individuals and birth attendants to promote clean home births when access to a healthcare facility is not possible
- Establish a 24 hours per day and 7 days per week referral system to facilitate transport and communication between the community and the health centre or hospital
- Ensure the availability of life-saving post-abortion care in health centres and hospitals
- Ensure availability of supplies and commodities for clean delivery and immediate newborn care where access to a healthcare facility is not possible or unreliable

Source: IAWG [7].

MISP Objective 5: Prevent unintended pregnancies

The positive impact of contraception on reducing maternal mortality and morbidity (in addition to preventing unintended pregnancies) is well established, with an estimated 30 per cent reduction in mortality if unmet contraceptive needs are met [33].

A range of contraceptive options (including both long- and short-acting reversible contraceptives) should be available for all sexually active adolescents and adults, stigma-free, from the onset of a crisis. Contraceptives prevent unintended pregnancies, thus also reducing the risk of maternal and newborn morbidity and mortality. Additionally, effective contraception can prevent approximately 90 per cent of unsafe abortion-related complications [7]. During periods of displacement and insecurity, people may be more likely to want to delay pregnancy. The risks associated with unintended pregnancy are exacerbated in humanitarian settings, as access to healthcare may be limited.

Community-based information, education, and communication tools are important to dispel misconceptions around contraception. Crisis-affected community members, including all marginalized and under-served groups, should be engaged to promote awareness of accessible, available, and culturally acceptable contraceptive options.

The wide distribution of free condoms and condom-compatible lubricants from discreet locations is important for the prevention of STIs, including HIV, and unintended pregnancies.

MISP Objective 5

- Ensure availability of a range of long-acting reversible and short-acting contraceptive methods (including male and female condoms and emergency contraception) at primary healthcare facilities to meet demand
- Provide information, including existing information, education, and communication (IEC) materials, and contraceptive counselling that emphasizes informed choice and consent, effectiveness, client privacy and confidentiality, equity, and non-discrimination
- Ensure the community is aware of the availability of contraceptives for all people, including adolescents

Source: IAWG [7].

MISP Objective 6: Plan for comprehensive sexual and reproductive healthcare, integrated into primary healthcare as soon as possible. Work with the health sector/ cluster partners to address the six health system building blocks

The MISP is a starting point for sexual and reproductive healthcare programming at the onset of a crisis, as it is centred on the most crucial, life-saving sexual and reproductive health priorities. Expanding healthcare over time during a protracted crisis to include comprehensive sexual and reproductive healthcare requires input from community members and collaborating partners to identify gaps, successful strategies, and avenues for improvement. This expansion should be undertaken as early as possible once the situation stabilizes. Planning for an early transition to comprehensive healthcare helps to ensure that the population can exercise their right to access healthcare, even in a crisis. IAWG has developed a package to support sexual and reproductive health trainers, programme managers, and coordinators to transition a MISP programme back into a comprehensive sexual and reproductive health programme as the crisis stabilizes [34].

To achieve this objective, coordination and collaboration are required between government bodies, and with local and international agencies and partners. Options for collaboration should be assessed, and capacity building and advocacy conducted, if required, to ensure that supplies and medicines are available as soon as needed. Other critical aspects to be considered are listed under MISP Objective 6. Important sexual and reproductive healthcare, such as ante- and post-natal care, cervical cancer screening and treatment, and assisted reproductive care, for example, are not part of

the MISP, but they are needed as part of comprehensive sexual and reproductive healthcare. Restoring sexual and reproductive healthcare to its pre-crisis level of functioning needs to be planned collaboratively, making use of the available resources, as illustrated in *Figure 2*.

The transition to comprehensive sexual and reproductive healthcare should begin incrementally as soon as the MISP is assured, and when humanitarian planning changes from short- to long-term planning. In general, the transition is more effective if the health system is considered as a whole. The following questions can help evaluate whether to offer particular healthcare at the onset of a crisis, or wait until it is more feasible:

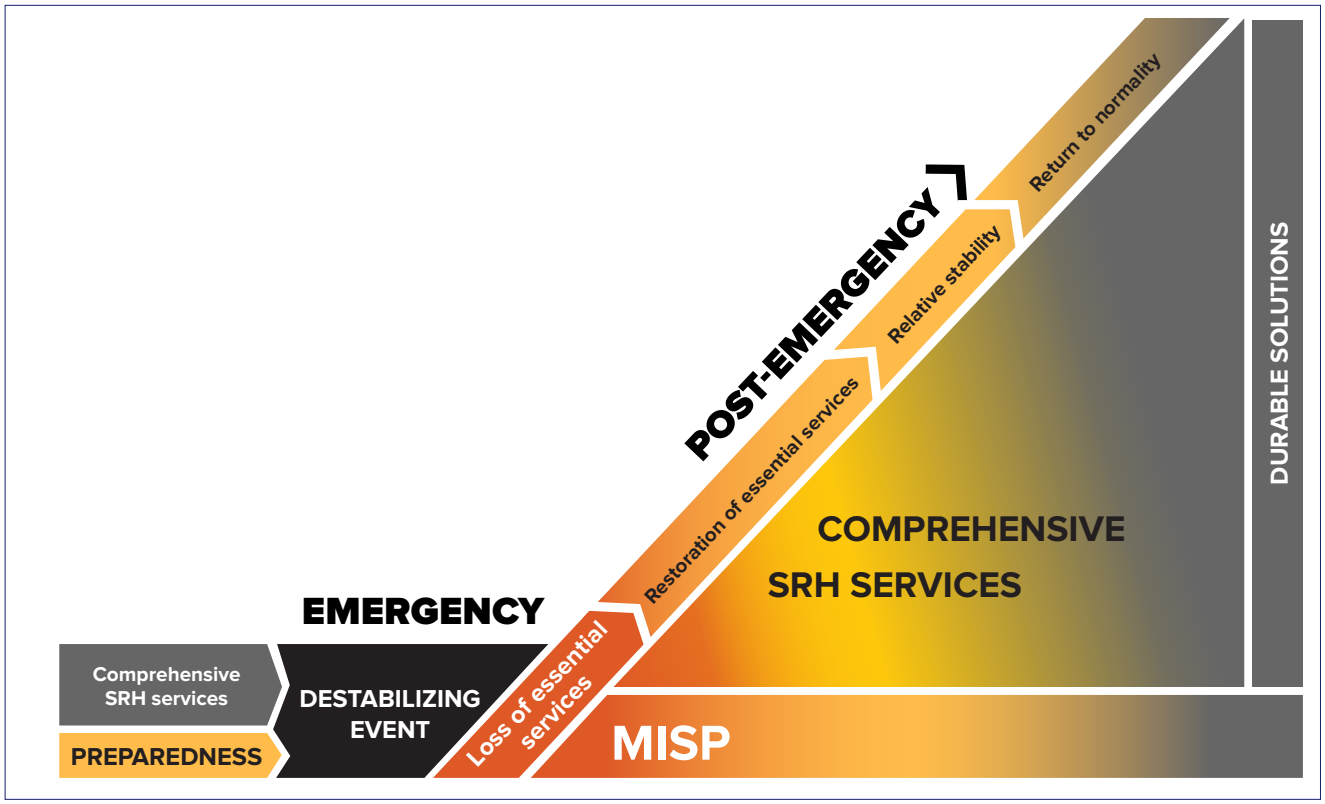
1. Does this healthcare save lives in the short term?

   Example: Comprehensive antenatal care is not part of the MISP for sexual and reproductive health as it is not immediately life-saving and is resource intensive. In an acute crisis, there is a need to prioritize the interventions that will have the highest impact on mortality and morbidity in the short term. Recognizing danger signs in pregnancy and teaching individuals and couples to recognize danger signs during labour and delivery and in their newborn will have a life-saving impact. As soon as the situation stabilizes, comprehensive antenatal care is recommenced as this has an impact on maternal morbidity and mortality over the long term.

2. Is there a way to get to the same outcomes while using fewer resources?

   Example: Some clinicians prefer to see the results of laboratory testing and/or histological examination to support their clinical diagnosis. However, crisis situations require that diagnostic test kits and other laboratory resources are only used when essential. Therefore, STIs can be managed using the syndromic approach, since aetiological management would only make minor changes to the treatment but would add much to the costs and take more time (see *Chapter 6: Sexually transmitted infections*).

FIGURE 2: The transition from emergency (minimum) to (comprehensive) post-emergency sexual and reproductive healthcare in humanitarian settings



Source: Reproduced/translated with permission from IAWG. Inter-Agency Field Manual on Reproductive Health in Humanitarian Settings. New York: IAWG; 2018.

3. Is the follow-up that this healthcare requires available or feasible?

   Sexual and reproductive healthcare in humanitarian settings is often provided by mobile clinics, which are only in place for a short time. It is not ethical to provide healthcare such as HIV testing that requires follow-up appointments to deliver test results and treatment if this follow-up care will not be available.

Table 2 lists the six WHO health system building blocks and provides examples of the assessment and planning activities for each block, in the context of the transition back to comprehensive sexual and reproductive healthcare.

MISP Objective 6

Critical aspects to be considered:

- Communication among decision-makers (including national governments) and implementing partners (see MISP Objective 1)
- Adequate financing
- Effective coordination
- Supply chain management
- Human resources management
- Monitoring and evaluation
- System of information sharing, feedback, and accountability to the affected community
- Planning an exit strategy for humanitarian partners (international agencies)

Source: IAWG [7].

TABLE 2. Planning for the return of comprehensive sexual and reproductive healthcare: Examples of assessment and planning for each of the six WHO health system building blocks

Health systems building block	When planning for comprehensive sexual and reproductive healthcare, collaborate with all stakeholders to:
Healthcare delivery	• Identify sexual and reproductive health needs in the community • Identify suitable sites for sexual and reproductive healthcare delivery
Health workforce	• Assess staff capacity • Identify staffing needs and levels • Design and plan staff training
Health information system	• Include sexual and reproductive health information in the health information system
Medical commodities	• Identify sexual and reproductive health commodity needs • Strengthen sexual and reproductive health commodity supply lines
Financing	• Identify sexual and reproductive health financing possibilities
Governance and leadership	• Review sexual and reproductive health-related laws, policies, protocols • Coordinate with the national ministry of health • Engage communities in accountability

Source: IAWG [7].

MISP Other sexual and reproductive health priorities: Safe abortion care to the fullest extent of the law

Safe abortion care refers to both medical management of abortion (i.e. using medications, misoprostol alone or in combination with mifepristone, for induced abortion, incomplete abortion, or intrauterine fetal demise) and safe surgical abortion or post-abortion care (i.e. using a safe procedure, such as manual vacuum aspiration). To the extent possible, all individuals who have had an abortion should have access to contraception. For further information, refer to *Chapter 5: Abortion care*.

Unsafe abortion is one of the four most common direct obstetric causes of maternal death globally and is estimated to be the cause of 4.7–13.2 per cent of maternal deaths [35]. An estimated 73 million induced abortions occur annually and around 45 per cent of all abortions are unsafe, of which 97 per cent take place in low-resource countries [36].

Unintended pregnancies occur everywhere: IPPF's position

IPPF continues to advocate for and ensure the inclusion of safe abortion care as part of sexual and reproductive healthcare. Safe abortion care is a critical component of sexual and reproductive healthcare to meet the essential needs of all people.

In humanitarian settings and crisis situations, this strategy should be continued and access to safe abortion care should be provided using a rights-based approach.

The MISP recommends the provision of good-quality and safe abortion care to the full extent of the law. This is in line with IPPF's values and mission, to ensure that individuals can exercise their human right to access safe abortion as an essential and integral component of any sexual and reproductive healthcare package, when they need it, regardless of whether they are living in a stable setting or experiencing a humanitarian crisis.

2.2. Inter-Agency Reproductive Health kits to support MISP in crisis situations

UNFPA created the Inter-Agency Reproductive Health (IARH) kits to support supplies and logistics in emergency situations at the onset of a humanitarian crisis [3]. The 13 IARH kits, grouped into three sets or blocks, are designed to provide the essential equipment needed to carry out specific MISP objectives (except kit 0, which is administration and training). For example, to support the clinical activities in MISP Objective 2 (prevent sexual violence and respond to the needs of survivors), depending on capacity, a health setting may require kit 3 (post-rape treatment), kit 8 (management of complications of miscarriage or abortion), and/or kit 9 (supplies needed to repair cervical and vaginal tears and to perform a vaginal examination). Similar kits for newborn care in emergencies have been developed and can be ordered from UNICEF. Not every setting will require every kit.

2.2.1 The relationship between the MISP objectives and the IARH kits

Each of the 13 IARH kits is pre-packaged to serve an estimated number of clients for a period of 3 months: block 1 includes kits 0–5 for 10,000 people; block 2 includes kits 6–10 for 30,000 people; and block 3 includes kits 11–12 for 150,000 people, as illustrated in the IAWG field manual [7]. Assistance with ordering IARH kits can be provided by the UN country office, or alternatively contact humanitarianSRHsupplies@unfpa.org

There are several resources available to assist in calculating the number of supplies required, including an online MISP calculator [37] and the IARH kit manual [3]. The minimum information required is the number of people affected.

3. Comprehensive sexual and reproductive healthcare

As the crisis situation stabilizes and the health system re-establishes itself, sexual and reproductive healthcare should reintegrate into the primary healthcare system and expand to include comprehensive sexual and reproductive healthcare. Healthcare must reach the poorest and most marginalized populations.

3.1 Transitioning from the MISP to essential sexual and reproductive healthcare once the situation has stabilized

Humanitarian projects providing the MISP are intended to be temporary interventions responding to the needs of populations affected by crises. From the outset of the response, it is crucial to plan for an exit or transition strategy to ensure the provision of comprehensive sexual and reproductive healthcare (such as antenatal and post-natal care, gynaecology, etc). For a smooth transition, think about sustainability early, consult with partners and stakeholders regularly, and communicate continuously with and to the affected population.

Some of the best transition strategies include:

- Assessments of local sexual and reproductive health challenges and the development of hand-over plans, in consultation with the ministry of health and other partners including community-based organizations. It is critical to ensure that the voices of marginalized and under-served communities are included in the development of a comprehensive plan for sexual and reproductive health.
- As a response draws to an end, available materials, equipment, drugs, and supplies should be handed over from the emergency programme to the regular programme. These resources can enable a smooth transition and increase the capacity to provide essential sexual and reproductive healthcare.
- Staff care should be ensured during and beyond the response.
- Collaboration with partners and a referral mechanism to ensure access to any components of comprehensive sexual and reproductive healthcare that are not provided by the Member Association.
- Investment in the skills and capacities of available staff to ensure the provision of comprehensive sexual and reproductive healthcare.

4. Assisting in humanitarian crisis situations

IPPF comprises a global Humanitarian Team that has expertise in the implementation of the MISP in crisis settings and that can support with security and emergency logistics. IPPF's Humanitarian Programme provides a distinct model for supporting sexual and reproductive health and rights in crises, connecting key elements of humanitarian action (prevention, preparedness, response, recovery, and resilience) with long-term, equitable development.

If there is a humanitarian crisis in your country, the Humanitarian Team may be able to assist. Please contact humanitarianalert@ippf.org, or make contact with your national or regional humanitarian focal person.

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