MALAWI NATIONAL REPRODUCTIVE HEALTH SERVICE DELIVERY GUIDELINES

October 2001

JHPIEGO CORPORATION

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ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
BBT	Basal Body Temperature
BCC	Behaviour Change Communication
BP	Blood Pressure
CBDA	Community Based Distribution Agent
CNS	Central Nervous System
COCs	Combined Oral Contraceptives
D&C	Dilatation and Curettage
DFID	Department for International Development
DMPA	Depot-Medroxyprogesterone Acetate
EE	Ethinyl Oestradiol
FP	Family Planning
FPLM	Family Planning Logistics Management
FSH	Follicle Stimulating Hormone
HBV	Hepatitis B Virus
HIV	Human Immunodeficiency Virus
HLD	High-Level Disinfection
HPV	Human Papillomavirus
IP	Infection Prevention
IUCD	Intrauterine Contraceptive Device
JICA	Japanese International Cooperating Agency
LAM	Lactational Amenorrhoea Method
LH	Luteinizing Hormone
LMP	Last Menstrual Period

LNG	Levonorgestrel
MCH	Maternal and Child Health
MDHS	Malawi Demographic and Health Survey
MOHP	Ministry of Health and Population
MTCT	Mother-to-Child Transmission
MVA	Manual Vacuum Aspiration
NET-EN	Norethindrone Enanthate
NFP	Natural Family Planning
NGO	Non-governmental Organization
NSAID	Nonsteroidal Anti-Inflammatory Drug
OCP	Oral Contraceptive Pills
PEP	Postexposure Prophylaxis
PICs	Progestin-Only Injectable Contraceptives
PID	Pelvic Inflammatory Disease
POCs	Progestin-Only Contraceptives
POPs	Progestin-Only Pills
RH	Reproductive Health
RHIMS	Reproductive Health Information Management System
RTI	Reproductive Tract Infection
SDP	Service Delivery Point
SP	Sulfa-doxine Pyramenthamine
STI	Sexually Transmitted Infection
TB	Tuberculosis
TBA	Traditional Birth Attendant
TSS	Toxic Shock Syndrome
USAID	United States Agency for International Development

UTI	Urinary Tract Infection
VCT	Voluntary Counselling and Testing
VIA	Visual Inspection with Acetic Acid
VSC	Voluntary Surgical Contraception
WHO	World Health Organization

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- Lilongwe Central Hospital
- Lilongwe Family Planning Training Centre
- Malawi College of Health Sciences (Blantyre, Lilongwe and Zomba Campuses)
- Medical Council of Malawi
- Nkhoma Hospital
- Nurses and Midwives Council of Malawi
- Queen Elizabeth Central Hospital
- Zomba Central Hospital

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PREFACE

The Ministry of Health and Population (MOHP) supports the concept of comprehensive reproductive health as defined during the 1994 International Conference on Population and Development in Cairo and subsequently endorsed at the 1995 Fourth World Conference on Women in Beijing:

"Reproductive health is a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity in all matters relating to the reproductive health system, its functions and processes. Reproductive health includes:

- Meeting the needs of individuals and couples for a variety of safe and effective and affordable methods of fertility regulation from which they can make an informed choice;
- Reduction of pregnancy-related morbidity and mortality as well as reduction of newborn deaths and disabilities;
- Prevention and management of reproductive tract infections, including HIV/AIDS and other sexually transmitted diseases (STDs); and
- The provision of services for the early detection and management of cancers and other conditions of the reproductive tract."

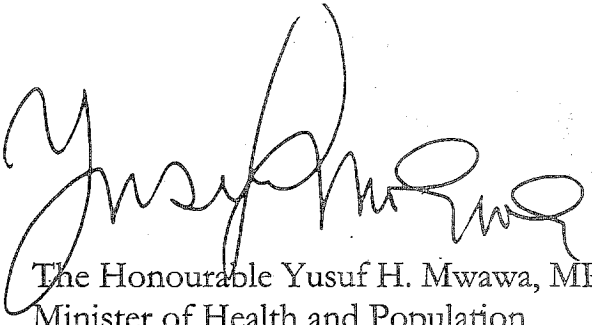
In the spirit of the 1994 Cairo Programme of Action, the Malawi Government has adopted the comprehensive reproductive health umbrella of services. Besides sexually transmitted infections (STIs)/HIV/AIDS prevention and management, adolescent health, elimination of harmful RH practices and prevention of reproductive cancers, the Malawi Government will strengthen all the other services in the four pillars of safe motherhood identified in the WHO Mother-Baby package (1995), namely Family Planning, Antenatal Care, Clean/Safe Delivery and Essential Obstetric Care.

The *Malawi National Reproductive Health Guidelines* provide the most current up-to-date knowledge and direction on the various components of reproductive health, including: quality of care, counselling, client assessment, infection prevention, family planning, reproductive health/family planning for special groups, postabortion care, adolescent reproductive health, men and reproductive health, STIs, HIV/AIDS, maternal and neonatal health, prevention and management of cervical and breast cancers, infertility and harmful RH practices. The *Malawi National Reproductive Health Service Delivery Guidelines* form a solid foundation from which service providers at all health facilities in both the public and private sectors, as well as non-governmental organisations, can launch ***comprehensive, high quality*** and ***standardised*** reproductive healthcare. The MOHP

also encourages the use of these guidelines by managers, policymakers and training institutions.

The Malawi Government believes that individuals and couples have the right to have access to comprehensive, high quality reproductive healthcare and services and that the use of these services is a critical factor in the socio-economic development and well-being of every Malawian, especially women.

I would like therefore to thank the Reproductive Health Unit for organising and coordinating the development and revision of the *Malawi National Reproductive Health Service Delivery Guidelines.*



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SUMMARY OF NATIONAL REPRODUCTIVE HEALTH STRATEGY

To support the 1999–2004 National Health plan and to provide a focus for the RH component, the MOHP developed a National RH Strategy for 1999-2004. This document is a national response to the International Conference on Population and Development, which was held in Cairo, Egypt in 1994. This conference emphasized the need to adopt a holistic approach in the provision of RH services. The subsequent Fourth Conference on Women in Beijing also endorsed the pursuance of gender equality and equity, voluntary fertility control and improved reproductive health. Following these two conferences, the member states of the African region committed themselves to implementing comprehensive reproductive health.

Malawi has provided some components of RH services as vertical programmes, namely Family Planning, STIs/HIV/AIDS, Safe Motherhood and Maternal and Child Health. These programmes have made significant strides towards reducing the fertility rate, increasing the contraceptive prevalence rate, expanding immunisation coverage and increasing knowledge in contraceptive methods. Furthermore, Family Planning Policy and

Contraceptive Guidelines, the National Population Policy and the Safe Motherhood Initiative Programme Guidelines have provided direction and guidance towards implementation of these programmes.

The newly-developed RH strategy aims at giving direction and guidance to RH programmes. As a first step, the MOHP has identified the following as the priority RH areas for the next 5 years:

- Prevention of mistimed and unwanted pregnancies
- Safe motherhood
- Perinatal and newborn care
- Adolescent sexual and reproductive health
- Control of STIs and HIV/AIDS
- Prevention, early detection and management of cervical and breast cancer
- Elimination of harmful practices and reduction of domestic and sexual violence

These priority RH programme areas are detailed below.

The overall goal of the FP programme is to reduce infant and maternal mortality by lengthening the intervals between births in order to allow women adequate time to recover from the effects of pregnancy and childbirth and to look after the nutritional and health needs of the children and themselves. Programme objectives are as

follows:

- To reduce the total fertility rate from 6.7 to 5.0 by the year 2004
- To increase the contraceptive prevalence rate from 14% to 28% by the year 2004
- To increase service delivery outlets from 236 to 520 by the year 2004
- To reduce population growth rate from 3.2% to 2.4% by the year 2004
- To initiate community-based projects in all districts ready to do so
- To strengthen the monitoring and evaluation system

With regard to maternal and infant health, mortality rates for these two groups are unacceptably high in Malawi despite the existence of maternal and child health services for the last two decades. The 1992 Malawi Demographic and Health Survey recorded a maternal mortality ratio of 620 deaths for every 100,000 live births and an infant mortality rate of 134 per 1,000 live births.

In an attempt to address the problem of high maternal and neonatal mortality, the MOHP instituted a Safe Motherhood Initiative and an exclusive breastfeeding programme in 1995. The aim of these two programmes is to reduce maternal and infant mortality by improving access to quality essential obstetric and neonatal care as

well as improving the attitude and practices of communities towards care during pregnancy, childbirth and breastfeeding. Programme objectives include the following:

- To reduce the maternal mortality ratio from 620/100,000 to 310/100,000 live births per year by the year 2004
- To reduce the neonatal mortality rate from 40/1,000 to 35/1,000 live births per year by the year 2004
- To reduce the infant mortality rate from 134/1000 live births

Adolescent reproductive health is another key component of the national RH programme. Sexual activity among adolescents in Malawi starts early, exposing them to pregnancy, STIs including HIV/AIDS and subsequent infertility. The 1992 Malawi Demographic and Health Survey showed that 55% of all teenage girls were already mothers and an additional 10% were pregnant with their first child. Until now the RH needs of adolescents have not been fully addressed. The MOHP now considers youth as an "at risk" group in terms of reproductive health and is committed to incorporating their RH needs into the existing services, in collaboration with other partners such as the Youth Council and various NGOs who have already made inroads in this area.

STIs, including HIV/AIDS, are another essential component to the national RH programme. The prevalence of STIs in Malawi is high, estimated at 6.3% in 1996 (Malawi Knowledge, Attitudes and Practices in Health Survey). A large number of STI clients are also infected with HIV, the presence of an STI increasing the risk of HIV transmission by a factor of three to five (Wasserheit 1992). Malawi has one of the highest HIV infection rates in the world, with 14% of the total population aged 15-49 infected and up to 26% in urban areas (*Malawi's National Response to HIV/AIDS for 2000–2004: Combatting HIV/AIDS with Renewed Hope and Vigour in the New Millenium*, 1999). AIDS is the main cause of adult deaths and has a tremendous impact on the socio-economic status of the country. The overall goals of the STI programme are to provide appropriate anti-microbial therapy for people with STIs in order to cure the disease and reduce HIV transmission; to increase the safety of sexual interaction to reduce risky sex; and to ensure that partners are appropriately treated in order to break the transmission cycle.

Objectives include:

- HIV prevalence stabilised at 21% by 2002 (in pregnant women 15–49 age group) and reduced thereafter
- HIV incidence in 15–24 year group reduced by 10% by 2002 and 25% by 2006

- Syphilis rates in pregnant women reduced from 4.2% (1998) to 2.5% by 2003
- 50% of appropriate clients receive appropriate case management by 2003, 70% by 2005
- Increased levels of STI screening at district hospitals for antenatal women B 50% by 2002, 95% by 2004
- 90% of sexually active males and females know how to protect themselves from STIs and where to get treatment by 2004

A relatively new focus for the national RH programme is reproductive cancers. The most common reproductive cancers in women are cervical cancer (78%) and breast cancer (9%). Services to detect and manage reproductive cancers at health clinics would prevent and control such cancers in the country. There is no structured programme in place at present to address this serious RH issue, but it is a strong interest of the Ministry=s and is one of the priority areas for this 5-year strategy.

Malawi has diverse cultural practices, some of which are detrimental to reproductive health. Some of these cultural practices are conducted under unhygienic conditions (e.g., male circumcision in the south and some parts of the central region and chokolo [male and female inheritance] in the north and some parts of the southern and central regions). Some of these cultural practices may contribute to high incidences of STI/HIV/AIDS in the country.

Strong social and cultural forces continue to assign a very low status to Malawian women. The MOHP has made elimination of harmful RH practices one of the priorities of its 5-year strategy, through advocacy, social mobilisation, promotion of healthy reproductive behaviours and research promotion.

The MOHP has accomplished much, but still has a long way to go. Its commitment, however, is strong and its goals and objectives are clear B to provide accessible, affordable and convenient comprehensive sexual and RH services to all Malawian women, men and youth through informed choice in order for them to attain their RH goals and rights. Reaching this goal means providing safe maternal healthcare, high quality family planning (FP) and adolescent RH services and high quality services to prevent and manage unsafe abortion; preventing and managing STIs including HIV/AIDS; increasing awareness on early detection and management of cervical cancer and reducing the levels of unwanted pregnancies in all women of reproductive age.

The National Health Plan and National Reproductive Health Strategy provide guidance for the way forward and the *Malawi National Service Delivery Reproductive Health Guidelines* give service providers a tool that they can use to accomplish the national goals.

INTRODUCTION OF GUIDELINES

The *National Family Planning Policy and Contraceptive Guidelines* were first developed in 1992 under the MOHP and later revised in November 1996 under the MOHP and National Family Welfare Council of Malawi. This document has effectively guided the FP programme activities to date. With the passage of time, however, providers have had increased experience in the delivery of FP services and recent research findings have resulted in new concepts and knowledge (e.g., female condom, postabortion care). These recent changes in contraceptive technology have influenced how, when, where and why FP services should be provided. Given the 1994 International Conference on Population and Development in Cairo and the subsequent Fourth Conference on Women in Beijing, there has been a shift from pure FP programmes to a more comprehensive RH approach. In light of this, the MOHP and other key stakeholders conducted a joint review of the existing guidelines. In developing these revised guidelines, participants used their field experiences as well as recent scientific literature and research to formulate a document that is consistent with the recently developed RH strategy paper.

The purpose of these RH service delivery guidelines is to

assist service providers at all levels to deliver high-quality comprehensive RH services based on sound and acceptable principles of practice. These *Malawi National Reproductive Health Service Delivery Guidelines* will equip RH service providers with the tools required to maintain consistently high quality care in a professional manner while keeping in mind clients' needs and operating within the legal and RH policy framework of the country. The *Guidelines* include the following sections:

- Quality of care
- Counselling
- Client assessment
- Infection prevention
- Family planning
- Adolescent reproductive healthcare
- Men and reproductive health
- Sexually transmitted infections (STIs)
- Human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS)
- Prevention of mother to child transmission (MTCT)
- Maternal and neonatal health
- Prevention and early detection of cervical cancer
- Reproductive health for special groups
- Postabortion care
- Prevention and early detection of breast cancer

- Infertility
- Harmful reproductive health practices

Many of the above sections draw on or refer to existing, more detailed national guidelines/protocols and up-to-date reference materials.

Chapter 1

QUALITY OF CARE

DEFINITION

Quality

Quality is doing the right thing, right, the first time and doing it better the next time within the resource constraints and to the satisfaction of the community.[1]

Quality Assurance

Quality Assurance is that set of activities that are carried out to set standards, monitor and improve performance so that the care provided is as effective and as safe as possible.[2]

Safe and effective RH service requires that:

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[1] National Quality Assurance Awareness Workshop, Lilongwe, June 1996.
[2] The Quality Assurance Project, 1993.

- Capability to take appropriate clinical action in response to these problems, including knowing when and where to refer clients with serious problems;
- Self-expression, and the ability to make suggestions on programme improvements;
- Motivation to keep up to date with knowledge and skills.
- Adherence to followup systems

To provide quality care requires the following:

- **Choice of RH services**

  The programme should ensure a wide choice of RH services on a reliable basis. Offering a variety of RH services will help to meet the diverse and changing needs of women, men and youths over their reproductive lifetime.

- **Provision of information and services to clients**

  The cornerstone of providing quality RH services is ensuring that clients are given complete and accurate information through adequate and effective counselling on which to base their decisions and choices.

- **Technical competence**

  Providers need to be adequately trained in the technical provision of RH service delivery and regularly updated. They also need to have access to the national RH guidelines.

- **Interpersonal relations to help identify providers' and clients' perspectives and needs**

  Providers should elicit clients' views on the quality of care being provided in order to take action to improve that care. Programme managers and supervisors should also be aware of these views, particularly when the views differ.

- **Followup systems to encourage continuity of care**

  All efforts should be made to ensure clients are followed up – followup appointments, ensuring completion of treatment, etc.

- **Appropriate and acceptable services**

  The working environment should be conducive to both client and provider as it can affect provision of quality services to clients including the appropriateness and acceptability of care. It is also important to ensure continuous supply of drugs, equipment and other supplies.

Chapter 2

COUNSELLING

DEFINITION

Counselling is an interactive process where the provider listens to the client's needs, tries to elicit the client's concerns and offers relevant information to enable the client make appropriate decisions.

PRINCIPLES OF COUNSELLING

- The client has the right to make an informed decision.
- The process should be confidential, truthful and nonjudgmental.
- The client should have freedom of expression.
- There must be genuine communication without emotional involvement.
- There must be auditory and visual privacy.
- The atmosphere must be receptive.
- The counsellor must recognise his/her limitations and refer when necessary.

BENEFITS OF COUNSELLING

- Increases acceptance of RH services
- Promotes effective use of RH services
- Improves continuation of RH services
- Increases client satisfaction with RH services
- Dispels rumours and misconceptions about RH services

COUNSELLING STEPS FOR RH SERVICES

A six step-by-step process assists the client in deciding on the use of RH services. The process includes learning, weighing choices, making decisions and carrying them out. These steps can be remembered with the word **GATHER**.

G Greet clients in an open respectful manner. Assure the client of confidentiality; ask the client how you can help and explain what can be offered in response.

A Ask clients about themselves. Help clients talk about their RH needs, experiences, intentions, concerns and current health and family life. Respond helpfully.

T Tell clients about RH services and options available at the facility.

H Help clients make an informed decision. Encourage the client to express opinions and ask questions. Respond fully and openly; take the opportunity to counter any myths or misconceptions that the client might have.

E Explain how the selected RH service(s) will be provided and utilised.

R Return visits should be planned. Always invite the client to come back any time for any reason.

Chapter 3

CLIENT ASSESSMENT

DEFINITION

Client assessment is screening through:

- History taking
- Complete physical examination
- Laboratory studies, if available

Note: At first clinic visit and annually, a thorough history and physical assessment including pelvic examination is recommended for integrated reproductive healthcare. However, a client should not be denied a service because she has refused assessment.

OBJECTIVES

The **objectives** for assessing clients prior to providing RH services are to determine the:

- client's RH status
- client's RH needs
- course of action to meet the client's RH needs

Note: With regards to specific RH conditions, refer to appropriate chapter (e.g., Safe Motherhood, HIV/AIDS, STIs).

Chapter 4

INFECTION PREVENTION

DEFINITION

Infection Prevention is a combination of efforts made to prevent transmission of infections between clients and service providers.

PURPOSE

To minimise or reduce transmission of preventable infection (e.g., HIV, HBV) to the lowest acceptable level during provision of RH services.

PRINCIPLES

The recommended infection prevention (IP) practices are based on the following principles:

- **Every person** (client or staff) must be considered potentially infectious.
- **Handwashing** is the most practical procedure for preventing cross-infection.

- **Wear gloves** before touching - broken skin, mucous membranes, blood, body fluids, secretions or excretions.
- **Use barriers** (protective goggles, facemasks and aprons) if splashes and spills of blood, body fluids, secretions or excretions are anticipated.
- **Use safe work practices**, such as not bending needles, proper instrument processing and proper disposal of medical waste.

Note: Needles should not be recapped routinely, but if necessary, a one-handed recap method should be used.

HANDWASHING

- Wash hands with soap and running water using friction for 15–30 seconds.
- Wash hands **before** and **after** examining any client (direct contact).
- Wash hands after removing gloves because the gloves may have holes in them.
- Wash hands after exposure to blood, body fluids, secretions or excretions, even if gloves were worn.
- Dry hands with clean disposable paper, personal towel or air dry.
- Do not use shared towels to dry hands.

Note: To encourage handwashing, clinic managers should make every effort to provide soap and a continuous supply of clean running water, either from the tap or a bucket, and single-use towels.

GLOVES

Wear gloves:

- when performing a procedure on a patient and when handling sterile instruments
- when handling soiled instruments, gloves and other items
- when disposing of contaminated waste items (cotton, gauze or dressings)

Heavy duty gloves (thick household or industrial rubber or vinyl) should always be worn while cleaning instruments.

A separate pair of gloves must be used for each client to avoid cross-infection.

Using disposable gloves is preferable, but where resources are limited, surgical gloves can be reused if they are:

- decontaminated by soaking in 0.5% chlorine solution for 10 minutes,
- washed and rinsed, and
- sterilised (by autoclaving) or high-level disinfected (by steaming or boiling).

GLOVE REQUIREMENTS FOR COMMON PROCEDURES IN RH SETTINGS

TASK OR ACTIVITY	ARE GLOVES NEEDED ?	PREFERRED GLOVES	ALTERNATIVE GLOVES
Blood pressure check	No		None
Temperature check	No		None
Injection	No		None
Blood drawing	Yes	Disposable Exam	None
Pelvic examination (Gynae/FP clinic)	Yes	Disposable Exam	None
IUCD insertion (loaded in sterile package and inserted using no-touch technique)	Yes	Sterile Surgical	HLD Surgical

TASK OR ACTIVITY	ARE GLOVES NEEDED ?	PREFERRED GLOVES	ALTERNATIVE GLOVES
IUCD removal (using no-touch technique)	Yes	Sterile Surgical	HLD Surgical
Norplant implants insertion and removal	Yes	Sterile Surgical	HLD Surgical
Surgery	Yes	Sterile Surgical	HLD Surgical
MVA (using no-touch technique)	Yes	Sterile Surgical	HLD Surgical
Handling and cleaning instruments	Yes	Utility	Disposable Exam or Surgical
Handling contaminated waste	Yes	Utility	Disposable Exam or Surgical
Cleaning blood or body fluid spills	Yes	Utility	Disposable Exam or Surgical
Obstetric pelvic examination/ procedures	Yes	Sterile Surgical	HLD Surgical
Delivery	Yes	Sterile Surgical	HLD Surgical

HOW TO HANDLE NEEDLES, SCISSORS AND OTHER SHARPS

Operating Room

- Use a receiver (safe zone) to carry and pass sharp items (e.g., pass suture needles on a needleholder).
- Pass scissors using the "hands-free" technique.
- Do not leave sharps in places other than safe zones.
- Tell other workers before passing sharps.

Safety Tips When Using Hypodermic Needles and Syringes

- Use each needle and syringe only once.
- Decontaminate needle and syringe prior to disposal by flushing three times with a 0.5% chlorine solution
- Recap needle using the "one-handed" technique (see below). Do not bend or break needles prior to disposal.
- Disassemble needle and syringe.
- Dispose of needle in a puncture-proof container.
- Dispose of sharps container when it is three-quarters full.
- Dispose of syringe in bio-hazardous waste container.
- Dispose of needles by throwing them in a covered pit.
- Make syringes unusable by burning them.

Method for Recapping Needles Using One-Handed Technique

- First, place the cap on a hard, flat surface; then remove hand.
- Next, with one hand, hold the syringe and use the needle to "scoop-up" the cap.
- Finally, when the cap covers the needle completely, hold the needle at the base near the hub and use the other hand to secure the cap on the needle.

WHAT HEALTH WORKERS SHOULD DO IF EXPOSED TO INFECTIOUS MATERIALS

- **Intact skin, mouth or nose:** immediately wash with soap under running water
- **Cut or punctured skin:** remove gloves, squeeze out blood from punctured site and wash with water and soap, preferably antiseptic
- **Eye:** irrigate with clean water or normal saline
- Consider postexposure prophylaxis (PEP):
  - 4 week course of zidovudine (ZDV) and lamivudine (3TC)
  - Expanded PEP includes a protease inhibitor Indinavir or Nelfinavir which can be added if high-risk of transmission
  - Preferable to start within 1–2 hours
- HIV testing immediately then at 6 weeks, 6 months and 12 months

HOW TO HANDLE REUSABLE EQUIPMENT, INSTRUMENTS AND MATERIALS

- Decontamination (soak in 0.5% chlorine solution for 10 minutes)
- Clean with soap and water
- High-level disinfection (boiling, steaming or using chemicals)
- Sterilisation

DECONTAMINATION

Decontamination is the process that makes objects (equipment, instruments) safer to handle by staff before cleaning. This process kills HBV and HIV viruses, in addition to others.

Essential Supplies for Decontamination

- Two plastic basins/small buckets (the first for decontamination, the second that contains soapy water in preparation for cleaning)
- Heavy duty gloves, to protect hands from sharp instruments
- Jik or Precept (chlorine solutions are effective and affordable)
- Another basin for gloves only (so they are not torn by sharp instruments)

How to Decontaminate

- Decontamination should be done before leaving the treatment or procedure room.
- Immediately after a procedure and before you remove your gloves, place items in the 0.5% chlorine solution.
- Allow to soak for 10 minutes.
- Remember to dip your gloved hands in the chlorine solution before removing the gloves. Remove gloves by inverting them.
- Deposit gloves into either the hazardous waste container or a container for gloves that will be re-processed (decontaminate, wash and rinse).

After Decontamination

- After 10 minutes of soaking in Jik (or Precept) remove instruments. (Extended soaking can cause instruments to rust.)
- Immediately place them in soapy water for cleaning.

Formula for Making a Dilute Solution from a Concentrated Solution

$$\left[\frac{\%\ \text{Concentrate}}{\%\ \text{Dilute}}\right] - 1 = \text{Diluted Solution}$$

Example: Make a dilute solution (0.5%) from 3.5% concentrate solution.

1. Calculate $\text{Total parts}(H_2O) = \left[\frac{3.5\%}{0.5\%}\right] - 1 = 7 - 1 = 6$
2. Take 1 part concentrated solution and add to 6 parts clean water.

Formula for Making a Chlorine Solution from Dry Powder

$$\text{Grams / Liter} = \left[\frac{\%\ \text{Dilute}}{\%\ \text{Concentrate}}\right] x\ 1000$$

Example: Make a diluted chlorine-releasing solution (0.5%) from a concentrated powder (35%).

1. Calculate $\text{Grams / Liter} = \left[\frac{0.5\%}{35\%}\right] x\ 1000 = 14.2\ \text{g / l}$
2. Add 14.2 grams (14 g) to 1 litre of water.

The following chart shows how to prepare a 0.5% chlorine solution from pre-made solutions.

Brand of Bleach, % chlorine (Country)	To obtain a 0.5% chlorine solution
Jik 3.5% chlorine	1 part Jik bleach to 6 parts water
Household bleach, 5% chorine	1 part household bleach to 9 parts water

CLEANING

Cleaning is the process of physically removing all organic material, such as blood, tissue, sputum, faeces and urine.

Essential Supplies for Cleaning

- Heavy duty gloves
- Water
- Soft brush (tooth brushes work well)
- Detergent
- Basin (or sink) for washing
- Basin (or sink) for rinsing
- Protective apron

How to Clean

- Completely disassemble instruments and/or open the jaws of jointed items.
- Cleaning should be done under the surface of the water to prevent infectious material from becoming airborne through splashing.
- Clean instruments with a soft brush in soapy water paying particular attention to instruments with teeth, joints or screws where organic material can collect.

Note: Cleaning must include **water, soap and friction** to remove all organic material from instruments.

HOW TO DECONTAMINATE AND CLEAN LINENS, SURGICAL DRAPES AND OTHER ITEMS

Step 1: Pre-soak linen or clothing contaminated with blood or other body fluids in 0.5% chlorine solution or other locally available and approved disinfectant to kill HBV and HIV. This will minimise the risk to those staff responsible for washing these items.

Step 2: After pre-soaking, wash linen and clothing with detergent and hot water.

Step 3: Rinse thoroughly.

Step 4: Dry linen and clothing in the sun or machine dry. To avoid recontamination, limit handling.

Step 5: If air dried, iron surgical drapes when sterilisation (autoclaving) is not available. (Other linen also can be ironed.)

HIGH-LEVEL DISINFECTION (HLD)

HLD is the process that will destroy all microorganisms except some bacterial endospores. Methods of HLD include boiling, steaming and chemical.

High-Level Disinfection by Boiling

Timing should begin once the water is at a rolling (bubbling) boil. Use instruments and other items

Boiling Tips

- Boil water first to breakdown mineral salts to preserve instruments.
- When water reaches a rolling boil, add instruments ensuring that they are completely immersed.
- Start timing when the water begins to boil. Boil for 20 minutes in a container with a lid.
- Put a seal on the container indicating the time at which boiling will be finished.
- Do not add anything to the container after boiling begins.
- Never leave boiled instruments in water that has stopped boiling.
- Air dry in a high-level disinfected container before use or storage.

immediately or place them in a covered, dry high-level disinfected container. Store for up to 6 hours.

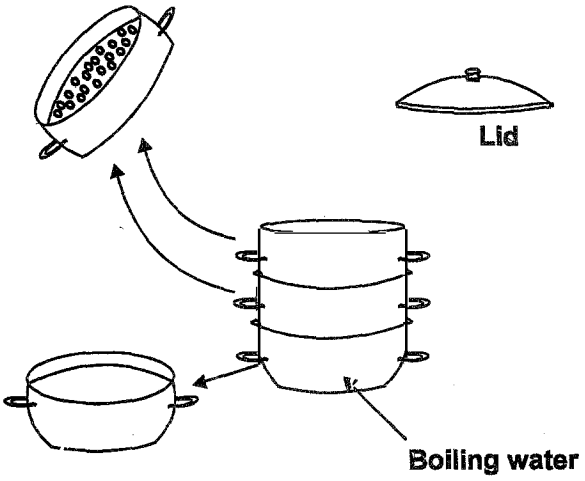
High-Level Disinfection by Steaming

Place **only** clean, dry items (e.g., surgical gloves) in the steamer pans. Start timing when steam begins to come out from the pans and lid. Air dry high-level disinfected items in a clean area of the room. Use instruments and other items immediately or place them in a covered, dry, high-level disinfected container. Store for up to 6 hours.

Steaming Tips

- Always steam for 20 minutes in a steamer with a lid.
- Reduce heat so that water continues to boil at a rolling boil.
- Start timing when the steam begins to come out from between the pans and lid.
- Do not use more than three steamer pans.
- Air dry in the covered steamer pans or a high-level disinfected container before use or storage.

Steamer used for HLD



Chemical High-Level Disinfection

A variety of chemical high-level disinfectants are available worldwide including:

- 0.5% chlorine (sodium hypochlorite)
- 8% Formaldehyde (Formalin)
- 2% Glutaraldehydes

STERILISATION

Sterilisation is the process that ensures all microorganisms, including bacterial endospores, are destroyed. There are three methods of sterilisation:

- High-pressure steam heat (autoclaving)
- Dry heat (oven)
- Chemicals (cold sterilisation)

High-Pressure Steam Heat (Autoclaving)

- 121°C (250°F); 106 kPa (15 lbs/in^2) pressure: 20 minutes for unwrapped items, 30 minutes for wrapped items
- Allow all items to dry before removing from autoclave by leaving the vent open.

Dry Heat (Oven)

- 170°C (340°F) for 1 hour, or 160°C (320°F) for 2 hours

Key Steps in Chemical HLD

- Following decontamination, thoroughly clean and dry all equipment and instruments.
- Cover all items completely with correct dilution of properly stored disinfectant.
- Soak for 20 minutes.
- Rinse well with boiled water and air dry.
- Store for up to 3 days in a high-level disinfected, covered container or use promptly.
- To prepare a high-level disinfected container, boil (if small) or fill it with 0.5% chlorine solution and soak for 20 minutes. (The chlorine solution can then be transferred to a plastic container and reused.) Rinse the inside thoroughly with boiled water. Air dry before use.

Chemical Sterilisation

- Soak items in 2% glutaraldehyde for 8–10 hours or 8% formaldehyde for 24 hours. (These solutions must be prepared with cold, boiled water.)
- Rinse with sterile water if available. If sterile water is not available, boiled water is sufficient.

Minimizing Risk of Needlestick Injuries

Do not recap syringes before disposal. Most needlesticks happen when workers recap used needles.

Place the syringe and needle in the sharps container immediately after use.

- Do not manually remove the needle from the syringe.
- Do not bend or cut the needle after the injection.
- The more syringes and needles are handled, the greater the risk of
- Needlesticks.
- Sharps containers help prevent needlestick injuries if they are used consistently and correctly.

Place the sharps container where the injections are given. Many needlestick injuries happen after the injection, but before the syringe is placed in a sharps container. Eliminate the need to carry used needles and syringes before disposal by placing containers within reach of every injector's work station.

Do not overfill the sharps containers. Before containers are completely full, remove them, close them, and seal them shut. This prevents needlesticks that occur when workers stuff needles and syringes into

full sharps containers and prick themselves with the needles already inside the containers. Designate persons to replace sharps containers with new containers when the maximum fill line is reached.

Sharps containers should be filled only once and discarded immediately. This prevents needlesticks and exposure to blood and body fluids, which could occur if dumping and re-using containers.

HOUSEKEEPING

When and How to Conduct Routine Cleaning in Low-Risk Areas

Establish a schedule and provide **written** guidelines for cleaning environmental surfaces.

- **Walls and ceilings** – Wipe when visibly dirty with a damp cloth, detergent and water. In general, routine damp dusting is adequate for these areas (disinfection is unnecessary).
- **Chairs, lamps, tabletops and counters** – Wipe daily and whenever visibly soiled with a damp cloth, detergent and water. A disinfectant should be used when contamination is expected, such as for blood spills.

- **Floors** – Clean floors frequently (twice each day, and as needed) with a damp mop, detergent and water.
- **Sinks** – Use a **disinfectant cleaning solution**; scrub frequently (daily or more often as needed) with a separate cloth or brush. Rinse with water.
- **Toilets and latrines** – Wear gloves. Use a **disinfectant cleaning solution**; scrub frequently (daily and more often as needed) with a separate cloth or brush. (Toilets and latrines carry heavy microbial contamination.)
- **Waste containers** – Wear gloves. Use a **disinfectant cleaning solution**; scrub to remove soil and organic material. Clean contaminated waste containers after emptying each time. Clean non-contaminated waste containers when visibly soiled and at least once a week.

When and How to Clean the Operating Room

- Total cleaning of the operating room (scrubbing all surfaces top to bottom) should be done at the end of each day.
- Decontaminate operating table top with a 0.5% chlorine solution. Clean sides, base and legs with a damp cloth and disinfectant cleaning solution.

How to Clean Spills of Blood and Other Organic Material

Clean spills of blood, body fluids and other potentially infectious fluids **immediately**.

- For **small spills**, wear gloves. Remove visible material using a cloth soaked in 0.5% chlorine solution.
- For **large spills**, wear gloves. Flood the area with 0.5% chlorine solution, mop up solution, then clean as usual with detergent and water.

WASTE DISPOSAL

The purpose of waste disposal is to:

- prevent the spread of infection to clinic personnel who handle the waste,
- prevent the spread of infection to the local community, and
- protect those who handle wastes from accidental injury.

Medical waste may be noncontaminated or contaminated. Noncontaminated waste (e.g., paper from offices, boxes) poses no infectious risk and can be

disposed of according to local guidelines. Proper handling of contaminated waste (blood- or body fluid-contaminated items) is required to minimise the spread of infection to clinic personnel and to the local community. Proper handling means:

- Wearing utility gloves
- Transporting solid contaminated waste to the disposal site in covered containers
- Disposing of all sharp items in puncture-resistant covered containers
- Carefully pouring liquid waste down a utility drain or flushable toilet
- Burning or burying contaminated solid waste
- Washing hands, gloves and containers after disposal of infectious waste

Separate waste into four categories. Provide four labelled containers so the system becomes simple for staff.

- **Non-hazardous and can be burned** (paper cardboard)
- **Non-hazardous and cannot be burned** (glass, metals and plastics which have not been in contact with blood or body fluids)
- **Hazardous and can be burned** (dressings and gauze)

- **Hazardous and cannot be burned** unless you have a working incinerator (glass, sharps and blades and plastics that are hazardous). Include sharps in this category if your facility does not have an incinerator that can destroy needles.

How to Dispose of Hazardous Liquid Wastes (Blood, Faeces, etc.)

- Wear thick utility gloves when handling and transporting wastes
- Cover bedpan and other specimen container before transporting. If a metal lid is not available, cover container with a plastic sheet.
- Carefully pour wastes down a utility sink, latrine or into a flushable toilet. Avoid splashing.
- Rinse the toilet or sink carefully and thoroughly with water to remove residual wastes. Avoid splashing.
- Decontaminate specimen container with a 0.5% chlorine solution or other locally available and approved disinfectant, by soaking for 10 minutes before washing with soap and water.
- Wash hands after handling liquid wastes and decontaminate and wash gloves.

Disposing of Hazardous Solid Wastes (Placentas, Dressings, Contaminated Items, etc.)

- Wear thick utility gloves when handling and transporting wastes.
- Dispose of solid wastes in non-corrosive washable containers (plastic or galvanized metal) with covers.
- Collect waste containers on a regular basis and transport to the incinerator.
- Although incineration is the first choice in waste disposal, burning or burial is acceptable if done properly.
- Wash hands after handling waste, and decontaminate and wash gloves.

Chapter 5

FAMILY PLANNING METHODS

5.1 BARRIER METHODS

5.1.1 MALE CONDOMS

DEFINITION

Thin sheaths made of rubber, vinyl or natural products that may be treated with a spermicide for added protection. They are placed on the penis once it is erect.

TYPES

Condoms are made of:

- Latex (rubber)
- Plastic (vinyl)
- Natural (animal product)

MECHANISMS OF ACTION

- Prevent sperm from gaining access to female reproductive tract

- Prevent STIs, including HIV/AIDS from passing from one partner to another (latex and vinyl condoms only)

BENEFITS

Contraceptive

- If properly and consistently used condoms are 88–98% effective
- Effectiveness increases if used in combination with spermicides
- Effective immediately
- No systemic side effects
- Widely available (pharmacies and community shops)
- No prescription or medical assessment necessary
- Inexpensive (short-term)
- Can be used as backup to other methods

Noncontraceptive

- Promotes partner communication
- Promote male involvement in family planning
- Provides protection against STIs/HIV (latex and vinyl condoms only)
- May prolong erection and ejaculation time
- May help prevent cervical cancer
- May be useful in treating some cases of infertility (cervical hostility)

DISADVANTAGES

- Latex condoms may cause itching for people who are allergic to latex
- May decrease sensation, making sex less enjoyable for either partner
- Couple must take the time to put the condom on the erect penis
- Supply must be readily available
- Condom may slip off or break during sexual intercourse
- Condoms can weaken if stored too long or in too much heat, sunlight, or humidity, or if used with oil-based lubricants—and then may break during use
- Partner's cooperation is essential for a woman to protect herself from pregnancy

WHO CAN USE MALE CONDOMS

- Men who wish to participate actively in family planning and STI/HIV/AIDS prevention
- Couples/individuals who need contraception immediately
- Couples/individuals wishing to avoid pregnancy and/or STIs, including HIV/AIDS, even if using another contraceptive method (dual protection)
- Couples/individuals needing a backup method
- Couples/individuals in which either partner has more than one sexual partner (at high risk for STIs)

WHO SHOULD NOT USE MALE CONDOMS

- Couples/individuals who are allergic to the materials from which condoms are made
- Couples/individuals who need a highly effective/long-term method of contraception
- Couples/individuals not willing or able to use correctly and with each act of intercourse

MANAGEMENT OF COMMON PROBLEMS AND SIDE EFFECTS

PROBLEMS AND SIDE EFFECTS	MANAGEMENT
Condom broken or breakage suspected (before intercourse)	Check condom for a hole or demonstrable leak. Discard and use a new condom.
Condom breaks or slips off (during intercourse)	Withdraw the penis immediately and put on a new condom. Consider using a method of emergency contraception.
Suspected allergic reaction (condom)	Rule out infection, allergic or mechanical reaction. If allergy, help the client choose another method.
Suspected allergic reaction (spermicide)	Allergic reactions, although uncommon, can be uncomfortable and possibly dangerous. If symptoms persist after intercourse and no evidence of STIs, provide another spermicide or a nonmedical condom or help client choose another method.

CLIENT INSTRUCTIONS

- Use a condom every time you have intercourse.
- Use a spermicide with the condom for maximum effectiveness and protection.
- Do not use teeth, knife, scissors or other sharp utensils to open the package.
- Hold the tip of the condom to squeeze out the air. If the condom does not have an enlarged end (reservoir tip), about 1–2 cm should be left at the tip for the ejaculate.
- Put the condom on the end of the erect penis.
- Hold the tip of the condom, and unroll it onto erect penis...all the way down to the hair. This should be done before the penis enters the vagina, because the pre-ejaculatory semen contains active sperm.
- Lubricants like "K-Y," "For Play," glycerine or contraceptive gel may be used. Cooking oil, baby oil or petroleum jelly should **not** be used as lubricants for a condom; they damage condoms in seconds.
- After ejaculation, withdraw the penis while it is still erect. Hold onto the base (ring) of the condom as you withdraw. This prevents the condom from slipping off and spilling semen.
- If the condom breaks during intercourse, withdraw the penis immediately and put on a new condom.
- Each condom should be used only once.

- Dispose of used condoms by placing in a waste container or burying. Do not dispose of in a flush toilet.
- Keep an extra supply of condoms available. Do not store them in a warm place or they will deteriorate and may leak during use.
- Do not use a condom if the package is broken or the condom appears damaged or brittle.

5.1.2 FEMALE CONDOMS

DEFINITION

A soft, loose fitting polyurethane sheath with two flexible rings

MECHANISMS OF ACTION

- Prevent sperm from gaining access to female reproductive tract
- Prevent STIs, including HIV/AIDS from passing from one partner to another

BENEFITS

Contraceptive

- If used properly and consistently female condoms are 79-95% effective
- Effective immediately
- Can be used as backup to other methods
- No systemic side effects
- No prescription or medical assessment necessary

Noncontraceptive

- Only female FP method that provides protection against STIs/HIV
- May help prevent cervical cancer
- Do not affect breastfeeding

DISADVANTAGES

- Woman must be confident about correct placement
- Expensive
- Woman must take the time to insert the condom in the vagina

WHO CAN USE FEMALE CONDOMS

- Couples/individuals who need contraception immediately
- Couples/individuals wishing to avoid pregnancy and/or STIs even if using another contraceptive method
- Couples/individuals needing a backup method
- Couples/individuals in which either partner has more than one sexual partner (at high risk for STIs)

WHO SHOULD NOT USE FEMALE CONDOMS

- Couples/individuals who are allergic to the materials from which the condoms are made
- Couples/individuals who need a highly effective method of contraception
- Couples/individuals not willing or able to use correctly and with each act of intercourse

MANAGEMENT OF COMMON PROBLEMS AND SIDE EFFECTS

PROBLEMS AND SIDE EFFECTS	MANAGEMENT
Condom broken or breakage suspected (before intercourse)	Check condom for a hole or demonstrable leak. Discard and use a new condom.
Condom breaks (during intercourse)	Withdraw the penis immediately and insert a new condom. Consider using a method of emergency contraception.
Suspected allergic reaction (condom)	Rule out infection, allergic or mechanical reaction. If allergy, help the client choose another method.

Suspected allergic reaction (spermicide)	Allergic reactions, although uncommon, can be uncomfortable and possibly dangerous. If symptoms persist after intercourse and no evidence of STI, provide another spermicide or a nonmedical condom or help client choose another method.

CLIENT INSTRUCTIONS

- First, empty your bladder and wash your hands.
- Examine the female condom for holes and be careful not to tear the female condom with your fingernails during insertion.
- The following positions may be used for inserting the female condom:
  - standing up with one foot up on a chair
  - sitting with knees apart
  - lying down
- Spread the labia apart.
- Squeeze the inner ring of the female condom and push it up into the vagina as far as it will go.
- Make sure female condom is inserted straight (not twisted) into the vagina.
- The larger flexible ring around the open end of the sheath stays outside the vagina.

- Be sure female condom is in place before guiding your partner's penis into the vagina.
- Lubricants like "K-Y," "For Play," glycerine or contraceptive gel may be used. Cooking oils, baby oils or petroleum jelly should not be used as lubricants for a condom; they damage condoms in seconds.
- The female condom should be removed after sex and before you stand up.
- Take out the condom, squeeze and twist the outer ring to keep the sperm inside the pouch. Pull out gently.
- **Use a new female condom every time you have intercourse.**
- The female condom can be inserted up to 8 hours before sex. However, most women insert the condom between 2 to 20 minutes before sex.

5.1.3 SPERMICIDES

DEFINITION

Chemicals that inactivate or kill sperm. They are in the form of:

- Aerosols (foams)
- Vaginal tablets, suppositories or dissolvable films
- Creams

MECHANISM OF ACTION

Cause the sperm cell membrane to break, which decreases sperm movement (motility and mobility) and their ability to fertilise the egg

BENEFITS

Contraceptive

- If used properly spermicides are 74-94% effective
- Effective immediately (foams and creams)
- Can be used as backup to other methods
- No systemic side effects
- Easy-to-use
- Increase wetness (lubrication) during intercourse
- No prescription or medical assessment necessary

- If used in combination with condoms, increases effectiveness

Noncontraceptive

- Protects against some STIs (e.g. gonorrhoea and chlamydia)
- Do not affect breastfeeding

DISADVANTAGES

- Effectiveness as a contraceptive depends on ability to follow instructions
- User-dependent (require continued motivation and use with each act of intercourse)
- User must wait 10–15 minutes after application before intercourse (vaginal tablets)
- Each application is effective only for 1–2 hours
- Supplies must be readily available
- May be messy
- May cause irritation

WHO CAN USE SPERMICIDES

- Women of any reproductive age who are sexually active
- Individuals needing a temporary method while awaiting another method.

- Individuals/couples needing a backup method

WHO SHOULD NOT USE SPERMICIDES

- Individuals/couples who are allergic to spermicides

MANAGEMENT OF COMMON PROBLEMS AND SIDE EFFECTS

PROBLEMS AND SIDE EFFECTS	MANAGEMENT
Vaginal or penile irritation and discomfort	Check for vaginitis or STI. If caused by spermicide, switch to another spermicide with a different chemical composition or help client choose another method.
Heat sensation in the vagina is bothersome	Check for allergic or inflammatory reaction. If infection is found, treat appropriately. Reassure that warm sensation is normal. If still concerned, switch to another spermicide with a different chemical composition or help client choose another method.

CLIENT INSTRUCTIONS FOR ALL SPERMICIDES

- Wash your hands.
- Use spermicide before each act of intercourse.
- Follow the recommendations of the manufacturer for use and storage of each product. (Example: shake aerosols before filling the applicator.)
- Apply more spermicide if intercourse does not take place within 1–2 hours.
- Additional spermicide needed for each repeated intercourse.
- It is important to place the spermicide high in the vagina so the cervix is well covered.
- Spermicide applicators should be washed with soap and warm water, rinsed and dried. It can be taken apart for easier cleaning.
- Do not share applicator with others.
- Leave spermicide in place for at least 6 hours after intercourse. Do not douche or rinse your vagina. Douching is not recommended, but if you choose to douche you must wait at least 6 hours.

Vaginal Tablets

- Remove vaginal tablet from package.
- While lying down with legs flexed and abducted, insert vaginal tablet in the vagina. (If applicator

provided, insert it into vagina until the tip is at or near the cervix.)

- Wait 10–15 minutes **before** having intercourse.
- The applicator should be washed with soap and warm water, rinsed and dried. It can be taken apart for easier cleaning. Do not share applicator with others.
- Keep an extra supply of vaginal tablets at hand.

Note: Some foaming vaginal tablets may cause a warm sensation in the vagina. This is normal.

Cream

- To insert contraceptive cream, squeeze into applicator until full.
- Insert the cream while lying down with the legs flexed and abducted or squatting.
- Insert the applicator into vagina until the tip is at or near the cervix.
- Push the plunger and release the cream.
- There is no need to wait for the cream to work.
- Keep an extra supply of cream on hand, especially if you cannot see whether the container is empty.

Aerosol (Foam)

- Shake the container 20–30 times before using it.
- Place container in upright position and put applicator over valve. Press applicator to side so it fills with foam.
- While lying down with legs flexed and abducted, insert applicator into the vagina until the tip is at or near the cervix. Push the plunger and release the foam. There is no need to wait for the foam to work.
- Keep an extra supply of foam on hand, especially if you cannot see whether the container is empty.

5.1.4 DIAPHRAGMS

DEFINITION

A dome-shaped latex (rubber) cup with a flexible rim that is inserted into the vagina before intercourse and covers the cervix.

TYPES

- Flat spring (flat metal band)
- Coil spring (coiled wire)
- Arching spring (combination metal springs)

MECHANISM OF ACTION

Prevent sperm from gaining access to upper reproductive tract (uterus and fallopian tubes)

BENEFITS

Contraceptive

- Diaphragms if used properly are 80–94% effective
- Effective immediately
- Do not interfere with intercourse (may be inserted up to 6 hours ahead)
- No method-related side effects

- No systemic side effects (Toxic shock syndrome has been reported but is rare.)

Noncontraceptive

- Some protection against STIs especially when used with spermicide
- Do not affect breastfeeding

DISADVANTAGES

- Effectiveness as contraceptive depends on ability to follow instructions
- User-dependent (require continued motivation and use with each act of intercourse)
- Pelvic examination by trained service provider (may be nonphysician) required for initial fitting, postpartum refitting or major change in body weight
- Associated with urinary tract infections in some users
- Supplies (diaphragm and spermicide) must be readily available
- May be difficult to remove. Diaphragm can tear as the woman removes it (rare).

WHO CAN USE A DIAPHRAGM

- Women who prefer not to use hormonal methods or who should not use them (e.g., women with very high blood pressure, in excess of 160/100, diabetics)
- Women needing a temporary method while awaiting another method
- Women needing a backup method
- Women who have intercourse infrequently
- Couples/individuals in which either partner has more than one sexual partner (at high risk for STIs), even if using another method

WHO SHOULD NOT USE A DIAPHRAGM

- Women whose age, parity or health problems make pregnancy high-risk
- Women with repeated urinary tract infections
- Women with histories of toxic shock syndrome
- Women with genital anomalies (e.g., uterine prolapse, severe cystocele or rectocele, vaginal stenosis, vaginal septa or women who have had vaginal surgery which may lead to fibrosis)
- Couples/individuals who need a highly effective method of contraception
- Couples/individuals not able to use correctly and with each act of intercourse

MANAGEMENT OF COMMON PROBLEMS AND SIDE EFFECTS

PROBLEMS AND SIDE EFFECTS	MANAGEMENT
Urinary tract infections	Treat with appropriate antibiotic. Help client choose another method if the infection persists.
Suspected allergic reaction (diaphragm/spermicide)	Allergic reactions, although uncommon, can be uncomfortable and possibly dangerous. If symptoms of vaginal irritation persist, especially after intercourse and no evidence of STI, provide another spermicide and observe. If the problem persists, help client choose another method.
Pain from pressure on bladder/rectum	Assess diaphragm fit. If current device is too large, fit with smaller device. Follow up to be sure problem is solved. If the problem persists, help client choose another method.

PROBLEMS AND SIDE EFFECTS	MANAGEMENT
Vaginal discharge and odour	Advise client to remove the diaphragm as early as is convenient after intercourse, but not less than 6 hours after last act. Treat the STI according to the syndromic approach.

CLIENT INSTRUCTIONS

- Use the diaphragm every time you have intercourse.
- First, empty your bladder and wash your hands.
- Check the diaphragm for holes by pressing the rubber and holding it up to the light or filling it with water.
- Squeeze a small amount of spermicidal cream or jelly into the cup of the diaphragm. (To make insertion easier, a small amount of cream/jelly can be placed on the leading edge of the diaphragm or in the opening to the vagina.) Squeeze the rim together.
- The following positions may be used for inserting the diaphragm:
  - standing up with one foot up on a chair
  - lying down
  - squatting
- Spread the labia apart.
- Insert the diaphragm and cream/jelly back in the vagina and push the front rim up behind the pubic bone.
- Put your finger in the vagina and **feel the cervix** (feels like your nose) through the rubber to make sure it is covered.
- The diaphragm can be placed in the vagina up to 6 hours before having intercourse. If intercourse occurs more than 6 hours afterwards, another application of spermicide must be put in the vagina.

Additional cream or jelly is needed for each repeated intercourse.

- Leave the diaphragm in for at least 6 hours after the last time intercourse occurs. Do not leave it in more than 24 hours before removal. If vaginal douching is needed, it should be delayed for 6 hours after intercourse.
- Remove diaphragm by hooking finger behind the front rim and pulling it out. If necessary, put your finger between the diaphragm and the pubic bone to break the suction before pulling it out.
- Wash the diaphragm with mild soap and water and dry it out thoroughly prior to returning it to container.
- Powder or talc should not be used when storing the diaphragm.
- Diaphragm needs careful storage to avoid developing holes.

CAUTION

If toxic shock syndrome is suspected, refer client to the nearest hospital. If IV facilities are available, put-up an IV drip and refer. Give oral rehydration as needed and a non-narcotic analgesic (NSAID or aspirin) if fever is high (> 38°C).

5.2 HORMONAL METHODS

5.2.1 COMBINED ORAL CONTRACEPTIVES (COCs)

DEFINITION

Small contraceptive pills containing two synthetic hormones, oestrogen and progestin. These hormones are very similar to those naturally present in a woman's body.

TYPES

Monophasic: All 21 **active** pills contain the same amount of oestrogen/progestin.
Examples: Low-dose pills such as Lo-Femenal and Microgynon.

- The monophasic pills may be low dose e.g., Lo-Femenal (30μg Ethinyl Oestradiol (EE) and 300 μg Norgestrel)
- High dose e.g., Eugynon (50μg Ethinyl Oestradiol and 500 μg Norgestrel)

Triphasic: The 21 **active** pills contain 3 different oestrogen/progestin combinations (6/5/10). Examples: Low-dose pills such as Trinordiol and Logynon.

Most pill packets contain 21 active pills but others contain an additional 7 iron tablets after the 21 active pills.

MECHANISM OF ACTION

- Suppresses ovulation
- Thickens cervical mucus, preventing sperm penetration
- Changes endometrium, making implantation less likely
- Reduces sperm movement in the fallopian tubes

BENEFITS

Contraceptive

- When taken daily, COCs are 92–99.9% effective
- Effective immediately, if initiated within the first 7 days of menstrual cycle
- Can be used as long as a woman wants to prevent pregnancy
- It does not interfere with coitus
- User can stop at any time she wishes to conceive
- Fertility returns immediately after stopping
- Can be provided by trained nonmedical staff

- Pelvic examination is not a hindrance to initiating the method
- Easy to use

Noncontraceptive

- Decrease menstrual flow
- Decrease menstrual cramps
- May prevent/correct anaemia
- May lead to more regular menstrual cycles
- Protect against ovarian and endometrial cancer
- Prevent ectopic pregnancy
- Protect against some causes of PID
- Weight gain in some clients

DISADVANTAGES

- Weight gain in some clients
- User-dependent (require continued motivation and daily use)
- Some nausea, dizziness, mild breast tenderness or headaches as well as spotting or light bleeding (usually disappear within 2 or 3 cycles)
- Effectiveness may be lowered when client is on drugs like phenytoin and barbiturates for epilepsy and rifampicin for tuberculosis
- Forgetfulness increases failure
- Serious side effects (e.g., heart attack, stroke, blood clots in lung or brain, liver tumours), though rare, are possible

- Require continuous supply
- Do not protect against STIs, including HIV/AIDS

WHO CAN USE COCs

- Women of any reproductive age
- Women of any parity including nulliparous
- Women who are breastfeeding (6 months or more postpartum)
- Women who are postpartum and not breastfeeding
- Women who have had an abortion
- Women with anaemia
- Women with severe menstrual cramping
- Women with irregular menstrual cycles
- Women with history of ectopic pregnancy

CONDITIONS REQUIRING PRECAUTION

CONDITION	RECOMMENDATION
High blood pressure	Initiate and resupply after careful evaluation of condition. Women with blood pressure of 140/90 to 159/99 can use COCs.
Diabetes	COCs can be used with uncomplicated diabetes or diabetes of less than 20 years duration
Migraines	Should not be given COCs if client has focal neurological problems. If migraine develops while on COCs, stop immediately.
Taking drugs for epilepsy (barbiturates, phenytoin) and tuberculosis (rifampicin)	Give high-dose of oestrogen (50 µg EE), or 2 iodised COCs Use backup method until treatment is over, or Help client choose another method.
Sickle cell disease	Women with sickle cell disease should avoid using COCs unless other more appropriate methods are not available or acceptable. Women with sickle cell trait may use COCs.

WHO SHOULD NOT USE COCs

- Women who are pregnant (known or suspected)

- Women who are exclusively breastfeeding and less than 6 months postpartum because it may reduce the volume of breast milk
- Women with unexplained vaginal bleeding (until evaluated)
- Women with active liver disease
- Women over age 35 who are heavy smokers
- Women with a history of heart disease, stroke or blood pressure of 160/100 and above
- Women with a history of blood clotting problems or diabetes of more than 20 years
- Women with migraines and focal neurological problems
- Women who cannot remember to take a pill every day
- Women with breast cancer

CLIENT ASSESSMENT CHECKLIST

If the client answers "**NO**" to all questions, and pregnancy is **not** suspected, the client may go directly for method-specific counselling, pelvic examination (if necessary) and provision of the contraceptive. If the client answers "**YES**," however, she will need further counselling and possible evaluation before making a final decision.

HORMONAL METHODS CHECKLIST	YES	NO
Breastfeeding baby less than 6 weeks old [a,b]		
Bleeding/spotting between periods or after intercourse		
Jaundice (abnormal yellow skin or eyes)		
Smoker over age 35 [b]		
Diabetes		
Severe headaches or blurred vision		
Severe pain in calves, thighs or chest, or swollen legs (oedema) [b]		
High blood pressure (history of) [b]		
Heart attack, stroke or heart disease (history of)		
Breast cancer or suspicious (firm, nontender or fixed) lump in the breast		
Taking drugs for epilepsy (phenytoin and barbiturates) or tuberculosis (rifampicin) [c]		
Missed periods		

[a] Combined oestrogen/progestin contraceptives are the methods of last choice for breastfeeding women, especially in the first 6–8 weeks postpartum.
[b] Does not apply to progestin-only contraceptives (implants, PICs and POPs).
[c] Does not apply to PICs.

WHEN TO INITIATE METHOD

- Anytime during the menstrual cycle when you can be sure the client is not pregnant (first day of menstrual cycle is preferred). If starting after day 7 use a backup method or abstain from sexual intercourse for 7 days.
- Postpartum after 3 weeks if not breastfeeding
- Postabortion (immediately or within 7 days)

MANAGEMENT OF COMMON PROBLEMS AND SIDE EFFECTS

PROBLEMS AND SIDE EFFECTS	MANAGEMENT
Amenorrhoea (absence of any vaginal bleeding or spotting following completion of pill cycle)	Find out if client did not take the hormone free pills and continue on another pack. Rule out missed pills. Check for pregnancy. If **not pregnant** and client is taking COCs correctly, reassure. Explain that absent menses are most likely due to lack of buildup of uterine lining. If **not pregnant**, no treatment is required except counselling and reassurance. If she continues low-dose oestrogen COCs (30–35 µg EE), amenorrhoea usually will persist. Advise client to return to clinic if amenorrhoea continues to be a concern or switch to a high-dose oestrogen (50 µg EE) pill if available and no conditions requiring precaution exist.

PROBLEMS AND SIDE EFFECTS	MANAGEMENT
	If **intrauterine pregnancy** is confirmed, counsel client. Stop use and assure her that the small dose of oestrogen and progestin in the COCs will have no harmful effect on the foetus.
Nausea/Dizziness/ Vomiting	Check for pregnancy. If pregnant, manage as above. If not advise taking pill with evening meal or before bedtime. Reassure that symptoms usually decrease after first three cycles of use.
Vaginal bleeding/Spotting	Check for pregnancy or other gynaecological conditions. Advise taking pills at the same time each day. Reassure that spotting/light menstrual bleeding is common during first 3 months of use and then decreases. If it persists, provide higher dose oestrogen (50 µg EE) pills or help client choose another method.
Mood change	Discuss changes in mood or libido. If client thinks her depression has worsened or libido decreased while using COCs, help her choose another method.

CLIENT INSTRUCTIONS

- Take one pill each day, at the same time.
- Take the first pill between first and seventh day (first day is preferred) after the beginning of your menstrual period. If starting after day 7 use a backup method or abstain from sexual intercourse for 7 days.
- Some pill packs have 28 pills. Others have 21 pills. When the 28-day pack is empty, start a new pack immediately. When the 21-day pack is empty, wait 1 week (7 days) and then begin taking pills from a new pack.
- If you vomit within 30 minutes of taking a pill, take another pill or use a backup method if you have sex during the next 7 days.
- If you forget to take one pill, take it as soon as you remember, even if it means taking two pills in 1 day.
- If you forget to take two or more pills, you should take two pills every day until you catch up. Use a backup method e.g., condoms or abstain from sex for 7 days.
- If you miss two or more menstrual periods, you should come to the clinic to check to see if you are pregnant.
- There is no rest period required.

Note:

- Give two cycles of pills at initial visit and schedule for a return visit after 6 weeks for resupply.
- At followup visits, give six cycles of pills and return in 24 weeks for resupply.
- Community-based distribution agents should give one cycle at initial visit and resupply after a month. On subsequent visit, give two cycles and tell client to return in 2 months.

WARNING SIGNS FOR COC USERS

Abdominal pains (severe)
Chest pains (severe)
Headaches (severe)
Eye problems (blurred vision)
Severe leg pains

5.2.2 PROGESTIN-ONLY PILLS (POPs)

DEFINITION

Oral contraceptive pills containing one synthetic hormone known as progestin. It is also known as mini pill.

TYPES

Norgestrel 28-pill pack: Ovrette
Norgestrel 35-pill pack: Microlut

MECHANISMS OF ACTION

- Thickens cervical mucus, preventing sperm penetration
- Suppresses ovulation
- Changes endometrium, making implantation less likely
- Reduces sperm movement in fallopian tubes

BENEFITS

Contraceptive

- When taken at the same time every day, POPs are 95-99.5% effective
- Effective immediately, if initiated within the first 7 days of menstrual cycle

- Pelvic examination is not a hindrance to initiating the method
- Do not interfere with intercourse
- Immediate return of fertility when stopped
- No oestrogen side effects. Do not increase risk of oestrogen-related complications such as heart attack or stroke.
- Easy-to-use
- User can stop at anytime she wishes to conceive
- Can be provided by trained nonmedical staff

Noncontraceptive

- May decrease menstrual cramps
- May decrease menstrual bleeding
- May prevent/correct anaemia
- Protect against endometrial cancer
- Decrease benign breast disease
- Decrease ectopic pregnancy
- Provides some protection against PID
- Even less risk of progestin-related side effects, such as acne and weight gain, than with COCs
- Do not affect breastfeeding

DISADVANTAGES

- Cause changes in menstrual bleeding pattern (irregular bleeding/spotting initially) in most women
- Some weight gain or loss may occur

- User-dependent (require continued motivation and daily use)
- Must be taken at the same time every day
- Forgetfulness increases failure
- Requires continuous supply
- Effectiveness may be lowered when client is on certain drugs such as phenytoin and barbiturates for epilepsy or rifampicin for tuberculosis
- Do not protect against STIs, including HIV/AIDS
- Mild headaches and breast tenderness may occur

WHO CAN USE POPs

- Women of any reproductive age
- Women of any parity including nulliparous women
- Women who are breastfeeding and need contraception
- Women who are postpartum and not breastfeeding
- Women in postabortion period
- Women who smoke (any age, any amount)
- Women who have blood pressure < 180/110 or blood clotting problems
- Women who prefer not to or should not use oestrogen

CONDITIONS REQUIRING PRECAUTIONS

CONDITION	RECOMMENDATION
Jaundice	Perform physical exam or refer. If she has serious active liver disease do not provide POPs. Refer for care. Help client choose a method without hormones.
Unexplained vaginal bleeding	If she is not likely to be pregnant but has unexplained vaginal bleeding that suggests an underlying medical condition, she can be provided with POPs since neither the underlying condition nor its assessment will be affected. Assess and treat any underlying condition as appropriate, or refer. Reassess POP use based on findings.
Stroke (current)	Women recovering from a stroke should avoid using POPs unless other more appropriate methods are not available or acceptable.

WHO SHOULD NOT USE POPs

- Women who are pregnant (known or suspected)
- Women and/or their partners who cannot tolerate any changes in their menstrual bleeding pattern
- Women with current or past history of breast cancer
- Women who cannot remember to take a pill every day at the same time

- Women on tuberculosis (rifampicin) or epileptic drugs (phenytoin or barbiturates)

WHEN TO INITIATE METHOD

- Day 1 of the menstrual cycle
- Anytime during the menstrual cycle when you can be sure the client is not pregnant (first day of menstrual cycle is preferred). If starting after day 7 use a backup method or abstain from sexual intercourse for 48 hours.
- Postpartum:
  - after 6 months if using LAM
  - after 6 weeks if breastfeeding but not using LAM
  - immediately or within 3 weeks if not breastfeeding
- Postabortion (immediately)

MANAGEMENT OF COMMON PROBLEMS AND SIDE EFFECTS

PROBLEMS AND SIDE EFFECTS	MANAGEMENT
Amenorrhoea	Check for pregnancy. If not pregnant, no treatment is required except reassurance. Dispel any myths or misconceptions the client may have. Advise client to return to clinic if amenorrhoea continues to be a concern. If intrauterine pregnancy is confirmed, counsel client. Stop POPs and reassure client that pill will not cause harm to the foetus. If ectopic pregnancy suspected, refer at once for complete evaluation. Do not attempt to induce ble eding.
Spotting	Check for gynaecological problems and assess for pregnancy. Reassure if no problems. Give short-term of ibuprofen (up to 800 mg 3 times daily for 5 days to control bleeding) or give COCs for those who are not contraindicated. Refer to appr opriate level.

PROBLEMS AND SIDE EFFECTS	MANAGEMENT
Prolonged or heavy bleeding	Carefully review history and check haemoglobin. Check for gynaecological problem and treat appropriately. If no gynaecological problem, give short-term treatment COCs (30–50 µg) for 1 cycle, or ibuprofen (up to 800 mg 3 times daily) for 5 days. If bleeding not reduced in 3-5 days, give 2 COC pills per day for the remainder of her cycle followed by 1 pill per day from a new packet of pills or high dose oestrogen (50 µg EE COC of 1.25 mg conjugated oestrogen) for 14–21 days.
Headache or dizziness	Rule out other causes. If mild, treat with analgesics and reassure. If headache persists, counsel and help client choose another method.
Mood changes or loss of libido	Discuss changes in mood or libido. If POPs have not caused depression to worsen or libido to decrease, they can be continued. If the client thinks her depression has worsened or libido decreased while using POPs, help her choose another method.

CLIENT INSTRUCTIONS

- Take 1 pill at the same time each day.
- Take the first pill between first and seventh day (first day is preferred) after the beginning of your menstrual period. If starting after day 7 use a backup method or abstain from sexual intercourse for 48 hours.
- Start a new pack immediately (the following day) after you finish the previous pack.
- If you vomit within 30 minutes of taking a pill, take another pill or use a backup method if you have sex during the next 48 hours.
- If you forget to take 1 or more pills, you should take the next pill when you remember, then continue on normal pill schedule. Use a backup method if you have sex during the next 48 hours.
- If you miss 2 or more menstrual periods, you should come to the clinic to check to see if you are pregnant; do not stop taking the pills unless you know you are pregnant.

WARNING SIGNS FOR POP USERS

- Delayed menstrual period after several months of regular cycles (may be a sign of pregnancy)
- Severe lower abdominal pain (may be a symptom of ectopic pregnancy)
- Heavy bleeding (twice as long or twice as much as normal) or prolonged bleeding (more than 8 days duration)
- Migraine (vascular) headaches, repeated very painful headaches or blurred vision

5.2.3 PROGESTIN-ONLY INJECTABLE CONTRACEPTIVES (PICs)

DEFINITION

An injection containing a long acting synthetic hormone (progestin), which is given to a woman to prevent pregnancy.

TYPES

Depo-Provera®	150 mg of depot-medroxyprogesterone (DMPA) acetate given every 3 months and can be given up to 4 weeks (28 days) early or 4 weeks (28 days) late
Noristerat®	200 mg of norethindrone enanthate given (NET - EN) every 2 months and can be given up to 2 weeks (14 days) early or 2 weeks (14 days) late

MECHANISMS OF ACTION

- Thickens cervical mucus, preventing sperm penetration
- Changes endometrium, making implantation less likely
- Reduces sperm movement in fallopian tubes
- Suppresses ovulation

BENEFITS

Contraceptive

- If used properly, PICs are 99.7% effective
- Rapidly effective (< 24 hours)
- Intermediate-term method (2 or 3 months per injection)
- Pelvic examination is not a hindrance to initiate method
- Do not interfere with intercourse
- Less side effects than COCs
- No supplies needed by client
- No oestrogen side effects. Do not increase risk of oestrogen-related complications such as heart attack or stroke.

Noncontraceptive

- May decrease menstrual cramps
- May decrease menstrual bleeding
- May prevent/correct anaemia
- Protect against endometrial cancer
- Decrease benign breast disease
- Decrease ectopic pregnancy
- Provides some protection against PID
- Decrease sickle cell crises
- Do not affect breastfeeding
- Prevents uterine fibroids
- Private; no one else can tell that a woman is using it

- May make seizures less frequent in women with epilepsy

DISADVANTAGES

- May cause changes in menstrual bleeding pattern (irregular bleeding, spotting, amenorrhea, excessive vaginal bleeding) in some women
- User-dependent (must return for injection every 2 or 3 months)
- Weight gain (2 kg) is common, especially with DMPA
- Delay in return of fertility; average 9 months (DMPA only)
- Resupply must be available
- Do not protect against STIs, including HIV/AIDS
- Long-term use of PICs may lead to decreased bone density, especially if user is a heavy smoker

WHO CAN USE PICs

- Women of any reproductive age
- Women of any parity including nulliparous women
- Women who are breastfeeding (6 weeks or more postpartum) and need contraception
- Women who are postpartum and not breastfeeding
- Women who are postabortal
- Women with desired family size who do not want voluntary surgical contraception (counsel on return to fertility)

- Women who smoke, any age, any amount (may predispose to low bone density with long-term use)
- Women who have blood pressure < 180/110, blood clotting problems or sickle cell disease
- Women taking drugs (phenytoin and barbiturates) for epilepsy or rifampicin for tuberculosis
- Women who prefer not to or should not use contraceptives containing oestrogen

CONDITIONS REQUIRING PRECAUTIONS

CONDITION	RECOMMENDATION
Jaundice	Perform physical exam or refer. If she has serious active liver disease do not provide PICs. Refer for care. Help her choose a method without hormones.
High blood pressure (with or without vascular problems)	Women with BP >180/110 should avoid using PICs unless other more appropriate methods are not available or acceptable.
Diabetes (> 20 years duration; vascular problems, CNS, or visual problems)	Women with long-standing diabetes, or complications thereof, should avoid using PICs unless other more appropriate methods are not available or acceptable. Client should be evaluated by a physician.
Breast lumps	Evaluate prior to initiation. It is advisable to consult surgeons to confirm whether lumps are malignant or benign. Method can be used if lumps are benign.
Sickle cell disease, Depression, Migraine, Epilepsy	Initiate and provide injectable contraceptives after careful evaluation and in consultation with the doctor managing the patient. Ensure regular follow-up in service delivery point/clinic for medical conditions.

CONDITION	RECOMMENDATION
Age under 16 years	Need extra counselling on delayed return of fertility and risks of STIs.

WHO SHOULD NOT USE PICs

- Women who are pregnant (known or suspected)
- Women with unexplained vaginal bleeding (until evaluated)
- Women and/or spouses who cannot tolerate any changes in their menstrual bleeding pattern
- Women with current or past history of breast cancer

WHEN TO INITIATE METHOD

- Anytime during the menstrual cycle when you can be reasonably sure the client is not pregnant but preferably within the first 7 days of the menstrual cycle. If starting after day 7, use a backup method or abstain from sexual intercourse for 48 hours.
- Postpartum:
  - after 6 months if using LAM
  - after 6 weeks if breastfeeding but not using LAM
  - immediately or within 3 weeks if not breastfeeding
- Postabortion (immediately or within 7 days)

MANAGEMENT OF COMMON PROBLEMS AND SIDE EFFECTS

PROBLEMS AND SIDE EFFECTS	MANAGEMENT
Amenorrhoea	Check for pregnancy. If not pregnant, no treatment is required except reassurance. Dispel any myths or misconceptions the client may have. Advise client to return to clinic if amenorrhoea continues to be a concern. Do not attempt to induce bleeding.
Spotting	Check for gynaecological problems and assess for pregnancy. Reassure if no problems. Give short-term of ibuprofen (up to 800 mg 3 times daily for 5 days to control bleeding) or give COCs for those who are not contraindicated. Refer to appropriate level.

PROBLEMS AND SIDE EFFECTS	MANAGEMENT
Prolonged or heavy bleeding	Carefully review history and check haemoglobin. Check for gynaecological problem and treat appropriately. If no gynaecological problem, give short-term treatment COCs (30–50 µg) for 1 cycle or ibuprofen (up to 800 mg 3 times daily) for 5 days if not contraindicated. If bleeding is not reduced in 3–5 days, give 2 COC pills per day for the remainder of her cycle followed by 1 pill per day from a new packet of pills or give high dose oestrogen (50 µg EE COC, or 1.25 mg conjugated oestrogen) for 14–21 days.
Headache or dizziness	Rule out other causes. If mild, treat with analgesics and reassure. If headaches persist, counsel and help client choose another method.

PROBLEMS AND SIDE EFFECTS	MANAGEMENT
Weight gain or loss	Counsel client that fluctuations of 1–2 kg are common with use of PICs. Reassure client. Review appetite, diet and lifestyle if weight change is more than +/- 2 kg. If weight gain (or loss) is unacceptable, stop use and help client choose another method.

CLIENT INSTRUCTIONS

- Return to the health clinic for an injection every 3 months (DMPA) or every 2 months (NET-EN). You should return no matter how late you are. (The provider should exclude pregnancy and continue method.)
- Do not rub the injection site.
- PICs do not provide protection against STIs, including HIV/AIDS.
- Return if any problems/concerns

5.2.4 IMPLANTS

DEFINITION

Thin, flexible capsules made of a soft rubber-like material and filled with a synthetic progestin hormone that are inserted just under the skin of a woman's upper arm by means of a minor surgical procedure. Implants provide protection from pregnancy for up to five years.

TYPES

Norplant®	Six thin, flexible capsules filled with levonorgestrel (LNG) that are inserted just under the skin of a woman's upper arm
Norplant 2	An improved version of Norplant containing two rods instead of six
Implanon	A single implant containing the progestin 3-ketodesogestrel

MECHANISMS OF ACTION

- Suppresses ovulation in 50% of cycles after first year of use
- Thickens cervical mucus, preventing sperm penetration
- Changes endometrium, making implantation less likely

- Decreases tubal motility

BENEFITS

Contraceptive

- If used properly, implants are 99% effective
- Rapidly effective (< 24 hours)
- Long-term method (up to 5 years protection)
- Do not interfere with intercourse
- Immediate return of fertility on removal
- Less side effects than POPs and COCs
- No supplies needed by client
- Can be provided by trained nonphysician (nurse or clinical officer)

Noncontraceptive

- May decrease menstrual cramps and bleeding
- May prevent/correct anaemia
- Protect against endometrial cancer
- Decrease benign breast disease
- Protect against some causes of PID
- Do not affect breastfeeding
- May make sickle cell crises less frequent or painful
- Help prevent ectopic pregnancies

DISADVANTAGES

- May cause changes in menstrual bleeding pattern (irregular bleeding/spotting initially) in some women
- Some weight gain or loss may occur
- Require trained provider for insertion and removal
- Requires minor surgical procedure with appropriate infection prevention practices for insertion and removal
- Removal of implants is provider-dependant
- Effectiveness may be lowered when client is on drugs like phenytoin and barbiturates for epilepsy or rifampicin for tuberculosis
- Some women may develop ovarian cysts
- Some women may develop hair loss or more hair growth on the face
- Do not protect against STIs, including HIV/AIDS

WHO CAN USE IMPLANTS

- Women of any reproductive age
- Women of any parity including nulliparous women
- Women who want highly effective, long-term protection against pregnancy
- Women who are breastfeeding (6 weeks or more postpartum) and need contraception
- Women who are postpartum and not breastfeeding
- Women who are postabortal
- Women with desired family size who do not want voluntary surgical contraception

- Women with a history of ectopic pregnancy
- Women who have blood pressure < 180/110, blood clotting problems or sickle cell disease
- Women who smoke (any age, any amount)
- Woman who prefer not to or should not use contraceptives containing oestrogen

CONDITIONS REQUIRING PRECAUTIONS

CONDITION	RECOMMENDATION
Jaundice, liver neoplasia	Perform physical examination or refer. If she has serious active liver disease do not provide implants. Refer for care. Help her choose a method without hormones.
Ischemic heart disease (past or current)	Avoid using implants unless other more appropriate methods are not available or acceptable.
Taking drugs for epilepsy (phenytoin and barbiturates) or tuberculosis (rifampicin)	Clients taking drugs for these disorders should be counselled about the potential reduction in the effectiveness of the implants. They should avoid using implants unless other more appropriate methods are not available or acceptable.
Recovering from stroke	Women recovering from a stroke should avoid using implants unless other more appropriate methods are not available or acceptable.

WHO SHOULD NOT USE IMPLANTS

- Women who are pregnant (known or suspected)
- Women with unexplained vaginal bleeding (until evaluated)
- Women with breast cancer (current or history)
- Women and/or spouses who cannot tolerate any changes in their menstrual bleeding pattern

WHEN TO INITIATE METHOD

- Anytime during the menstrual cycle when you can be reasonably sure the client is not pregnant but preferably within the first 7 days of the menstrual cycle. If starting after day 7, use a backup method or abstain from sexual intercourse for 48 hours.
- Postpartum:
  - after 6 months if using LAM
  - after 6 weeks if breastfeeding
  - immediately or within 3 weeks if not breastfeeding
- Postabortion (immediately or within the first 7 days)

WHEN TO REMOVE

- When client has developed side effects which cannot be managed/tolerated
- When client has infection with an abscess at the insertion site
- When client wants a baby

- At 5 years after insertion of the implants
- When the client wants it removed

MANAGEMENT OF COMMON PROBLEMS AND SIDE EFFECTS

PROBLEMS AND SIDE EFFECTS	MANAGEMENT
Amenorrhoea	Check for pregnancy. If not pregnant, no treatment is required except reassurance. Dispel any myths or misconceptions the client may have. Advise client to return to clinic if amenorrhoea continues to be a concern. Do not attempt to induce bleeding.
Spotting	Check for gynaecological problems and assess for pregnancy. Reassure if no problems. Give short-term of ibuprofen (up to 800 mg 3 times daily for 5 days to control bleeding) or give COCs for those who are not contraindicated. Refer to appropriate level.

PROBLEMS AND SIDE EFFECTS	MANAGEMENT
Prolonged or heavy bleeding	Carefully review history and check haemoglobin. Check for gynaecological problem and treat appropriately. If no gynaecological problem, give short-term treatment COCs (30–50 µg EE) for 1 cycle or ibuprofen (up to 800 mg 3 times daily) for 5 days, if not contraindicated. If bleeding is not reduced in 3–5 days, give 2 COCs per day for the remainder of her cycle followed by 1 pill per day from a new packet of pills or high-dose oestrogen (50 µg EE COC or 1.25 mg conjugated oestrogen) for 14–21 days.
Headache or dizziness	Rule out other causes. If mild, treat with analgesics and reassure. If headache persists, counsel and help client choose another method.

PROBLEMS AND SIDE EFFECTS	MANAGEMENT
Weight gain or loss	Counsel client that fluctuations of 1-2 kg are common with use of PICs. Reassure client. Review diet, appetite and lifestyle if weight change is more than +/ -2 kg. If weight gain (or loss) is unacceptable, stop use and help client choose another method.
Breast tenderness	Reassure client and advise her to use a support bra.
Breast discharge	Evaluate and reassure client.
Acne	Advise client about diet (reduce fat intake), using cleansers and topical antibiotics. If condition is not tolerable, help client choose another (nonhormonal) method.

CLIENT INSTRUCTIONS

- Keep the incision site dry and clean for at least 48 hours to prevent infection.
- Leave the gauze pressure bandage in place for 48 hours and the bandage in place until the incision heals (about 3 to 5 days).
- There will be swelling or tenderness at the insertion site for a few days. This is normal.
- Avoid bumping the area, carrying heavy loads or applying unusual pressure to the site within 3–5 days.

- After healing, the area can be touched and washed with normal pressure.
- Give the client a card stating the date the implants were inserted and the name of the clinic.
- Implants do not provide protection against STIs, including the HIV/AIDS. If either partner is at risk, they should use condoms as well as implants.
- All clients are encouraged to return for routine family planning physical examination yearly or to return at any time if problems/questions arise.
- Return after 5 years for removal of Norplant.

WARNING SIGNS FOR IMPLANTS USERS

- Delayed menstrual period after several months of regular cycles
- Severe lower abdominal pain Heavy bleeding (twice as long or twice as much as normal) or prolonged bleeding (more than 8 days duration)
- Bleeding or infection at insertion site
- Expulsion of a capsule
- Migraine (vascular) headaches, repeated very painful headaches or blurred vision

5.2.5 EMERGENCY CONTRACEPTION

DEFINITION

Methods women can use after unprotected intercourse to prevent pregnancy.

Note: Emergency contraception should not be used as a regular family planning method. It should be used in an emergency only. Emergency contraception does not cause abortion.

TYPES

- Combined Oral Contraceptives (COCs):
  - Low-dose (30–35 μg EE) (e.g. Microgynon and Lo-Femenal)
  - High-dose (50 μg EE) (e.g. Eugynon)
- Progestin-Only Pills (POPs):
  - 750 μg LNG (preferred) (e.g. Postinor)
  - 75 μg norgestrel (e.g. Ovrette)

MECHANISM OF ACTION

COCs:

- Alter endometrium (mixed proliferative/secretory pattern)
- May block ovulation
- May alter tubal motility

POPs:

- Alter endometrium (mixed proliferative/secretory pattern)
- May alter tubal motility

BENEFITS

- If used properly, emergency contraception is 97% effective

DISADVANTAGES

- COCs are effective only if used within 72 hours of unprotected intercourse.
- COCs may cause nausea and vomiting.
- POPs effective only if used within 72 hours of unprotected intercourse, but cause much less nausea than COCs.

WHO CAN USE EMERGENCY CONTRACEPTION

Women who are:

- Rape victims
- Have unplanned, unprotected intercourse
- Have incorrectly used a diaphragm
- Have used a condom that may have leaked or broken
- Missed multiple COC pills
- Have waited >16 weeks beyond last injection (DMPA)
- Have failed to abstain when needed while using NFP

WHO SHOULD NOT USE EMERGENCY CONTRACEPTION

- Women who are pregnant or suspected of being pregnant

MANAGEMENT OF SIDE EFFECTS

SIDE EFFECTS	MANAGEMENT
Nausea, vomiting	Counsel client about this side effect. If vomiting occurs within 30 minutes after taking first or second dose, client may need to repeat the dose. Give anti-emetics.
Bleeding/Spotting	Rule out pathological causes and treat accordingly. If none, counsel the client.

INITIATION OF METHOD AND CLIENT INSTRUCTIONS

- Counsel client to choose a family planning method after the emergency contraception if she does not plan for pregnancy immediately.
- Advise client to return if her next period is different from usual:
  - Unusually light (possible pregnancy)
  - Does not start within 4 weeks (possible pregnancy)
  - Unusually painful (possible ectopic pregnancy, but emergency contraception does not cause ectopic pregnancy)

Low-dose COCs

- Take 4 tablets of a low-dose COC (Lo-Femenal) (30–35 μg EE) orally within 72 hours of unprotected intercourse.
- Take 4 more tablets 12 hours after first dose.
- If no vaginal bleeding within 3 weeks, the client should consult the clinic or service provider to check for possible pregnancy.

High-dose COCs

- Take 2 tablets of a high-dose COC (Eugynon) (50 μg EE) orally within 72 hours of unprotected intercourse.
- Take 2 more tablets 12 hours after first dose.
- If no vaginal bleeding within 3 weeks, the client should consult the clinic or service provider to check for possible pregnancy.

POPs

- Take 1 tablet (Postinor) (750 μg levonorgestrel) or 20 Ovrette tablets (75 μg norgestrel each) orally within 72 hours of unprotected intercourse.
- Take 1 more tablet (Postinor) (750 μg LNG) or 20 more (75 μg) tablets 12 hours after the first dose.
- If no vaginal bleeding within 3 weeks, the client should consult the clinic or service provider to check for possible pregnancy.

5.3 Intrauterine Contraceptive Devices (IUCDs)

DEFINITION

A small flexible device inserted in the uterine cavity to prevent pregnancy.

TYPES

Available types are made of plastic and are medicated with copper, silver or progestin (e.g., Copper T 380A, Multiload 375, Progestasert® and LevoNova®)

MECHANISMS OF ACTION

- Interfere with ability of sperm to pass through uterine cavity (copper-releasing)
- Inhibit fertilization
- Thicken cervical mucus (progestin-releasing)
- Change endometrial lining (progestin-releasing)

BENEFITS

Contraceptive

- If used properly, IUCDs are 98–99.9% effective
- Effective immediately

- Long-term method (up to 10 years protection with Copper T 380A)
- Does not interfere with intercourse
- Immediate return to fertility upon removal
- After followup visit, client needs to return to clinic only if problem arises
- No supplies needed by client
- Inexpensive

Noncontraceptive

- Decrease menstrual cramps (progestin-releasing only)
- Decrease menstrual bleeding (progestin-releasing only)
- Decrease ectopic pregnancy (except Progestasert)
- Does not affect breastfeeding
- Decrease risk of developing PID (Levonorgestrel 20)
- Pelvic examination will provide an opportunity for the client to be evaluated for any other RH problems

DISADVANTAGES

- Pelvic examination required and screening for RTIs recommended before insertion
- Require trained provider for insertion and removal
- Need to check for strings after menstrual period and if cramping, spotting or pain is experienced
- Removal is provider dependent
- Some women may experience increased menstrual bleeding and cramping during the first few months of use (copper-releasing only)
- May be spontaneously expelled, especially during the first few months
- Rarely (< 1/1000 cases) perforation of the uterus may occur during insertion
- Do not prevent **all** ectopic pregnancies (especially Progestasert)
- Does not protect against STIs, including HIV/AIDS (counsel for dual method use)
- May **increase** risk of PID and subsequent infertility in women at risk for STIs (Copper T380A)

WHO CAN USE IUCDs

- Women of any reproductive age
- Women who want highly effective, long-term protection against pregnancy
- Women who have used an IUCD successfully before

- Women who are breastfeeding and need contraception.
- Women who are postpartum and not breastfeeding
- Postabortal clients with no signs of pelvic infection
- Women at low risk for STIs, including HIV/AIDS
- Women who prefer not to or should not use hormonal methods (copper-releasing)
- Women with history of ectopic pregnancy (except Progestasert)

CONDITIONS REQUIRING PRECAUTIONS

CONDITION	RECOMMENDATION
Nulliparous	Considering the high rate of PID/STI in Malawi, IUCDs should be used with caution (WHO Class 2). Counsel client for STI.

WHO SHOULD NOT USE IUCDs

- Women who are pregnant (known or suspected)
- Women with unexplained vaginal bleeding (until evaluated)
- Women with active RTIs (vaginitis, cervicitis)
- Women with active or history of PID or septic abortion (within the last 3 months)

- Women with congenital uterine abnormalities or benign tumors (fibroids) of the uterus which significantly distort the uterine cavity
- Women with severe cervical stenosis (narrowing of the cervical canal)
- Women with malignant trophoblast disease
- Women with known pelvic tuberculosis
- Women with genital tract cancer
- Women who are at risk for STIs (who have multiple sexual partners or whose partners have multiple sexual partners)

CLIENT ASSESSMENT CHECKLIST

If the client answers "**NO**" to all questions, and pregnancy is **not** suspected, the client may go directly for method-specific counselling, pelvic examination and provision of the contraceptive. If the client answers "**YES**," however, she will need further counselling and possible evaluation before making a final decision.

IUCD CHECKLIST	YES	NO
Client (or partner) has other sex partners		
STI, including HIV/AIDS within the last 3 months		
Pelvic infection (PID) or ectopic pregnancy (within the last 3 months)		

IUCD CHECKLIST	YES	NO
Heavy menstrual bleeding (twice as long or twice as much as normal) [a]		
Prolonged menstrual blee ding (> 8 days) [a]		
Severe menstrual cramping (dysmenorrhoea) requiring analgesics and/or bed rest [a]		
Bleeding/spotting between periods or after intercourse		
Symptomatic valvular heart disease [b]		
Missed periods		

[a] Does not apply to progestin-releasing IUCDs.
[b] Give prophylactic antibiotics if not on long-term antibiotics at the time of IUCD insertion. (See **IUCDs** chapter for additional information.)

WHEN TO INSERT

- Be sure to rule out pregnancy
- Anytime during the menstrual cycle when you can be sure the client is not pregnant (first seven days of menstrual cycle are preferred). If starting after day 7 use a backup method or abstain from sexual intercourse for 7 days.
- 4 to 6 weeks postpartum or after 6 months if using LAM

- Postabortion (immediately or within 7 days) provided no evidence of pelvic infection

MANAGEMENT OF COMMON PROBLEMS AND SIDE EFFECTS

PROBLEMS AND SIDE EFFECTS	MANAGEMENT
Amenorrhoea	Check for pregnancy. If **not** pregnant, do not remove IUCD. Provide counseling and reassurance. Refe r for investigation to identify the cause of amenorrhoea, if client remains concerned or amenorrhoea persists. If pregnant, counsel about options. Advise removal of IUCD if strings visible and pregnancy is less than 13 weeks. If strings not visible or pregnancy is more than 13 weeks, do not remove IUCD. If client is pregnant and does not want IUCD removed, advise her of increased risk of miscarriage and infection and that pregnancy should be followed closely.
Cramping	Rule out PID and other causes of cram ping. Treat cause if found. If no cause found, give analgesics for mild discomfort. If cramping is severe, remove IUCD and help client choose another method.

PROBLEMS AND SIDE EFFECTS	MANAGEMENT
Irregular or Heavy Vaginal Bleeding	Rule out pelvic infection and ectopic pregnancy. Treat or refer as appropriate. If no pathology and bleeding is prolonged or heavy, counsel and advise on follow-up. Give ibuprofen (800 mg 3 times daily for 1 week) to decrease bleeding, and give iron (1 tablet daily for 1 to 3 months). IUCD may be removed if client desires. If client has had IUCD for longer than 3 months and is markedly anaemic (hemoglobin < 7 g/dl), recommend removal and help client choose another method.
Missing Strings	Check for pregnancy. Inquire if IUCD was expelled. If not pregnant and IUCD was not expelled, give condoms. Check for strings in the endocervical canal and uterine cavity after next menstrual period. If not found, refer for X-ray or ultrasound. If not pregnant and IUCD has fallen out or is not found, insert new IUCD or help client choose another method.
Vaginal Discharge/ Suspected PID	Examine for RTI. Remove IUCD if gonorrheal or chlamydial infection is confirmed or strongly suspected. If PID, treat and remove IUCD.

CLIENT INSTRUCTIONS

- Return for checkup after the first postinsertion menses, 6 weeks later and then annually.
- During the first month after insertion, check the strings once a week.
- After the first month, you only need to check the strings after menses if you have:
  - cramping in the lower part of the abdomen,
  - spotting between periods or after intercourse, or
  - pain after intercourse (or if your partner experiences discomfort during sex).
- Removal of the Copper T 380A is necessary after 10 years but may be done sooner if you wish.
- Return to the clinic if you:
  - cannot feel the strings
  - feel the hard part of the IUCD
  - expel the IUCD
  - miss a period
  - experience any symptoms of infection (RTI), such as fever, persistent or crampy lower abdominal pain, chills, etc.
- IUCDs do not provide protection against STIs, including HIV/AIDS. If either partner is at risk, they should use condoms as well.
- Advise the client that there may be some bleeding or spotting the first few days after insertion.

- Client can resume intercourse after menses stop. IUCD is effective immediately, but advise client to abstain for up to 3 days in case of slight bleeding after insertion to reduce risk of ascending infection.
- Tell client what type of IUCD she has, when it should be removed and provide a card with this information on it.
- Menstrual bleeding usually will be longer and heavier (copper-releasing IUCDs) or shorter and lighter (progestin-releasing IUCDs).

WARNING SIGNS FOR IUCD USERS

- Delayed menstrual period with pregnancy symptoms
- Persistent or crampy lower abdominal pain, especially if accompanied by not feeling well, fever or chills
- Strings missing or the plastic tip of the IUCD can be felt when checking for the strings
- Either you or your partner begin having sexual relations with more than one partner; IUCDs do not protect women from STIs, including HIV/AIDS.

5.4 NATURAL FAMILY PLANNING (NFP)

DEFINITION

Methods for planning and preventing pregnancies by observation of naturally occurring signs and symptoms of the fertile and infertile phases of the menstrual cycle, with the avoidance of intercourse during the fertile phase if pregnancy is to be avoided.

TYPES

- Calendar (Rhythm) Method—least effective
- Basal Body Temperature (BBT)
- Cervical Mucus Method (Billings)
- Symptothermal Method—most effective

MECHANISMS OF ACTION

For Contraception

Intercourse is avoided during the phase of the menstrual cycle when conception is most likely.

For Conception

Intercourse is planned for near the mid-cycle (usually days 10–15), when conception is most likely.

BENEFITS

Contraceptive

- If used properly, NFP is 80–91% effective
- No physical side effects

Noncontraceptive

- Less expensive
- Promote male involvement in family planning
- Improves fertility awareness
- Possible closer relationship for couples
- No systemic side effects
- Does not interfere with breastfeeding

DISADVANTAGES

- Takes up to 2 or 3 cycles to learn how to identify fertile time accurately using cervical secretions and BBT. Less time to learn the calendar method, although it is best if a woman has record of the last 6 to 12 cycles to identify the fertile time
- If using periodic abstinence, requires long periods without vaginal intercourse (8 to 16 days each menstrual cycle). Abstinence may be difficult for some couples
- For effectiveness, requires commitment of both the woman and the man
- Can become unreliable or hard to use if the woman has a fever, has a vaginal infection, is breastfeeding or has any other condition that changes body temperature, cervical mucus or menstrual cycle length
- After childbirth, it may be difficult to identify the fertile time until menstrual cycle becomes regular again
- Calendar method may not be effective for women with irregular menstrual cycles
- Most methods require women or couples to keep careful daily record and pay close attention to body changes
- Does not protect against STIs, including HIV/AIDS

WHO CAN USE NFP

For Contraception

- Women of any reproductive age
- Women of any parity including nulliparous women
- Couples with religious or philosophical reasons for not using other methods
- Women unable to use other methods
- Couples willing to abstain from intercourse for more than 1 week each cycle
- Couples willing and motivated to observe, record and interpret fertility signs

For Conception

- Couples who wish to conceive

CONDITIONS REQUIRING PRECAUTIONS

CONDITION	RECOMMENDATION
Irregular menses	Client should not use the calendar method, but may use BBT, Billings or Symptothermal method
Persistent vaginal discharge	Evaluate and treat appropriately. If discharge persists, counsel client that it will be more difficult to predict fe rtility

CONDITION	RECOMMENDATION
	using the cervical mucus method. If client wishes to change her method of contraception, help her choose another method.
Breastfeeding	Counsel client that it will be more difficult to predict fertility using the cervical mucus method. If client wishes to change her method of contraception, help her choose another method.

WHO SHOULD NOT USE NFP

- Women whose age, parity or health problems make pregnancy a high risk
- Women without established menstrual cycles (breastfeeding, immediately postabortion)
- Women with irregular cycles (calendar method only)
- Women whose partner will not cooperate (abstain) during the fertile times in the cycle

CLIENT INSTRUCTIONS

Calendar Method

You can determine your fertile period by monitoring your menstrual cycles.

For Contraception

Calculate Your Fertile Period:

- Monitor the length of at least 6 menstrual cycles while abstaining or using another contraceptive method. Then calculate when the fertile days occur following the instructions below.
- From the number of days in your longest cycle, subtract 11. This identifies the **last fertile day** of your cycle.
- From the number of days in your shortest cycle, subtract 18. This identifies the **first fertile day** of your cycle.

Example: Longest cycle: 30 days minus 11 = 19
Shortest cycle: 26 days minus 18 = 8

- Your **fertile period** is calculated to be days 8 through 19 of your cycle (12 days of abstinence needed to avoid pregnancy).
- Abstain from sexual intercourse during the fertile days.

For Conception

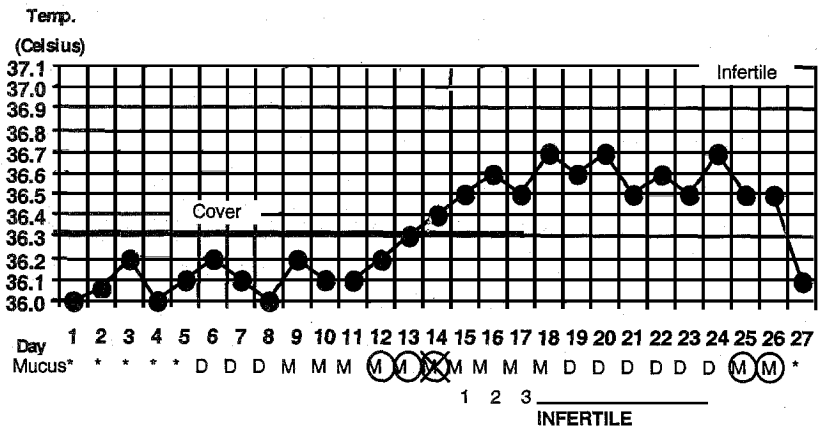
Have intercourse during the fertile days.

Basal Body Temperature (BBT) Method

You can determine your fertile phase by taking accurate measurements with a special thermometer to detect even a slight increase in your temperature.

Use the **Thermal Shift Rule:**

- Take your temperature at about the same time each morning (before rising) and record the temperature on the chart provided by the NFP instructor.
- The temperatures recorded on the chair for the first 10 days of your menstrual cycle are used to identify the highest of the normal temperatures. Disregard any temperatures that are abnormally high due to fever or other disruptions.
- Draw a line 0.05–0.1°C above the highest of these 10 temperatures. This line is called a **cover line** or temperature line.
- The **infertile phase** begins on the evening of the third **consecutive** day that the temperature stays above the cover line (**Thermal Shift Rule**).



Completed Basal Body Temperature Chart

For Contraception

Abstain from sexual intercourse from the beginning of the menstrual period until the evening of the third **consecutive** day that the temperature stays above the cover line.

Notes:

- If any of the 3 temperatures falls on or below the cover line during the 3 day count, this may be a sign that ovulation has not yet taken place. To avoid pregnancy, wait until 3 **consecutive** temperatures are recorded above the cover line before resuming intercourse.
- After the infertile phase begins, it is not necessary to keep taking your temperature. You may stop until the next menstrual cycle begins and continue to have intercourse until the first day of the next menstrual period.

For Conception

Have intercourse during the fertile days.

Cervical Mucus Method

You can determine your fertile phase by monitoring your cervical mucus.

A simple, accurate record is the key to success.

A series of codes is used to complete the record. These codes should be both appropriate to the local culture and widely available to NFP users. In some areas,

coloured stamps or inks are used; in others, it is more convenient to develop symbols that are written by hand; while in still others, both methods are combined resulting in handwritten symbols that are recorded with coloured pens. Examples of two systems are given below.

Examples of Codes Used in Fertility Record Keeping

 or *	Use the symbol * or red to show bleeding.
 or D	Use the letter **D** or green to show dryness.
 or M	Use the letter **M with a circle** around it or leave blank to show wet, clear, slippery, fertile mucus.
 or M	Use the letter **M** or yellow to show sticky, white, cloudy, infertile mucus.

Definitions

- **Dry Days**: After menstrual bleeding ends, most women have 1 to a few days in which no mucus is observed and the vaginal area feels dry. These are

called **dry days**. After ovulation, dryness quickly returns (infertile days).

- **Fertile Days**: When **any** type of mucus is observed before ovulation, you are considered to be fertile. Whenever mucus is seen, even if the mucus is of a sticky, pasty type, the wet fertile mucus may be present in the cervix and the **fertile days** have started.
- **Peak Day**: The last day of slippery and wet mucus is called the **peak day**; it indicates that ovulation is near or has just taken place.

For Contraception

- As mucus may change during the day, observe it several times throughout the day. Every night before you go to bed, determine your highest level of fertility (see list of codes) and mark the chart with the appropriate symbol.
- Abstain from sexual intercourse for at least 1 cycle so that you will know the mucus days.
- Avoid intercourse during your menstrual period. These days are not safe; in short cycles, ovulation can occur during your period.
- During the dry days after your period, it is safe to have intercourse every other night (**Alternate Dry Day Rule**). This will keep you from confusing semen with cervical mucus.

- As soon as any mucus or sensation of wetness appears, avoid intercourse or sexual contact. Mucus days, especially fertile mucus days, are not safe (**Early Mucus Rule**).
- Mark the last day of clear, slippery, stretchy mucus with an X. This is the peak day. It is the most fertile time.
- After the peak day, avoid intercourse for the next 3 dry days and nights. These days are not safe (Peak Day Rule).
- Beginning on the morning of the fourth dry day, it is safe to have intercourse until your menstrual period begins again.

For Conception

Have intercourse during each cycle on the days when your vaginal discharge feels elastic, wet and slippery.

Symptothermal Method

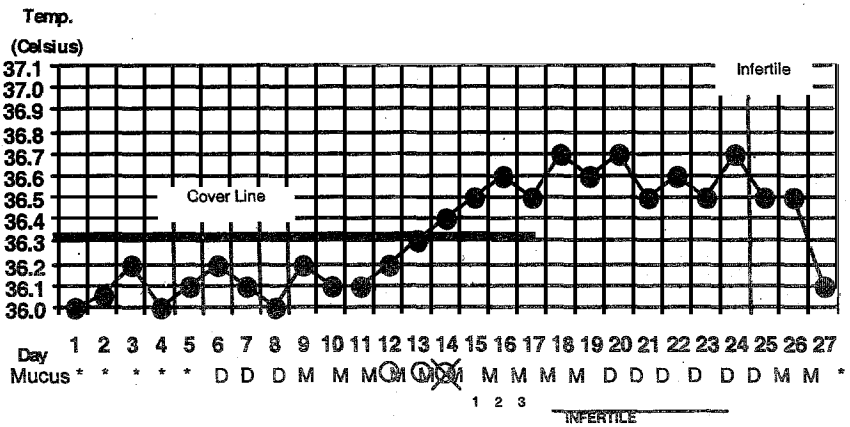
You can determine your fertile days by monitoring both your temperature and your cervical mucus.

- After menstrual bleeding stops, you may have intercourse on the evening of every other dry day during the infertile days before ovulation. This is the

Alternate Dry Day Rule, the same rule used with the Cervical Mucus Method.

- The fertile phase begins when wet vaginal sensations or any mucus is experienced. This is the Early Mucus Rule, the same rule used with the Cervical Mucus Method. Abstain from intercourse until the fertile phase ends.
- Abstain from intercourse until both the Peak Day and Thermal Shift Rules have been applied.
- When these rules do not identify the same day as the end of the fertile phase, always follow the most conservative rule, that is, the rule that identifies the longest fertile phase.

Completed Basal Body Temperature Chart



The following example refers to the **Completed Basal Body Temperature Chart** (see above). Following the

Thermal Shift Rule, the woman is infertile after day 15. If, however, she follows the **Peak Day Rule**, she is not infertile until the 18th day. Therefore, she should use the conservative rule, the **Peak Day Rule**, and wait until the 18th day before resuming intercourse.

Note: You may have intercourse during the first 5 days of the menstrual cycle beginning with the first day of menstrual bleeding, if the **Peak Day** and **Thermal Shift Rules** were applied during the previous cycle. This is referred to as the **Menses Rule** and ensures that this is truly menstrual bleeding and not due to some other cause.

Note: All must have condoms for backup.

5.5 Lactational Amenorrhoea Method (LAM)

DEFINITION

A contraceptive method used when a client is less than 6 months postpartum; amenorrhoeic and is exclusively breastfeeding.

MECHANISM OF ACTION

Suppresses ovulation

BENEFITS

Contraceptive

- If used properly, LAM is 98–99% effective
- Effective immediately
- Does not interfere with intercourse
- No systemic side effects
- No medical supervision necessary
- No supplies required
- No cost involved
- Often serves as entry

Noncontraceptive

For child

- Passive immunization
- Best source of nutrition
- Decreased exposure to contaminants in water, other milk or formulas, or on utensils
- Helps develop close relationship between mother and baby.

For mother

- Decreased postpartum bleeding
- Bonding with child
- Reduces risk of anaemia in mother

DISADVANTAGES

- Requires clear understanding of three LAM criteria
- May be difficult to practice due to social circumstances
- Highly effective only until menses return or up to 6 months postpartum
- Does not protect against STIs, including HIV/AIDS
- If mother has HIV, there is a chance that breastmilk will pass HIV to the baby.

WHO CAN USE LAM

Any woman who meets the following three criteria to ensure adequate protection from unplanned pregnancy:

- Exclusive breastfeeding
- Less than 6 months postpartum
- Amenorrhoea

WHO SHOULD NOT USE LAM

- Women whose menses have returned
- Women who are not fully (or nearly fully) breastfeeding
- Women whose babies are more than 6 months old

CLIENT INSTRUCTIONS

- Exclusively breastfeed baby on demand.
- You will need another contraceptive method if you have a menstrual period, if you no longer breastfeed fully or when your baby is 6 months old.
- Consult your family planning provider or clinic before starting another contraceptive method.
- If you or your partner is at high risk for STIs, including the HIV/AIDS, you should use condoms as well as LAM.

- Counsel the mother to come for another method as soon as she stops exclusively breastfeeding the baby.
- Breastfeed baby at least 4 hourly during the day and 6 hourly during the night.

5.6 DUAL PROTECTION

DEFINITION

Use of more than one method to increase contraceptive efficacy and/or protection against STIs, including HIV/AIDS.

INTRODUCTION

Clients ought to be assisted in making decisions and choices about methods of contraception in light of the current dilemma between the prevention of pregnancy and STIs, including HIV/AIDS. With supportive counselling, individuals who consider themselves or their partners at risk of STI and HIV infection are generally responsive to dual method use. Providers have a responsibility to educate and counsel clients that most family planning methods such as hormonal methods and IUCDs do not protect against STI and HIV transmission.

The most effective method for preventing STIs and HIV is barrier methods, especially condoms, but they are not necessarily the most effective contraceptives. In addition, spermicides have proved to be somewhat ineffective (74–94%) in preventing both pregnancy and STIs. Hence, use of spermicides alone is not advised to

those at high risk of STI and HIV infection. Combining a barrier method with a more effective contraceptive will, therefore, maximise the dual protective effect.

More often women find it difficult to persuade their partners about condom use. These women who are usually at risk of STIs may be counselled to use FC, or diaphragms with spermicides.

METHODS AND USE

To increase contraceptive efficacy

PRIMARY METHOD	ADDITIONAL METHOD	REMARKS
Condom, Diaphragm	Spermicides	Each one of the two methods used separately a re less effective
Condom	Emergency Contraception (as a backup)	If broken during use

PRIMARY METHOD	ADDITIONAL METHOD	REMARKS

COCs or POPs	Condom, diaphragm, spermicides	• Client develops vomiting and diarrhoea
		• Client forgets to take pills:
		  • 2 or more for COCs
		  • 1 for POPs
		• Client on an antibiotic, including rifampicin
		• Client who commences taking pills in the middle of the menstrual cycle

LAM	POPs, condom, diaphragm, spermicides	To increase efficacy
Vasectomy	Condom, diaphragm	Until sperm-free ejaculation
Natural Family Planning	Condom, diaphragm	When sex occurs at the fertile period of the cycle

To protect against STIs, including HIV/AIDS

PRIMARY METHOD	ADDITIONAL METHOD	REMARKS
Hormonal Contraception, IUCD, Voluntary Surgical Contraception, LAM, Natural Family Planning	Condom	• Reduce HIV/AIDS risk • During treatment for STI (self or spouse) • Commercial/casual sex • Sex during menstruation/ uterine bleeding/ spotting

BENEFITS

Contraceptive

- Increases efficacy of some methods

Noncontraceptive

- Provides some protection against STIs and HIV
- Cost-effective

DISADVANTAGES

- Poor compliance with long-term use

Note: For client instructions, see relevant chapters for method chosen.

5.7 VOLUNTARY SURGICAL CONTRACEPTION (VSC)

DEFINITION

VSC is a permanent surgical contraception based on informed choice

TYPES

5.7.1 FEMALE SURGICAL CONTRACEPTION

DEFINITION

Female surgical contraception is a surgical procedure by which the fallopian tubes are blocked

APPROACHES

Tubal ligation/occlusion by:

- Minilaparotomy
- Laparoscopy

MECHANISM OF ACTION

By blocking the fallopian tubes (tying and cutting, electrocautery, rings and clips), sperms are prevented from reaching ova and causing fertilisation.

BENEFITS

Contraceptive

- If performed properly, 99.5% effective
- Effective immediately
- Permanent
- Does not interfere with intercourse
- Good for client if pregnancy would pose a serious health risk
- Simple surgery, usually done under local anaesthesia
- No long-term side effects
- No change in sexual function (no effect on hormone production by ovaries)

Noncontraceptive

- Decreased risk of ovarian cancer
- Does not affect breastfeeding

DISADVANTAGES

- Permanent
- Client may regret later
- Small risk of complications (increased if general anaesthesia is used)
- Short-term discomfort/pain following procedure

- Requires trained physician/clinician
- Laparoscope is expensive
- Does not protect against STIs, including HIV/AIDS

IMPORTANT ISSUES TO NOTE

- The client has the right to change her mind anytime prior to the procedure.
- No incentives should be given to clients to accept voluntary sterilisation.
- A standard consent form must be signed by the client before the procedure.
- Spousal consent is not mandatory.

WHO CAN UNDERGO TUBAL LIGATION OR OCCLUSION

- Women of any reproductive age (adolescents exceptional, WHO Class 3)
- Women of any parity
- Women/couples who have achieved their desired family size
- Women who want permanent protection against pregnancy
- Women in whom pregnancy would pose a serious health risk
- Women who are postpartum

- Women who have had an abortion and wish to have a tubal ligation
- Women who voluntarily consent to the procedure

CONDITIONS OR SITUATIONS REQUIRING PRECAUTION

CONDITION OR SITUATION	RECOMMENDATION
Significant medical problems (e.g., symptomatic heart disease or clotting disorders, hypertension, previous/current PID, obesity, diabetes)	Clients with significant medical problems may need special surgical and followup management. For example, the procedure may need to be done in hospital. Where possible, significant medical problems should be controlled prior to surgery.
Single and/or with no living children	Counsel very carefully and allow additional time to make an informed decision. Help client choose another method, if appropriate.

WHO SHOULD NOT UNDERGO TUBAL LIGATION/OCCLUSION

- Women who are pregnant (known or suspected)
- Women with unexplained vaginal bleeding (until evaluated)
- Women with acute pelvic or systemic infection (until resolved or controlled)
- Women who cannot withstand the surgery
- Women who are uncertain of their desire for future fertility
- Women who do not give voluntary informed consent

CLIENT ASSESSMENT CHECKLIST

	No	Yes	If yes, specify
Drug allergy			
Diabetes			
Heart disease			
Hypertension			
Respiratory disease			
Anaemia or bleeding problem			
Current illness			
Current use of drugs			

	No	Yes	If yes, specify
Other findings			
Date of last menstrual period	_____		
Date last pregnancy completed	_____		
Currently pregnant			
Unexplained vaginal bleeding			
Discharge			
Chronic pelvic pain			
Previous abdominal or pelvic surgery			

WHEN TO PERFORM

- Anytime during the menstrual cycle when you can be reasonably sure the client is not pregnant, but preferably after menses for infection prevention purposes.
- Days 6 to 13 of the menstrual cycle (proliferative phase preferred)
- Postpartum:
  - Minilaparotomy: within 2 days or after 6 weeks
  - Laparoscopy: not appropriate for postpartum clients
- Postabortion:

- First trimester: immediately or within 7 days, provided no evidence of pelvic infection (minilaparotomy or laparoscopy)
- Second trimester: immediately or within 7 days, provided no evidence of pelvic infection (minilaparotomy only)

MANAGEMENT OF PROBLEMS

PROBLEMS	MANAGEMENT
Wound infection	If skin infection is present, treat with antibiotics. If abscess is present, drain and treat as indicated.
Postoperative fever (> 38°C)	Treat infection based on findings.
Bladder, intestinal injuries (rare)	Diagnose problem and manage appropriately. If bladder or bowel is injured and recognised intra-operatively, perform primary repair. If discovered postoperatively, refer to appropriate centre as necessary.
Haematoma (subcutaneous)	Apply warm, moist pack to site. Observe; it usually will resolve over time but may require drainage if extensive.
Gas embolism resulting from laparoscopy (very rare)	Intensive resuscitation may be necessary, including: • Intravenous fluids • Cardiopulmonary resuscitation

PROBLEMS	MANAGEMENT
	• Other life support measures
Pain at incision site	Determine presence of infection or abscess and treat based on findings.
Shoulder pain during first 12–24 hours after procedure	Counsel and reassure client that this is normal.
Superficial bleeding (skin edges or subcutaneously)	Control bleeding and treat based on findings.

CLIENT INSTRUCTIONS

- Keep the operative site dry for 2 days. Resume normal activities gradually. (You should be able to return to normal activities within 7days after surgery.)
- Avoid sexual intercourse for 1 week or until comfortable.
- Avoid heavy lifting and hard work for 1 week.
- For pain, take analgesics as required.
- Schedule a routine followup visit between 7 and 14 days after surgery.
- Return after 1 week for review and removal of nonabsorbable stitches.
- Menstrual periods will continue as usual. (If using a hormonal method before the procedure, especially

COCs, the amount and duration of menses may increase after surgery.)

- Tubal ligation/occlusion does not provide protection against STIs, including HIV/AIDS. If either partner is at risk, the couple should use condoms even after tubal ligation/occlusion.

Note: Contact healthcare provider or clinic if you develop any of the above problems.

WARNING SIGNS

- Fever (> 38°C)
- Dizziness with fainting
- Persistent or increasing abdominal pain
- Bleeding or fluid coming from the incision
- Signs or symptoms of pregnancy

5.7.2 MALE SURGICAL CONTRACEPTION

DEFINITION

Male surgical contraception is a procedure by which the vas deferens is blocked.

TYPE

Vasectomy by the standard method (one or two small incisions) or the non-scalpel vasectomy technique (preferred method)

MECHANISM OF ACTION

By blocking the vas deferens (ejaculatory duct), sperms are not present in the ejaculate.

BENEFITS

Contraceptive

- If performed properly, male surgical contraception is 99.85–99.9% effective
- Permanent
- Does not interfere with intercourse

- Good for couples if pregnancy or tubal ligation/occlusion would pose a serious health risk to the woman
- Simple surgery done under local anaesthesia
- No long-term side effects
- No change in sexual function (no effect on hormone production by testes)

DISADVANTAGES

- Permanent
- Client may regret later
- Delayed effectiveness (requires up to 3 months or 20 ejaculations before the seminal fluid is sperm-free)
- Risks and side effects of minor surgery, especially if general anaesthesia is used
- Short-term discomfort/pain following procedure
- Requires trained doctor/clinical officer
- Does not protect against STIs, including HIV/AIDS

IMPORTANT ISSUES TO NOTE

- The client has the right to change his mind anytime prior to the procedure.
- No incentives should be given to clients to accept voluntary sterilisation.
- A standard consent form must be signed by the client before the procedure.

- Spousal consent is not mandatory.

WHO CAN UNDERGO VASECTOMY

- Men of any reproductive age (adolescents exceptional, WHO Class 3)
- Men who want a permanent contraceptive method
- Men whose wives have age, parity or health problems that might pose a serious health risk if they become pregnant
- Men who voluntarily consent to the procedure
- Men/couples who have achieved their desired family size

CONDITIONS OR SITUATIONS REQUIRING PRECAUTION

CONDITION OR SITUATION	RECOMMENDATION
Single and/or with no living children	Counsel very carefully and allow additional time to make an informed decision. Help client choose another method, if appropriate.
Symptomatic heart disease or clotting disorders, diabetes mellitus, severe anaemia, hypertension)	Clients with significant medical problems may need special surgical and followup management. The procedure may

CONDITION OR SITUATION	RECOMMENDATION
	need to be done in a hospital. Where possible, significant medical problems should be controlled prior to surgery.
RTI/STI	Treat before the procedure.
Local skin or scrotal infection	Delay procedure until infection is resolved.
Other problems: Large varicocele, inguinal hernia, filariasis, scar tissue, previous scrotal surgery, intrascrotal mass, undescended testes and proven fertility, cryptorchidism (if bilateral and proven fertility), HIV/AIDS-related disease	With any of these conditions, the procedure must be performed by a provider with extensive experience and skill in performing vasectomy.

WHO SHOULD NOT UNDERGO VASECTOMY

- Men who are uncertain of their desire for future fertility
- Men who do not give voluntary informed consent

CLIENT ASSESSMENT CHECKLIST

	No	Yes	If yes, specify
Drug allergy			
Diabetes			
Heart disease			
Hypertension			
Respiratory disease			
Anaemia or bleeding problem			
Current illness			
Current use of drugs			
Other findings			
Genital disease			
Genital discharge			

WHEN TO PERFORM VASECTOMY

- Anytime when the client is ready

MANAGEMENT OF PROBLEMS

PROBLEM	MANAGEMENT
Wound infection	If skin infection is present, treat with antibiotics. If abscess is present, drain and treat as indicated.
Excessive swelling	May require surgical management. Provide scrotal support as needed.
Haematoma (scrotal)	Apply warm, moist pack to site and provide scrotal support. Observe; it will resolve over time.

CLIENT INSTRUCTIONS

- Keep bandage on for 3 days.
- Do not pull or scratch wound while healing.
- You may bathe after 24 hours but do not let the wound get wet. After 3 days you may wash the wound with soap and water.
- Wear a scrotal support.
- For pain, take analgesics as required.
- Avoid heavy lifting and hard work for 3 days.
- If comfortable, you may resume sexual intercourse in 2 or 3 days. Remember to use condoms or another family planning method for 3 months or

until you have ejaculated at least 20 times over 1–2 weeks.

- Return after 1 week for review and removal of stitches if stitches were used to close the wound.
- Come back for a semen test 3 months after the operation if you wish to have proof that the vasectomy is completely effective.

Note: Contact healthcare provider or clinic if you develop any of the above problems.

WARNING SIGNS

- Fever (> 38°C)
- Bleeding or fluid coming from the incision
- A very painful or swollen scrotum
- If your partner misses a period

Chapter 6

POSTABORTION CARE

DEFINITION

Postabortion care is the management of a woman following a spontaneous or induced abortion.

Comprehensive postabortion care should include:

- emergency treatment of incomplete abortion and potentially life-threatening complications;
- provision of family planning (FP) counselling and services; and
- links between emergency care and other reproductive health (RH)

Comprehensive post abortion care should be provided to any woman who needs the service, regardless of age, marital status or circumstances that surround the abortion.

EMERGENCY CARE

Regardless of whether an abortion is spontaneous or induced, women have the right to emergency care without delay. This care includes:

- client assessment
- uterine evacuation
- management of complications and emergencies and
- post procedure care

CLIENT ASSESSMENT

The first step in providing care to a woman suspected of having an incomplete abortion is to assess her clinical situation. The initial assessment may reveal or suggest the presence of immediate life-threatening complications such **as shock, severe vaginal bleeding, infection/sepsis or intra-abdominal injury.**

Immediate Management of Complications

CONDITION	SIGN/ SYMPTOMS	IMMEDIATE TREATMENT
Shock	• Pulse: Rapid weak pulse (tachycardia) • BP: less than 90/60 mm Hg (hypotension) • Skin: Cold, pale and sweaty • Syncope (fainting) • Oliguria (30mL/hour) even after catheterisation • Altered sensorium (consciousness) • Features of disseminated intravascular coagulation may be found	• Start I/V fluids: RL or saline. Give 1 litre immediately, 1 litre over the next hour, then 1–2 more litres over 4–8 hours • Give oxygen 10 litres by mask (if available) • Keep warm • Elevate legs • Give nothing by mouth • Consider transfusion • Manage cause of shock (infection, hemorrhage, etc)
Severe vaginal bleeding	• Heavy bright red vaginal bleeding with or without clots • Blood soaked pads, towels • Pallor • Dizziness	• Manage as above for shock • At the same time, prepare for and perform uterine evacuation (by MVA if available) • Assess for genital tract injuries

CONDITION	SIGN/ SYMPTOMS	IMMEDIATE TREATMENT
Infection/ sepsis	• Fever (temperature higher than 38 °C/100.4 °F) with chills • Foul smelling vaginal discharge • Lower abdominal tenderness • Mucopus from cervix • Cervical motion tenderness on pelvic exam • Prolonged bleeding (more than 8 days) • General discomfort (flu like symptoms)	• Start I/V fluids or oral fluids (ORS) • Give Ampicillin 2 g I/M or I/V, then 1 g I/V 8 hourly; Gentamicin 5 mg/kg I/V once daily; *and* Metronidazole 400 mg I/V 8 hourly
Intra-abdominal injury	• Distended abdomen • Decreased bowel sounds • Rigid abdomen • Rebound tenderness • Abdominal pain • Nausea/vomiting • Fever (temperature higher than 38 °C/100.4 °F)	• Start I/V fluids; RL or saline. Give 1 litre immediately then 1–2 more litres over 4–8 hours • Give nothing by mouth • Consider blood transfusion if signs of severe anaemia • Consider

CONDITION	SIGN/ SYMPTOMS	IMMEDIATE TREATMENT
		antibiotics (as above) • Manage pain with small doses of narcotics

Note: If unable to manage on site, prepare for immediate transfer once stabilized. Only after the complication has been stabilized, proceed with uterine evacuation.

MANAGEMENT OF INCOMPLETE ABORTION

- Incomplete abortion is treated by evacuating the uterine cavity to remove the remaining POCs.

- The evacuation method used depends on the gestational age, the uterine size and the presence of complications such as genital injury or sepsis.

- The method of choice also depends on the availability of equipment, supplies and skilled staff. (For a complete list of necessary equipment, supplies and medications required for the provision of postabortion care services, refer to Appendix A.)

- Treatment of first trimester incomplete abortion can be performed by MVA or sharp curettage, though MVA is preferable in most cases.

- Treatment of mid- and late-second trimester incomplete abortion (uterine size of 14-28 weeks) should be performed in hospitals by experienced medical personnel. In these second trimester abortions, providers should use appropriate equipment with full emergency backup services.

MVA Procedure

MVA is the process of removal of products of conception from the uterus by the use of a large hand held syringe in which a vacuum is created. The remaining uterine contents are drawn through a cannula into the syringe. In the majority of cases MVA is performed on an outpatient basis, with minimal analgesia or sedation. It is a minor gynaecological procedure performed in a clean procedure room.

Steps for Performing MVA

Step 1: Gently insert the speculum and check the cervix for tears or protruding tissue fragments. If tissue fragments (placenta or membranes) are present in the vagina or cervix, remove a sponge (ring) forceps. Also,

if IUD strings are visible in the cervix, remove the IUD after prepping the cervix (see **Step 2**).

Step 2: Clean the cervix (especially the os) and vagina as discussed above.

Step 3: If needed, **administer paracervical block** and grasp the cervix with a ring forceps or tenaculum (see **Chapter 5** for instructions).

Step 4: Cervical dilation is necessary only when he cervical canal will not allow passage of the cannula selected for use. When required, dilation should be done **gently** with mechanical dilators or with cannulae of progressively increasing size, taking care not to tear the cervix or to create a false opening.

Step 5: While holding the cervix steady and gently applying traction, insert the cannula through the cervix into the uterine cavity just past the internal os (rotating the cannula while gently applying pressure often helps the tip of the cannula part through the cervical canal.)

Step 6: Push the cannula slowly into the uterine cavity until it touches the fundus. Note the uterine depth by the dots visible on the cannula. The dot nearest the tip of the cannula is 6 cm from the tip, and

the other dots are at 1 cm intervals. After measuring the uterine size, withdraw the cannula slightly.

Step 7: Attach the prepared syringe to the cannula by holding the forceps (or tenaculum) and the end of the cannula in one hand and the syringe in the other.

Step 8: Release the pinch valve on the syringe to transfer the vacuum through the cannula to the uterine cavity. Bloody tissue and bubbles should begin to flow through the cannula into the syringe.

Step 9: Evacuate any remaining contents of the uterine cavity by gently rotating the syringe and then moving the cannula gently and slowly back and forth within the uterine cavity. (Do not rotate the cannula more than 180^0 — a half turn.)

It is important **not** to withdraw the opening(s) of the cannula beyond the cervical so, as this will cause the vacuum to be lost. If this happens, or if the syringe is full, follow the instructions given in **Chapter 7** to re-establish the vacuum.

Step 10: Check for signs of completion. The MVA procedure is complete when:

- Red or pink foam and no more tissue is seen in the cannula.

- A gritty sensation is felt as the cannula passes over the surface of the evacuated uterus.
- The uterus contracts around (grips) the cannula.

Step 11: Withdraw the cannula, detach the syringe and then place the cannula in the decontamination solution. With valve open, empty the contents of the MVA syringe into a strainer by pushing on the plunger.

Step 12: Quickly inspect the tissue removed the uterus:

- For quantity and presence of POC
- To assure complete evacuation, and
- To check for a molar pregnancy (rare).

If necessary, strain and rinse the tissue to remove excess blood clots, then place in a container of clean water, saline solution or weak acetic acid (vinegar) to examine visually. Tissue specimens also may be sent to the pathology lab as indicated.

- Follow the recommended infection prevention practices for handling specimens (see Chapter 4). Tissue fragments which may be seen in treatment of incomplete abortion include villi, fetal membranes, endometrial tissue (deciduas) and, after nine weeks

from the LMP, fetal parts. (To aid in identifying villi, a simple magnifying glass may be used).

If no POC are seen, then:

- All of the POC may have been passed before the MVA was performed (complete abortion);
- The uterine cavity may appear to be empty but may not have been emptied completely due to the inexperience of the operator (see **Step 9**, this section);
- The vaginal bleeding may have been due to a cause other than incomplete abortion (e.g., estrogen- or progesterone- breakthrough bleeding, as may be seen with hormonal contraceptives, or uterine fibroids); or
- The uterus may be abnormal (i.e., cannula may have been in the nonpregnant side of a double uterus)

Absence of POC in a patient with symptoms of pregnancy, however, raises the strong possibility of ectopic pregnancy, which **should** be evaluated completely. Ectopic pregnancy if diagnosed, requires immediate evaluation and referral if surgery (minilaparotomy or laparoscopy) is not available.
Management of these problems is discussed in **Chapter 7.**

Step 13: After being certain the procedure is complete, remove the tenaculum and speculum. **Decontaminate all instruments** (MVA syringe, tenaculum and speculum) by placing in 0.5% chlorine solution. If paracervical block was administered, decontaminate assembled hypodermic needle and syringe by filling with chlorine solution before soaking. Allow the items to soak for at least 10 minutes.

Step 14: While still wearing gloves, place contaminated disposable objects (gauze, cotton and other waste items) in a properly marked, leak-proof container or plastic bag. Place sharp instruments (needles and syringes) in a separate puncture-proof container. Waste should be disposed of by burning or burying. Tissue fragments evacuated from the uterus also may be emptied into the sewage system.

Step 15: Immerse both gloved hand in decontamination solution, then remove gloves by

turning them inside out. Discard as above. If surgical gloves are to be reused, submerge in solution (soak for 10 minutes).

Step 16: Wash hands thoroughly with soap and water.

Pain Management

Pain can be minimised through the following:

- pre-procedure counselling,
- verbal anaesthesia (talking to the patient during the procedure, providing reassurance),
- gentle performance of the procedure,
- skillful use of equipment and instruments, and
- use of medications, if necessary. Recommended drugs for pain control include:

    - Paracetamol (1 gram, 30-60 minutes before the procedure)
    - Ibuprofen (600-800mg, 30-60 minutes before the procedure)

Other options for pain control are:

- Diazepam (for very anxious patients)
- Pethidine (only to be used at the hospital level)

- Anaesthesia, both general and local (**not** recommended due to high risk of complications and cost implications)

Sharp Curettage

Sharp curettage is an alternative procedure for uterine evacuation. Currettage requires systematic pain medication (narcotics) and is performed in an operating theatre.

POSTABORTION FAMILY PLANNING

Post abortion family planning should include all essential components of good family planning care:

- information and counselling about methods, their characteristics, effectiveness and side effects
- choice among methods
- counselling about contraceptive needs in the context of the client's reproductive goals and need for protection against STI's and HIV/AIDS

The minimum information about FP that a woman treated for incomplete abortion needs to understand before she is discharged is:

- she will be at risk of repeat pregnancy as soon as 10 days postabortal
- that there are a variety of safe contraceptive methods that can be used immediately to avoid pregnancy
- **where** and **how** to get FP services (at the time of treatment and also after discharge)
- characteristics of all methods (e.g. whether they are reversible, whether they protect against GTIs and other STIs, side effects)
- how to use the selected method correctly, including where and how to get additional supplies (e.g., pills, condoms, injectables or spermidical tablets or foam)

Note: All modern methods of contraception can be used as long as the provider screens the woman for the standard precautions for use of a particular method.

LINKAGES AND REFERRAL TO OTHER REPRODUCTIVE HEALTH SERVICES

Linkages to other RH Services

It is important to identify other RH services that a woman may need following an incomplete abortion and to offer her as wide a range of services as possible. For example:

- Some women may want to become pregnant soon after having an incomplete abortion. They should be counseled and referred as appropriate.
- All women should be offered cervical cancer screening at the time of treatment or referred to a facility where screening is available.
- All women should be counselled and screened for RTIs, STIs and HIV/AIDS and managed appropriately.
- Some young women may be well served by referral to adolescent or youth-friendly clinics.

Chapter 7

ADOLESCENT REPRODUCTIVE HEALTHCARE

DEFINITION

Adolescents are individuals in the age group of 10–19 years.

INTRODUCTION

Sexually active adolescents are in need of safe and effective contraception. Studies show that large numbers of Malawian adolescents are sexually active. In addition, adolescents tend to have unpredictable lifestyles, which revolve around such issues as asserting their independence, convenience and acceptance among their peers. Their relationships may be temporary and are likely to have multiple sexual partners. As a consequence, they may be exposed to considerable risk of contracting STIs, including HIV/AIDS. Surveillance data (2001) shows HIV prevalence is highest among young women, 15–24 years. Furthermore, many adolescents do not use effective contraceptive methods, and those who do are likely to use them infrequently or incorrectly. As a result of poor use of contraception,

they experience pregnancy too early and at risk of unsafe abortions. Early sexual activity puts them at higher risk of obstetrical complications, infertility, cervical cancer and death.

The reproductive health risks for adolescents include:

- Unsafe sex
- Unwanted/unplanned pregnancy
- Unsafe abortion
- STIs, including HIV/AIDS
- Risk of MTCT if pregnant and HIV infected

The reproductive health consequences are:

- Medical e.g., unsafe abortion, death, infertility
- Psychological e.g., truancy, depression
- Social e.g., early marriage, school dropout
- Economic e.g., prostitution

EFFECTIVE PROGRAMS FOR ADOLESCENTS

Adolescents require special RH care and attention because of the uniqueness of their situations and the problems to which they are exposed.

Characteristics of Adolescent Friendly Services

- Friendly welcoming staff
- Separate units for adolescent services
- Outreach clinics with specially-trained staff
- Mobile clinics with specially-trained staff
- Special hours, such as after school and weekends
- Convenient and safe locations
- Youth-to-youth promotion
- Low or no-cost services
- Community and political support

Characteristics of effective adolescent RH programs:

- Identify target group, analyse assets and needs
- Involve youth
- Work with community (e.g., parents, schools)
- Use materials designed by and for youth
- Make services accessible, as identified by youth
- Incorporate monitoring and evaluation

Adolescent RH programs include:

- IEC
- Behavior change communication (BCC)
  - decision-making
  - self esteem
  - negotiation skills
- Contraception
- Maternal healthcare
- STIs, HIV/AIDS, VCT for HIV
- Legal services
- Other social services

CONTRACEPTION OPTIONS FOR ADOLESCENTS

In the table below, contraceptive methods are listed in order of suitability.

METHOD	REMARKS
Condoms (Male and Female) (Also see **Barrier Methods** chapter)	• Provide immediate protection, but require planning and commitment (coitus-related). • Only method that protects against STIs, including HIV/AIDS. • Should be available at facilities to which adolescents have easy access.
Oral Hormonal Contraceptives (preferably COCs) (Also see **Hormonal Methods** chapter)	• Forgetfulness increases failure (common among adolescents) • Although there has been concern about the use of COCs by young adolescents (theoretical effect on growth), they may be safely used once a teen has menstruating regularly for at least one year.
Implants (Norplant) (Also see **Hormonal Methods** chapter)	• Side effects such as irregular bleeding/spotting, acne and weight gain may be particularly bothersome to adolescents. Thorough counselling is essential. • Highly recommended for adolescents who want long-term contraception, especially if they had problems using another method.

METHOD	REMARKS
PICs (Also see **Hormonal Methods** chapter)	• Side effects such as irregular bleeding/spotting, acne and weight gain may be particularly bothersome to adolescents. Thorough counselling is req uired. • Highly recommended for adolescents who require intermediate-duration contraception. • Some studies show that use of DMPA in adolescents within 2 years of menarche may pose an additional long-term risk of osteoporosis.
IUCD (Also see **IUCD** chapter)	• Not recommended for adolescents at high risk of STIs.

Chapter 8

MEN'S SEXUAL AND REPRODUCTIVE HEALTH

INTRODUCTION

The 1995 International Conference on Population and Development highlighted the importance of involving men in reproductive health in order to encourage them to take responsibility for their sexual and reproductive behaviour and their social and family roles.

The reasons for including men in reproductive health programmes are many, including:

- Men play important, often dominant, roles in decisions crucial to women's reproductive health
- Men are more interested in family planning than is often assumed, but need communication and services directed specifically to them
- Understanding and influencing the balance of power between men and women can help improve reproductive health behaviour
- Couples who talk to each other about reproductive health can reach better, healthier decisions

- Many men's own reproductive health needs are not generally addressed

Male participation can help:

- Avoid unplanned pregnancies;
- Slow the STI/HIV epidemic;
- Promote safe motherhood; and
- Improve men's roles in related issues (partner communications and relationships, care of children, etc.).

EFFECTIVE PROGRAMMES FOR MEN

Programmes for men should emphasise:

- Ways to meet men's own sexual and reproductive health needs offering a range of services and sensitive, respectful counselling
- Communication strategies to promote behavioural change focusing on:
    - Ways to encourage couple communication
    - Understanding the influence of gender roles
    - Increasing men's support in women's health-related choices and family-related issues
    - Responsible efforts by men in STI/HIV prevention

  - Bringing information to men both in and out of the workplace
  - Use of mass media
- Reaching out to young and unmarried men with information and services
- Increasing equity in accessing RH services including contraceptive use

GUIDELINES FOR MANAGING A MALE CLIENT

- **Screening** – A history should be obtained from every man who comes to the clinic and should include the following:
  - Sexual and reproductive history, to include screening for risk of STIs/HIV
  - Age-appropriate and routine physical examination
  - Cancer screening
  - Screening for substance abuse and mental health needs
- **Information and counselling** – These should be provided to every man who visits the clinic and should include education and counselling on the following:
  - Sexuality and physiology
  - All contraceptive methods, including their use and effectiveness

  - STIs and HIV
  - Genital health and hygiene, including testicular and genital self-examination
  - Communicating with partners on sexual and reproductive behaviour
- **Clinical services** – These should be provided only if identified through screening and may include the following:
  - Sexual dysfunction diagnosis and treatment
  - STI/HIV diagnosis, treatment and counselling
  - Fertility evaluation
  - Provision of condoms
  - Vasectomy

IMPOTENCE

DEFINITION

Impotence is the inability to attain or maintain an erection of the penis adequate for the sexual satisfaction of both the partners. The medical term for impotence is erectile dysfunction.

CAUSES

Since an erection requires a sequence of events, impotence can occur when any of the events is disturbed. The sequence includes nerve impulses in the

brain, spinal column, and area of the penis and response in muscles, fibrous tissues, veins and arteries in and near the corpora cavernosa. Impotence is inevitable with ageing process. Normally impotence is noticed in persons over fifty years.

- **Psychological problems**

With younger men, psychological problems are the likeliest reason for impotence. Tension, anxiety neurosis and depression cause major part of erectile dysfunction. These may arise from poor communication from the sexual partner or a difference in sexual preferences. The sexual difficulties may also be linked to depression, feeling of inadequacy, personal sexual fears, fear of sexual failure, fear of STDs/HIV/AIDS, rejection by partners or peers or sexual abuse in childhood such as masturbation and other sexual perversions

- **Arteriosclerosis**

Because erection is primarily a vascular event. In arterosclerosis the narrowing and thickening of the blood vessel wall impairs the circulation. It is normal as one has ageing phenomena. Diabetes, smoking, tobacco, chamba can accelerate hardening of blood vessels.

- **Neurological**

The vascular processes that produce an erection are controlled by the nervous system. Nerve signals are impaired by alcoholism and Narcotic drugs. Sometimes medications for various illnesses with modern drugs may produce temporary impotence. Neurological diseases like multiple sclerosis are also considered.

- **Hormonal Imbalance**

Any hormonal imbalance may indirectly hit testosterone secretion to result in "Hypogonadism."

Solutions

- If the problems are due to psychological issues, one approach is to abstain from penetrative sexual intercourse for a period of time and for the couple to explore each other and enjoy sexual intimacy without penetration and hopefully, stop being self-conscious about the erection.
- If due to drugs or alcohol, then the couple should abstain from sexual intercourse until they are sober.
- Some treatment e.g. Viagra can be effective
- Viagra is a treatment of choice

EARLY DETECTION OF TESTICLAR CANCER

Testicular cancer is the most common in men aged between 20–25. If detected and treated early, testicular cancer is one of the most curable of cancers. If left untreated, testicular cancer may spread to the lymph nodes and lungs where advanced cancer is even more difficult to treat successfully.

Testicular Self-Examination

A testicular self-examination is used in the detection of cancer in the male genitalia

How can a man determine that he may have testicular cancer?

Males aged 15 and up should examine themselves regularly and continue the process through their 30s. Self-examination is particularly important because cancer of the testes is usually asymptomatic. There are no symptoms such as stomachaches, fever, or pain, which might clue you in to a potential medical problem. There are, however, warning signs:

- One testicle may swell, or feel abnormally heavy
- Male breast may enlarge and feel tender

- A sore may develop which does not heal or a small painless lump may develop on a testicle.

Instructions to a Client

Men should examine themselves once a month using the following procedure:

- Check yourself right after a hot shower. The scrotal skin is relaxed and soft.
- Become familiar with the normal size, shape and weight of your testicles. One testicle may be lower than the other, and one may be slightly larger. This is normal
- Using both hands, gently roll each testicle between your fingers
- Identify the epididymis, a rose-like structure on the top and back of each testicle. This structure is not an abnormal lump.
- Be on the alert for a tiny lump under the skin, in the front or along the sides of either testicle. A lump may remind you of a kernel of uncooked rice or a small, hard pea
- Report any swellings or lumps to your provider If you have any lumps or other symptoms, it does not necessarily mean you have cancer, but a provider must check you.

Keep in mind that the treatment of testicular cancer usually does not end sexual activity, and when discovered and treated early, it does not impair the individual's ability to father children.

PREMATURE EJACULATION

DEFINITION

Premature ejaculation is the persistent or recurrent ejaculation with minimal sexual stimulation, or, before, upon, or shortly after penetration and before the couple wishes it.

CAUSES

- Early sexual experiences. Some men have early sexual experience that conditioned rapid responsiveness (such as masturbating quickly to avoid getting caught by parents, visiting prostitutes, etc.) that still persists.
- Anxiety. This can be due to anxiety about performance, or aggravated by factors such as guilt (believing the activity is sinful e.g., premarital and extramarital sex).
- Missing internal cues. The men are unable to identify their point where ejaculation cannot be stopped and take corrective action before that point is reached.

- Low arousal levels or low sex desire. The longer the period since last ejaculation, the quicker young men typically reach orgasm.
- Sexual Behaviour

The Sexual response can be seen as proceeding through three levels, Desire, Arousal, and Orgasm. With premature ejaculation, sometimes the real problem is insufficient sex desire to start with – or- lack of true arousal. It is entirely possible for a man to have a decent erection without 100% sex desire and even without full arousal.

If this is the case, the premature ejaculator actually needs to be turned on more- not- less – to allow him more control over his ejaculations.

Prevention

Attaining adequate knowledge regarding normal sexual responses of both males and females prior to engaging in sexual activity may prove useful in preventing this condition.

Premature ejaculation is less likely to occur if the couple engages in sexual activity in these situations: only after they know each other well, feel comfortable with one another, and both partners are consenting, without

feeling coerced; in a comfortable, relaxed (not rushed) and private setting; after contraception issues and prevention of STIs have been discussed, decided and acted upon by the couple.

Some Methods That Work

- **The Start – Stop Technique**

It consists of a series of exercises starting with self-stimulation and ending with intercourse, to gradually increase ejaculatory control.

- **The Squeeze Technique**

It consists of similar exercises as in the "stop-start" technique, but ejaculation is controlled by applying pressure to the top and bottom of the penis just before the point of climax to cancel the orgasm.

- **Change of Thrusting**

This is done by slowing the tempo of thrusting to take the edge of ardour, and, by changing the angle or depth of penile penetration.

- **Mental Work**

Men who successfully last a long time report that they silently shift their fantasies or modify their "self-talk" to slow things down a bit or to decrease anxiety. Also, it is helpful for men to learn to "focus" more on the non-genital aspects of the sexual experience to distribute sexual energy to other parts of the body.

- **Medication**

Can sometimes be helpful. A recent study showed that Prozac was very helpful in premature ejaculation in a high percentage of cases.

- **Condoms**

Condoms are effective means of reducing amount of stimulation experienced during sex. If one condom is not enough, advise client to put on one more. Condoms provide excellent protection against pregnancy, STDs and HIV/AIDS.

Chapter 9

SEXUALLY TRANSMITTED INFECTIONS

DEFINITION

Sexually Transmitted Infections (STIs) is a term given to a group of infections that affect both women and men and are generally transmitted during sexual activity.

INTRODUCTION

STIs account for a significant burden on the health of Malawians. They are the fourth most common reason for consultation in outpatient departments. Several studies carried out in this country show that of STIs and HIV are a major health problem. The bulk of the burden STI complications and sequelae are borne by women. The increasing problems of STIs require that all RH service providers must play a leading role in the management of STIs.

Comprehensive STI management includes:

- proper diagnosis of STIs
- effective antibiotic treatment

- preventive efforts beginning with patient education on risk reduction
- condom promotion, behavioural change and communication
- partner notification, follow up and treatment
- voluntary counselling and testing (VCT) for HIV

WHO IS AT INCREASED RISK OF STIS

- Adolescents
- Individuals with multiple partners
- Individuals whose partners have multiple partners
- Commercial sex workers
- Individuals involved in unprotected sex
- Mobile workers

SYNDROMIC APPROACH TO STI MANAGEMENT

- The syndromic approach to the management of STIs is based on signs and symptoms assessed through clinical examination, rather than on determination of aetiologic diagnosis through laboratory examination. (For signs and symptoms of specific conditions, refer to the **Malawi STD Management Guidelines**.)

- Since laboratory facilities are not a prerequisite to treatment, the clinical algorithms (flowcharts) can be used by prescribers at all levels of health facilities.
- Patients can be treated at their first visit, rather than returning at a later date for the results of their laboratory tests. This reduces the time they are infectious to others.

There are seven STI syndromes and these are:

- Genital ulcer diseases (GUD)
- Urethral discharge, due to infection with gonococci and/or chlamydia
- Genital urinary symptoms (GUS) in women
- Lower abdominal pain in women
- Acute scrotal swelling/pain (SS)
- Enlarged inguinal lymph nodes (BU)
- Balanitis (BA)

COMPONENTS OF STI SYNDROMIC APPROACH

History Taking

The following questions should be asked in the interview of all clients and/or their partners presenting with symptoms of STIs:

- Name, age and residence
- Marital status
- Occupation
- Education level (for counselling/management purposes)
- Description of symptoms, for example:

  For **women** enquire about the following symptoms:
  - Unusual vaginal discharge
  - Itching or sores in or around vagina
  - Pain or burning during urination
  - Pain on sexual intercourse
  - Lower abdominal pain
  - Irregularity of menstrual periods (if not associated with FP method)

  For **men** enquire about the following symptoms:
  - Pain or burning during urination
  - Open sores anywhere in genital area
  - Pus coming from penis
  - Swollen testicles or penis
- Duration of symptoms
- Past history of STIs
- Treatment history
- Recent sexual activity:
  - Last act of sexual intercourse and with whom

- Number of sexual partners in the last 3 months
- New partners in the last 3 months
- Condom use
- Partner's sexual behaviour
- Partner's symptoms
- History of rape, non-consentual sex, physical abuse

Physical Examination

- The patient should be examined in good light
- The patient should be undressed sufficiently (ensuring privacy) to expose the entire genital area, inguinal and anal area.
- The service provider should be told what the physical examination will entail

For **men**, the examination should include:

- Visual inspection for ulcers and or swellings
- Fore skin retraction to look for ulcers on glans penis
- Milking of the urethra for discharge
- Palpation of the scrotum and testes for swelling and pain
- Examination of the inguinal lymph nodes
- Rectal examination to palpate the prostate where appropriate

For **women**, the examination should include:

- Examine the vulva for ulcers and/or swellings
- Examine vaginal discharge for colour, odour and consistency
- A speculum examination should be done for visual inspection of vaginal mucosa and cervix
- A bimanual examination to determine whether there is tenderness, cervical excitation, or adnexal masses

Treatment

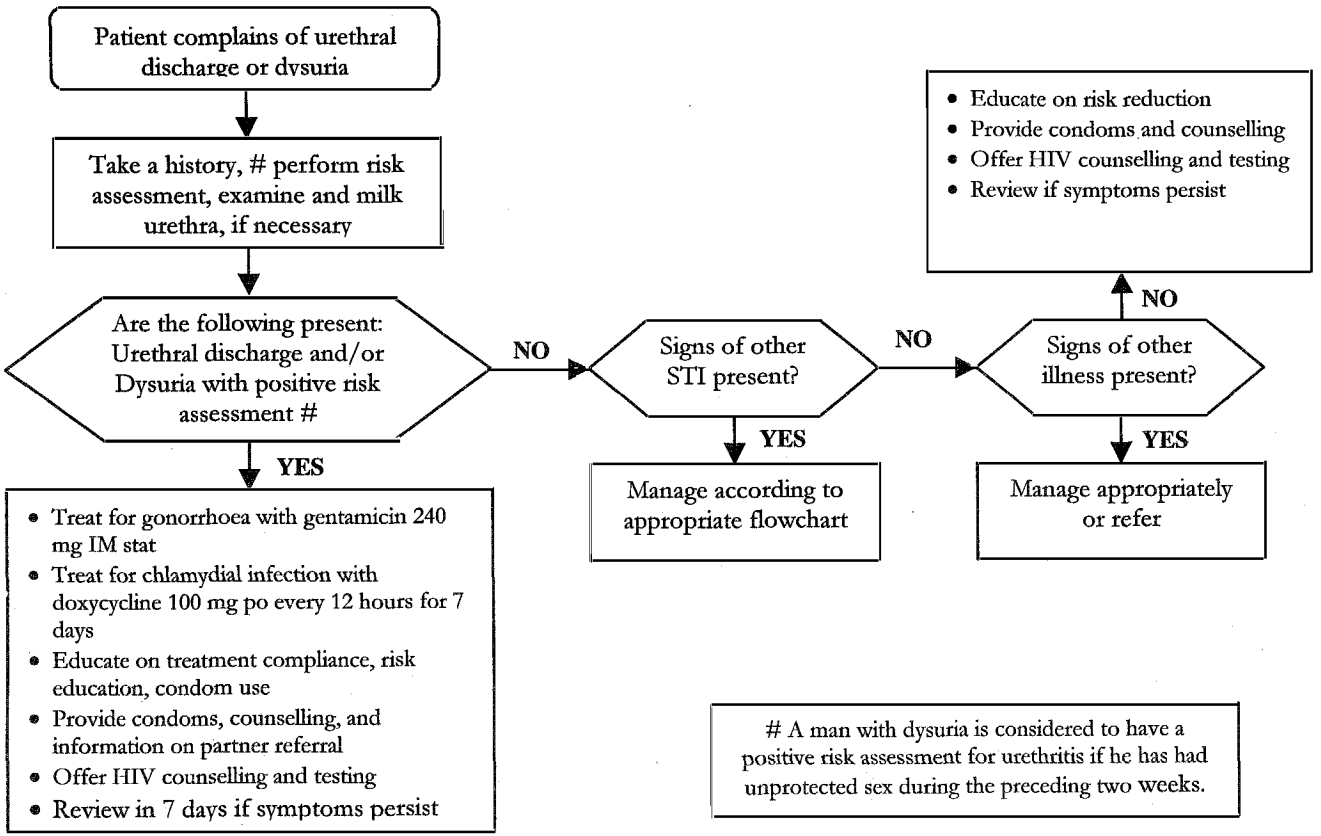
- Patients should be treated syndromically following the flowcharts and shown in the **Malawi STD Management Guidelines**

Patient Education and Counselling

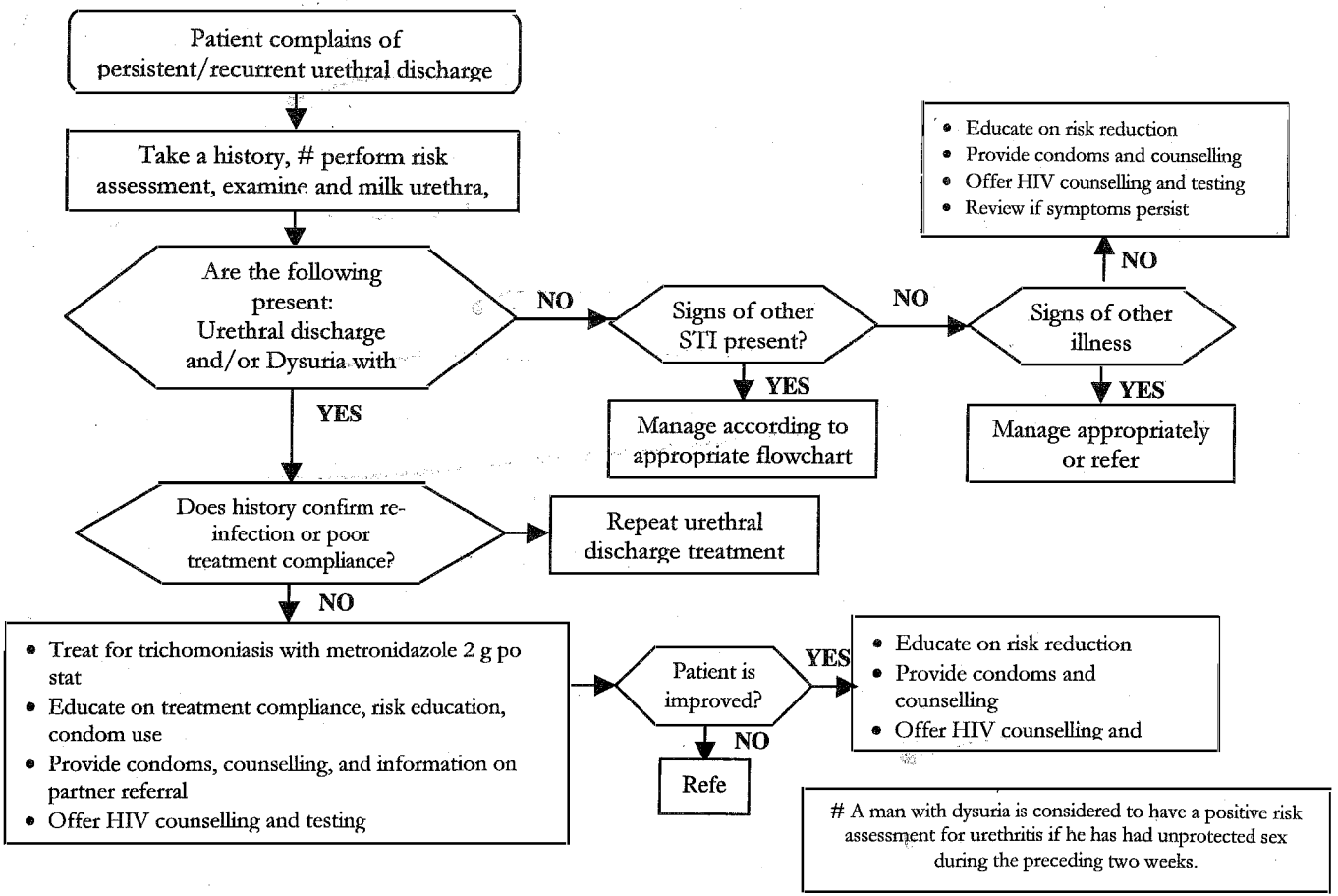
- Patients should be informed of their diagnosis (syndromic), the mode of transmission of their disease and predisposing factors. They should also be informed about possible preventive measures e.g., behaviour change and use of condoms.
- A complete explanation of the drug treatment regimen should be given, including the importance of compliance and the dangers of non-compliance.
- Instruction to the patient regarding the return for scheduled follow-up visits as required.

- Discuss other strategies for risk reduction e.g., abstinence, mutually monogamous relationship.
- Explain and discuss the importance of partner notification and their treatment
- Provide condoms during the patients visit along with instructions on their correct usage

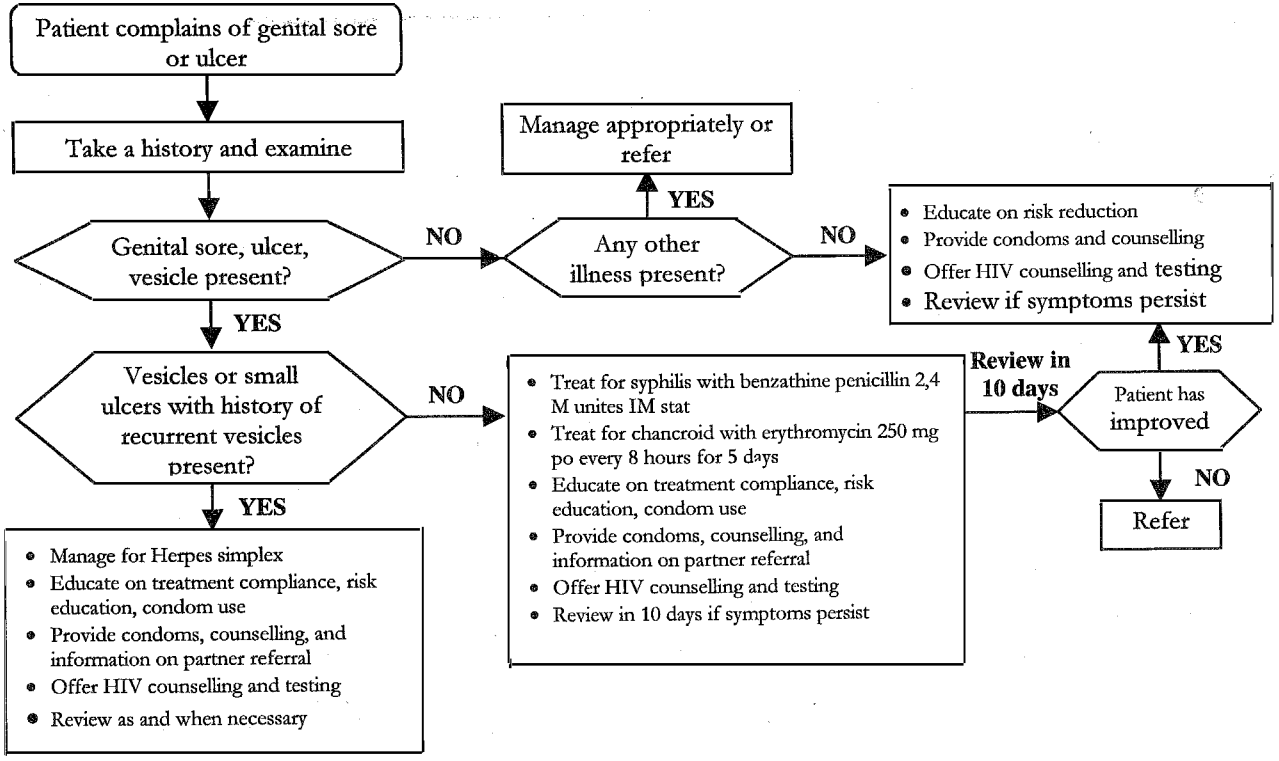
URETHRAL DISCHARGE



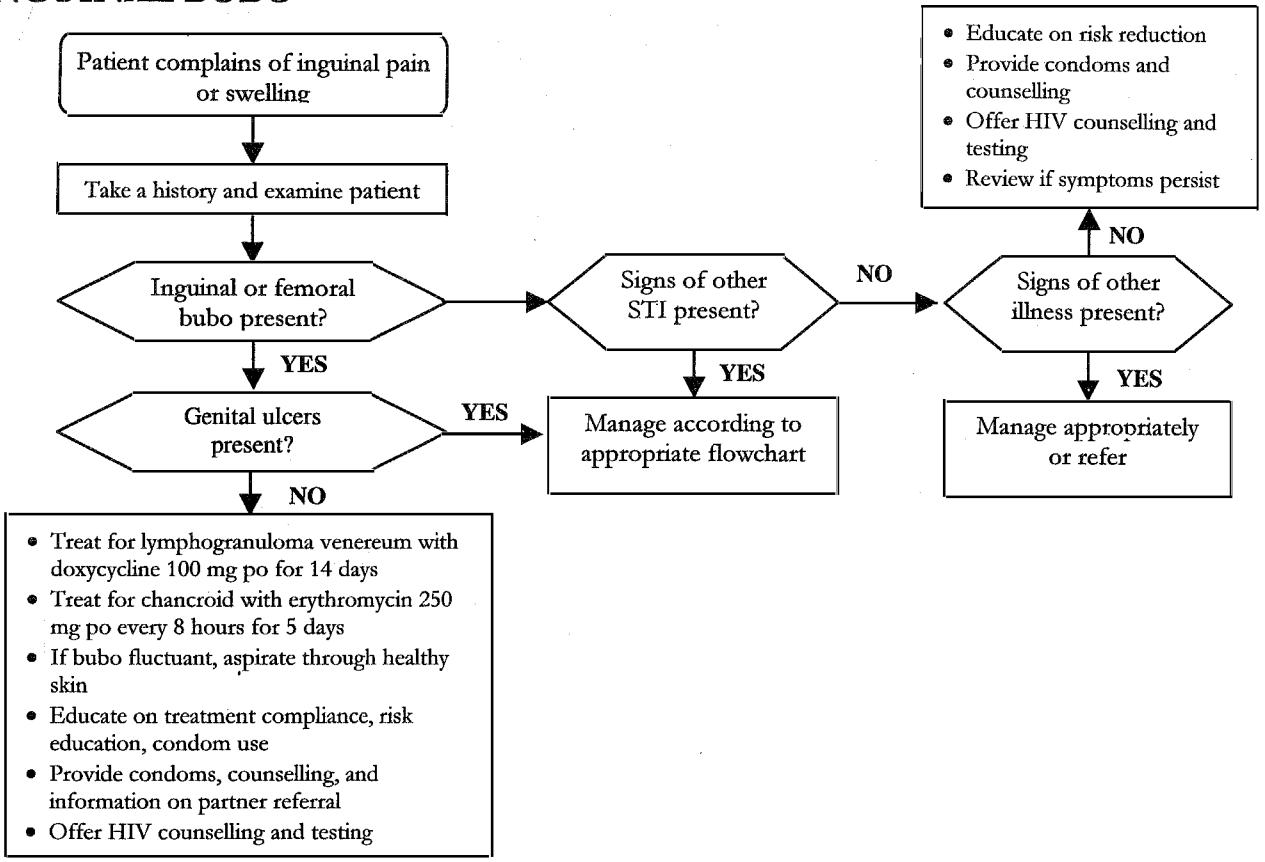
PERSISTENT/RECURRENT URETHRAL DISCHARGE



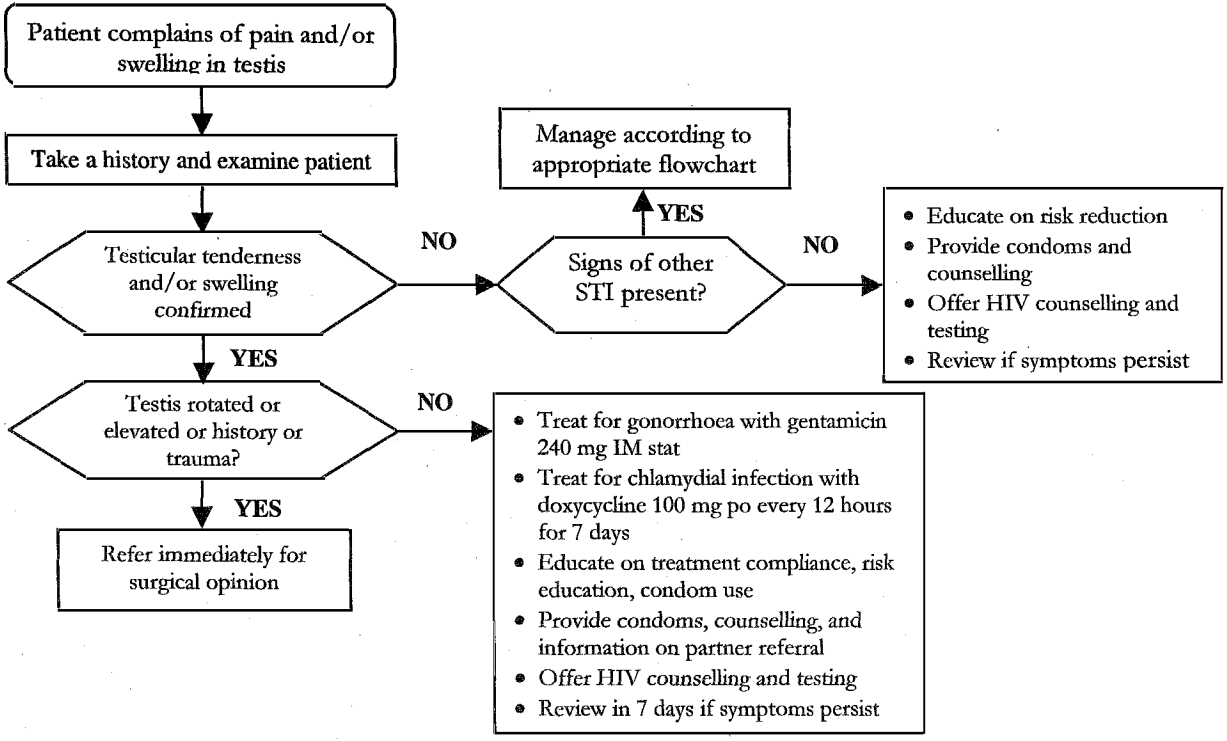
GENITAL ULCERS



INGUINAL BUBO

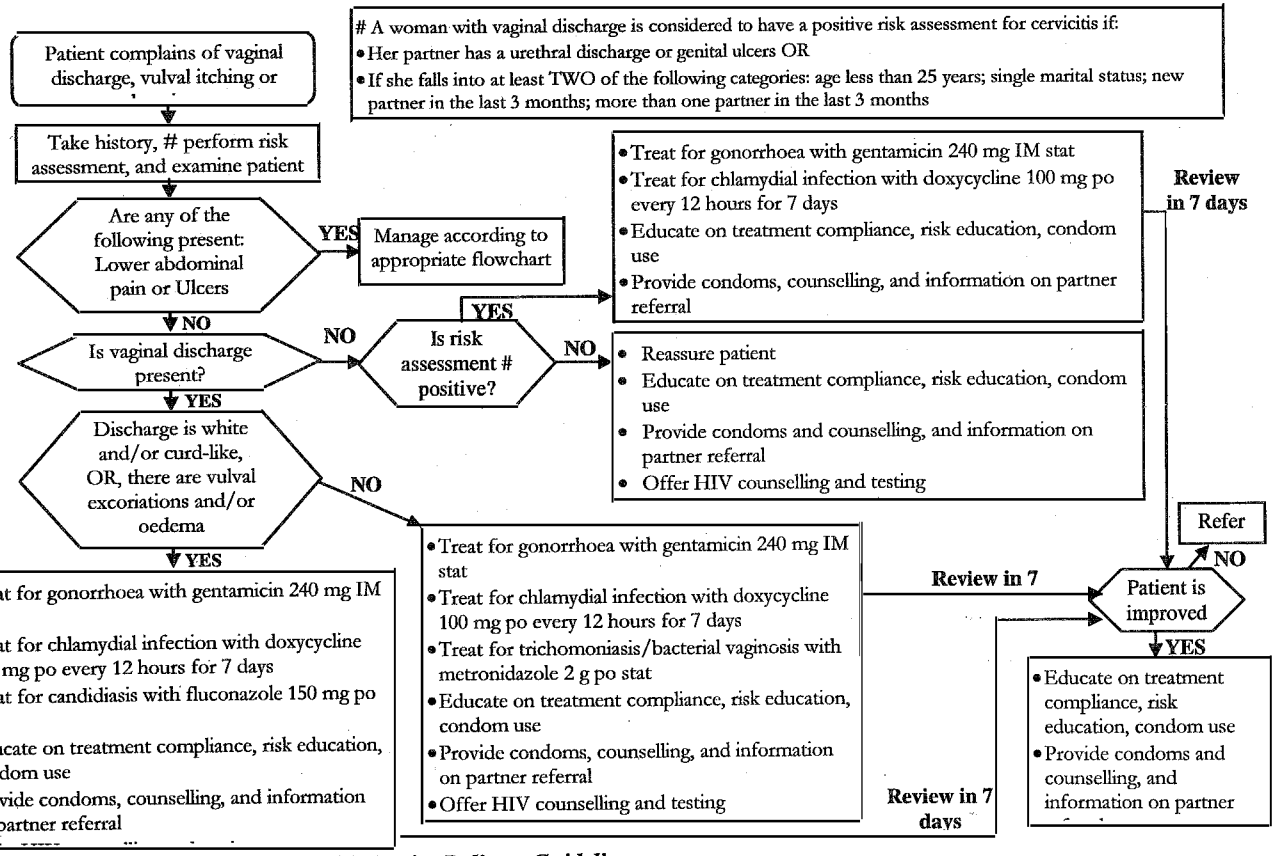


SCROTAL SWELLING

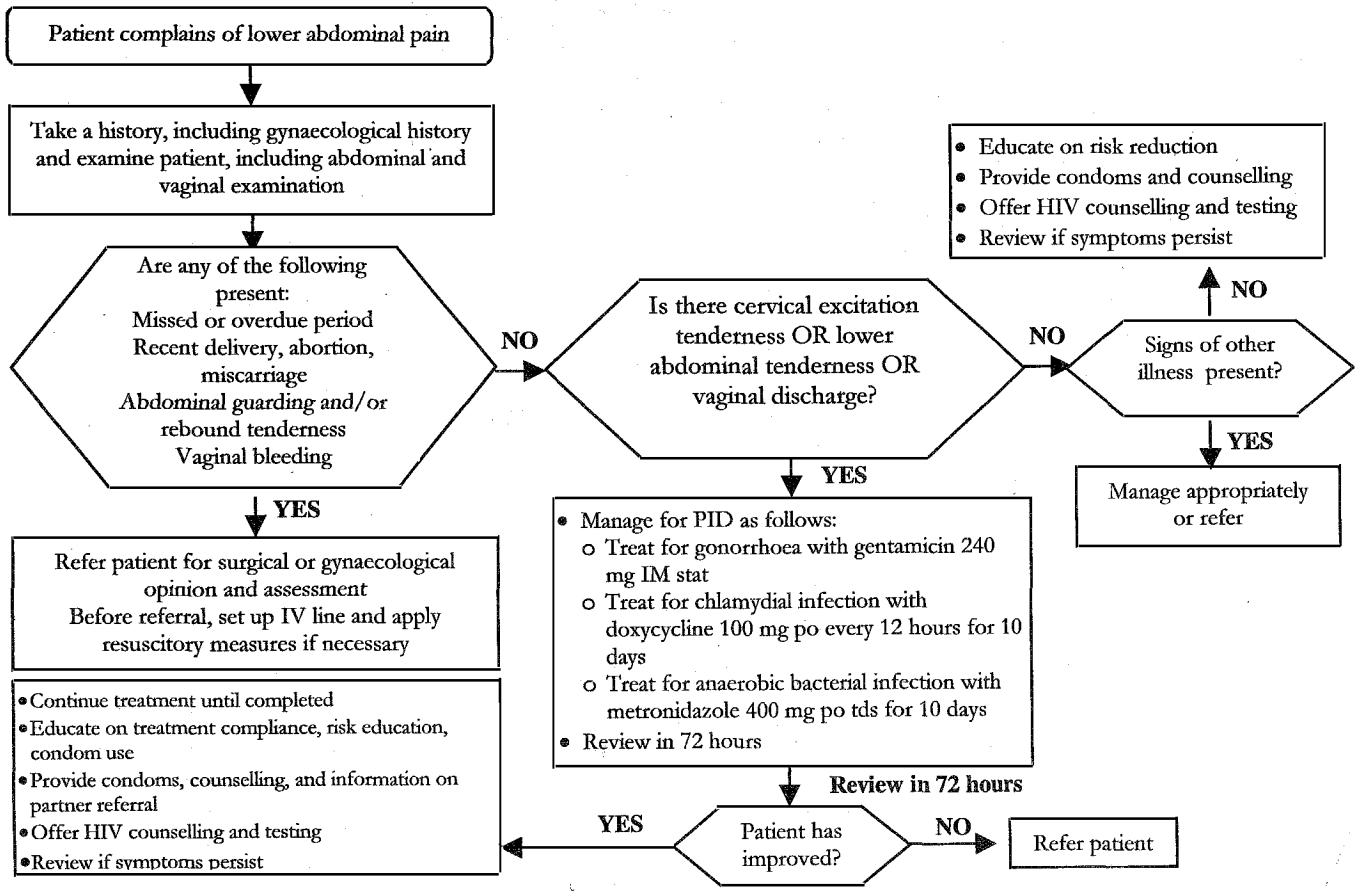


VAGINAL DISCHARGE

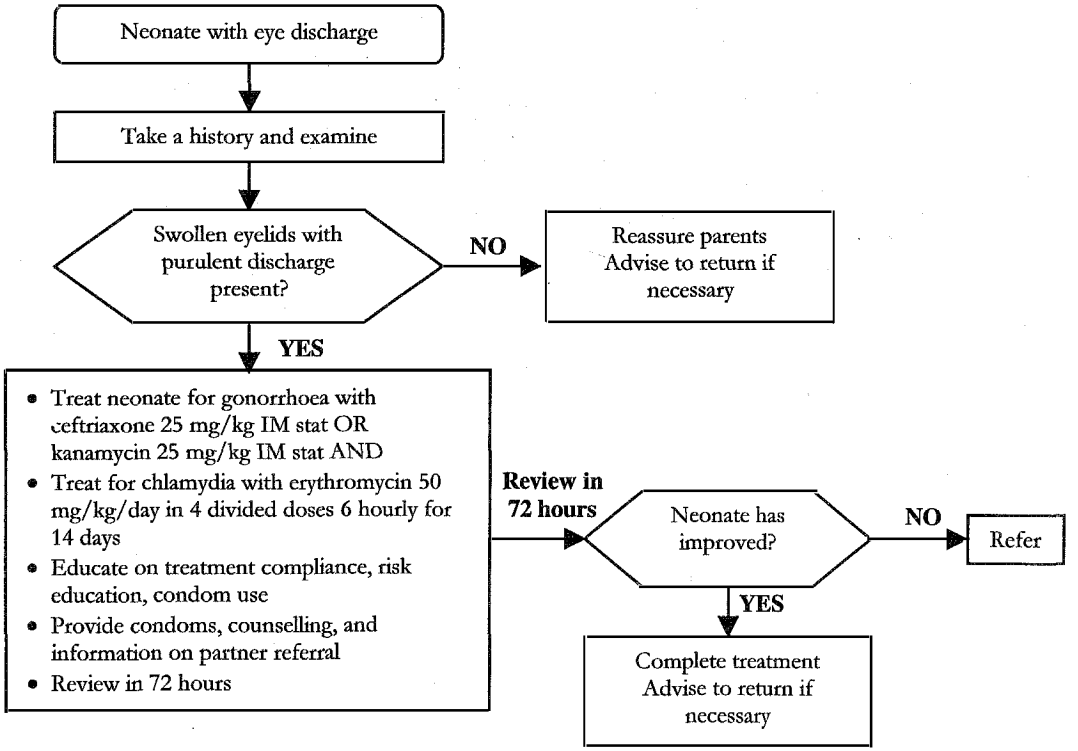
Women with vaginal discharge may be managed adequately even if a speculum examination is not



LOWER ABDOMINAL PAIN IN WOMEN



NEONATAL CONJUNCTIVITIS



Chapter 10

HUMAN IMMUNODEFICIENCY VIRUS/ACQUIRED IMMUNODEFICIENCY SYNDROME (HIV/AIDS)

DEFINITION

Human immunodeficiency virus (HIV) is a micro-organism which destroys an infected individual's immune system.

INTRODUCTION

Acquired immune deficiency syndrome (AIDS) is a condition caused by HIV, which is characterized by, among other things, extreme weight loss, opportunistic infections, neoplastic conditions (e.g., kaposi sarcoma, cervical cancer) or neurological problems. The rising prevalence of HIV/AIDS requires that RH service providers play a leading role in screening clients, as well as providing them with information and skills needed to assess and reduce their risk of acquiring HIV.

The cost of treating AIDS-related conditions is prohibitive for most Malawians. Therefore, the

government of Malawi puts more emphasis on preventive measures that reduce the spread of HIV. These measures include education, behaviour change, condom use and proper diagnosis and treatment of STIs. STIs increase the risk of acquiring and/or transmitting HIV.

Modes of HIV Transmission

- Sexual contact
- Transfusion/contact with contaminated blood products
- Contact with contaminated needles and surgical instruments
- Mother-to-child transmission (see MTCT Chapter)

HIV Counselling and Screening

- Privacy and confidentiality are essential
- Voluntary counselling and testing should be encouraged
- RH service providers should see HIV as any other infection and AIDS as any other disease and deal with these clients without any bias, discrimination or stigmatisation.
- Every RH institution with laboratory facilities should be equipped and encouraged to provide voluntary counselling and testing (VCT) services.

HIV and Family Planning

- The biggest proportion of HIV infected people in Malawi acquire HIV through sexual intercourse; therefore, FP providers should include an HIV risk assessment.
- HIV seropositive clients and those at risk of HIV should be specially counselled on use of barrier methods.
- HIV seropositive clients and those at risk of HIV should be counselled on dual protection.
- All FP clients should be counselled on voluntary HIV testing especially before discontinuing a method to have a baby.

Note: No FP method is contraindicated based on an individual's HIV status alone.

HIV and Home-Based Care

- Family members should be taught and given the facilities to practice correct infection prevention measures
- Communities should be encouraged to provide home-based care

HIV and Socio-Cultural Beliefs and Practices

RH service providers should counsel clients appropriately regarding the following risky traditional beliefs and practices:

- Multiple sexual partners including polygamy
- Wife/husband inheritance
- Initiation rituals/Practice of Fisi (hiring of man for sex and conception)
- Insertion of herbs or plants into the vagina for dry sex
- Postpartum abstinence which predisposes a man to promiscuity
- Traditional treatment of vulval/vaginal warts and haemorrhoids (e.g., by cutting)
- Traditional healer practices

HIV-RELATED SERVICES

- Education
- Behaviour change
- Counselling
- Testing
- Treatment of opportunistic infections and other associated conditions

- Social support
- Nutrition
- Home-based care

GENERAL INFORMATION

- All HIV positive clients should be followed up for continuity of counselling.
- It is important to reinforce on the modes of HIV transmission to all health workers and the community to reduce stigmatisation of AIDS patients.

Chapter 11

PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HIV

DEFINITION

Transmission of HIV from mother to child is vertical transmission or mother-to-child transmission (MTCT). Prevention of MTCT relates to a combination of efforts related to the prevention of HIV transmission from mother to child.

INTRODUCTION

Vertical transmission is the main mode of acquisition of HIV infection in children. An alarming number of infants are contracting or have contracted HIV/AIDS from their HIV/AIDS infected parents through MTCT. MTCT can occur during pregnancy, during labor and delivery and after birth during breastfeeding. HIV transmission is associated with high maternal viral load.

PRIMARY PREVENTION

- Raising community's awareness on cervical cancer
- Education to reduce high risk sexual behaviour

  - Encourage abstinence
  - Limit number of sexual partners
  - Correct and consistent use of condoms
  - Mutual faithfulness
- Prevention and treatment of sexually transmitted diseases
- Offer VCT for HIV to couples and individuals
- Contraception

SECONDARY PREVENTION OF MTCT

Core MTCT interventions are those directly prevent MTCT during pregnancy, labor and delivery, and during postpartum period for women who are already HIV infected.

During Pregnancy

A full antenatal package should include the following:

- VCT for HIV/AIDS
- Maternal tetanus toxoid immunization
- STD screening and treatment
- Iron and folate supplementation
- Malaria prophylaxis or presumptive treatment
- Treatment HIV/AIDS related infections

- Information on HIV, infant feeding and family planning
- Use of condoms
- Short course antiretroviral therapy

During Labour

An increase in risk of HIV transmission during labour is associated with:

- Preterm labour (before 34 weeks)
- Prolonged membrane rupture
- Chorioamnionitis and STIs

Useful measures to prevent HIV transmission are:

- Nevirapine at the start of labour
- Prevention and treatment of STIs
- Prevention of prolonged labour through monitoring of progress of labour using partographs and timely referrals
- Vaginal disinfection
- Elective caesarean section carries a lower risk of transmission than vaginal delivery. However, it carries higher surgical risks to the mother.
- **Avoid** invasive procedures such as:

- Artificial rupture of membranes
- Use of forceps

The Infant

Useful measures include:

- Use of meticulous infection prevention practices
- Umbilical cord cutting and care should be handled in such a way that minimises the infant's contact with HIV-infected blood
- Washing and drying the newborn before contact with mother
- Vitamin A treatment
- Passive and active immunization
- Short course antiretroviral therapy

SHORT ANTIRETROVIRAL THERAPY (ARV)

Short course antiretrovirals used for the prevention of MTCT are efficacious and safe. Short course ARV protocols are either:

- Administration of zidovudine (AZT) from 36 weeks gestation through labour and delivery
- Administration of a single dose of nevirapine (NVP) during labour and a single dose to the infant within 72 hours of birth

BREASTFEEDING

About one third of vertical transmission is due to breastfeeding. The incidence transmission through breast milk is about twice as much if the mother is infected during breastfeeding than if she is infected before or during pregnancy.

- HIV positive women should be given adequate information about advantages and disadvantages of breastfeeding and replacement feeding to enable them to make informed choice about infant feeding
- All women that choose to breastfeed should be counseled to breast feed exclusively

- HIV positive mothers should be counseled on continued risks of HIV transmission with mixed feeding and early breast feeding cessation
- Those women that are HIV-negative or of unknown status should practice safe sex to avoid becoming infected with HIV while breastfeeding

HIV-positive women that choose breastfeeding should be given information on:

- Care of breasts to avoid nipple cracks or breast infection
- The importance of seeking early treatment of infections
- Importance of good maternal nutrition
- **Avoid** breastfeeding if the infant has oral thrush, stomatitis or pharyngitis

IMPORTANT ISSUES ON MTCT

- Counselling about HIV should be part of normal antenatal care services
- VCT should be made available to all pregnant mothers
- HIV testing should be undertaken with the woman's knowledge, understanding and consent
- HIV test results are confidential

Chapter 12

MATERNAL AND NEONATAL HEALTH (SAFE MOTHERHOOD)

DEFINITION

Constellation of services aimed at reducing morbidity and mortality of mother and infant.

INTRODUCTION

Maternal and neonatal mortality ratio/rate are still high in Malawi despite the existence of MCH services in the last two decades. The maternal mortality ratio is 620 deaths per 100,000 live births. The common causes include haemorrhage, obstructed labour, infection, hypertensive disease and complications of abortion (*Ministry of Health and Population, National RH Strategy – 1999 – 2004*).

The neonatal mortality rate is 48.8 per 1,000 live births (*Malawi Demographic and Health Survey*, 1992). Common causes include poor maternal health, which leads to low birth weight, inadequate neonatal resuscitative measures and neonatal infection control.

PURPOSE

The purpose of the national reproductive health strategy is to reduce maternal and infant mortality by improving access to quality essential obstetric and neonatal care, as well as improving the attitude and practices of communities towards care during pregnancy, childbirth and breastfeeding.

COMPONENTS OF MATERNAL AND NEONATAL CARE

Antenatal Care

- Encourage four targeted visits

ANTENATAL CARE MATRIX				
	Weeks of Gestation			
Parameter	**First visit or <16 weeks**	**20–24 weeks**	**28–32 weeks**	**36 weeks**
Registration	☐			
Comprehensive history-taking				
• Personal history	☐			
• Family History	☐			
• Social History	☐			
• Past medical surgical/history	☐			
• Past obstetric history	☐			
• Past breastfeeding history	☐			
• History of current pregnancy	☐			
History of complaints in current pregnancy	☐	☐	☐	☐
Observations and clinical investigations				
• Blood pressure	☐	☐	☐	☐
• Weight	☐	☐	☐	☐
• Height	☐			

ANTENATAL CARE MATRIX				
	Weeks of Gestation			
Parameter	**First visit or <16 weeks**	**20–24 weeks**	**28–32 weeks**	**36 weeks**
• Gait	☐			
Physical examination				
• Head-to-toe including:	☐	☐	☐	☐
◦ Pallor	☐	☐	☐	☐
◦ Pedal oedema	☐	☐	☐	☐
• Breast examination	☐	☐	☐	☐
• Obstetric examination				
◦ Fundal height	☐	☐	☐	
◦ Foetal poles/lie		☐	☐	☐
◦ Foetal presentation		☐	☐	☐
◦ Engagement of presenting part				☐
◦ Foetal heart sounds		☐	☐	☐
• Vulval inspection	☐			☐
◦ Soft tissue assessment (genital ulcers, vaginal discharge)				

ANTENATAL CARE MATRIX				
	Weeks of Gestation			
Parameter	**First visit or <16 weeks**	**20–24 weeks**	**28–32 weeks**	**36 weeks**
• Bony pelvis assessment (cephalo-pelvic relationship)				☐
Laboratory investigations				
• Blood				
• Haemoglobin	☐		☐	
• Grouping and rhesus factor	☐			
• VCT should be offered at each visit without coersion until accepted	☐			
• VDRL (the standard nontrep-onemal antigen serologic test for syphilis)	☐			
• Urine				
• Protein	☐	☐	☐	☐
• Sugar	☐	☐	☐	☐

ANTENATAL CARE MATRIX				
	Weeks of Gestation			
Parameter	**First visit or <16 weeks**	**20–24 weeks**	**28–32 weeks**	**36 weeks**
• Acetone	☐			
• Pregnancy test	☐ (if indicated)			
Drug administration and immunisation				
• Iron	☐	☐	☐	☐
• Folic acid	☐	☐	☐	☐
• Other antimalarials		☐	☐	
• Tetanus toxoid	☐	☐		
Client education and counselling				
• Process of pregnancy and its complication	☐	☐	☐	☐
• Diet and nutrition	☐	☐	☐	☐
• Rest and exercise in pregnancy	☐	☐	☐	☐
• Personal hygiene	☐	☐	☐	☐
• Danger signs in pregnancy	☐	☐	☐	☐

ANTENATAL CARE MATRIX				
	Weeks of Gestation			
Parameter	**First visit or <16 weeks**	**20–24 weeks**	**28–32 weeks**	**36 weeks**
• Use of drugs in pregnancy	☐	☐	☐	☐
• Effects of STIs/HIV	☐	☐	☐	☐
• Exclusive breastfeeding	☐	☐	☐	☐
• Symptoms/signs of labour	☐	☐	☐	☐
• Importance of colostrums, early initiation				
• Plans for delivery	☐	☐	☐	☐
• Plans for postpartum care	☐	☐	☐	☐
• Family planning	☐	☐	☐	☐
• Harmful habits (e.g., smoking, drug abuse, alcoholism)	☐	☐	☐	☐
• Schedule of return visits	☐	☐	☐	☐

Note:

- These topics to be covered during the antenatal period and counselling to be done during each visit.

- It is important to note that "normal pregnancy" and "normal delivery" are retrospective diagnoses and can only be made at the end of pregnancy and childbirth. To this end, all pregnancies should be regarded as potentially high-risk and managed with the utmost care.
- Tetanus toxoid should be given at first visit, 4 weeks later, 6 months later, and two doses with 1-year interval for a total of five doses. If five doses have been given, no boosters should be given in subsequent pregnancies.

Benefits of Antenatal Care

- Identification of risk factors
- Early detection of complications
- Provides opportunity for health provider to counsel the client to identify her RH needs and manage them
- Improves outcome of pregnancy
- Prevention of malaria in pregnancy
- Provides an opportunity to introduce VCT

Who Is Eligible for Antenatal Care

- All women who are pregnant and their spouses and/or families

MALARIA IN PREGNANCY

INTRODUCTION

Malaria in pregnancy, with or without elevated temperature predisposes women to severe anaemia, shock, heart failure, increased risk of infection and slow recovery after delivery. The foetuses of such mothers are prone to poor foetal growth due to anaemia and placental malaria, low birth weight (most important risk factor in infant mortality) and stillbirth. Mortality in low birth weight infants is 4 times higher than that of normal infants.

It has long been known that preventing malarial infection in pregnancy has a major impact on mothers and their babies.

Intermittent Presumptive Treatment

In Malawi where parasite resistance to chloroquine was shown to be high and weekly prophylaxis with chloroquine low, the Ministry of Health after evaluating scientific data available, introduced intermitted presumptive treatment of pregnant women with SP in 1993. Under this policy pregnant women receive a full treatment dose of SP, whether or not they have malaria

positive blood slides, which during pregnancy as part of the routine antenatal care.

- The first dose is given in the second trimester
- The second dose in the third trimester
- Administration of SP in the first trimester and in the last month of pregnancy is contraindicated.

Labour and Delivery

- Proper use of the partogram (e.g., documentation, interpretation and utilization of all relevant information)
- Perform full physical and obstetric examination
- Monitor progress of labour (maternal and foetal condition)
- Perform urine tests for albumin, acetone and sugar on admission and every 4 hours during labour if indicated
- Encourage ambulation in labour if no contraindications
- Provide emotional care to the woman and partner, who should be encouraged to be present during labour.
- Put up an IV infusion on high-risk clients for easy management of intrapartum or postpartum haemorrhage, if this is anticipated.

- Use the delivery position that is feasible and acceptable to the client preferably upright position.
- Use pain relieving agents, if there are no contraindications:
  - Pharmacologic pain relief:
    - Pethidine
    - Epidural (marcaine)
  - Non-pharmacologic pain relief:
    - Back rub
    - Diversional therapy
- Maintain proper infection prevention practices.
- Perform vaginal examination, only when it is indicated (not more than four, including delivery).
- Do not rupture membranes. Every effort should be made to complete delivery in less than 4 hours after rupture of membranes.
- Avoid episiotomies unless absolutely indicated.
- Try to reduce need for blood transfusion by minimizing blood loss.

Responsibilities of the Provider

- Early detection of complications (accurate use of partogram) and early treatment if signs of infection
- Proper management of first, second, third and fourth stages of labour
- Prompt management or referral of the client

Postpartum Care

- Actively manage third stage of labour.
- Baby should be dried and put skin to skin on mother's abdomen immediately after delivery as per national breastfeeding HI guidelines.
- Properly and promptly repair lacerations and episiotomy.
- Perform early evacuation of retained products.
- Perform daily postpartum health assessment.
- Observe infection prevention procedures.
- Counsel on breastfeeding including prevention of nipple trauma and mastitis, baby care, family planning, maternal nutrition, personal hygiene and sitz baths if episiotomy is present.
- Encourage early ambulation.
- Advise on signs/symptoms of infection and to return to clinic/hospital if they occur.
- Advise client to return after 1 week for postpartum followup visit.

Neonatal Care

- Wipe the mouth and nostrils of newborn. Routine suction **not** recommended.
- Check Apgar score at 1 minute and 5 minutes. Resuscitate as necessary.

- Dry the baby thoroughly and keep him/her warm, skin to skin on mother.
- Installation of eye drops for prevention of ophthalmia neonatorum in babies of mothers with abnormal vaginal discharge, genital warts, ulcers or history of STI.
- Umbilical cord care should be handled in such a way that minimizes the infant's contact with mother's blood.
- Encourage breastfeeding within 30 minutes after birth and provide support to ensure good positioning and attachment.
- Encourage exclusive breastfeeding for 6 months. (**Note:** HIV positive clients require special counselling on breastfeeding. See **HIV** chapter.)
- Perform an initial physical examination to detect congenital abnormalities at 1 hour, then daily until the client is discharged to ensure well-being of the baby and to rule out infection or other health problems.
- Encourage kangaroo care for premature babies*.
- Give BCG and polio O vaccinations on first day (ideally in the first week) or before discharged unless contraindicated.
- Vitamin A

***Note:** In a January 2001 monitoring and evaluation assessment by the national MOHP BFHI team, step 4

of the "*Ten Steps to Successful Breastfeeding*" was least implemented. This must be addressed at preservice level. All midwives need to know all BFHI principles, skills as part of pre-service. Also, on several site visits to district hospitals, the staffing is so critical, the babies are best given to mothers right after delivery as there is no one to look after the newborn in the first minutes after delivery.

Benefits of Postnatal Care

- Improves health of mother and baby

Who Is Eligible for Postpartum Care

- All mothers, their partners and babies

Postpartum Family Planning

(See **Postpartum Contraception** chapter)

Chapter 13

REPRODUCTIVE HEALTH/FAMILY PLANNING FOR SPECIAL GROUPS

13.1 POSTPARTUM CONTRACEPTION

DEFINITION

Contraception during the first 6 months after childbirth.

All postpartum women should be provided with family planning options. These are:

- Lactational Amenorrhoea Method (LAM)
- Contraceptive methods which do not interfere with breastfeeding

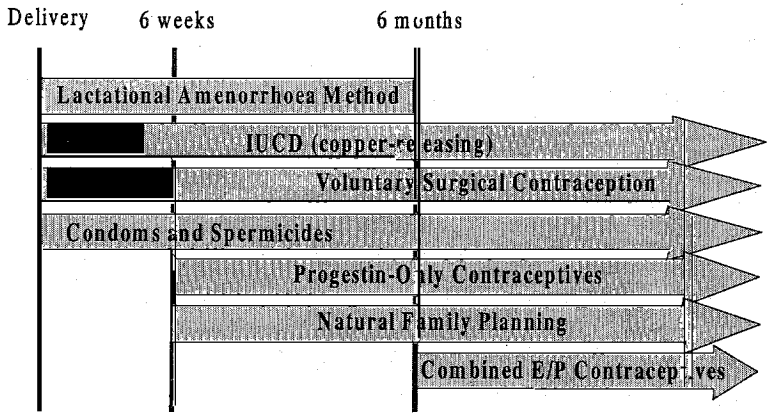
In breastfeeding mothers, the period of postpartum infertility is longer than in nonbreastfeeding mothers because frequent suckling blocks ovulation. The return of fertility is, however, unpredictable.

BREASTFEEDING WOMEN

- Should be counselled on those methods that do not interfere with lactation (e.g., spermicides, condoms, IUCDs, progestin-only contraceptives and VSC)

Recommended Time to Start for Breastfeeding Women

Adapted from: Family Health International 1994.
Note: It is recommended in Malawi to insert the IUCD



from 4 weeks postpartum.

NONBREASTFEEDING WOMEN

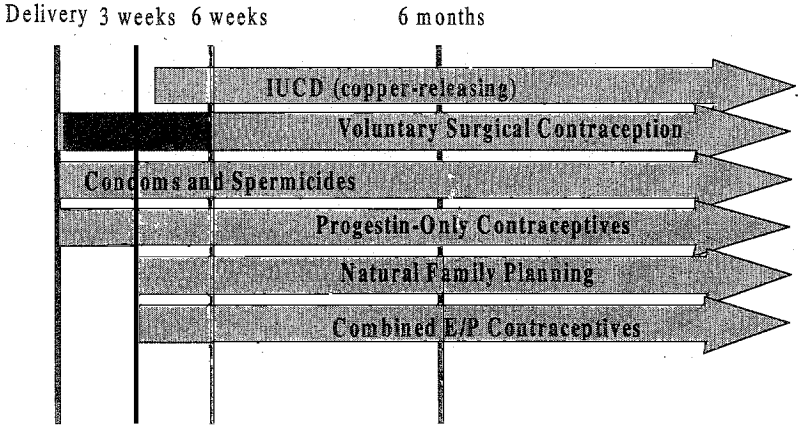
Postpartum infertility may be less than 6 weeks. On average, first ovulation occurs 45 days postpartum. Although the risk of pregnancy is only 1/3 in the first 4

to 6 weeks, couples who wish to avoid all risks of pregnancy should start contraception **before first sexual** intercourse.

Note: If a woman has lost a baby, advise her to wait at least 3 months before conceiving again.

- Before 4 weeks postpartum, spermicides, condoms, VSC and progestin-only contraceptives can be used.
- After 4 weeks, COCs can be used (the risk of blood clotting is less after 4 weeks.)

Recommended Time to Start for Nonbreastfeeding Women



Adapted from: Family Health International 1994.

13.2 CONTRACEPTION FOR WOMEN OVER 35 YEARS

Women over the age of 35 are in need of safe and effective contraception because they are at increased obstetric risk should they become pregnant.

In the past, because the dose of oestrogen in COCs was high (≥50μg EE), women over 35 were considered to be at increased risk for serious complications (heart attack, stroke and blood clotting problems). Recent data on women using the newer low-dose COCs (30–35μg EE), show that older women now can safely use COCs until they are **menopausal** and **beyond**, if they have no additional risk factors.

Women over 35 who smoke, however, should be encouraged to stop smoking for health reasons regardless of whether or not they are using COCs.

Older women can continue to use most contraceptive methods, including hormonal methods if they have no additional risk factors.

13.3 MENOPAUSE

Menopause is the time in a woman's life when menses cease completely for a period of 1 year and never return. It occurs when a woman's ovaries are no longer able to respond to pituitary stimulating hormones, so oestrogen levels are low and the production of follicle stimulating hormone (FSH) and luteinizing hormone (LH) decreases dramatically.

The perimenopausal period (when periods become irregular with intermittent menopausal symptoms) may begin months or even years before menopause. Women from the age of 35 onwards should be counselled on peri- and menopausal problems and the available treatments.

Signs and Symptoms

- Hot flushes
- Vaginal dryness
- Diminished bladder control
- Irregular menses
- Cessation of menses
- Irritability
- Heart palpitations
- Insomnia
- Depression

- Poor memory
- Headaches
- Dyspareunia
- Decreased libido
- Osteoporosis

Treatment

Providing Hormonal Replacement Therapy

Options for treatment include the following:

- Low dose COCs
- 0.625 mg conjugated oestrogen (Premarin) or
- 0.625 mg oestrone sulphate daily for 25 days each month.

Addition of 10 mg medroxyprogesterone acetate daily for the last 10–14 days of the oestrogen treatment suppresses menopausal symptoms during the non-hormone treatment days interval.

With this treatment, 80–90% of the patients will have withdrawal uterine bleeding. Treatment should be prescribed by clinician.

Contraindications to hormone replacement treatment include:

- Suspected pregnancy
- Unexplained uterine bleeding
- Active liver disease or chronic impaired liver function
- Active thrombophlebitis or thromboembolism
- Carcinoma of the breast
- Known or suspected oestrogen-dependent neoplasm.

MANAGEMENT OF POSTMENOPAUSAL CONDITIONS

CONDITIONS	RECOMMENDATIONS
Postmenopausal bleeding	Perform complete gynaecological checkup including D&C to rule out malignancy.
Osteoporosis	Calcium gluconate 1,500–2,500 mg daily may be prescribed if there is no kidney disease. All women should be encouraged to live active lives or do regular physical exercise.
Irregular uterine bleeding patterns	Exclude gynaecological problems and treat appropriately. If patient is on hormonal contraception, and no gynaecological cause for

	bleeding noted, reassure client and continue hormonal contraception. If client has achieved desired family size, counsel for surgical contraception.
Dyspareunia	Advise lubrication
Insomnia	Advise use of mild sedatives. Counsel on reduced intake of caffeine. Advise client to exercise.
Hot flashes	Advise client to avoid alcohol and/or excessive caffeine use

13.4 GYNAECOLOGICAL CANCER

- Gynaecological cancers comprise 19.9% of all cancers in Malawi (1999 Malawi National Cancer Registry statistics)
- The commonest gynaecological cancer seen in Malawi is cervical cancer and constitutes 15.8% of all reported cancers and 78% of all female reproductive organ cancers (1999 Malawi National Cancer Registry statistics)
- In Malawi the prevalence of reported female genital cancer according to the 1999 National Cancer Registry is:

Cervix:	78.0%
Ovary:	5.7%
Uterus:	4.7%
Vagina:	3.7%
Endometrium:	2.6%
Placenta:	2.5%
Vulva:	1.8%
Fallopian tubes:	0.1%

- All gynaecological cancers have a premalignant stage, which may take 10 years to progress to malignancy.
- Early detection in the premalignant stage results in almost 100% cure rate.

- (See **Cervical Cancer** and **Breast Cancer** chapters.)

Chapter 14

PREVENTION, EARLY DETECTION AND REATMENT OF CERVICAL CANCER

DEFINITION

Cervical cancer is a malignant change of the cervical epithelium, which usually starts at the squamocolumnar epithelial junction. In most cases, precancerous lesions appear before a malignant change, thus, screening is possible to detect easily treatable precancerous lesions.

MAGNITUDE OF THE PROBLEM

According to Malawi cancer statistics, cervical cancer is the most common cancer in Malawi and accounts for 78.6% of female cancers. The incidence of cervical cancer starts to rise in late adolescence, and reaches a maximum at about age 35.

CAUSE

- Human papillomavirus (HPV) 16, 18 and 33

Risk Factors of Cervical Cancer

- Sexual activity (< 20 years)
- Multiple sexual partners (woman or partner)
- Exposure to STI
- Mother or sister with cervical cancer

PREVENTION

Cervical cancer is the most preventable cancer worldwide. It can develop up to 20 years after HPV infection, thus, it is possible to detect and treat precancerous lesions.

Prevention is divided into two types:

Primary Prevention

- Raising community's awareness on cervical cancer
- Education to reduce high risk sexual behaviour
  - Delay age of first sexual intercourse
  - Encourage abstinence
  - Limit number of sexual partners
  - Consistent use of condoms

  - Avoid smoking
  - Mutual faithfulness
- Identifying high risk groups, such as:
  - Commercial sex workers
  - Women with a family history of cervical cancer
  - Women between 30 and 40 years
- Offer VCT for HIV to women of child bearing age

Secondary Prevention

Identify and treat precancerous lesions before they progress to cervical cancer through screening. Screening has been known to reduce cervical cancer by 70–80%.

SCREENING METHODS

	Effective	Safe	Practical	Affordable	Available
VIA*	Yes	Yes	Yes	Yes	Yes
Automated Pap Smear	Yes	Yes	No	No	No
HPV/DNA test	Yes	Yes	No	No	No
Cervicography	Yes	Yes	No	No	No
Colposcopy	Yes	Yes	No	No	No

* Naked eye visual inspection of the cervix using acetic acid.

Naked Eye Visual Inspection of the Cervix Using Acetic Acid (VIA)

VIA is looking at the cervix to detect abnormalities after applying dilute (3–5%) acetic acid or vinegar. Acetic acid is used to enhance and "mark" the acetowhite change of a precancerous lesion or actual cancer.

Why is VIA a Potentially Acceptable Alternative to Pap Smears?

- Safe, easy to perform and inexpensive
- Can be learned by all types of healthcare professionals
- All equipment are available locally
- Results are available immediately
- Potential or immediate link to outpatient cryotherapy
- Suitable for lowest-resource settings

WHO SHOULD BE SCREENED

- Women 25 to 35 years
- Non pregnant
- No history (personal) of cancer of cervix
- Those who have not had hysterectomy

Note: Patients with PID should be treated with antibiotics and be asked to return after 3 to 4 weeks for VIA.

VIA Classification Category

VIA CLASSIFICATION	CLINICAL CRITERIA
Test negative	Smooth, pink, uniform, featureless, ectropion, cervicitis, and Nabothian cysts
Test positive	White plaques (acetowhite epithelium is distinctly visible)
Suspected cancer	Cauliflower-like growth or ulcer, fungating mass

MANAGEMENT OF ABNORMAL VIA

Eligibility for Cryotherapy

- Acetowhite lesion occupies less than 75% of the cervix
- Cancer is not suspected
- Lesion does not extend onto vaginal wall
- Lesion extends less than 2mm beyond diameter of the cryotherapy probe

Followup after Cryotherapy

- Women should abstain from vaginal intercourse for 4 weeks and should not insert anything in the vagina
- Provide condoms
- Review patient in 1, 3 and 5 years for women treated

Expected Side Effects of Cryotherapy

SIDE EFFECT	MANAGEMENT
Cramping	• Counsel patient before procedure to expect some cramping during and after procedure • Reduce cramping by pressing lightly on the cervix with cryotherapy probe • If cramping is severe give paracetamol or aspirin
Vaginal discharge (profuse water)	• Counsel patient to expect discharge lasting approximately 4 weeks • Counsel patient to expect discharge colour change from pink to tint to clear white or yellow tint • Counsel client to return if discharge changes to foul smelling, itchy or pus coloured • Strongly advise on abstinence for four weeks • If unable to abstain, advise on use of condoms for at least 4 weeks
Spotting/light bleeding	• Counsel patient to expect light bleeding or spotting for one to two weeks • Counsel patient to return for evaluation if there is heavy bleeding

Warning Signs After Cryotherapy

Patient should return to health facility if she:

- Develops fever for more than 2 days
- Has severe lower abdominal pains and fever
- Bleeds heavier than one's heaviest days of menstruation for more than 2 days
- Bleeds with clots

Referral

The following should be referred to an Obstetrician/Gynaecologist:

- Suspected cancer
- Acetowhite lesion greater than 75% of face of cervix
- Lesions extending into the vaginal wall or extending more than 2mm beyond the outer edge of the cryotherapy probe
- Acetowhite lesion but request alternative treatment
- VIA positive but declines treatment or requests more diagnostic tests
- Other gynaecological problems such as ovarian mass or uterine fibroids

Papanicoloau Smear (Pap Smear)

A method of screening women for abnormal cervical cells. A sample of the cells is obtained from the endocervix and is sent to laboratory for analysis by a pathologist or cytologist. Women are asked to return to the clinic for results and treatment six weeks later.

Who Should be Screened Using Pap Smear?

All sexually active women

Bethesda Classification System for Cervical Cancer Screening

- CIN I – mild dysplasia
- CIN II – moderate dysplasia
- CIN III – severe dysplasia
- ASCUS – Atypical Squamous Cells of Undetermined Significance
- LGSIL – Low Grade Squamous Intraepithelial Cell Lesion (CIN I & HPV)
- HGSIL – High Grade Squamous Intraepithelial Cell Lesion

MANAGEMENT OF ABNORMAL PAP SMEAR RESULTS

- If Pap smear is abnormal, refer to specialist
- If Pap smear is abnormal due to infection and identified pathogens, threat the infection
- If result is LGSIL, which includes CIN I, HPV, or ASCU
  - Repeat Pap smear in 6 months
  - If patient has two abnormal Pap smears (ASCU and LGSIL), refer to specialist
- If client has HGSIL, which includes CIN II, CIN III, refer urgently to specialist
- Offer VCT for HIV

Chapter 15

PREVENTION AND EARLY DETECTION OF BREAST CANCER

DEFINITION

Breast cancer is the malignant change of the mammary gland (breast tissue).

PURPOSE

To reduce the suffering and deaths associated with breast cancer in the vulnerable reproductive health group of women, especially over 35 years old.

PREVALENCE OF BREAST CANCER

Breast cancer is the fifth most common cancer among women in Malawi and constitutes 9% of all reproductive cancers.

Predisposing Factors

- Age (older women at higher risk)
- Family history (women whose first degree relatives has/had breast cancer)

- Previous medical history e.g., history of endometrial cancer, some mammary dysplasia or cancer in one breast
- Women with first late pregnancy
- Early age at menarche
- Late age at menopause
- Nulliparity

PRIMARY PREVENTION

The objective is to detect any significant change in the breast as early as possible.

Information should be given to all women in the reproductive age group concerning primary prevention and early detection through:

- During consultation with client in the clinic
- Mass media
- Reproductive health education materials
- Community sensitisation

Education on self-breast examination:

- Day 7–10 after the first of your menstrual period
- Days 1–7 after menses each month, or if not menstruating
- Any day during the month

Systematic Clinical Breast Examination

Systematic clinical breast examination should be done annually on all women. Education on predisposing factors should also be given.

MANAGEMENT

Counselling and referral of all suspicious breast masses to obstetrician, gynaecologist or surgeon.

Chapter 16

INFERTILITY

DEFINITION

Failure to achieve pregnancy despite regular unprotected intercourse for at least 12 months.

TYPES

Primary	A couple has never conceived despite having regular unprotected intercourse for at least 12 months.
Secondary	A couple has previously conceived, but is subsequently unable to conceive within 12 months despite having regular unprotected intercourse.

Note: Infertility is an important health problem that affects a substantial proportion of couples. Causes of infertility affect men and women equally.

CAUSES	
Male	**Female**
• Endocrine disorders, e.g., hypothalamic dysfunction, pituitary failure, thyroid disorders, hyperprolactinemia	• Ovulatory factors, e.g., central defects such as hyperprolactinemia, hypothalamic or pituitary insufficiency; peripheral defects such as ovarian failure or ovarian tumour
• Anatomic disorders, e.g., absence or obstruction of vas deferens, undescended testis	• Metabolic diseases, e.g., thyroid, renal, liver disease, obesity
• Abnormal spermatogenesis, e.g., chromosomal abnormalities, mumps orchitis, radiation or chemical exposure, varicocoele	• Pelvic factors, e.g., infections such as pelvic inflammatory disease, tubal blockage, pelvic adhesions, uterine adhesions, endometriosis, fibroids, congenital abnormalities of the reproductive tract
• Abnormal motility, e.g., antibody formation	
• Sexual dysfunction, e.g., retrograde ejaculation, impotence	

PREVENTION

- Provide community health education so that the consequences of untreated sexual infection may be fully understood by all clients, especially adolescents.
- Work with the community to ensure that all individuals, including adolescents, have access to early and confidential diagnosis and treatment of STIs.
- Counsel on protection against STIs and risky sexual behaviours and advocate safe sexual practices.
- Early diagnosis and prompt treatment of STIs.
- Education on dangers of abortion and postpartum infections.
- Early management of incomplete abortion and postpartum infections.

MANAGEMENT

- Educate and counsel on fertility awareness.
- Discuss the implications of fertility desires of individuals and couples.
- Refer individuals and couples for appropriate screening, investigation, diagnosis and treatment of infertility.
- Provide psychosocial support to infertile couples.
- Discuss the possibility of adoption or fostering.

Note: All individuals or couples undergoing infertility investigations should be counselled on HIV test.

Chapter 17

HARMFUL REPRODUCTIVE HEALTH PRACTICES

DEFINITION

Practices that can endanger the lives of individuals and couples leading to diseases, disability or death.

TYPES OF HARMFUL PRACTICES

- Inheritance of a wife or husband
- Practice of Fisi (hiring of man for sex and conception)
- Death rituals (hiring of a man for the widow to drive out spirits)
- Use of traditional herbs which induce labour
- Insertion of herbs or plants into the vagina for dry sex
- Performance of traditional circumcision under unsterile conditions
- Male or female prostitution
- Postpartum abstinence which predisposes a man to promiscuity
- Traditional treatment of vulval/vaginal warts and haemorrhoids (e.g., by cutting)

- Denying pregnant women to eat certain foods, which interferes with nutrition
- Polygamy

WAYS OF OVERCOMING HARMFUL PRACTICES

- Provide community health education on consequences of harmful practices so that individuals, families and groups understand and change/stop the practices to reduce risk to health
- Encourage individuals with haemorrhoids, warts, etc. to utilise healthcare facilities for proper management
- Traditional counsellors/practitioners should be sensitised to the dangers of harmful practices

APPENDIX A

LOGISTICS MANAGEMENT

In providing family planning and reproductive healthcare services, it is also important for facility staff to obtain the necessary equipment and supplies, ensure that they are available, check when and where supplies will be are delivered and supervise their maintenance. In other words, the staff should observe the six logistics "rights:" right goods should be delivered for the right cost, at the right time, to the right place, in the right condition and in the right quantities.

The Ministry of Health and Population has implemented a Reproductive Health and Logistics Management Information System (RHLMIS) to manage the procurement, distribution and reporting of all reproductive health commodities.

To order supplies, the facility staff should complete a monthly report form that shows the quantity of supplies that are available at the facility, losses/adjustments and consumption. To ensure that no facility is under-stocked or overstocked of any supplies, a maximum and minimum number of supplies has been set that facilities should follow. The RHLMIS Procedures Manual

contains information on how to calculate minimum and maximum stock levels. Then, the supplying level Medical Stores checks whether the information on the form is correct and authorizes the orders.

All drugs and equipment are procured by Central Medical Stores and are available at Regional Medical Stores, District Hospital Pharmacies and the Drug Stores at health centres.

All donations of supplies are required to pass through the District Health Office for accountability and to avoid duplication of supplies.

All logistics management information system forms can be obtained from the district health office or from the Reproductive Health unit. The forms that are currently used in the system are outlined below:

FORM CODE	NAME	COMPLETED BY WHO
LMIS – 01	CBD Agent Client and contraceptive Tally Sheet	CBD Agent
LMIS – 02	CBD Agent Monthly Contraceptive Report	CBD Supervisor/Agent
LMIS – 03	CBD Supervisor Monthly Contraceptive Worksheet	CBD Supervisor

FORM CODE	NAME	COMPLETED BY WHO
LMIS –04	CBD Supervisor Monthly Contraceptive Summary	CBD Supervisor
LMIS – 05	Family Planning Clinic Daily Tally Sheet	Service Provider
LMIS - STI	STI Daily Activity Register	Service Provider
LMIS – 06	Contraceptives, STI Drugs and Other Supplies Clinic Monthly Report	Service Provider
LMIS – 07	Contraceptives, STI Drugs and Other Supplies Clinic Monthly Report	District RH Coordinator
LMIS-Stock Card	Stock Card	Pharmacy Store – Keepers, Drug Store Attendants

In addition to other reproductive health commodities, all facilities must have readily available supplies for resuscitation and drugs to control bleeding. These supplies must be maintained in adequate quantity to meet emergency needs and be replenished promptly after use.

The type of equipment used or selected should also be influenced by such factors as availability, availability of

spares, and dependability on power source (e.g., electricity).

It is important that storage conditions for both equipment and other supplies are good. Bad storage creates problems of accessibility, leads to wastage and expiry.

APPENDIX B

WORLD HEALTH ORGANIZATION (WHO) ELIGIBILITY CRITERIA CODES

According to the WHO, conditions affecting eligibility for the use of each contraceptive method has been classified under one of the following four categories:

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 generally outweigh 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 contraceptive method is used.

Source: WHO. 2000. *Improving Access to Quality Care in Family Planning: Medical Eligibility Criteria for Contraceptive Use*, 2nd ed. WHO: Geneva.

WHO ELIGIBILITY CRITERIA SUMMARY TABLE

I = Initiation, C = Continuation

CONDITION	COC	POP	NET-EN DMPA	Norplant	Cu-IUCD	LNG-IUCD
PERSONAL CHARACTERISTICS AND REPRODUCTIVE HISTORY						
Pregnancy	N/A	N/A	N/A	N/A	4	4
Age	Menarche to < 40=1 ≥40=2	Menarche to < 18=1 18–45=1 > 45=1	Menarche to < 18=2 18–45=1 > 45=2	Menarche to < 18=1 18–45=1 > 45=1	< 20=2 ≥ 20=1	< 20= 2 ≥ 20= 1
Parity						
a. Nulliparous	1	1	1	1	2	2
b. Parous	1	1	1	1	1	1

CONDITION	COC	POP	NET-EN DMPA	Norplant	Cu-IUCD	LNG-IUCD
Breastfeeding						
a. < 6 weeks postpartum	4	3	3	3		
b. 6 weeks to< 6 months (primarily breastfeeding)	3	1	1	1		
c. ≥ 6 months postpartum	2	1	1	1		
Postpartum (in nonbreastfeeding women)						
a. < 21 days	3	1	1	1		
b. ≥ 21 days	1	1	1	1		
Postpartum (breastfeeding or nonbreastfeeding) including post-caesarean section						
a. < 48 hours					2	3
b. 48 hours to < 4 weeks					3	3
c. ≥ 4 weeks					1	1[1]
d. Puerperal sepsis					4	4

[1] If the woman is breastfeeding, LNG-IUD becomes a category 3 until 6 weeks postpartum.

CONDITION	COC	POP	NET-EN DMPA	Norplant	Cu-IUCD	LNG-IUCD
Postabortion						
a. First trimester	1	1	1	1	1	1
b. Second trimester	1	1	1	1	2	2
c. Immediate postseptic abortion	1	1	1	1	4	4
Past Ectopic Pregnancy	1	2	1	1	1	1
History of Pelvic Surgery (see also postpartum section) (including caesarean section)	1	1	1	1	1	1
Smoking						
a. Age < 35	2	1	1	1	1	1
b. Age ≥ 35						
i. < 15 cigarettes/day	3	1	1	1	1	1
ii. ≥ 15 cigarettes/day	4	1	1	1	1	1
Obesity ≥ 30 kg/m^2 body mass index (BMI)	2	1	2	2	1	2

CONDITION	COC	POP	NET-EN DMPA	Norplant	Cu-IUCD	LNG-IUCD
Anatomical Abnormalities a. That distort the uterine cavity b. That do not distort the uterine cavity					4 2	4 2
Blood Pressure Measurement Unavailable	N/A	N/A	N/A	N/A	N/A	N/A
CARDIOVASCULAR DISEASE						
Multiple Risk Factors for Arterial Cardiovascular Disease (such as older age, smoking, diabetes and hypertension)	3/4	2	3	2	1	2

CONDITION	COC	POP	NET-EN DMPA	Norplant	Cu-IUCD	LNG-IUCD
Hypertension a. **History of hypertension** where blood pressure cannot be evaluated (including hypertension during pregnancy)	3	2	2	2	1	2
b. **Adequately controlled hypertension**, where blood pressure can be evaluated	3	1	2	1	1	1
c. **Elevated blood pressure** (properly taken measurements) i. Systolic 140–159 or diastolic 90–99 ii. Systolic ≥ 160 or diastolic ≥ 100	3 4	1 2	2 3	1 2	1 1	1 2
d. **Vascular disease**	4	2	3	2	1	2

CONDITION	COC	POP	NET-EN DMPA	Norplant	Cu-IUCD	LNG-IUCD
History of High Blood Pressure During Pregnancy (where current blood pressure is measurable and normal)	2	1	1	1	1	1
Deep Vein Thrombosis (DVT)/ Pulmonary Embolism (PE) a. History of DVT/PE	4	2	2	2	1	2
b. Current DVT/PE	4	3	3	3	1	3
c. Family history of DVT/PE (first-degree relatives)	2	1	1	1	1	1

CONDITION	COC	POP	NET-EN DMPA	Norplant	Cu-IUCD	LNG-IUCD
d. Major surgery i. With prolonged immobilization ii. Without prolonged immobilization	4 2	2 1	2 1	2 1	1 1	2 1
e. Minor surgery without immobilization	1	1	1	1	1	1
Superficial Venous Thrombosis a. Varicose veins	1	1	1	1	1	1
b. Superficial thrombophlebitis	2	1	1	1	1	1
Current and History of Ischemic Heart Disease	4	I 2 / C 3	3	I 2	C 3 / 1	I 2 / C 3

CONDITION	COC	POP	NET-EN DMPA	Norplant	Cu-IUCD	LNG-IUCD
Stroke (history of cerebrovascular accident)	4	I 2 / C 3	3	I 2	C 3 / 1	2
Known Hyperlipidaemias (screening is NOT necessary for safe use of contraceptive methods)	2/3[2]	2	2	2	1	2
Valvular Heart Disease a. Uncomplicated	2	1	1	1	1	1
b. Complicated (pulmonary hypertension, atrial fibrillation, history of subacute bacterial endocarditis)	4	1	1	1	2	2
NEUROLOGIC CONDITIONS						

[2] Depending on severity of condition.

CONDITION	COC		POP		NET-EN DMPA		Norplant		Cu-IUCD		LNG-IUCD	
Headaches	I	C	I	C	I	C	I	C		I	C	
a. Non migrainous (mild or severe)	1	2	1	1	1	1	1	1	1	1	1	
b. Migraine												
i. Without focal neurologic symptoms												
Age < 35	2	3	1	2	2	2	2	2	1	2	2	
Age > 35	3	4	1	2	2	2	2	2	1	2	2	
ii. With focal neurologic symptoms (at any age)	4	4	2	3	2	3	2	3	1	2	3	
Epilepsy	1		1		1		1		1	1		
REPRODUCTIVE TRACT INFECTIONS AND DISORDERS												
Vaginal Bleeding Patterns											I	C
a. Irregular pattern *without* heavy bleeding	1		2		2		2		1		1	1

CONDITION	COC	POP	NET-EN DMPA	Norplant	Cu-IUCD		LNG-IUCD	
b. Heavy or prolonged bleeding (includes regular and irregular patterns)	1	2	2	2	2		1	2
Unexplained Vaginal Bleeding (suspicious for serious condition) Before evaluation	2	2	3	3	I 4	C 2	I 4	C 2
Endometriosis	1	1	1	1	2		1	
Benign Ovarian Tumours (including cysts)	1	1	1	1	1		1	
Severe Dysmenorrhoea	1	1	1	1	2		1	
Trophoblast Disease a. Benign gestational trophoblastic disease b. Malignant gestational trophoblastic disease	1 1	1 1	1 1	1 1	3 4		3 4	
Cervical Ectropion	1	1	1	1	1		1	

CONDITION	COC	POP	NET-EN DMPA	Norplant	Cu-IUCD		LNG-IUCD	
Cervical Intraepithelial Neoplasia (CIN)	2	1	2	2	1		2	
Cervical Cancer (awaiting treatment)	2	1	2	2	I 4	C 2	I 4	C 2
Breast Disease a. Undiagnosed mass	2	2	2	2	1		2	
b. Benign breast disease	1	1	1	1	1		1	
c. Family history of cancer	1	1	1	1	1		1	
d. Cancer i. Current	4	4	4	4	1		4	
ii. Past and no evidence of current disease for 5 years	3	3	3	3	1		3	
Endometrial Cancer	1	1	1	1	I 4	C 2	I 4	C 2
Ovarian Cancer	1	1	1	1	I 3	C 2	I 3	C 2

CONDITION	COC	POP	NET-EN DMPA	Norplant	Cu-IUCD		LNG-IUCD	
Uterine Fibroids								
a. Without distortion of the uterine cavity	1	1	1	1	2		2	
b. With distortion of the uterine cavity	1	1	1	1	4		4	
Pelvic Inflammatory Disease (PID)					I	C	I	C
a. Past PID (assuming no current risk factors of STIs)	1	1	1	1	1	1	1	1
i. With subsequent pregnancy								
ii. Without subsequent pregnancy	1	1	1	1	2	2	2	2

CONDITION	COC	POP	NET-EN DMPA	Norplant	Cu-IUCD	LNG-IUCD
b. PID-current or within last 3 months	1	1	1	1	4 | 3	4 | 3
STIs[3]						
a. Current or within 3 months (including purulent cervicitis)	1	1	1	1	4	4
b. Vaginitis without purulent cervicitis	1	1	1	1	2	2
c. Increased risk of STIs (e.g., multiple partners or partner who has multiple partners)	1	1	1	1	3	3
HIV/AIDS[3]						
a. High risk of HIV	1	1	1	1	3	3
b. HIV-positive	1	1	1	1	3	3
c. AIDS	1	1	1	1	3	3

[3] Barrier methods, especially condoms, are always recommended for prevention of STI/HIV/PID.

CONDITION	COC	POP	NET-EN DMPA	Norplant	Cu-IUCD		LNG-IUCD	
OTHER INFECTIONS								
Schistosomiasis								
a. Uncomplicated	1	1	1	1	1		1	
b. Fibrosis of liver	1	1	1	1	1		1	
Tuberculosis					I	C	I	C
a. Non-pelvic	1	1	1	1	1	1	1	1
b. Known pelvic	1	1	1	1	4	3	4	3
Malaria	1	1	1	1	1		1	
ENDOCRINE CONDITIONS								
Diabetes								
a. History of gestational disease	1	1	1	1	1		1	
b. Non-vascular disease								
i. Non-insulin dependent	2	2	2	2	1		2	
ii. Insulin dependent	2	2	2	2	1		2	

CONDITION	COC	POP	NET-EN DMPA	Norplant	Cu-IUCD	LNG-IUCD
c. Nephropathy/retinopathy/ neuropathy	3/4	2	3	2	1	2
d. Other vascular disease or diabetes of > 20 years duration	3/4	2	3	2	1	2
Thyroid						
a. Simple goitre	1	1	1	1	1	1
b. Hyperthyroid	1	1	1	1	1	1
c. Hypothyroid	1	1	1	1	1	1
GASTROINTESTINAL CONDITIONS						
Gall Bladder Disease						
a. Symptomatic						
i. Treated by cholecystectomy	2	2	2	2	1	2
ii. Medically treated	3	2	2	2	1	2
iii. Current	3	2	2	2	1	2
b. Asymptomatic	2	2	2	2	1	2

CONDITION	COC	POP	NET-EN DMPA	Norplant	Cu-IUCD	LNG-IUCD
History of Cholestasis						
a. Pregnancy-related	2	1	1	1	1	1
b. Past COC-related	3	2	2	2	1	2
Viral Hepatitis						
a. Active	4	3	3	3	1	3
b. Current	1	1	1	1	1	1
Cirrhosis						
a. Mild (compensated)	3	2	2	2	1	2
b. Severe (decompensated)	4	3	3	3	1	3
Liver Tumours						
a. Benign (adenoma)	4	3	3	3	1	3
b. Malignant (hepatoma)	4	3	3	3	1	3
ANAEMIAS						
Thalassaemia	1	1	1	1	2	1
Sickle Cell Disease	2	1	1	1	2	1
Iron Deficiency Anaemia	1	1	1	1	2	1

CONDITION	COC	POP	NET-EN DMPA	Norplant	Cu-IUCD	LNG-IUCD
DRUG INTERACTIONS						
Commonly Used Drugs That Affect Liver Enzymes						
a. Certain antibiotics (rifampicin and griseofulvin)	3 3	3 3	2 2	3 3	1 1	1 1
b. Certain anticonvulsants (phenytoin, carbamezapine, barbiturates, primidone)						
Other Antibiotics (excluding rifampicin and griseofulvin)	1	1	1	1	1	1

Adapted from: WHO 2000.

CONDITION	COCs	POPs	PICs	Norplant Implants	Female Surgical Contraception	Vasectomy	Condoms	TCu-380A IUCD	Spermicides	Diaphragm	NFP	LAM
21 days or more after childbirth	1	1	1	1	*	—	1	†	1	—	1	—

See appendices for definition of eligibility criteria codes.

* Additional conditions related to female surgical contraception:

- Postpartum surgical contraception conditions that require delay: 7–42 days after childbirth; severe pre-eclampsia/eclampsia; prolonged rupture of membranes (24 hours or more); severe haemorrhage; fever during or right after delivery; sepsis; severe trauma to the genital tract (cervical or vaginal tear at delivery); uterine rupture or perforation.
- Postpartum surgical contraception conditions that pose no special requirements: less than 7 days after childbirth; more than 42 days after childbirth; mild pre eclampsia.

† Additional conditions related to TCu-380A IUCD, postpartum insertion (breastfeeding or nonbreastfeeding):

- Condition that represents an unacceptable health risk (WHO 4): puerperal sepsis (genital tract infection during the first 42 days after childbirth).
- Condition that requires a doctor or nurse to make a clinical judgement that the client can safely use an IUCD (WHO 3): 48 hours to 4 weeks postpartum.
- Conditions for which advantages of IUCD use generally outweigh theoretical or proven risks (WHO 2): less than 48 hours after childbirth.
- Condition that requires no restriction: more than 4 weeks after childbirth.

APPENDIX C

HOW TO BE REASONABLY SURE A CLIENT IS NOT PREGNANT

You can be reasonably sure a client is not pregnant if she has no signs or symptoms of pregnancy (e.g., breast tenderness or nausea) and:

- has not had intercourse since her last menses; or
- has been correctly and consistently using a reliable contraceptive method; or
- is within the first 7 days after the start of her menses (days 1–7); or
- is within 4 weeks postpartum (for nonbreastfeeding women); or
- is within the first 7 days postabortion; or
- is fully breastfeeding, less than 6 months postpartum and has had no menstrual bleeding.

When a woman is **more than 6 months postpartum** you can still be reasonably sure she is not pregnant if she has:

- kept her breastfeeding frequency high;
- still had no menstrual bleeding (amenorrhoeic); and
- no clinical signs or symptoms of pregnancy.

Pelvic examination is seldom necessary, except to rule out pregnancy of more than 6 weeks, measured from the last menstrual period (LMP).

Pregnancy testing is unnecessary except in cases where:

- it is difficult to confirm pregnancy (i.e., 6 weeks or less from the LMP); or
- the results of the pelvic examination are equivocal (e.g., the client is overweight, making sizing the uterus difficult).

In these situations, a sensitive urine pregnancy test may be helpful, if readily available and affordable. If pregnancy testing is not available, counsel the client to use a temporary contraceptive method or abstain from intercourse until her menses occur or pregnancy is confirmed.

APPENDIX D

WHO CAN PROVIDE FAMILY PLANNING SERVICES[1]

Provider	Male Condoms	Female Condoms	Spermicides	Diaphragms	COCs	POPs	PICs	Implants	Emergency Contraception	IUCD	LAM	Natural FP	Female Surgical Contraception	Male Surgical Contraception
Doctor	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Clinical Officer	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

[1] Assuming that the provider is trained in the particular skill.

Provider	Male Condoms	Female Condoms	Spermicides	Diaphragms	COCs	POPs	PICs	Implants	Emergency Contraception	IUCD	LAM	Natural FP	Female Surgical Contraception	Male Surgical Contraception
Reg. Nurse/Midwife	●	●	●	●	●	●	●	●	●	●	●	●		
Enrolled Nurse/Midwife	●	●	●	●	●	●	●		●	●	●	●		
Medical Assistant	●	●	●	●	●	●	●		●	●	●	●		
CBD	●		●		●	●								

Provider	Male Condoms	Female Condoms	Spermicides	Diaphragms	COCs	POPs	PICs	Implants	Emergency Contraception	IUCD	LAM	Natural FP	Female Surgical Contraception	Male Surgical Contraception
TBA	●													
NFP Counsellor												●		
Shopkeeper	●		●											
Pharmacist	●		●											

WHO CAN PROVIDE GENERAL REPRODUCTIVE HEALTH SERVICES[2]

Provider	Antenatal Care	Breast Cancer Screening	Cervical Cancer Screening	Counselling	Dual Protection	Harmful Practice IEC	HIV Counselling	Infertility Counselling	MVA	Postnatal Care	RH Special Groups	Male RH	STI Services/ Counselling
Doctor	●	●	●	●	●	●	●	●	●	●	●	●	●
Clinical Officer	●	●	●	●	●	●	●	●	●	●	●	●	●
Reg. Nurse/Midwife	●	●	●	●	●	●	●	●	●	●	●	●	●
Enrolled Nurse/Midwife	●	●	●	●	●	●	●	●		●	●	●	●

[2] Assuming that the provider is trained in th e particular skill.

Provider	Antenatal Care	Breast Cancer Screening	Cervical Cancer Screening	Counselling	Dual Protection	Harmful Practice IEC	HIV Counselling	Infertility Counselling	MVA	Postnatal Care	RH Special Groups	Male RH	STI Services/ Counselling
Medical Assistants	●	●	●	●	●	●	●	●		●	●	●	●
CBDs				●	●	●	●	●			●	●	●[3]
TBAs	●			●		●	●	●		●			
Community						●	●						
Client		●											

[3] STI counselling services only

WHERE FAMILY PLANNING METHODS CAN BE PROVIDED

	Male Condoms	Female Condoms	Spermicides	Diaphragms	COCs	POPs	PICs	Implants	Emergency Contraception	IUCD	LAM	NFP	Female Surgical Contraception	Male Surgical Contraception
Hospital		●	●	●	●	●	●	●	●	●	●	●	●	●
Health Centre	●	●	●	●	●	●	●	●	●	●	●	●		
Health Post	●						●							
CBD	●		●		●	●								
Hotel/ Resthouse	●													
Youth Centre	●													

	Male Condoms	Female Condoms	Spermicides	Diaphragms	COCs	POPs	PICs	Implants	Emergency Contraception	IUCD	LAM	NFP	Female Surgical Contraception	Male Surgical Contraception
Pharmacy/ Shop	●		●											
Sport Centre	●													
Other Public Places	●													
Tertiary Educational Institution	●		●	●	●	●	●			●		●		
Catholic Institution											●	●		

WHERE GENERAL REPRODUCTIVE HEALTH SERVICES CAN BE PROVIDED

	Antenatal Care	Breast Cancer Screening	Cervical Cancer Screening	Counselling	Dual Protection	Harmful Practice IEC	HIV Counselling	Infertility Counselling	MVA	Postnatal Care	RH Special Groups	Male RH	STI Services/ Counselling
Hospital	●	●	●	●	●	●	●	●	●	●	●	●	●
Health Centre	●	●	●	●	●	●	●	●	●	●	●	●	●
Health Post	●	●		●	●	●	●					●	●
CBD				●	●	●	●	●			●	●	●
TBA hut	●			●		●	●	●		●			
Youth Centre				●		●						●	
Community	●			●	●	●	●			●		●	

Home		●		●		●	●					●	
Schools				●		●	●					●	
Tertiary Educational Institution				●		●						●	●

APPENDIX E

EQUIPMENT, SUPPLIES AND MEDICATIONS FOR PAC SERVICES

The following are the instruments, equipment and supplies needed for PAC:

- Bivalve speculum, medium or large
- Uterine tenaculum or vulsellum forceps
- Sponge or ring forceps (2)
- Kidney dish
- 10-12 ml syringe and 22-gauge needle, for paracervical block
- MVA instruments including MVA vacuum single or double syringes, flexible cannulae of different sizes, adapters for double valve syringes and silicone for lubricating MVA syringe O-ring
- Light source, to see cervix and inspect tissue
- Swabs/gauze
- Antiseptic solution, preferably an iodophor or any locally available skin antiseptic

- Gloves, sterile or high-level disinfected surgical gloves or new examination gloves
- Utility gloves
- Strainer, for tissue inspection
- Simply magnifying glass, x4-6 power, optional
- Clean container or basin, for tissue inspection

Items that should be on hand, but are not required for all MVA procedures, include:

- Local anaesthetic, i.e., 1% lidocaine without epinephrine
- Sharp curettes – small, medium and large
- Tapered mechanical dilators, Pratt (metal) or Denniston (plastic)

The treatment room should have the following furniture and equipment in working order:

- Examination table with stirrups
- Strong light
- Seat or stool for clinician (optional)
- Plastic buckets for decontamination solution
- Puncture-proof container for disposal of needles
- Leak-proof container for disposal of infectious waste

For high-level disinfection or sterilisation of instruments, these items should be available:

- High-level disinfection solution, e.g., 0.5% chlorine
- Sterilising solution, e.g., Cidex
- Heat source and pot if HLD by boiling is chosen
- Steamer for steaming surgical gloves, cannulae and surgical instruments
- Autoclave (steam) or convection oven (dry heat)
- Clean water for washing instruments or for HLD
- HLD water to rinse HLD instruments
- Sterile water to rinse sterile instruments
- Detergent
- Nonmetal or plastic containers
- Utility gloves
- Small scrub brushes

These items are seldom required in uterine evacuation cases but are needed for possible emergency use:

- Oxytocic drugs
- Atropine
- IV infusion equipment and fluid (DSW or D/S)
- Ambu bag with oxygen (tank with flowmeter)
- Oral airways
- Suction machine

Essential drugs for emergency postabortion care include the following:

- Sedatives
- Diazepam
- Anaesthetics, local
- Lignocaine, 1% without epinephrine
- Lidocaine
- Analgesics
- Acetylsalic acid
- Ibuprofen
- Pethidine (or suitable substitution)
- General anaesthetic
- Ketamine hydrochloride
- Halothane
- Trilen
- Thiopentone sodium
- Broad spectrum antibiotics
- Ampicillin
- Chloramphenicol
- Metronidazole
- Sulfamethoxazole
- Sulfamethoxazole-trimethoprim
- Tetracycline

- Other appropriate substitute
- (combining antibiotics is recommended)
- Blood products
- Dried human plasma
- Haematinics
- Iron
- Antiseptics
- Chlorhexidine, 4% (Hibitane, Hibiscrub)
- Iodine preparations, 1-3%
- Iodophors (Betadine)
- Disinfectants
- Sodium hypochlorite, 5-10% (commercial-based solution, e.g., Jik)
- Formaldehyde, 8% (Formalin)
- Glutaraldehyde, 2% (Cidex)
- Tetanus Toxoid
- Oxytocics
- Ergometrine injection
- Oxytocin injection
- Intravenous solutions
- Sodium lacate (Ringer's)
- Glucose, 5% and 50%
- Glucose with isotonic saline
- Potassium chloride
- Sodium chloride

- 5% Dextrose
- Normal Saline
- Water for injections
- Other
- Atropine
- Adrenaline
- Hydrocortisone
- Plasma expanders (Dextran)

The following FP supplies must be available:

- Barrier methods
- COCs
- POPs
- Injectables
- Implants

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