Malawi National Reproductive Health Service Delivery Guidelines

2014–2019

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The printing of the guidelines was made possible with the generous support of the American people through the United States Agency for International Development (USAID), under the terms of the Cooperative Agreement AID-612-A-11-00003.The contents are the responsibility of the Ministry of Health of Malawi and Support for Service Delivery Integration - Services (SSDI-Services) and do not necessarily reflect the views of USAID or the United States Government

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ABBREVIATIONS

ACS	Antenatal Corticosteroids
AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
ART	Antiretroviral Therapy
ARV	Antiretroviral
ASCUS	Atypical Cells of Uncertain Significance
BBT	Basal Body Temperature
BP	Blood Pressure
BSE	Breast Self-Examination
CBE	Clinical Breast Examination
CIC	Combined Injectable Contraceptive
CIN	Cervical Intraepithelial Neoplasm
COC	Combined Oral Contraceptive
CPAP	Continuous Positive Airway Pressure
D&C	Dilatation and Curettage
DFID	Department for International Development
DMPA	Depot-Medroxyprogesterone Acetate
DRE	Digital Rectal Examination
DVT	Deep Venous Thrombosis
EC	Emergency Contraception
EmONC	Emergency Obstetric and New born Care
FANC	Focused Antenatal Care
FP	Family Planning
HBB	Helping Babies Breathe
HBV	Hepatitis B Virus
HIV	Human Immunodeficiency Virus
HLD	High-Level Disinfection
HSSP	Health Sector Strategic Plan
HPV	Human Papillomavirus
HTC	HIV Testing and Counselling
IP	Infection Prevention
IUCD	Intrauterine Contraceptive Device
KMC	Kangaroo Mother Care
LAM	Lactational Amenorrhoea Method

LGSIL	Low-Grade Squamous Intraepithelial Lesion
LMIS	Logistics Management Information System
LMP	Last Menstrual Period
LNG	Levonorgestrel
MDG	Millennium Development Goal
MDHS	Malawi Demographic and Health Survey
MoH	Ministry of Health
MTCT	Mother-to-Child Transmission
MVA	Manual Vacuum Aspiration
NET-EN	Norethindrone Enanthate
NFP	Natural Family Planning
NGO	Nongovernmental Organization
PAC	Post Abortion Care
PE	Pulmonary Embolism
PEP	Post-Exposure Prophylaxis
PIC	Progestin-Only Injectable Contraceptive
PID	Pelvic Inflammatory Disease
PITC	Provider-Initiated Testing and Counselling
PMTCT	Prevention of Mother-to-Child Transmission
POC	Products of Conception
POP	Progestin-Only Pill
PSA	Prostate-Specific Antigen
RH	Reproductive Health
RHSD	Reproductive Health Service Delivery Guidelines
SDM	Standard Days Method
SRH	Sexual and Reproductive Health
SP	Sulphadoxine-Pyrimethamine
STI	Sexually Transmitted Infection
TB	Tuberculosis
TRUS	Trans-Rectal Ultra-Sonography
USAID	United States Agency for International Development
VILI	Visual Inspection with Lugol's Iodine
WHO	World Health Organization

ACKNOWLEDGEMENTS

The Reproductive Health Service Delivery Guidelines (RHSDGs) are a culmination of efforts from a multi-sectorial involvement of stakeholders. I therefore wish, on behalf of the Ministry of Health, to extend my sincere gratitude and appreciation to all individuals and organizations that contributed to the development and finalization of this document.

The Reproductive Health Directorate of the Ministry of Health gratefully acknowledges the assistance and support of the following people responsible for the revision of the Reproductive Health Service Delivery Guidelines:

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Carolyn Bakasa	Population Services International (PSI)
Martin Msukwa	Mai Khanda
Veronica Chirwa	JSI – USAID Deliver Project
Monica Villanueva	USAID Peter Troell USAID
Evans Kaunda	National Malaria Control programme MoH
Hlalapi Kunkeyani	Kamuzu Central Hospital

Finally, the Ministry of Health would like to express gratitude to USAID through SSDI-Services for the financial support rendered in the revision and printing of this guidelines.

PREFACE

The Ministry of Health 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, which states that: "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, 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 and AIDS; and
- The provision of services for the early detection and management of cancers and other conditions of the reproductive tract.

The *Malawi National Reproductive Health Service Delivery Guidelines* provide the most current, up-to-date knowledge and direction on the various components of reproductive health, including: quality of care; counselling; family planning; reproductive health for special groups; comprehensive post abortion care; adolescent reproductive health; maternal and neonatal health; sexually transmitted infections, HIV, and AIDS; prevention of mother-to-child transmission of HIV; prevention and management of reproductive cancers; infertility; harmful RH practices; and obstetric fistula. 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 organizations, can provide *comprehensive, high-quality* and *standardized* reproductive health care. The Ministry of Health 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 health care 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 and adolescent girls.

The mere presence of these guidelines in health facilities, however, does not automatically translate to improved quality of reproductive health services. Their worth can only be appreciated if service providers read, discuss, and apply their content in their daily tasks. I therefore encourage and urge our health service providers to refer to and use the revised service delivery guidelines as proactively as possible. I also urge all supervisors to ensure that service providers apply these guidelines in the provision of reproductive health services. I trust it will be worth their time and effort as they continue to serve and help Malawian people make the right choices and decisions to meet their individual reproductive health needs and those of their families.

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

Mr. Christopher Kang'ombe

Secretary for Health

INTRODUCTION OF RH SERVICE DELIVERY GUIDELINES

This third edition of the *Malawi National Reproductive Health Service Delivery Guidelines* is an updated version of the September 2007 *Reproductive Health Service Delivery Guidelines*. These guidelines are linked to the National Reproductive Health Strategy 2011–2016, a document developed as a national response to the international Conference on Population and Development held in Cairo, Egypt, in 1994. The conference emphasized the need to adopt a holistic approach in the provision of reproductive health (RH) services. Millennium Development Goal (MDG) 5b, "Achieve Universal Access to Reproductive Health," is a building block for the other MDGs but is the most off-track of all MDGs, even though the critical importance of reproductive health to development has been widely acknowledged.

The National Reproductive Health Programme for Malawi includes the following: family planning; maternal, neonatal, and child health (including management of unsafe abortion); prevention and management of sexually transmitted infections (STIs); prevention of HIV and AIDS, including prevention of mother-to-child transmission of HIV (PMTCT); early detection and management of cancers of the reproductive system; prevention and management of infertility; gender based violence (GBV) and mitigation for harmful reproductive health practices.

Improvement has been made in the areas of family planning, prevention and management of unsafe abortions, and cervical cancer prevention. However, the status of maternal health remains a challenge. The Ministry of Health Sector Strategic Plan and the revised National Reproductive Health Strategy provide strategic guidance for the way forward, and the Malawi National Reproductive Health Service Delivery Guidelines are a tool for service providers to use in accomplishing the national goals.

The word "guidelines" is a generic term for various documents that describe how standards are achieved. Two broad types of guidelines exist at national level: policy guidelines and service delivery guidelines. Policy guidelines describe:

- Which services are to be officially offered,
- Who may receive these services,
- Where these services will be delivered,
- How often certain services are to be delivered, and
- What minimal acceptable level of performance is offered

Policy guidelines do not contain the technical information needed to provide services; rather, they serve as a general outline for the provision of services.

REPRODUCTIVE HEALTH SERVICE DELIVERY (RHSD) GUIDELINES

RHSD Guidelines, however, serve as a technical tool for achieving standards, and they provide the detailed information needed to implement the national policy. The guidelines complement policy guidelines by: describing the components of reproductive health services; introducing related components needed for quality service provision (e.g. infection prevention practices); explaining how health care providers should relate to clients and patients who seek reproductive health services: and serving as a basis for RH learning, resource material, and curriculum development. Logically, service delivery guidelines are derived from the policy guidelines.

Standards: The World Health Organization (WHO) defines standards as an agreed-upon level of performance that specifies what action should be taken. They serve as the benchmark upon which to make judgments. They must be achievable, desirable, and measurable and, most important, should be evidence-based, with a focus on client/patient needs. Logically, the standards are derived from the service delivery guidelines.

RATIONALE FOR THE NATIONAL REPRODUCTIVE HEALTH SERVICE DELIVERY GUIDELINES

The revision of the Reproductive Health Service Delivery Guidelines came about due to the need to incorporate updates and evidence-based information in various components of reproductive health. There has been updated information regarding RH service delivery at national and international levels, and there have been updates on evidence-based, high-impact interventions. It has also been seen essential to link the RHSD guidelines with Health Sector Strategic Plan (HSSP).

PURPOSE OF THE GUIDELINES

The purpose of RHSD guidelines is to assist service providers at all levels to deliver high-quality, comprehensive, and up-to-date RH services based on sound and acceptable principles of practice. These Malawi National Reproductive Health Service Delivery Guidelines are intended to 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 Ministry of Health (MoH) 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 current research findings to formulate a document that is consistent with the recently developed RH strategy 2011–2016.

ORGANIZATION OF THE GUIDELINES

The guidelines consist of two sections:

Part I

The first part of the guidelines includes chapters on the following topics:

- Quality of care
- Counselling
- Client assessment
- Infection prevention
- Family planning
- Comprehensive post abortion care
- Adolescent reproductive health care
- Maternal and neonatal health
- Obstetric fistula
- Sexually transmitted infections (STIs)
- Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome (HIV and AIDS)
- Prevention of mother-to-child transmission (PMTCT) of HIV
- Reproductive health for special groups
- Prevention and early detection of cancers of the reproductive system
- Infertility
- Gender-based violence
- Harmful practices
- Reproductive health logistics management system

Part II
The second part of the guidelines consists of appendices on:

- WHO Medical Eligibility Criteria for Contraceptive Use
- Management of Common Problems and Side Effects
- Dual Protection
- Client Assessment
- Care in Labour

HOW TO USE THE MALAWI NATIONAL RH SERVICE DELIVERY GUIDELINES

Each service delivery point should have a copy of the Malawi National RH Service Delivery guidelines. Users of the RHSD guidelines are encouraged to read the whole document and other related documents (e.g. protocols, handbooks, training manuals, and standards) to have a better understanding, application, and appreciation of its scope and content. Reading the document will enable you to better apply the guidelines in your respective health care settings. For day-to-day use, however, you can easily refer to a particular chapter directly relevant to your need and query.

LIMITATIONS OF THE MALAWI NATIONAL RH SERVICE DELIVERY GUIDELINES

These guidelines are comprehensive in scope; however, they do not provide the reader/user with the detailed procedures in RH service provision. They only highlight the essential information to guide the reader/user in delivering the RH

services. If the reader/user needs to know the detailed steps in the various chapters, it is advisable to consult the training modules provided during professional health care training, agreed-upon standards, and/or procedure manuals.

CHAPTER 1: QUALITY OF CARE

DEFINITIONS

Quality

Quality can be defined as "… doing the right thing, the right way the first time and doing it better the next time, within the resource constraints and to the satisfaction of the community." In this document, *quality, as doing the right thing the right way*, is recognized as "conforming to standards" and satisfying the needs of clients. Standards are the description of *exactly* how a particular service (clinical or managerial) will be delivered in order to achieve the best possible outcome or desired result.

Assuring quality in the health care system is guided by these principles:

- The needs and desires of the clients (both internal and external) are important to consider in quality improvement processes as they allow improvements to client-centered care.
- The use of data to make decisions will enable implementers to monitor progress and challenges.
- The analysis of processes and systems such as client flow in relation to waiting time (rather than blaming individuals) helps to address bottlenecks in the quality improvement implementation.
- Working in teams to ensure involvement/buy-in and optimal communication are important as everyone becomes part and parcel of the improvements and changes made.

Quality Assurance

Quality assurance is the set of activities that are carried out to set standards and monitor and improve performance so that the care provided is as effective and as safe as possible.[1]

Guiding Principles of Quality Assurance

- The input and participation of the clients/patients/community in the process of care
- The competence of health care workers
- The motivation of health care workers
- The definition of the content of care and its support services
- Adequate resources (human, financial, and material)
- The good flow and organization of work

Quality RH service requires that:

- Service providers should ensure their safety and that of the client.
- Service providers should inform clients about service and treatment alternatives available to facilitate informed choice.

- Care should be tailored to the individual needs of clients.
- Clients should be treated with dignity.
- Confidentiality should be enforced.
- Privacy should be maintained.
- Clients should not have to wait a long time before being served.
- Services should be provided as and when required.
- There should be mechanisms for monitoring and evaluating provision of services (e.g. after service-client interviews/client exit interviews).

Sexual and reproductive health (SRH) services require well-trained and qualified staff who:

- Demonstrate care, sensitivity, understanding, and thoroughness in informing the client about the services provided.
- Are knowledgeable and possess positive attitudes and technical skills for providing quality RH services.
- Exhibit good interpersonal relationships towards colleagues, patients, and clients.
- Are knowledgeable about health conditions and services to readily identify and recognize real or potential problems.
- Possess the skills to effectively address RH challenges or have the foresight or good judgment to seek help or refer to the appropriate level when a situation is beyond their scope.
- Are able to express themselves well, and make relevant suggestions on service improvements.
- Are enthusiastic to keep up-to-date with knowledge and skills.
- Are knowledgeable and implement rights-based approaches in the provision of sexual reproductive health (SRH) services.

ATTRIBUTES OF QUALITY SRH SERVICES

- Choice of SRH services
  The health system should ensure a wide choice of SRH services on a reliable basis. Offering a variety of SRH services will help to meet the diverse and changing needs of women, men, and youth over their reproductive lifetime. Services provided should be appropriate and provided in a timely manner
- Provision of information and services to clients
  Providers should ensure that clients are given complete and accurate information through adequate and effective counselling on which to base their decisions and choices.
- Interpersonal communication
  It is important for the provider to demonstrate good communication and counselling skills and active listening, to support informed and voluntary decision-making. Effective communication increases client satisfaction. Listening is as important for the provider as giving correct information. Open and non-verbal behaviors facilitate communication.

Providers need to be adequately trained in the technical provision of RH service delivery and be updated regularly to be abreast with current and evolving SRH issues. Providers should also take the responsibility to update themselves as part of continuous professional development.

- Client perception on quality of RH services
  Providers should elicit clients' views on the quality of care being provided in order to take action to improve that care. This information can be collected through (but not limited to) conducting exit interviews and using a suggestion box.
- Continuity of care
  All efforts should be made to ensure that clients are followed up. This can be done through follow-up appointments at the health facility and/or at the community.
- Enabling environment
  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 a continuous supply of drugs, equipment, and other items.
- The good flow and organization of work
  Services provision should be organised in an integrated and coordinated manner to ensure a smooth flow of clients within the facility. The organisation of services should ensure service integration that will enable clients' access to a variety of services desired during a particular visit.
- Monitoring quality of SRH services
  Services should be assessed to ensure that the attributes for provision of quality SRH services are maintained at all times. This will enable early detection of deviations from acceptable standards and institution of corrective measures

MONITORING

It is very important to assess improvements and challenges through periodic monitoring. This enables providers to identify the actual performance after a period of implementation. In addition, monitoring helps to identify new and persistent gaps that requires corrective interventions.

CHAPTER 2: COUNSELLING

DEFINITION

Counselling is an interactive process in which the provider listens to the client's needs, tries to elicit the client's concerns, and offers relevant information to enable the client to make informed decisions. Counselling could be done on an individual or group basis and in a continuous manner.

PRINCIPLES OF COUNSELLING

- The client has the right to make an informed decision.
- The process should be confidential, truthful and non-judgemental.
- The client should have freedom of expression.
- There must be genuine communication without emotional involvement.
- There must be auditory and visual privacy.
- The environment should be comfortable and the sitting arrangement should also be comfortable for both the client and counsellor.
- The counsellor must recognize his/her limitations and refer when necessary.

BENEFITS OF COUNSELLING

- Increases acceptance of SRH services.
- Promotes effective use of SRH services.
- Improves continuation of SRH services.
- Increases client satisfaction with SRH services.
- Dispels rumors, myths and misconceptions about SRH services.

COUNSELLING STEPS FOR SRH SERVICES

A six step-by-step process that assists the client in deciding on the use of SRH services can be used. The process includes learning, weighing choices, making decisions, and carrying them out. These steps can be remembered using the word **'GATHER'** as an acronym.

G Greet clients in an open and respectful manner. Assure the client of confidentiality and privacy; 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 SRH needs, experiences, intentions, concerns, and current health and family life. Respond helpfully.

T Tell clients about SRH 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, rumours, or misconceptions that the client might have.

E Explain how the selected SRH service(s) will be provided and utilized.

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

COUNSELLING FOR SPECIAL GROUPS

Male Involvement in Sexual and Reproductive Health Counselling

Men are important in counselling for SRH services. First, they influence women's decisions either positively or negatively. Some men care about their partners' reproductive health and support them while others stand in their way or make decisions for them. Thus, men's attitudes can determine whether women can practice healthy SRH behaviours or not. In some circumstances, such as avoiding HIV infection or getting help quickly in an obstetric emergency, a man's actions can determine whether a woman lives or dies.

Men are also important as clients; some family planning methods like male condoms and vasectomy are used by men.

Men also have their own SRH needs and concerns, in particular regarding STIs, which deserve the attention of the health care system and providers.

Providers can give support and services to men both as supporters of women and as clients through the following ways:

Encourage Couples to Talk

Couples who discuss SRH including family planning, with or without a provider's help, are more likely to make plans that they can carry out.

Providers can:

- Coach men and women on how to talk with their partners about sex, family planning, STIs, and HIV.
- Encourage joint decision-making about sexual and reproductive health matters.
- Invite and encourage women to bring their partners to the clinic for joint counselling, decision-making, and care.
- Suggest to female clients that they tell their partners about health services for men.
- Give informational materials to take home, if available.

Provide Accurate Information

Men need correct information and correction of any misperceptions to inform their decisions.

Topics important to men include:

- Family planning methods, both for men and for women, including safety and effectiveness
- STIs, including HIV/AIDS (transmission, signs and symptoms, testing, prevention and treatment, as well as positive living with HIV)
- The benefits of waiting until the youngest child is 2 years old before a woman becomes pregnant again, and waiting for at least 6 months before the woman becomes pregnant again after an abortion or miscarriage

- Male and female sexual and reproductive anatomy and function including determinants of the sex of the newborn
- Safe pregnancy and delivery

Offer Services or Refer

Important services that many men want include:

- Condoms, vasectomy, and counselling about other methods
- Counselling and help for sexual problems
- STI/HIV counselling, testing, and treatment
- Infertility counselling
- Screening for male RH cancers such as penile, testicular, and prostate cancers

Like women, men of all ages, married or unmarried, have their own SRH needs. They deserve good-quality services and respectful, supportive, and non-judgemental counselling.

Counselling Young People

Young people are a special group because of their vulnerability to unwanted pregnancies; STIs, HIV, hepatitis B (HBV), and human papillomavirus (HPV); early and or forced marriages; sexual and physical abuse; and peer pressure. It is therefore important that the youth receive counselling to enable them make informed decisions regarding their SRH needs.

When counselling young people, providers need to be friendly, non-judgemental, and welcoming. They should be counselled on a wide range of SRH services such as:

- Family planning including emergency contraception (EC)
- STIs, HIV/AIDS, and PMTCT
- Prevention of teenage pregnancies
- Maternal and neonatal health
- Post abortion care
- Rape and sexual assault
- Sexuality and nutrition, and give information about harmful sexual practices and beliefs such as rape, ritual sexual cleansing, and forced marriages
- Life planning skills

CHAPTER 3: CLIENT ASSESSMENT

DEFINITION

Client assessment is the collection of information or data in order to determine a proper diagnosis.

CLIENT ASSESSMENT IN FAMILY PLANNING

The primary objectives of assessing clients prior to providing family planning services are to determine:

- That the client is not pregnant,
- Whether any conditions requiring precaution exist for a particular method, and
- Whether there are any special problems that require further assessment, treatment, or regular follow-up.

This can usually be accomplished by a rapid or routine evaluation through:

- Observation
- History taking
- Complete physical examination
- Laboratory investigations

Unless specific problems are identified, the safe provision of most contraceptive methods, except intrauterine contraceptive devices (IUCDs) and voluntary sterilization, does not require performing a physical or pelvic examination.

In very busy clinics, the provider should use a hormonal methods checklist (Table 3.1) and schedule a day for thorough examinations rather than turn away clients. The findings from the checklist determine whether a physical or pelvic examination is necessary (i.e. if the client answers "YES" to any of the questions in the checklist, a brief physical examination or additional questions may be necessary.)

Table 3-1. Hormonal Contraceptive Checklist

A. Questions

		YES	NO
1.	a. Do you suffer or have you ever suffered from severe headache that does not resolve?		
	b. Do you suffer or have you ever suffered from migraine headache?		
2.	Do you suffer or have you ever suffered from epilepsy?		
3.	Do you suffer or have you ever suffered from liver cirrhosis?		
4.	Do you suffer or have you ever suffered from breast cancer?		
5.	Do you experience or have you ever experienced chest pains with difficulties in breathing?		
6.	Do you experience breathlessness when walking or on slight exertion?		
7.	Do you suffer or have you ever suffered from diabetes?		
8.	Do you suffer or have you ever suffered from hypertension?		

		YES	NO
9.	Do you bleed during sexual intercourse?		
10.	Do you have irregular menses?		
11.	Did you miss your periods last month?		
12.	Do you think you are pregnant?		
13.	Do you have varicose veins?		

B. INSTRUCTIONS

1. If the woman answers **NO** to all these questions, she should be given hormonal contraceptives.
2. If the woman answers **YES** to some of the questions, a physical examination should be done before she is given hormonal contraceptives.
3. Where resources are limited, a medical evaluation and/or laboratory testing (e.g. blood glucose; hemoglobin) before providing modern contraceptive methods is not justifiable.
4. To enable clients to obtain the contraceptive method of their choice, only those procedures that are essential and mandatory for specific clients should be required (e.g. ruling out pregnancy or pregnancy test for those suspected to be pregnant; ruling out breast cancer in clients with breast lumps).

Note:

- While pelvic examination is not a hindrance to initiating most FP methods, it should be encouraged for screening of other conditions such as cervical cancer and STIs.

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: at least one of the items below apply to her:

- 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 non-breastfeeding women); or
- Is within the first 7 days post abortion; or
- Is fully breastfeeding, less than 6 months postpartum, and has not resumed menses.

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

- She has been breastfeeding exclusively,
- She has not resumed menses, and
- She has no clinical signs or symptoms of pregnancy.

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

What to do if pregnancy is suspected:

1. Pelvic examination: useful if pregnancy > 6 weeks from last menstrual period
2. Pregnancy testing, if available and affordable:
   - Confirm pregnancy (if > 6 weeks from last menstrual period) when results of the pelvic examination are equivocal
3. Pregnancy testing not available:
   - Provide temporary method or have client abstain from intercourse and wait for menses to appear to confirm that she is not pregnant.

Times when pelvic assessment is performed on family planning clients

Pelvic examination is not generally needed in the provision of FP except when the client:

- Is eligible for cervical cancer screening;
- Has signs and symptoms of pregnancy; and
- Have clinical conditions that will require pelvic examination.

When there is a problem:

- Identify onset of the problem, characteristics, and course since onset.
- Provide proper counselling on pelvic assessment to the client to allay fears.

It should be noted however that a client should not be denied a service because she has refused pelvic assessment.

CLIENT ASSESSMENT IN MATERNAL AND NEONATAL HEALTH

Client assessment is undertaken when the woman is seen for the first time by the provider—it may be her first antenatal visit, in labour, or after delivery.

This is usually accomplished by a rapid or routine evaluation through:

- History taking
- Observation
- Complete physical examination
- Laboratory investigations

Client Assessment during Pregnancy

The primary objectives of assessing clients during the antenatal period are to:

- Determine that the client is actually pregnant and also determine the gestational period.
- Promote and maintain the physical, mental, and social health of mother and baby.

- Detect and manage complications during pregnancy; whether medical, surgical, or obstetrical.
- Develop a birth preparedness and complication readiness plan.
- Help prepare the mother to breastfeed successfully, experience normal puerperium, and take good care of the child physically, psychologically and socially.

First Visit

During the first visit, take a comprehensive history covering all areas and document in the woman's health passport. Specific areas include:

- Personal history,
- Family history,
- Social history,
- Past medical and surgical history including history of HIV, STIs,
- Past obstetric history,
- Past breast feeding history, and
- Present obstetric history.
- History of dizziness or faintness

Observe her general condition and check for the following:

- Facial expression (whether she is alert and responsive)
- Whether she is walking easily or with difficulties
- General cleanliness (i.e. no visible dirt, no odour, etc.)
- Skin—skin rashes, bruises, or lesions

Conduct full physical assessment from head to toe and check for:

- Check blood pressure (BP), temperature, pulse, weight, height, and gait/posture
- Pallor
- Sore and bleeding gums
- Enlarged glands on the neck
- Breast lumps and retracted nipples
- Oedema of ankles and tibia
- Genital ulcers and urethral discharge
- Depending on gestational age, also check for:
  - Fundal height, foetal lie, and presentation
  - Engagement of the presenting part, and
  - Foetal heart sounds.
- Check blood for haemoglobin, blood grouping, syphilis, and HIV (if consenting) and test urine for protein, glucose, and acetone.

Note: It may be difficult to determine the foetal lie and presentation before 28 weeks; however, where possible, foetal heart sounds should be noted.

During subsequent visits, refer to the focused antenatal care (FANC) matrix in Chapter 8 for the components of care.

Client Assessment during Labour

The **primary objectives** of assessing clients during labour are to:

- Determine whether labour is established,
- Monitor progress of labour,
- Monitor both the condition of the mother and foetus, and
- Determine whether there are any special problems that require immediate action such as treatment, interventions or referral to a higher level

Undertake the following:

- Take full history of labour, when it started and record the information.
- Take vital signs: blood pressure, pulse, temperature, respirations.
- Perform full physical and obstetric examination as in antenatal care.
- If cervical dilatation is 4cm or more, commence partograph.
- Note colour and amount of liquor if membranes are ruptured.

In subsequent checks, assess the following:

- The strength and frequency of the contractions every hour,
- Foetal heart rate every 30 minutes,
- Mother's pulse every hour,
- Mother's blood pressure every hour, and
- Mother's temperature every 4hours.

Note: Remember to record findings on the partograph and encourage the mother to walk around and take a lot of fluids.

Client Assessment during Postnatal Period

It is important that you continue observing and assessing the mother during the postnatal period because this is the time when most complications such as postpartum haemorrhage, sepsis, and eclampsia occur.

Soon after delivery, do the following:

- Check vital signs (blood pressure, pulse, respiration), uterine tone, and lochia (colour, consistency, and amount) every 15 minutes for 1 hour.
- Inspect the vagina for lacerations/tears (suture if any).
- Make sure that the woman is comfortable (clean, hydrated, and warmly covered).
- Ensure that the baby is well-covered, is with the mother, at the mother's breast, and has begun to suckle.

Note: After 2 hours, if vital signs are stable, discharge the mother to the postnatal ward. Continue checking the above every 4 hours and ensure that the mother is breastfeeding the baby.

Assessment of the New born

The **primary objectives** of assessing the newborn are to:

- Establish the condition of the baby at birth, and
- Rule out abnormalities and birth injuries.

Soon after the birth of the baby, check for the following:

- Appearance of the baby, whether active, crying, or not
- Colour of the skin, whether pink or not
- Respiration, whether normal or rapid; any signs of chest recession, etc.
- Whether the baby feels warm to the touch

After 1 hour, do a head-to-toe examination to exclude life-threatening conditions and abnormalities. Check for the following:

- Birth weight
- Head—note moulding; caput; fontanel, whether bulging or sunken
- Grimace, to rule out brain injuries
- Abnormalities, such as Erb's palsy, harelip, cleft palate, congenital heart abnormalities, meningocele, spina bifida, and imperforate anus

Note: Subsequent assessments should be done daily until discharge. During subsequent assessments, check for the above including temperature, feeding, weight, elimination pattern, umbilical cord for bleeding and infection.

CHAPTER 4: INFECTION PREVENTION

DEFINITION

Infection prevention is a combination of efforts made to prevent transmission of infections among clients, service providers, and the community.

PURPOSE

The primary strategy is to:

- Prevent nosocomial infections in all hospitalized patients and clients attending health care facilities
- Reduce risk of transmitting microorganisms from known or unknown sources of infection
- Provide a rationale for appropriate use of limited infection prevention resources in caring for all clients and patients

STANDARD PRECAUTIONS

These are guidelines that have been designed to create physical, mechanical, or chemical barriers between microorganisms and a person to prevent the spread of infection (i.e. the barrier serves to break the disease transmission cycle). These guidelines apply to the care of all clients and patients attending health care facilities. They also apply to prevention of transmission of infections through blood, body fluids, secretions, excretions (except sweat), broken skin and mucous membranes.

Key Components of Standard Precautions

1. Consider every person (patient or staff) as potentially infectious and susceptible to infection.
2. Wash hands after touching blood or body fluids and after removing gloves. Wash hands and or use antiseptic hand rub in between patient contacts.
3. Wear gloves (both hands) before touching broken skin, mucous membranes, blood or body fluids, soiled instruments or contaminated waste materials and before performing invasive procedures.
4. Use physical barriers (protective goggles, face masks, and aprons) if splashes and spills of blood or body fluids (secretions and excretions) are likely to occur.
5. Use antiseptic agents for cleansing the skin or mucous membrane prior to surgery and cleaning wounds.
6. Use safe work practices such as not recapping or bending needles, safely passing sharp instruments, and using blunt needles for suturing when appropriate.
7. Safely dispose of infectious waste materials to protect those who handle them and prevent injury or spread of infection to the community.
8. Process instruments and other items after use by first decontaminating and thoroughly cleaning them. This can be followed by either sterilization or high-level disinfection using recommended procedures.
9. Handle as little as possible linen that is contaminated with blood or body fluids. It should be placed in a leak proof container that is covered and transported to the laundry where it should be sorted and processed accordingly.

10. Observe correct housekeeping rules in order to reduce the number of microorganisms that may come in contact with clients/staff; reduce the risk of accidents through prevention of falls and provide a pleasant atmosphere.
11. Immunize health workers against hepatitis B and influenza.

COMMON DEFINITIONS

Antiseptics or antimicrobial agents: Chemicals that are applied to the skin or other living tissues to inhibit or kill microorganisms (both transient and resident).

Hand washing: Process of mechanically removing soil and debris from the skin of the hands using plain soap and water.

Nosocomial or health care facility-acquired infections: Infection that is neither present nor incubating at the time the patient came to the health care facility. Nosocomial refers to the association between care and the subsequent onset of infection.

Transient or resident flora: Terms that refer to where bacteria and other microorganisms are located in the layers of the skin. Transient flora are acquired through contact with patients, other health care workers, or contaminated surfaces.

HOW TO HANDLE REUSABLE EQUIPMENT, INSTRUMENTS, AND MATERIALS

- Decontamination (soak in 0.5% chlorine solution for 10 minutes)
- Cleaning with soap and water, then rinsing in clean water
- Sterilization (autoclaving or dry heat sterilization)
- High-level disinfection (boiling, steaming, or using chemicals)

HAND WASHING

The purpose of hand washing is to mechanically remove soil and debris from the skin and reduce the number of transient microorganisms. Using plain soap and clean water is as effective as washing with antimicrobial soap.

Hand washing should be done before:

- Examining (direct contact with) a patient
- Putting on sterile or high-level disinfected surgical gloves prior to an operation

Hand washing should be done after:

Any situation in which hands may become contaminated, such as:

- Handling soiled instruments and other items
- Touching mucous membranes, blood, or other body fluids
- Having prolonged and intense contact with a patient
- Removing gloves

How to Wash Hands

Hand should be washed with soap and clean water or antiseptic hand rub after removing gloves.

Steps for Routine Hand washing

STEP 1: Thoroughly wet hands.

STEP 2: Apply plain soap.

STEP 3: Vigorously rub all areas of hands and fingers together for 40 seconds, paying attention to areas of fingernails and between fingers.

STEP 4: Rinse thoroughly with clean water.

STEP 5: Dry hands with a paper towel or individual towel and use towel to turn off the faucet (tap).

Techniques for performing antiseptic hand rub

STEP 1: Apply enough antiseptic hand rub to cover the entire surface of the hands and fingers (about a teaspoonful).

STEP 2: Rub solution vigorously into hands, especially between fingers and under nails until dry.

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 other microorganisms.

Essential Supplies for Decontamination

- Three plastic basins/buckets (the first for decontamination, the second for soapy water, and the third for clean water)
- Utility gloves, to protect hands from sharp instruments
- Chlorine solutions that are effective and affordable
- Another basin for gloves only

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.

After Decontamination

- After 10 minutes of soaking in chlorine, 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

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

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

Step 1: Calculate Total parts (H20) = $\left[\frac{3.5\%}{0.5\%}\right]$ -1 = 7-1=6

Step 2: Take 1 part concentrated solution and add to 6 parts clean water.

Formula for Making a Chlorine Solution from Dry Powder

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

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

Step 1: Calculate grams/liter: $\left[\frac{0.5\%}{35\%}\right] x\ 1000 = 14.2\ g / L$

Step 2: Add 14.2 grams (14 g) to 1 litre of water.

Summary of how to prepare a 0.5% chlorine solution from pre-made solutions

To make 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
- Concentrated powder 35%: 14g of powder to 1 litre of water

CLEANING

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

Essential supplies for cleaning:

- Utility gloves
- Clean water
- Soft brush (toothbrushes work well)
- Detergent
- Basin (or sink) for washing
- Basin (or sink) for rinsing

- Protective apron
- Gumboots
- Goggles
- Face mask
- Head cap

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 clean water, soap, and friction to remove all organic material from instruments.

STERILIZATION

Sterilization is the process that ensures all microorganisms, including bacterial endospores, are destroyed.

There are three methods of sterilization:

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

High-Pressure Steam Heat (Autoclaving)

- 121°C (250°F); 106 kPa (15 lbs/in2) 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)

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

Chemical Sterilization

- Soak items in 2% glutaraldehyde for 8–10 hours. The solution must be prepared with cold or cooled, boiled water.
- Rinse with sterile water if available. If sterile water is not available, boiled water will serve the same purpose.

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

Boiling Tips

- Boil water first to breakdown mineral salts to preserve instruments.
- When water reaches a rolling boil, add decontaminated and pre-cleaned instruments, ensuring that they are completely immersed.
- Start timing when the water begins to boil after the instruments have been added. Boil for 20 minutes in a container covered with a lid.
- Indicate, by marking on the container, 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.

High-Level Disinfection by Steaming

Place only clean, dry items in the steamer pans. Start timing when the 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 covered 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.

Chemical High-Level Disinfection

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

- 0.1% chlorine (sodium hypochlorite)
- 2% glutaraldehydes

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 the container before use.

POST-EXPOSURE PROPHYLAXIS (PEP)

PEP is a course of anti-HIV medication, given to stop a person from becoming infected with HIV **after** the virus has entered the body. The drugs used in the PEP regime are the same as those used in antiretroviral therapy (ART) in the treatment of HIV infection, but for a defined period—4 weeks. The PEP is given as soon as possible, and would not be indicated or offered after 72 hours following the exposure.

What Health Workers (Technical and Support Staff) 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, and wash with water and soap, preferably antiseptic.
- Eye: irrigate with clean water or normal saline.
- Report to the clinician on duty as soon as possible.
- Consider PEP.
- Provide HIV Testing and Counselling for both the source of infection and the exposed. If results are negative for the exposed, regardless of results of the source, start ART course (preferable to start within 1–2 hours) refer table 4.1 for regime and dosage.
    - Immediately give a 3-day supply of PEP and have the exposed person start taking it as soon as possible.
    - Continue a 30-day course of antiretroviral (ARV) prophylaxis (PEP) if exposure is classified as “risks” and exposed person is HIV-negative:
        - Expanded PEP can be added if high risk of transmission (by starting full course of ART)
- If HIV testing is not available, start PEP while waiting for results.
- Do HIV testing at 6 weeks, 6 months, and 12 months.

Table 4-1. Post-Exposure Prophylaxis Regimens and Dosages (Number of Tablets)

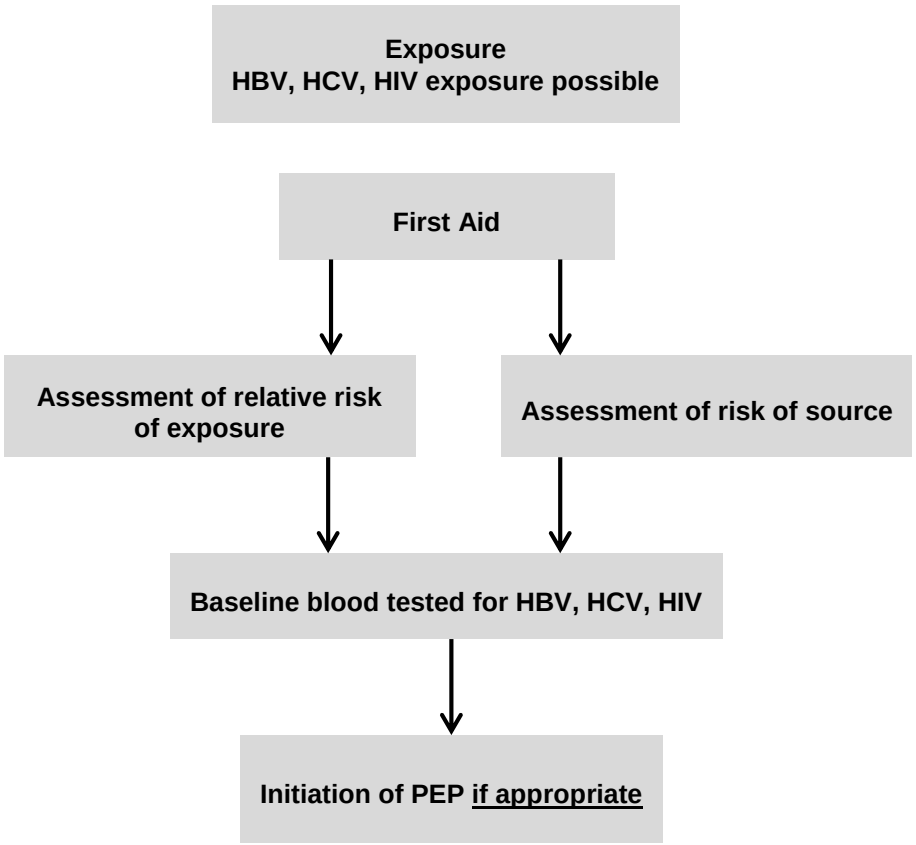
WEIGHT	STANDARD				ALTENATIVE			
	AZT 60 mg/3 TC 30 mg		AZT 300 mg/ 3 TC 150 mg	TDF 300 mg/ 3 TC 300 mg	D4T 6 mg/ 3TC30 mg		AZT 300 mg/AZT 300 mg/ TC 150 mg	
3.0–5.9 kg	1	1			1	1		
6–9.9 kg	1½	1½			1½	1½		
10–13.9 kg	2	2			2	2		
14–19.9 kg	2½	2½			2½	2½		
20–34.9 kg	3	3			3	3		
25–34.9 kg			1	1			1	1
>35.0 kg				0 1			1	1

Pep Follow-Up

At 30 days: after completing ARV prophylaxis:

- Assess adherence.
- Give 60 condoms.
- At 3 months and 6 months, repeat HIV testing and counselling (HTC).

Figure 4-1. Overview of PEP



CHAPTER 5: FAMILY PLANNING

INTRODUCTION

The family planning programme in Malawi allows individuals and couples to determine the number of children to have, when to have them, and at what intervals. This is achieved through the voluntary use of various devices, sexual practices, chemicals, drugs, or surgical procedures that interfere with the normal process of ovulation, fertilization, and implantation. The goal of family planning in Malawi is to reduce unmet need for the family planning services at all levels of care for all men, women, and young people of reproductive age, thereby promoting good health and social economic development. The 2010 Malawi Demographic and Health Survey (MDHS) reveals that Malawi has a CPR of 42%, unmet need of 26% and a total fertility rate of 5.7.

BALANCED COUNSELLING STRATEGY

Definition

The Balanced Counselling Strategy (BCS) is interactive, client-friendly counselling strategy that uses **three key job aids** (BCS algorithm, counselling cards, and method brochures) to guide comprehensive and high-quality family planning counselling for clients.

The provider should follow the following four counselling stages:

1. Pre-Choice Stage

- Establish and maintain a warm, cordial relationship, and listen to the client's contraceptive needs.
- Rule out pregnancy using the pregnancy card or pregnancy checklist.
- Display all FP methods using method cards, flip charts, or actual methods.
- Set aside methods that are not appropriate for the client by asking the following questions:

Table 5-1: Questions to Ask Clients to Determine Appropriate Family Planning Methods

	QUESTION	IF CLIENTS SAYS "YES"	IF CLIENTS SAYS "NO"
1	Do you wish to Have children in the future?	Set aside or eliminate vasectomy and female sterilization. Explain why.	Keep all methods and continue.
2	Are you breastfeeding an infant who is less than six months?	Set aside or eliminate combined oral contraceptives (COCs). Explain why.	Or she has begun her monthly bleeding again, set aside the lactational amenorrhoea method (LAM). Explain why.
3	Does your partner support you in family planning?	Continue with the next question.	Set aside the following cards: Standard Days Method. Explain why.
4	Are there any methods that you do not want to use or have not tolerated in the past?	Set aside or eliminate the method(s) that the client does not want.	Keep the rest of the methods or method cards.

Note: Setting aside these cards helps to avoid taking time to give information on methods that are not relevant to the client's needs.

2. Method Choice Stage

- Give information about the methods that have not been set aside, including their effectiveness.
- Ask the client to choose the method that is convenient for her/him.
- Determine the client's medical eligibility for the chosen method.

3. Post-Choice Stage

- Give the client complete information about the method that she/he has chosen, using the method brochure, if available, including:
  - How the method works
  - Side effects
  - Health benefits (if applicable)
  - How to use
  - Follow-up (if applicable)
  - When to return to the health facility
- Check the client's comprehension and reinforce key information.
- Make sure the client has made a definite decision. Give her/him the selected method, or a referral and backup method, depending on the method selected.
- Encourage the client to involve her/his partner(s) in the decision about contraception, either through discussion or a visit to the clinic.

4. STI/HIV Prevention, Risk Assessment, and Counselling and Testing Stage

- Discuss STI/HIV transmission and prevention and the client's status.
- Offer provider-initiated testing and counselling (PITC). Refer to Guidelines for HIV Clinical Care.
- Explain which contraceptives prevent and do not prevent STI/HIV transmission.
- Discuss dual protection using the appropriate counselling card. Offer male or female condoms and instruct the client in correct and consistent use.

TYPES OF FAMILY PLANNING METHODS

BARRIER METHODS

Definition

These are family planning devices that create a barrier to prevent sperm and microorganisms from gaining access to the reproductive tract. The common ones are male and female condoms and the diaphragm.

Male Condoms

Definition

Thin latex sheaths that may be treated with a spermicide for added protection. They are placed on the penis once it is erect. The majority of condoms are made of thin latex rubber.

Mechanism of Action

- Prevent sperm and microorganisms from gaining access to the female reproductive tract.

Who Can Use Male Condoms

- Men who wish to participate actively in family planning and prevention of STIs/HIV and hepatitis B virus (HBV)
- Couples/individuals who need contraception immediately
- Couples/individuals wishing to avoid pregnancy and/or STIs, including HIV and HBV, even if using another contraceptive method (dual protection)
- Couples/individuals needing a backup method
- An individual or either partner (where couples are concerned) who has more than one sexual partner (at high risk for HIV/STIs)
- Couples/individuals who have intercourse infrequently

Conditions Requiring Precaution

- 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 condoms correctly and consistently
- Couples/individuals using miconazole/econazole for vaginal infections

Table 5-2. Management of Common Problems and Side Effects: Male Condoms

PROBLEMS AND SIDE EFFECTS	MANAGEMENT
Condom broken or breakage suspected (before intercourse)	Discard and use a new condom; use condom correctly.
Condom breaks or slips off (during intercourse)	Withdraw the penis immediately and put on a new condom correctly. Consider using a method of emergency contraception, HIV testing and post-exposure prophylaxis.
Suspected allergic reaction to condom	Rule out infection, allergy, or mechanical reaction. If allergy to the condom is established, help the client choose another method.

Client Instructions on How to Use a Male Condom

1. Check the expiration date on the condom package.
2. Open the package carefully so the condom doesn't tear.
3. Don't unroll the condom before putting it on.
4. Place the unrolled condom on the tip of the hard penis.
5. Hold the tip of the condom with the thumb and forefinger.
6. Unroll the condom until it covers the penis.
7. Leave enough space at the tip of the condom for the semen.

8. After ejaculation, hold the rim of the condom and pull the penis out of the vagina before it becomes soft.
9. Use only one condom at a time.
10. Always keep a supply of condoms readily available.
11. Use only water-based lubricants.
12. Dispose of used condoms by placing in a waste container/pit latrine or burning. Do not flush in a water closet.

Figure 5-1. Correctly Using a Male Condom

1. Use a new condom for each act of sex.

2. Before any contact, place the condom on tip of erect penis with rolled side out.

3. Unroll the condom all the way to base of penis while holding the tip.

4. After ejaculation, hold rim of condom in place, and withdraw penis while it is still erect.

5. Dispose of the used condom safely in a waste container/pit latrine or burn it.

Female Condoms

Definition

A soft, loose-fitting polyurethane or latex sheath with two flexible rings, which the woman inserts into her vagina before sex, such that during intercourse the penis slips inside the female condom.

Mechanism of Action

- Prevent sperm and microorganisms from gaining access to the female reproductive tract.

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
- An individual or either partner (where couples are concerned) who has more than one sexual partner (at high risk for STIs)
- A female whose partner cannot or is not willing to use a male condom
- Couples/individuals who have intercourse infrequently

Conditions Requiring Precaution

- Couples/individuals who need a highly effective method of contraception
- Couples/individuals not willing or able to use the condom correctly and consistently

Note: Do not use male and female condoms simultaneously.

Management of Common Problems and Side Effects

Table 5-3. Management of Common Problems and Side Effects: Female Condoms

PROBLEMS AND SIDE EFFECTS	MANAGEMENT
Outer ring going into the vagina during intercourse	The male partner should withdraw the penis immediately and the female partner should insert a new condom. Consider using a method of emergency contraception, HIV testing and post-exposure prophylaxis.
Suspected allergic reaction to condom	Rule out infection, allergy, or mechanical reaction. If allergy to the condom is established, help the client choose another method.

Client Instructions on How to Use a Female Condom

1. Check the expiration date on the condom package.
2. Open the package carefully so the condom doesn't tear.
3. Find the inner ring, which is at the closed end of the condom.
4. Squeeze the inner ring together.

5. Put the inner ring in the vagina after spreading the labia apart and push up into the vagina with the finger. (The outer ring stays outside the vagina.)
6. During sex, guide the penis through the outer ring. (If it is outside the ring, it will not offer protection from pregnancy or STIs/HIV.)
7. Remove condom immediately after sex, before standing up.
8. After the man withdraws his penis, squeeze and twist the outer ring to keep the sperm inside the pouch.
9. Pull the pouch out gently.
10. Burn or bury the condom, or throw it in a pit latrine; do not put it down the toilet.
11. Use water-based lubricants if the female condom is made of latex.
12. Use a new female condom every time you have intercourse.

HORMONAL METHODS

Combined Oral Contraceptives (COCS)

Definition

Combined oral contraceptives are medicines taken by mouth to prevent pregnancy also commonly known as pills. They contain two synthetic hormones, oestrogen and progestin which are similar to those naturally present in a woman's body.

Mechanism of Action

- Inhibit ovulation
- Prevent implantation
- Thicken cervical mucus

Who Can Use COCS

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

Who Should Not Use COCS

Women with the following conditions are in WHO category 4 of Medical Eligibility Criteria (should not use COCs):

- Hypertension of 160/100 mm Hg and higher

- Diabetes mellitus with vascular disease (e.g. hypertension)
- History of thromboembolism, cerebral vascular accident (CVA) or stroke
- History of ischemic and valvular heart disease
- History of breast cancer or active liver disease
- History of delivery less than 3 weeks earlier or women who are pregnant

When to Initiate Method

- Anytime during the menstrual cycle when you can be sure the client is not pregnant, but if it is more than 5 days after the start of her monthly bleeding, the client needs to use a backup method for the first 7 days of taking pills
- Postpartum after 3 weeks if not breastfeeding and 6 months if breastfeeding
- After miscarriage and post abortion (immediately or within 7 days)
- Immediately after finishing emergency contraceptive pills, use backup for 7 days
- Start immediately if switching from another hormonal method and IUCD; if switching from an injectable, start when on the date of the repeat injection

Counselling Client on Initiation of Pills

- Take one pill each day, at the same time.
- Counsel for dual protection with condoms if there is the slightest risk of the client acquiring STI/HIV and for clients who are HIV-positive.
- Counsel on side effects.

Table 5-4. Messages and Actions for Missed COCs

KEY MESSAGE	ACTION
Missed 1 or 2 pills	Take a hormonal pill as soon as possible. Keep taking pills as usual—1 each day.
Missed 3 or more pills in the first and second week	Take a hormonal pill as soon as possible. Use a backup method for next 7 days.
Missed 3 or more pills in the third week	Take a hormonal pill as soon as possible. Finish all the hormonal pill in the pack. Throw away the 7 non-hormonal pills. Start a new pack the next day. Use a backup method for next 7 days.

Counsel to keep appointment for re-supply or seek services earlier if supplies are misplaced.

Danger Signs for Hormonal Contraceptive Users (Aches)

A - Abdominal pains
C - Severe Chest pains
H - Severe Headaches
E - Severe Eye problems (blurred vision)
S - Severe leg pains

If a woman using COCs experiences any of these danger signs, she should immediately report to the facility.

Progestin-Only Pills (POPS)

Definition

Oral contraceptive pills containing one synthetic hormone known as progestin. They are also known as mini-pills.

Mechanism of Action

- Inhibit ovulation
- Prevent implantation
- Thicken cervical mucus

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 or unevaluated breast lump
- Women who cannot remember to take a pill every day at the same time
- Women on rifampicin, phenytoin, or barbiturates

When to Initiate Method

Counselling the client on use of POPs:

- Instruct client to take one pill each day, at the same time.
- Counsel for dual protection with condoms if there is the slightest risk of acquiring STI/HIV and for clients who are HIV-positive.
- Counsel on side effects.

POPs can be commenced within 2 weeks of delivery if the mother is not breastfeeding.

Table 5-5. Messages and Actions for Missed POPs

KEY MESSAGE	ACTION
Miss 1 pill	Take a missed pill as soon as you remember. Continue on normal pill schedule.
If you miss 2 or more menstrual periods	Come to the clinic to check if you are pregnant. Do not stop taking the pills unless you know you are pregnant.

Progestin-Only Injectable Contraceptives (PICS)

Definition

These are injectable contraceptives containing a long-acting synthetic hormone (progestin) for the prevention of pregnancy.

Mechanism of Action

- Inhibit ovulation
- Prevent implantation
- Thicken cervical mucus

Who Can Use PICS

- 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 desired family size who do not want voluntary surgical contraception

Who Should Not Use PICs

- Suspected or confirmed pregnancy
- Women with unexplained vaginal bleeding (until evaluated)
- Women with current or past history of breast cancer, liver disease, or high blood pressure

When to Initiate Method

- Anytime during the menstrual cycle when you can be reasonably sure the client is not pregnant.
- Postpartum:
  - After 6 months if using LAM
  - After 6 weeks if breastfeeding but not using LAM
  - Immediately or within 3 weeks if not breastfeeding
- Post abortion (immediately or within 7 days)

Client Instructions

- Do not rub the injection site as this dissipates the drug and thus shortens its protection.

- Return to the health clinic for an injection every 3 months (Depot-Medroxyprogesterone Acetate [DMPA]) or every 2 months (norethindrone-enanthate [NET-EN]).
- PICs do not provide protection against STIs including HIV and HBV, so use of condoms in addition to the injection is advised.
- Irregular vaginal bleeding or spotting is common in the first 2–3 months. Report to the clinic if heavy.

Warning Signs for PIC 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 in duration)
- Migraine (vascular) headaches, repeated very painful headaches, or blurred vision

Combined Injectable Contraceptives (CICs)

Definition

These are injectable contraceptives containing a well-balanced combination of proven estrogenic and progestogenic compounds.

Who Can Use

All women who can use COCs can also use CICs.

Who Should Not Use

- Women who are pregnant
- Women with previous or active tumours
- Women with existing or history of deep vein thrombosis
- Women with existing or history of cancer of the breast or endometrium
- Women with severe diabetes and/or vascular changes

When to Initiate Method

- Within the first 5 days of the menstrual cycle

Instructions to Clients

- Do not rub the injection site.
- Return to the health facility for an injection every month.
- CICs do not provide protection against STIs including HIV and HBV, so use of condoms in addition to the injection is advised.

Implants

Definition

These are thin, flexible rods 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.

Who Should 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 in the post abortion period
- Women with desired family size who do not want voluntary surgical contraception
- Women who prefer not to or should not use contraceptives containing eostrogen

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 past history)
- Women with active liver disease, high blood pressure or active thrombo-embolitic disease

When to Initiate Method

- Anytime during the menstrual cycle.
- Postpartum:
  - After 6 months if using LAM
  - After 6 weeks if breastfeeding
  - Immediately or within 3 weeks if not breastfeeding
  - Post abortion (immediately or within the first 7 days)

When to Remove

- When the client has developed side effects that cannot be managed/tolerated
- When the client has an infection with an abscess at the insertion site
- When the client wants a baby
- At the end of 3–5 years after insertion, depending on the effectiveness period of the implants
- When the client wants it removed

Instructions to Client

- Keep the incision site dry and clean for at least 48 hours to prevent infection.
- If inserted in the middle of the cycle, however, use a backup method for 7 days.
- Leave the gauze pressure bandage in place for 48 hours after insertion.
- Return to the clinic for any problems.

Warning signs for implants users

The warning signs for implants users are the same as the warning signs as for PIC users.

Emergency Contraception

Definition

There are methods women can use after unprotected intercourse to prevent pregnancy, also referred to as post-coital contraception, morning-after pill, or morning-after contraceptive. Emergency contraception should not be used as a regular family planning method.

Who Can Use Emergency Contraception

Women who:

- Have been raped
- Have unplanned, unprotected intercourse
- Have incorrectly used another contraceptive method

Who Should Not Use Emergency Contraception

- Women who are pregnant or suspected of being pregnant

Initiation of Method

EC:

- Take 2 tablets of Postinor-2 or Pregnon (750 μ g levonorgestrel) as 1 single dose.

Or

- Take 1 tablet of Postinor-1 (750 μg levonorgestrel) orally immediately after sex or within 5 days of unprotected intercourse and 1 more tablet after 12 hours.

COCs:

- Take 4 tablets of a COC immediately after sex or within 5 days of unprotected intercourse.
- Take 4 more tablets 12 hours after first dose.

Client Instructions

The provider should:

- Counsel the client to choose a family planning method after the emergency contraception.
- Advise the 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; however, emergency contraception does not cause ectopic pregnancy)

Table 5-6. Conditions Requiring Precaution if the Client Chooses COCs as a Method after Emergency Contraceptive Pills

CONDITION	RECOMMENDATION
High blood pressure	Initiate and re-supply 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.
Migraines	COCs should not be given if client has focal neurological problems. If migraine develops while on COCs, stop immediately.
Taking drugs for epilepsy (barbiturates, phenytoin) and tuberculosis (rifampicin)	Use backup method until treatment is over, or help client choose another method. 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.
Sickle cell disease	Women with sickle cell disease should avoid using COCs unless other, more appropriate methods are not available or acceptable. However, women with sickle cell trait may use COCs.
Ischemic heart disease (past or current)	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.

Hormonal Contraception and HIV

- Hormonal contraception does not protect against HIV acquisition; hence, dual protection with correct and consistent use of condoms should be encouraged in all individuals at risk of HIV.
- Current evidence also does not support the association between hormonal contraception use and the rate of HIV disease progression.
- All existing hormonal contraceptives (oral contraceptive pills, contraceptive injectable, patches, vaginal rings, and implants) are category 1 of WHO Medical Eligibility Criteria for women at high risk of HIV or living with HIV.
- Women should be given correct and full information by health care providers in order to make an informed choice.

Women at High Risk of HIV Infection

- Can continue to use all existing hormonal contraceptive methods without restriction

- Should have access to and use condoms (male or female) correctly and consistently
- Should use other measures to prevent and reduce their risk of HIV infection and STIs
- Should be strongly advised always to use condoms when using progestogen-only injectable contraception

Women Living with HIV Infection Not on ART

- Can continue to use all existing hormonal contraceptive methods without restriction
- Can use all existing hormonal contraceptives without concern related to disease progression
- Should use condoms correctly and consistently to prevent HIV transmission to non-infected partners
- Voluntary use of contraception by HIV-positive women who wish to prevent pregnancy is crucial in reduction of MTCT

Women Living with HIV Infection on ART

- Should be counselled about the importance of combining their chosen method with effective HIV prevention interventions, including condoms
- Should be counselled that certain ART regimes may render some hormonal contraceptive methods (oral contraceptive pills and implants) less effective, and hence they may need dual protection
- Should be informed that ART is unlikely to have an impact on efficacy of DMPA and hormonal IUCDs

Use of Implants and ART

- Implants (Jadelle and Implanon) are WHO MEC category 2 with use of ART, meaning that the benefit outweighs the risk.
- Providers should ensure that counselling includes inquiries about use of ART in women living with HIV intending to use implants.
- Providers should counsel clients regarding the risk of potential failure with the interaction between implants and ART and certain types of ART (efavirenz, nevirapine, and cobicistat boosted elvitegravir); they should offer alternative contraceptive options for consideration.
- Women using this ART regimen and intending to use implants should be counselled on dual method and dual protection with condoms.

INTRAUTERINE CONTRACEPTIVE DEVICES (IUCDS)

Definition

A small, flexible, plastic frame with copper sleeves or wire around it. The device is inserted into the uterine cavity to prevent pregnancy. Available types are made of plastic and are medicated with copper, silver, or progestin (e.g. Copper T 380A [most readily available in Malawi], Multiload 375, Progestasert®, and LevoNova®).

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 in postpartum period from immediately after birth.
- Women with a history of ectopic pregnancy
- Women who are in the immediate post abortion period with no signs of pelvic infection

Who Should Not Use IUCDs

- Women who are pregnant (known or suspected)
- Women with unexplained vaginal bleeding (until evaluated)
- Women with active STIs (gonorrhoea and chlamydia), active pelvic inflammatory disease (PID), or septic abortion within the last 3 months
- Women with congenital uterine abnormalities or benign tumours, cervical stenosis, and genital tract cancers (fibroids) of the uterus that significantly distort the uterine cavity
- Women with known pelvic tuberculosis

Intrauterine Devices for Women with HIV

- Women who are at risk of HIV or are infected with HIV can safely have the IUD inserted.
- Women who have AIDS, are on ART, and are clinically well can safely have the IUD inserted.
- Women who have AIDS but who are not on ART or who are not clinically well should not have the IUD inserted.
- If a woman develops AIDS while she has an IUD in place, it does not need to be removed.
- IUD users with AIDS should be monitored for PID.
- Urge women to use condoms along with the IUD. Used consistently and correctly, condoms help prevent transmission of HIV and other STIs.

Table 5-7. Conditions Requiring Precautions for the IUCD

CONDITION	RECOMMENDATION
Nulliparous	Recent, well-constructed studies suggest no increased risk (WHO category 2) the advantages of using the method outweighs the risks
Women who are at high risk for STIs (gonorrhoea or chlamydia)	WHO category 3 (the risk outweighs the advantages of using the method)

Table 5-8. Management of Common Problems and Side Effects of the IUCD

PROBLEMS AND SIDE EFFECTS	MANAGEMENT
Amenorrhoea	Check for pregnancy: • If not pregnant, do not remove IUCD. Counsel and reassure. Refer for further investigation if 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. • However, advise her of increased risk of miscarriage and infection and that pregnancy should be followed closely.
Cramping	Rule out PID (speculum and bimanual examination) and other causes of cramping. 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.
Irregular or heavy vaginal bleeding	Rule out pelvic infection and ectopic pregnancy (speculum and bimanual examination). 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 (haemoglobin < 7 g/dl), recommend removal and help client choose another method.
Missing strings	Rule out pregnancy. Inquire if IUCD has expelled. If not pregnant and IUCD has 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.

Instructions to Clients

- Tell client what type of IUCD she has and when it should be removed and provide a card with this information on it.
- Return for check-up after the first menses to check and subsequently only as needed or when time for removal. During the first month after insertion, check the strings once a week.
- After the first month, you need to check the strings only after menses if you are having cramps, spotting, or pain during intercourse.
- 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, or the IUCD gets expelled or you miss a period.

FERTILITY AWARENESS-BASED METHOD (NATURAL METHODS)

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.

Who Can Use Fertility Awareness-Based Methods

For contraception:

- Women of any reproductive age
- Women unable/unwilling to use other methods
- For conception
- Couples who wish to conceive

A woman can use the methods several ways, alone or in combination, to tell when her fertile time begins and ends.

Calendar-based methods involve keeping track of the days of the menstrual cycle to identify the start and end of the fertile time.

- Examples: Standard Days Method and calendar rhythm method

Symptoms-based methods depend on observing signs of fertility.

- **Cervical secretions:** When a woman discharges clear stretchable cervical secretions, she may be fertile. She may feel just vaginal wetness.
- **Basal body temperature (BBT):** A woman's resting body temperature goes up slightly after the release of an egg (ovulation) and when she could become pregnant. Her temperature stays higher until the beginning of her next monthly bleeding.
- **Examples:** Two Day Method, BBT method, ovulation method (also known as Billings method or cervical mucus method), and the sympto-thermal method.

Table 5-9. Conditions Requiring Precautions for Fertility Awareness-Based Methods

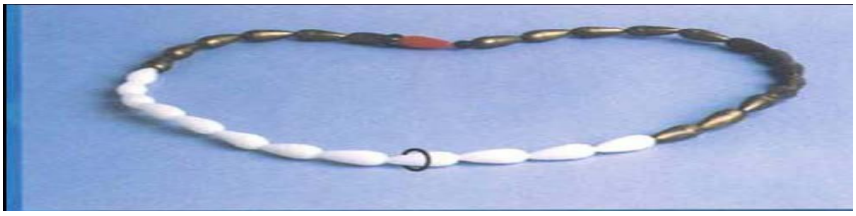
CONDITION	RECOMMENDATION
Irregular menses	Client should not use the calendar method, but may use BBT, Billings or sympto-thermal method.
Persistent vaginal discharge	Evaluate and treat appropriately. If discharge persists, counsel client that it will be more difficult to predict fertility using the cervical mucus method.
Breastfeeding	Counsel client that it will be more difficult to predict fertility using the cervical mucus method.
Women whose age, parity, or health problems make pregnancy a high risk	Counsel client on high risk factors, and recommend another method.
Women without established menstrual cycles (breastfeeding, immediately post abortion)	Counsel client on increased probability of getting pregnant, and recommend another method.
Women with irregular cycles (calendar method only)	Counsel client on increased probability of getting pregnant, and recommend another method.
Women whose partner will not cooperate (abstain) during the fertile times in the cycle	Counsel client on increased probability of getting pregnant, and recommend another method.

The Standard Days Method

Definition

The Standard Days Method (SDM) is a "new" method of natural family planning in which users are counselled to abstain from sexual intercourse on days 8–19 of the menstrual cycle when cycles are between 26 and 32 days long. The couple uses a device, the color-coded "cycle beads", to mark the fertile and infertile days of the menstrual cycle. The standard formula in defining this fertile period was based on a theoretically established fertile window.

Cycle beads



Effectiveness

Perfect use: 95%
Typical use: 88%

Who Can Use SDM

The SDM works well for women who usually have menstrual cycles between 26 and 32 days long.

Who Cannot Use SDM

Women with cycles not within 26–32 days cannot use the method.

How to Use Cycle Beads

1. On day 1, the first day of the monthly bleeding, move the rubber ring to the red bead.
2. The next day, move the ring to the next bead.
3. White bead days are days when the woman can become pregnant. She should avoid unprotected sex.
4. Brown bead days are days when pregnancy is unlikely and she can have unprotected sex.
5. If monthly bleeding begins again before reaching the dark brown bead, her menstrual cycle is shorter than 26 days.
6. If monthly bleeding does not begin before reaching the last brown bead, her menstrual cycle is longer than 32 days.

Each bead represents a day of the menstrual cycle.

LACTATIONAL AMENORRHOEA METHOD (LAM)

Definition

A temporary family planning method based on the natural effect of breastfeeding on fertility.

Who Can Use LAM

Any woman (including those who are HIV-positive) who meets all of 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

When to Initiate

- Start breastfeeding immediately after birth.

Client Instructions

- Breastfeed baby exclusively.
- You will need another method when your period returns or baby over 6 months.

DUAL PROTECTION

Definition

Dual protection is protection from both pregnancy and STI/HIV/hepatitis B at the same time. As the only effective protection for STI/HIV/hepatitis B is the condom, which none the less is not a very effective method for preventing pregnancy, dual protection involves using a condom plus another effective contraceptive. Other barrier methods do not protect against STI/HIV/hepatitis B effectively.

Who Can Use

- Clients who wish to prevent pregnancy and STI's including HIV
- Clients who consider themselves or their partners at risk of STI and HIV infection

Role of Providers

- 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 condoms, but they are not necessarily the most effective contraceptives.

- Combining a condom with a more effective contraceptive will, therefore, maximize 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 the female condom.

Male Condom

Latex condoms provide better protection against HIV and are available in all textures and thicknesses to suit different tastes.

Female Condom

These are made from polyurethane or vinyl plastic and come in one size.

Note: See section on condoms for more details.

VOLUNTARY SURGICAL CONTRACEPTION

Definition

Voluntary surgical contraception is a minor surgical procedure for permanently terminating fertility in both men and women.

Types

- Female surgical contraception
- Male surgical contraception

Standardized Female Sterilization Surgical Contraception

Definition

Female surgical contraception is a surgical procedure by which the fallopian tubes are blocked by tying and/or cutting through the tubes and separating the ends. **Standardized female sterilization focuses on use of special equipment—uterine elevators, tubal hooks, and pain management**—to reduce client anxiety and perception of pain and discomfort during and after the procedure. The recommended pain management regime should include: diazepam 2–10 mg orally 30–45 minutes before the procedure; diclofenac 100 mg/ibuprofen 400 mg 30–45 minutes before the procedure; lignocaine 1% without epinephrine, not exceeding 300 mg (for infiltration); and "verbocaine." Trained providers at facilities conduct the procedure.

Who Can Undergo Female Sterilization

- Women of any reproductive age or parity (adolescents exceptional, WHO category C)
- 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

Table 5-10. Conditions or Situations Requiring Precaution for Female Sterilization

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 follow-up management.
Single and/or with no living children	Counsel very carefully and allow additional client time to make an informed decision. Help client choose another method, if appropriate.

Who Should Not Undergo Sterilization

- 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 have not given voluntary informed consent

When to Perform Female Sterilization

- Anytime during the menstrual cycle once you can be sure that the client is not pregnant, preferably between days 6 and 13 of the menstrual cycle
- Postpartum:
  - Minilaparotomy:
    - Immediately or within 7 days after delivery, provided there is no evidence of pelvic infection or trauma, or
    - At 6 weeks postpartum
  - Laparoscopy: not appropriate for postpartum clients
  - Post abortion: within 48 hours after uncomplicated abortion

Table 5-12. Management of Problems with Female Sterilization

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 or refer.
Haematoma (subcutaneous)	Apply warm, moist pack to site. Observe.
Gas embolism resulting from laparoscopy (very rare)	Intensive resuscitation may be necessary, including: • Intravenous fluids • Cardiopulmonary resuscitation • 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.

Instructions to Clients

- Keep the operative site dry for 2 days. Resume normal activities gradually. Avoid sexual intercourse for 1 week or until comfortable.
- Avoid heavy lifting and hard work for 1 week.
- Schedule a routine follow-up visit between 7 and 14 days after surgery.
- Return after 1 week for review and removal of non-absorbable sutures.
- Menstrual periods will continue as usual.

Male Surgical Contraception

Definition

Male surgical contraception (commonly known as vasectomy) is a procedure by which the vas deferens is blocked or cut through.

Who Can Undergo Vasectomy

- Men of any reproductive age (adolescents exceptional, WHO category C)
- Men who have achieved their desired family size and want a permanent contraceptive method
- Men whose wives have health problems that might pose a serious health risk if she becomes pregnant

Table 5-13.Conditions or Situations Requiring Precaution for Male Surgical Contraception

CONDITION OR SITUATION	RECOMMENDATION
Single and/or with no living children	Counsel very carefully and allow additional time to make an informed decision.
Symptomatic heart disease or clotting disorders, diabetes mellitus, severe anaemia, hypertension)	Clients with significant medical problems may need special surgical and follow-up management.
Reproductive tract infection/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, intra-scrotal mass, undescended testes and proven fertility, cryptorchidism (if bilateral and proven fertility), AIDS-related conditions	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 have not given voluntary informed consent should not undergo vasectomy.
- For men in WHO MEC category D, the procedure should be delayed until the condition is evaluated and/or corrected. Alternative temporary methods of contraception should be provided.

When to Perform Vasectomy

- Anytime when the client is ready

Table 5-14. Management of Problems for Male Surgical Contraception

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.

Instructions to Clients

- Keep dressing on for 3 days.
- Keep the area dry for 3 days.
- Wear a scrotal support for 3 days.
- For pain, take analgesics as required. Avoid heavy lifting and hard work for 3 days.
- If comfortable, you may resume sexual intercourse after 3 days. Remember to use condoms or another family planning method for 3 months.
- Return after 1 week for review and removal of sutures if non-absorbable sutures were used to close the wound.
- Come back for semen analysis 3 months after the operation if you wish to have proof that the vasectomy is completely effective.

FAMILY PLANNING AND HIV INTEGRATION

Implementing routine provider-initiated testing and counselling (PITC) at the family planning clinic:

- Providers should ensure that all women with unknown status at the FP clinic are offered PITC.
- Providers delivering FP services should be trained in PITC to ensure that women with unknown HIV status are tested while at the FP clinic, hence reducing the number of referrals.
- Proper referral mechanism should be put in place for those who are found positive to link them to the pre-ART/ART clinic.
- All women found to be HIV-negative should be counselled on risk reduction and dual protection.

Implementing Routine Provider-Initiated Family Planning in the HIV Clinic:

- Providers should assume that all patients aged 15 years and above are sexually active.
- Providers should counsel clients on all methods available so that they make an informed choice.
- Providers should offer methods that are readily available in the clinic, i.e. Depo-Provera, to women and refer them for the other methods appropriately.

- Proper referral mechanisms should be put in place for clients who want other FP methods and ensure these are synchronized with clinic visit to prevent incurred costs.
- Providers should counsel women who are HIV-positive on the importance of preventing unintended pregnancies as one of the prongs of PMTCT.
- Providers should ensure that the right of HIV-positive women to have children is respected and that family planning is practiced based on identified risks and out of choice.
- Providers should counsel women on ART about the need for a dual method and dual protection, especially those intending to use COCs and implants.
- Providers should counsel all HIV-positive clients on the need for dual protection and provide female and male condoms.

CHAPTER 6: COMPREHENSIVE POST ABORTION CARE

Definition

Post abortion care (PAC) is the comprehensive management of a woman following a spontaneous or induced abortion. This includes the following:

- Emergency treatment of incomplete abortion and potentially life-threatening complications
- Provision of family planning (FP) counselling and services
- Links between emergency care and other reproductive health (RH) services such as infertility screening, STI management, cervical cancer screening, and continuation of FP services
- Community involvement/participation, which is essential in the establishment of and success of PAC services at all levels

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 including counselling for FP.

Client assessment

The first step in providing care to a woman suspected of having an incomplete abortion is to assess her clinical situation. Upon presentation, an initial assessment should be promptly conducted to look for signs of shock. Once assured that the patient is not in shock, the service provider should conduct a thorough medical evaluation, which includes medical history, general physical examination, and pelvic examination, as detailed in Table 6-1.

Table 6-1. Clinical Evaluation for Post abortion Care

Initial Screening	Assess for signs of shock: • Rapid, weak pulse (> 110/min) • Low blood pressure (less than 60) • Pallor and sweating (cold and clammy skin) • Rapid breathing (more than 30/minute) • Anxiety, confusion, or altered consciousness • Temperature > 38° (sepsis) or subnormal < 35° (hypothermic)
Once shock has been ruled out, or resuscitation measures begun, proceed with the remainder of the evaluation.	

Medical History	Ask about and record the following information: • Missed period (when was her last menstrual period) • Previous obstetrical history • History of interference with the pregnancy: – Insertion of unclean instruments or other materials into the uterus – Whether patient has taken any herbal preparation, medicine, or poison that may have serious side effects • Current contraceptive method (IUCD, implants, or progestin-only injectable or pills) • Vaginal bleeding (duration and amount) • Cramping (duration and severity) • Abdominal or shoulder pain (may indicate intra-abdominal injury) • Passed products of conception (POC) • History of recurrent abortion and cause • Other health conditions, e.g. malaria • Drug allergies • Tetanus toxoid vaccine received • Bleeding or clotting disorders
General Physical Examination	• Check and record vital signs (temperature, pulse, respiration, blood pressure). • Note general health of woman (malnourished, anaemic, general poor health). • Examine lungs, heart, abdomen, extremities. In examining the abdomen, first check bowel sounds, then check to see if the abdomen is distended or rigid (tense and hard); if there is rebound tenderness or abdominal mass (es); and the presence, location, and severity of pain.
Pelvic Examination	• Inspect vulva for bleeding, amount of bleeding, odour, presence of herbs, etc. • Perform a speculum examination. • Remove any visible POC from vaginal canal. • Note if there is a foul-smelling discharge, the amount of bleeding, and whether the cervix is open or closed. • Check for vaginal or cervical trauma (tears, perforations, or any signs of interference) or mucopus (pus-like mucus) from the cervical os. • Examine uterine size based on LMP and examination; check for any pelvic masses and pelvic tenderness, severity of the pain, and its location.

Once the physical examination is finished, the provider may consider certain investigations. In the majority of cases, history and physical examination alone will be enough to make the diagnosis. If there is doubt, however, a pregnancy test and possibly ultrasound evaluation may help to confirm or rule out clinical suspicions such as ectopic pregnancy. Additionally, blood tests such as hemoglobin estimation, grouping and cross-matching may be important if anaemia is severe.

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, as detailed in Table 6-2 below.

Table 6-2: Immediate Management of Complications of Post abortion Care

CONDITION	SIGN/SYMPTOMS	IMMEDIATE TREATMENT
Shock	• Pulse: Rapid, weak pulse (tachycardia) • BP: Less than 90/60 mmHg (hypotension) • Skin: Cold, pale and sweaty • Syncope (fainting) • Oliguria (30 ml/hour) even after catheterization • Altered sensorium (consciousness) • Features of disseminated intravascular coagulation may be found	• Start I/V fluids: Ringer's lactate or normal saline. Give 1 litre immediately, 1 litre over the next hour, then 1–2 more litres over 4–8 hours. • Give oxygen 2–4 litres per minute by mask (if available). • Keep warm. • Elevate legs. • Give nothing by mouth. • Consider transfusion. • Manage cause of shock (infection, haemorrhage, etc.). • Refer.
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. • Assess for genital tract injuries. • Refer.
Infection/ sepsis	• Fever (temperature higher than 38°C/100.4°F) with chills • Foul-smelling vaginal discharge • Lower abdominal tenderness • Mucous 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 stat, then 1 g I/V 8 hourly; gentamicin 240 mg once daily IV; *and* metronidazole 500 mg I/V 8 hourly for 7 days. • Refer.
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; Ringer's lactate 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 antibiotics (as above). • Manage pain with small doses of narcotics. • Refer.

Note: If unable to manage on-site, prepare for immediate transfer once stabilized. Only after the patient has been stabilized can the service provider proceed with uterine evacuation. In the event that there is suspicion of ruptured ectopic pregnancy or peritonitis, proceed with preparation for emergency exploratory laparotomy and alert surgical team to be ready.

Management of incomplete abortion

- Incomplete abortion is treated by evacuating the uterine cavity to remove the remaining products of conception (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.
- Treatment of first trimester incomplete abortion should be performed by manual vacuum aspiration (MVA) and use of misoprostol.
- Treatment of mid- and late-second trimester incomplete abortion (uterine size of 14–28 weeks) should be performed by sharp curettage in hospitals by qualified and experienced medical personnel. In these second trimester abortions, providers should use appropriate equipment with full emergency backup services.

MVA Procedure

(MVA is the process whereby the POC are removed 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 and can be performed in a clean procedure room.

Sharp Curettage

Sharp curettage requires systematic pain medication (narcotics) and is performed in an operating theatre

Medical Evacuation (Misoprostol for Post abortion Care)

Benefits of Using Misoprostol in PAC

1. Ease of clinical use:
   - May be self-administered
   - Less risk of infection
   - Less risk of injury
   - No need to wait for equipment
   - Can be provided in remote facilities
   - Less skilled providers can administer
   - Inexpensive
   - No refrigeration needed
   - Several routes options (oral, sublingual and intravaginally)
2. Women usually highly satisfied
3. Offers more choices for women:
   - Right of choice and of benefits of new scientific developments

What to do before giving misoprostol:

- Confirm diagnosis of incomplete abortion.
- Assess and rule out: allergy, ectopic pregnancy, haemorrhagic disorder, and anticoagulant therapy.

- Precautions:
  - IUCD – remove,
  - Severe anemia – transfuse
  - Clinically ill and unstable – stabilize
  - Sepsis – treat appropriately.
- Counselling:
  - Provide emotional support.
  - Provide information on rapid return to fertility, counsel on family planning and offer a method.
- Methods can be started with misoprostol except IUCD or bilateral tubal ligation.

Misoprostol Regime for Incomplete Abortion (PAC)

- Single oral dose of 600 mcg misoprostol or 400 mcg sublingually.
- Directly observe woman taking misoprostol.
- Give medication for pain at the same time.
- Observe client in clinic for 30 minutes and attend to her if she expels the POC.
- Repeat the dose if she vomits within 30 minutes.
- Provide telephone contact.

Use of Antibiotics; Rh Isoimmunisation

- Infection rates very low with misoprostol use
- No evidence to support routine use of antibiotics
- Risk of maternal sensitization low
- Lack of Rh-immunoglobulin should not be a barrier to PAC
- Where Rh negative is high and anti-D is available, administer same time as misoprostol

Pain Management

Pain can be minimized 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.

Recommended drugs for pain control include:

- Pethidine 100 mg, IM or IV
- Morphine 10 mg IM or IV

- Diclofenac 75 mg IM
- Cervical block by lignocaine

Post abortion family planning

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

- Information and counselling on methods, their characteristics, effectiveness, and side effects
- Availability of a wide range of FP methods
- Counselling about contraceptive needs in the context of the client's reproductive goals and need for protection against STIs and HIV/AIDS
- Provision of chosen FP method prior to discharge

The minimum information on FP that a woman treated for incomplete abortion needs to understand before she is provided a FP method and before she is discharged is the following:

- She will be at risk of repeat pregnancy as early as 7 days post abortion.
- 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 or not they are reversible, protect against STIs/HIV and HBV and what the possible side effects may be).
- How to use the selected method correctly, including where and how to get additional supplies (e.g. pills, condoms, injectables, implants, IUCD).

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 counselled 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 STIs, TB and HIV/AIDS and managed appropriately.
- Depending on their age, younger women may be better served or may benefit more if they are referred to adolescent or youth-friendly clinics.
- All women should be advised and assisted to choose and continue using appropriate family planning methods.

- Women should be referred for medical conditions (e.g. diabetes) as appropriate.
- Women should be referred for special legal and sexual rights issues (e.g. rape, incest) as appropriate.
- Clients on misoprostol require follow-up 2 weeks after its administration.
- During follow-up, confirm completeness of expulsion of POC through:
  - History
  - Physical examination
  - Ultrasound scanning (not essential)

Community Involvement in PAC Services

Community involvement and participation are essential in the establishment and continuation of PAC services. This participation should be from the planning stage up to evaluation. Providers should work with the community to identify solutions to problems of access to care, such as lack of transport, lack of funds, or difficulties in making decisions to seek care. (Refer to Post abortion Care Reference Manual for detailed activities.)

CHAPTER 7: ADOLESCENT/YOUTH SEXUAL AND REPRODUCTIVE HEALTH

Introduction

The youth profile in Malawi is significant with about 33% of the population aged 10–24 years (MDHS 2010). However, the lives of most young people continue to be threatened by a number of factors such as STIs including HIV and AIDS, teenage pregnancies, unsafe abortion, nutrition inadequacies, alcohol and drug abuse, and mental health problems. This contributes significantly to the high mortality and morbidity rates in Malawi.

Definitions

Adolescent/young people/youth:

- Adolescents are individuals aged 10-19 years (WHO).
- Young people are individuals aged 10–24 years, irrespective of marital status (WHO).
- Youth are individuals aged 10–29 irrespective of marital status (WHO).

Youth-friendly health services:

- Youth-friendly health services are a combination of high-quality services that are relevant, accessible, attractive, affordable, appropriate, and acceptable to the youth. (Refer to the *Malawi Youth-Friendly Health Services Training Manual* 2007.)

Standards and criteria for youth friendly health services

- Health services are provided to young people according to existing policies, procedures and guidelines at all service delivery points
- Young people are able to obtain health services that include preventive, promotive, curative and rehabilitative health services appropriate to their needs
- All young people are able to obtain health information (including SRH and HIV) relevant to their needs, circumstances and stage of development
- Service providers in all delivery points have the required knowledge, skills and positive attitudes to effectively provide YFHS
- Health information related to Young People is collected, analysed and utilised in decision making at all levels

Rights of the youth

- Every young person is entitled to rights as enshrined in the Convention on the Rights of Child (CRC) and the constitution of the Republic of Malawi, Africa Youth Charter, CEDAW, among others, as follows:
  - Right to participate in all decision-making processes relating to the welfare of the youth, including governance issues;
  - Right to good health including sexual reproductive health services;
  - Right to quality education;

- Right to protection from sexual exploitation and gender based violence;
- Right to social and economic services; and
- Right to gainful decent employment opportunities either in any sector on completion of formal or non-formal education and /or when entering the legal working age in the country.

The role of the health worker in providing youth-friendly health services

- Ensure a friendly, non-judgemental and welcoming approach.
- Counsel and provide a wide range of SRH services such as:
  - Family planning including emergency contraception (EC)
  - Services for STIs, HIV/AIDS, and PMTCT
  - Prevention of teenage pregnancies
  - Maternal and neonatal health care
  - Post abortion care
  - Services for rape and sexual assault
- Counsel on sexuality, nutrition, provision of psychosocial support, and education on harmful sexual practices and beliefs such as rape, ritual sexual cleansing, and forced marriages.
- Counsel youth on life planning skills.
- Create linkages and referrals to other youth service providers.
- Arrange special hours/days of operation for the convenience of the youth, such as after school and weekends.
- Provide convenient and safe locations and promote youth participation.
- Promote peer-to-peer education among youth.
- Conduct outreach clinics for SRH services at youth clubs.

Young people are a special group because of their vulnerability to unwanted pregnancies, STIs, HIV, HBV, and HPV. Adolescent girls need safe and effective contraception because they are at increased obstetric risk should they become pregnant.

In the table below, contraceptive methods are listed in order of their suitability for young people.

Table 7-1. Contraceptive Methods for Young People

METHOD	REMARKS
Barrier methods: Male and female condoms (refer to section on Barrier Methods in Chapter 5)	• Can be used by all adolescents who require immediate protection. • Only method that protects against STIs including HIV and HPV. • Should be available at all youth-friendly health facilities. • Provide immediate protection, but require planning and commitment (coitus-related).

METHOD	REMARKS
Oral hormonal contraceptives (preferably COCs) (Refer to section on Hormonal Methods in Chapter 5)	Adolescent girls can safely use COCs; however, they should be counselled that forgetting to take pills can reduce effectiveness and increase failure of the method.
Implants (Norplant, Implanon, and Jadelle) (Refer to section on Hormonal Methods in Chapter 5)	• Highly recommended for adolescent girls who want long-term contraception, especially those with difficulty remembering to take pills. • Side effects such as irregular bleeding/spotting, acne, and weight gain may be particularly bothersome to the adolescent girls. Thorough counselling is essential.
PICs (Refer to section on Hormonal Methods in Chapter 5)	• Highly recommended for all adolescent girls who require intermediate-duration contraception. • Side effects such as irregular bleeding/spotting, acne, and weight gain may be particularly bothersome to adolescents. Thorough counselling is required.
IUCD (Refer to section on IUCD in Chapter 5)	• Highly recommended for all adolescent girls who want a long-term contraception especially those who cannot tolerate hormonal methods of contraception. • Thorough counselling on prevention of STIs is recommended for the adolescent girls.
Emergency contraception	• Can be used by all adolescent girls who have had unprotected sex or have been raped. • Thorough counselling is important for adolescent girls to take up a continuous method.

CHAPTER 8: MATERNAL AND NEONATAL HEALTH (SAFE MOTHERHOOD)

DEFINITION OF SAFE MOTHERHOOD

A woman's ability to have a safe and healthy pregnancy, safe delivery, healthy neonate, and healthy postpartum period.

DEFINITION OF NEONATE

A neonate is a baby from birth through the 28th day of life.

MATERNAL HEALTH

Introduction

Malawi has one of the highest maternal mortality ratios globally, currently estimated at 675 per 100,000 live births (MDHS 2010), down from 984 per 100,000 live births (MDHS 2004).

FOCUSED ANTENATAL CARE

Focused antenatal care (FANC) is an effective, evidence-based approach to antenatal care (ANC) that is advanced by the World Health Organization (WHO) and can be provided more inexpensively and more quickly than traditional ANC. The FANC approach focuses on a package of care that includes counselling, examinations, and tests that serve immediate purposes and have proven health benefits. This new approach to ANC emphasizes the quality of care rather than the quantity. FANC focuses four comprehensive ANC visits targets on assessment (history and physical examination) and individualized provision of care that address the priority health issues affecting a woman and her foetus (Refer to table 8.1 on FANC matrix). It aims to promote maternal and newborn health and survival through:

- Early detection and treatment of problems and complications; prevention of complications and diseases; birth preparedness and complication readiness as well as health promotion

Table 8-1. Matrix for Focused Antenatal Care

Frequency and timing of FANC visits:

- Appropriate scheduling depends on the gestational age of the pregnancy and also the woman's individual needs. For women whose pregnancies are progressing normally, four visits are sufficiently; one in first trimester, another one in second trimester and two in the third trimester
- Women with common discomforts, special needs, conditions that lie beyond the scope of basic care, or other problems may require additional visits

ANTENATAL CARE MATRIX				
Parameter	**Weeks of Gestation**			
	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	√			
• 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				√

ANTENATAL CARE MATRIX				
Parameter	**Weeks of Gestation**			
	First visit or <16 weeks	**20–24 weeks**	**28–32 weeks**	**36 weeks**
– Foetal heart sounds		√	√	√
• Vulval inspection	√			√
– Soft tissue assessment (genital ulcers, vaginal discharge)	√			
– Bony pelvis assessment (cephalo-pelvic relationship)				√
Laboratory investigations				
• Blood				
– Haemoglobin	√		√	
– Grouping and rhesus factor	√			
– HTC should be offered at each visit without coercion until accepted	√			
– Determine syphilis reagents	√			
• Urine				
– Protein	√	√	√	√
– Sugar	√	√	√	√
– Acetone	√			
– Pregnancy test	√ **(if indicated)**			
Drug administration and immunisation				
• Iron	√	√	√	√
• Folic acid	√	√	√	√
• Other antimalarials		√	√	
• Tetanus toxoid	√	√		
• Albendazole		√		
Client education and counselling				
• Process of pregnancy and its complication	√	√	√	√
• Diet and nutrition	√	√	√	√
• Rest and exercise in pregnancy	√	√	√	√
• Personal hygiene	√	√	√	√
• Danger signs in pregnancy	√	√	√	√
• Use of drugs in pregnancy	√	√	√	√

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

Note:

- It is important to note that "normal pregnancy" and "normal delivery" are retrospective diagnoses and are made at the end of pregnancy and childbirth. Therefore, while most women have normal pregnancies, complications can occur at any time and cannot always be predicted.
- Early detection of complications, proper management, and appropriate referral are essential.
- Tetanus toxoid should be given at first visit, 4 weeks later, 6 months later, and 2 doses with a 1-year interval, for a total of 5 doses. If 5 doses have been given, no boosters should be given in subsequent pregnancies.
- The first dose of sulphadoxine-pyrimethamine (SP) for malaria should be given soon after quickening and thereafter at every scheduled visit 1 month apart. Three tablets of SP should be administered at every ANC visit if they are 1 month apart, and the last dose can be administered safely up until the time of delivery.
- Iron tablets should not be taken together with SP. Recommence iron 1 week after the dose of SP (iron interferes with absorption of SP).
- Danger signs in the antenatal period include: vaginal bleeding, convulsions, severe headache, fever, severe abdominal pains, and fast and difficult breathing.
- Offer misoprostol at 28 weeks gestation to all women antenatally, to be taken in the event that they deliver at home due to circumstances beyond their control. This will be implemented in a phased manner in the country, starting with the districts that have established community-based maternal and newborn health initiatives that encourage mothers to deliver in health facilities.
- Promote male involvement.

- Conduct active TB screening in ANC:
  - This is the integration of TB screening with the maternal health platform. It aims at increasing TB case detection in women accessing FANC, and reducing maternal and newborn mortality through strengthening linkages between maternal, newborn, and child health services (RH) and TB management.

LABOUR AND DELIVERY

Most maternal deaths occur during labour, delivery, or the first 48 hours postpartum. Current recommendations support delivery at a health facility with a skilled provider and, where possible, the woman should remain in the facility for a minimum of 48 hours.

Resources for Management of Labour

- Resuscitaire for the neonate
- Emergency trays
- Drugs for emergency obstetric and newborn care (EmONC)
- Oxygen cylinders and catheters
- Suction machine
- IV fluids and giving sets
- Urinary catheters
- Partographs
- Intake and output charts
- Sterile delivery packs
- Obstetric protocols
- Infection prevention supplies and equipment

Management of the Woman in Labour

The management of a woman in labour focusses on the following:

- Admission of a woman in labour
  - Review of the patient's' health passport
  - History Taking: Subjective Data (including HIV status)

Before asking any questions, the midwife should remember to greet the woman and do a rapid initial assessment followed by review of the woman's health profile to validate the following data:

- Personal history: Name, Age, Address, Next of kin
- Medical history: specifically looking at history of hypertension, HIV status, history of STIs during pregnancy, asthma, TB and diabetes
- Obstetric history:
  - Past: parity, past pregnancy, Caesarean section, problems, outcome of deliveries

- Present: gravida, LMP, expected date of delivery, problems with this pregnancy
- Surgical history: previous uterine/genital tract surgery
- Labour history:
  - Onset: when did contractions begin, frequency: how frequent and how strong are the contractions
  - Bleeding/show: when and how much
  - Membrane: whether ruptured or not
  - Enquire about any concerns?
- Physical examination:
  - General examination: vital signs, head to toe
  - Abdominal examination:
    - Inspection: shape, size, scars, foetal movement
    - Palpation: fundal height, fundal palpation, pelvic palpation and descent, lateral palpation (position, attitude), contractions
  - Auscultation: foetal heart rate, regularity as well as rhythm
  - Vaginal examination:
    - Inspection: Previous tears or episiotomy scars, sores, warts, show, varicose veins, liquor, oedema, bleeding
    - Examination: Cervix – state of the cervix: thick or thin or oedematous, effacement and dilatation
    - Membranes: Ruptured or not; if ruptured, check the colour of the liquor and rule out cord presentation/prolapse
    - Presenting part: check for application of the cervix to the presenting part; position of fontanels and suture lines as well as station or level of the presenting part in relation to the ischial spines
- Assessment of maternal and foetal conditions:
  - Foetal condition:
    - The condition of the foetus is assessed by pattern of heart rate; colour of amniotic fluid; overlapping of the bones on the foetal skull (moulding); and swelling of the scalp on the presenting part (caput).
  - Maternal condition:

All of the observations for the mother's condition are written at the bottom of the partograph:

- Pulse, BP – monitor and record hourly.
- Temperature – check 2 hourly.
- Urine – Ask the mother to empty bladder 2 hourly. Examine urine for colour, concentration, and amount. Test for albumin and acetone.
- Drugs and rehydration fluids: Record these on the chart given.

- Oxytocin: there is a separate column for oxytocin. All entries are made on the time line on which the observations are made.

- Monitoring of progress of labour:
  - Contractions: Along with cervical dilatation and descent of the head, tell the progress of labour. The contractions are recorded under the time line.
  - Cervical dilatation: Most important observation to monitor progress of labour. The dilatation is plotted with an "X". Dilatation is plotted on the active phase on the alert line from 4 cm to 10 cm.
  - Descent of the presenting part: Descent is plotted with an "O" in cephalic presentation; in other presentations, nothing is recorded on descent; instead the type of presentation should be recorded on the top of the partograph in red.
  - Time is recorded using the time of admission as zero time. The actual time of the day is recorded below the hour's line.

Provision of care in labour using the midwifery management process:

- Manage second stage of labour.

The second stage of labour begins from full dilatation of the cervix to the delivery of the baby. It lasts up to 30 minutes for multipara and up to 1 hour for primigravida.

Preparation for Delivery

- Ensure that delivery trolley is ready.
- Check the following: foetal heart rate; contractions and descent of the head.
- Ensure that bladder is empty.
- Put on clean apron, scrub suit, and sterile gloves.
- Swab the thighs and vulva with antiseptic solution.
- Do a vaginal examination.
- Remind the mother what to do during the delivery.
- Place the anal pad exposing the perineum.
- Do not leave the patient alone.
- Review positions of delivery (e.g. squatting, semi-sitting, lithotomy, lateral hands and knees)

Actual Delivery

The midwife stands on the right side of the bed (if right handed) facing towards the woman if in supine position. The woman should be encouraged to assume a position for pushing that is comfortable and aids in the descending of the foetus. Note time; woman should push in response to her natural bearing-down reflex.

- Help her rest between contractions.
- Offer encouraging feedback after each push and praise her effort.
- Place the fingers of left hand on the occiput.

- Maintain downward flexion of the head until crowning occurs.
- Support the perineum.
- When crowning has occurred, instruct the mother to pant.
- Allow spontaneous birth of the head.
- Discard the perineal pad.
- Quickly check the cord around the neck; if present, check if tight or loose, place clamp and cut the cord to free the baby from strangulation.
- Clean secretions from eyes, mouth, and nostrils with a sterile dry swab to ensure clear airway and prevent infection.
- Wait for the restitution, external rotation of the head, which is accompanied by internal rotation of the shoulders, so that the smallest diameter is presented, thereby preventing tears to the birth canal.
- Place hands on each side of the baby's head (biparietal).
- Ask the woman to bear down.
- Direct the head downward towards the anus to deliver the upper or anterior shoulder, then lift it gently to deliver the posterior shoulder.
- Move the top-most hand from the head to support the rest of the baby's body as it slides out. Note time and sex.
- Place the baby on the mother's abdomen and let the mother hold the baby.
- Thoroughly dry the baby while on the mother's abdomen and cover with a clean, dry cloth: Assess breathing while drying the baby and if s/he does not breathe immediately, begin resuscitative measures (see Learning Guide: Newborn Resuscitation in *Integrated Manual for Maternal and Newborn Care*, 2013). Remember to do Apgar score at 1 and 5 minutes, i.e. appearance, pulse rate, grimace, activity, respirations.
- Clamp and cut the umbilical cord after pulsations have ceased or after approximately 2–3 minutes after the birth, whichever comes first: Tie the cord at about 2 cm and 5 cm from the umbilicus; cut the cord between the ties, covering it with gauze to avoid blood splashes.
- Ensure that the baby is kept warm and in skin-to-skin contact on the mother's chest, and cover both the baby and the mother with a cloth or blanket, including the baby's head.
- Palpate the mother's abdomen to rule out the presence of additional baby (ies) and proceed with active management of the third stage of labour.

Manage third stage of labour

The third stage of labour includes the separation and expulsion of the placenta and membranes. It is the period from the birth of the baby to complete expulsion of the placenta and membranes.

Active management of third stage of labour is a procedure done to hasten the physiological separation of the placenta in order to minimize blood loss. To safely perform the procedure the midwife must:

- Explain the procedure to the woman.

- Place the woman in dorsal position for proper observations and management.
- Palpate the abdomen to exclude a second baby (twin).
- Ensure her bladder is empty.
- Give oxytocin 10 units IM. This should be done within 1 minute of delivery of the baby. Oxytocin is preferred because it is effective 2–3 minutes after injection, has minimal side effects, and can be used in all women.

Make sure there is no additional baby before giving these medications.

Controlled Cord Traction

- Hold the forceps, clamping the cord firmly with one hand, and place the other hand just above the woman's pubic bone and stabilize the uterus by applying counter-traction during controlled cord traction. This prevents inversion of the uterus.
- Keep slight tension on the cord and await a strong uterine contraction (2–3 minutes).
- When the uterus becomes rounded or the cord lengthens, apply downward traction on the cord to deliver the placenta. Do not wait for a gush of blood before applying traction on the cord. Continue to apply counter-traction to the uterus with the other hand.
- If the placenta does not descend during 30–40 seconds of controlled cord traction (i.e. there are no signs of placental separation), do not continue to pull on the cord:
  - Gently hold the cord and wait until the uterus is well-contracted again. If necessary, use the sponge forceps to clamp the cord closer to the perineum as it lengthens.
  - With the next contraction, repeat controlled cord traction with counter-traction.
  - Check that the bladder is not distended and obstructing the descent.

Never apply cord traction (pull) without applying counter-traction (push) above the pubic bone with the other hand.

- As the placenta delivers, the thin membranes can tear off. Hold the placenta in two hands and gently turn it until the membranes are twisted.
- Slowly continue with getting the membranes out with the aid of gravity to complete the delivery of the membranes.
- If the membranes tear, gently examine the upper vagina and cervix while wearing sterile gloves and use a sponge forceps to remove any pieces of membrane that are present.
- Carefully examine the placenta to check for missing lobes and membranes. If a portion of the placenta is missing or there are torn membranes with vessels, suspect retained placenta fragments.
- If the cord is pulled off with the placenta still in the uterus, manual removal of the placenta should be done.

- Teach the mother how to feel for a contracted uterus so that when she is alone she will be able to note an abnormality.
- Provide immediate care of the newborn (a baby from birth to the 28th day of life).

Routine Care of the Newborn at Delivery

Most babies (90%) require only simple supportive care at and after delivery in the following order:
Clear airway:

- As soon as the head is delivered, wipe the mouth, nose, and eyes by use of inside out technique.
- Dry the baby thoroughly at birth with a clean towel and always remember to discard the wet towel and covering the baby with a dry towel. Drying helps keep the baby warm and stimulates breathing.
- Observe the baby while drying. Is the baby crying? The baby who is crying needs routine care.

Keep the baby warm:

- Position the baby skin-to-skin on the mother's abdomen. The warmth from the mother is the best way to keep a baby warm.
- Cover the baby with a warm, dry cloth and a cap or other head covering to prevent heat loss.

Breathing:

- Check breathing.

Clamping and cutting the cord:

- In a healthy new born, wait for at least 1 minute and up to 3 minutes, or wait for cessation of the cord pulsation, to clamp or tie and cut the cord. (The baby receives needed blood from the placenta in the first minutes after birth.)
- Apply (by swabbing) 4% chlorhexidine digluconate to the new born cord stump soon after cutting to prevent infection.
- Tie the cord with two sterile ties, the first one (or 2) ties about 2 cm or two fingerbreadths from the baby's body. The next tie should be 3cm or 3 fingerbreadths from the first.
- Cut the cord between two ties.
- The provider and the mother should check frequently that there is no bleeding from the cord in the first day after delivery, especially during the first few hours. If there is bleeding, another sterile tie should be applied between the baby's body and the first tie.
- Bleeding later on from the cord might indicate haemorrhagic disease of the newborn (due to vitamin K deficiency) or an infection, and this baby has to be examined by a health professional.

Breastfeeding initiation:

- Initiation of breastfeeding within the first 30 minutes.

- Maintain skin-to-skin contact and early breastfeeding. These are the best ways to keep a baby warm and prevent hypothermia and hypoglycaemia.

Assessing the baby using the Apgar score:
The Apgar scoring chart is a simple test to help you decide if a new born needs help. You look, listen, and feel for:
A – Appearance or colour of the baby
P – Pulse or heartbeat of the baby
G – Grimace of face or response of baby when you touch his feet
A – Activity or muscle tone of arms and legs
R – Respiration or breathing of the baby
The quantitative assessment is done at 1 minute and 5 minutes. Scores obtained will determine the condition of the baby. The highest Apgar score for a healthy baby is 10; the lowest is 0. Scores of 7–10 are normal and scores between 0–6 are abnormal requiring resuscitative measures.

Routine subsequent care for all newborn babies after delivery:

- Keep the baby dry in a warm room away from drafts, well covered.
- Keep the baby with the mother, rooming in.
- Initiate breastfeeding within the 30 minutes according to the Baby-Friendly Hospital Initiative recommendation.
- Let the baby breastfeed on demand if able to suck.
- Give vitamin K (phytomenadione), according to national guidelines 1 ampoule (1 mg/0.5 ml or 1 mg/ml) IM once.
- Keep the umbilical cord clean and dry.
- Apply antiseptic ointment or antibiotic eye drops/ointment (e.g. tetracycline eye ointment) to both eyes once, according to national guidelines.
- Give oral polio and BCG vaccines, depending on national guidelines.

Manage of fourth stage of labour:
The postnatal period refers to the period following complete expulsion of placenta and membranes up to 6 weeks.

Immediate care after delivery of the placenta:

- Clean the vulva with chlorhexidine, change gloves, and inspect the cervix, vagina, and perineum for any tears.
- Check blood pressure, pulse rate, respiration rate, and temperature.
- Examine placenta and membranes for completeness.
- Measure the blood loss using a measuring jar.
- Document the amount of blood loss and status of placenta and membranes.
- Examine the woman carefully and repair any gross or bleeding tears to the cervix or vagina and also repair episiotomy.
- After the completion of the third stage, assess the mother as follows:
    - Check for uterine tone (contracted or flabby).
    - Check lochia for colour, amount, and consistency.

- If the mother has a full bladder, she must be assisted to void.

Once these observations have been done, the mother must be left to rest on the delivery bed for the next 2 hours, and assessed on the above every 15 minutes for the first hour and every 30 minutes for the subsequent hour.

- Initiate breastfeeding within half an hour of delivery.
- Give soft porridge, fluids (cup of tea).
- Provide moral support as much as possible.
- Offer women FP methods soon after delivery.
- Check the serostatus of women. If serostatus is not known, offer PITC. If she is HIV-positive, start the mother on ART and give Niverapine syrup to the baby (option B+).
- Manage obstetric emergencies according to protocols.
- Apply infection prevention principles in management of all stages of labour. (Refer to *Infection Prevention Standards* protocols, 2006.)

Respectful Maternity Care

Introduction

In every country and community worldwide, pregnancy and childbirth are momentous events in the lives of women and families and represent a time of intense vulnerability. The concept of "safe motherhood" is usually restricted to physical safety, but childbearing is also an important rite of passage, with deep personal and cultural significance for a woman and her family. Because motherhood is specific to women, issues of gender equity and gender violence are also at the core of maternity care. Thus, the notion of safe motherhood must be expanded beyond the prevention of morbidity or mortality to encompass respect for women's basic human rights, including respect for women's autonomy, dignity, feelings, choices, and preferences, including companionship during maternity care.

A woman's relationship with maternity care providers and the maternity care system during pregnancy and childbirth is vitally important. Not only are these encounters the vehicle for essential and potentially lifesaving health services, women's experiences with caregivers at this time have the impact to empower and comfort, or to inflict lasting damage and emotional trauma, adding to or detracting from women's confidence and self-esteem. Either way, women's memories of their childbearing experiences stay with them for a lifetime and are often shared with other women, contributing to a climate of confidence or doubt around childbearing.

Growing Evidence of Disrespect and Abuse

Disrespect and abuse of women seeking maternity care is becoming an urgent problem and creating a growing community of concern that spans the domains of health care research, quality, and education; human rights; and civil rights advocacy.

Categories of Disrespect and Abuse

1. Physical abuse

Hitting, slapping, pushing, or even roughly touching a woman is physical abuse. All physical contact with our patients should be as gentle, comforting, and reassuring as possible. Freedom from physical abuse is the right of each of our patients.

2. Non-consented care
   Language use and level, educational attainment, and cultural background may vary among our patients. All need careful explanation of proposed procedures in a language and at a level they can understand so that they can knowingly consent to or refuse a procedure. The freedom to consent to or refuse care is the right of each of our patients.
3. Non-confidential care
   Patients have a right to privacy and confidentiality during the delivery of services. This includes privacy and confidentiality during counselling, physical examinations, and clinical procedures, as well as in the staff's handling of patients' medical records and other personal information.
4. Non-dignified care
   Dignity, comfort, and expression of opinion: All patients have the right to be treated with respect and consideration. Service providers need to ensure that patients are as comfortable as possible during procedures. Patients should be encouraged to express their views freely, even when their views differ from those of service providers. Service providers also need to ask the patient for feedback.
5. Discrimination
   All women are equally worthy of our respectful care regardless of ethnic background, culture, social standing, educational level, or economic status. Non-discrimination is the right of each of our patients.
6. Abandonment of care
   A woman in labour or immediately after birth should never be left alone. If you must leave your patient, tell her when to expect your return and how to get help if needed. Attentive care is the right of each of our patients. Women should be able to have a companion of their choice, such as a family or community member, with them throughout labour and birth at the health facility to provide continuous support.
7. Detention in facilities
   A woman or her baby should never be forcibly kept in a facility. Freedom from detention is the right of each of our patients.

Impact of Disrespectful Maternity Care on Safe Motherhood

Reviewed studies suggest that fear of disrespect and abuse may sometimes be a more powerful deterrent to the use of skilled birth care than geographic and financial obstacles. Disrespect and abuse during childbirth is a violation of human rights.

Table 8-1. Categories of Disrespect/Abuse and Corresponding Rights

CATEGORY OF DISRESPECT AND ABUSE		CORRESPONDING RIGHT
1.	Physical abuse	Freedom from harm and ill treatment
2.	Non-consented care	Right to information, informed consent, and refusal, and respect for choices and preferences, including companionship during maternity care
3.	Non-confidential care	Confidentiality, privacy

CATEGORY OF DISRESPECT AND ABUSE		CORRESPONDING RIGHT
4.	Non-dignified care (including verbal abuse)	Dignity, respect
5.	Discrimination based on specific attributes	Equality, freedom from discrimination, equitable care
6.	Abandonment or denial of care	Right to timely health care and to the highest attainable level of health
7.	Detention in facilities	Liberty, autonomy, self-determination, and freedom from coercion

Emergency Obstetric and Newborn Care

Introduction

Approximately 80% of all maternal deaths are avoidable. Capacities to provide adequate and timely emergency obstetric and newborn care (EmONC) are essential to begin to address maternal mortality. Following the findings of the National Assessment of EmONC services in Malawi (2010), the MoH is accelerating activities to establish centres which provide EmONC to ensure access and coverage.

EmONC is classified as Basic EmONC and Comprehensive EmONC. BEmONC consists of the following seven signal functions:

1. Administration of parenteral antibiotics (to manage sepsis)
2. Administration of parenteral oxytocics (to manage postpartum haemorrhage)
3. Administration of parenteral anticonvulsants (to manage severe pre-eclampsia and eclampsia)
4. Manual removal of placenta
5. Removal of retained products following miscarriage or abortion (manual vacuum aspiration)
6. Assisted vaginal delivery with vacuum extractor (for prolonged second stage)
7. Resuscitation of the new born baby

Comprehensive EmONC is typically delivered in district hospitals and central hospitals, and includes all basic functions above, plus **Caesarean section** and **safe blood transfusion**.

For further information on EOC refer to the WHO book: *Managing Complications in Pregnancy and Childbirth: A Guide for Midwives and Doctors* (2000).

Management of Preterm Labour

Preterm labour refers to the onset of regular uterine contractions of sufficient strength and frequency to affect progressive dilatation and effacement of the cervix before 37 completed weeks of gestation. Management options for preterm labour include:

- Antenatal advice
- Bed rest
- Reduced physical activity

- Abstinence from sexual intercourse
- Cervical cerclage
- Provision of antibiotics
- Provision of tocolytic drug
- Corticosteroid administration

Management

Good antenatal care detects risk factors.

Note: When a patient with suspected preterm labour is examined, a full history must be obtained and a clinical examination must be performed.

- The clinical examination should include a speculum examination of the cervix to exclude rupture of membranes, assessment of foetal presentation, and estimated foetal weight.
- Advise on the early warning signs and symptoms of preterm labour.
- Advise on the importance of bed rest.
- Advise on abstinence from sexual intercourse.
- Check urinalysis for all antenatal mothers.
- Treat mothers with bacterial vaginosis with antibiotics (ampicillin, erythromycin, metronidazole) to reduce the incidence of preterm labour.

Corticosteroid Therapy

Overview of antenatal corticosteroids (ACS) for preterm labour:

- Corticosteroids are recommended for all women between 28 and 34 weeks of pregnancy who are at risk for preterm delivery.
- Patients eligible for therapy with Beta-agonists (tocolytic agents) are also eligible for treatment with antenatal corticosteroids.
- Tocolytic agents should be used to delay delivery for 24–48 hours in order to administer corticosteroids to promote foetal lung maturity.
- When the risk of preterm delivery persists or recurs following initial treatment, decisions to repeat treatment should be made on an individual basis.
- Corticosteroids may be used in patients with severe pre-eclampsia/hypertension. However, they need to be closely monitored.
- Impaired glucose tolerance may occur if repeated doses of corticosteroids are given, especially in conjunction with Beta-agonist therapy.

Mechanism of action

Preterm babies do not have enough surfactant in their lungs. Surfactant helps the lungs to expand during breathing, and therefore babies who lack surfactant commonly develop respiratory distress syndrome. The steroids increase the natural production of surfactants and thus reduce the risk that newborns will develop respiratory distress syndrome if born early.

ACS have also been shown to have a protective effect on the cerebral blood vessel, thus reducing the risk of intraventricular haemorrhage, and on the intestines, thus reducing the risk of necrotising enterocolitis.

Give dexamethasone 6 mg IM every 12 hours for 4 doses. Dexamethasone is the preferred ACS based on current evidence, as noted below. It is also preferred because the generic form is widely available (alternatively, give betamethasone 12 mg IM every 12 hours for 2 doses).

Give the first dose immediately upon determining that the woman has a condition that increases her chance of preterm birth within the next 7 days. The maximum benefit of medication is achieved after 48 hours. Because the precise time of delivery cannot be predicted, the medication should be initiated immediately when a condition leading to preterm birth is identified.

Note: There is no additional benefit of rapid administration (less than 48 hours) of all doses prior to an imminent birth.

Note: Administering provider: The decision to give ACS is typically made by a skilled birth attendant (SBA). The injection can be administered by personnel trained to give injections, according to local county policy.

Steps to administer ACS

Follow these steps for proper administration of ACS:

1. Once a woman who presents with threatened preterm birth has been evaluated and a condition increasing of PTB is identified, ACS are indicated. Determine if ACS can be administered at the facility or if referral is needed.
2. All facilities that provide MNH services should be able to initiate a course of ACS by administering the first dose prior to transfer. If referral is needed, follow facility protocol for immediate referral.
3. If able to administer ACS, follow these steps:
    - Explain to the woman what will be done.
    - Wash and dry hands and put on clean gloves.
    - Prepare the IM injection site (either the upper arm, buttock, or thigh). Clean the skin with cotton and alcohol or spirits.
    - Using a small sterile syringe and needle, draw up 4 mg (1 ml) of dexamethasone from the first ampoule. Maintain sterile technique and draw up 2 mg (0.5 ml) of dexamethasone from the second ampoule. Discard both ampoules and remaining drugs.
    - Explain to the woman what will be done and give the injection.
    - Properly dispose of the needle and syringe in an appropriate sharps container.
    - Properly remove gloves and discard appropriately.
    - Wash and dry hands
    - Document medication, dose, site of administration, and time it was given in the patient record. Document the time when the next dose should be administered.

- Advise the woman of the timing of the next dose.

Considerations

There are no absolute contra-indications for ACS. However, in women with diabetes, blood sugar should be closely monitored and an increased insulin requirement should be anticipated. Women on chronic steroids can receive ACS according to the protocol and may also need a stress dose of their steroids at the time of delivery.

Inhibition of Preterm Labour

The aims of inhibition of preterm labour are to:

- Buy time for referral to the next level of care
- Reduce the likelihood of preterm delivery occurring within 48 hours of beginning treatment so as to allow the concomitant use of corticosteroids to enhance foetal pulmonary maturity

Contraindications to Inhibition of Preterm Labour

In the following situations where delivery is imminent or when other obstetric factors dictate that delivery should not be delayed, inhibition of preterm labour may be withheld:

- Fulminating pre-eclampsia
- Severe abruptio placentae
- Foetal distress
- Severe chorioamnionitis in the presence of ruptured membranes
- Foetal demise or lethal foetal anomaly
- Development of serious side effects during the use of Beta-agonists

Delivery of the Preterm Foetus

- Delivery of the preterm foetus should take place in an obstetric unit with neonatal care facilities.
- Foetal monitoring during labour is important to ensure foetal well-being.
- In the absence of obstetric risk factors or complications that would otherwise preclude a vaginal delivery, a preterm foetus with a vertex presentation may be delivered vaginally.
- However, if the presentation is not vertex, delivery by Caesarean section may be considered.

Management of Preterm Membrane Rupture

- After confirmation of ruptured membranes, the following steps are taken:
  - Cervical dilatation and effacement are estimated visually during a sterile speculum examination.
  - For pregnancies less than 34 weeks, if there are no maternal or foetal indications for delivery, the woman and her foetus are initially observed in the labour unit.

- Broad-spectrum parenteral antimicrobials are begun to prevent chorioamnionitis.
- Foetal heart rate and uterine activity are monitored for cord compression, foetal compromise, and early labour.
- If the foetal status is reassuring, and if labour does not ensue, the woman is usually transferred to an antepartum unit and observed for labour, infection, or foetal jeopardy.
- For pregnancies 34 weeks or beyond, if labour does not begin spontaneously, then it is induced with intravenous oxytocin unless contraindicated.
- Caesarean delivery is performed for usual indications, including failed induction of labour.
- During labour or induction, a parenteral antimicrobial is given for prevention of group B streptococcal infection.
- Note: When labour begins spontaneously, delivery is managed like that for any other baby.

Management of Premature Prelabour Rupture of Membranes

Definition

Rupture of the membranes before labour has begun before 37 completed weeks gestation. It is characterized by watery vaginal discharge.

Management

Gestation less than 34 weeks:

- No digital vaginal examination should be done.
- Provide pad and observe for amount, colour, and smell.
- Monitor foetal condition.
- Monitor vital signs every 4 hours.
- Observe for signs of labour.
- Give dexamethasone 6mg IM every 12 hours for 4 doses or betamethasone 12 mg IM every 24 hours for 2 doses.
- If there are signs of infection, give antibiotics.
- Refer to the hospital for further management.

Gestation 34 weeks or greater:

- Do vaginal examination to rule out cord prolapse (unnecessary if the head is engaged and the foetal heart is normal). If in doubt, do sterile speculum exam and refer to the hospital immediately.
- Provide pad and observe for amount, colour, and smell.
- If there are signs of infection, give antibiotics according to protocol.
- Monitor foetal condition.
- Observe for signs of labour.
- Monitor vital signs every 4 hours.

- For pregnancies 34 weeks or beyond, if labour does not begin spontaneously, then it is induced with misoprostol or intravenous oxytocin unless contraindicated. Caesarean delivery is performed for usual indications, including failed induction of labour.

Pre-Labour Rupture of Membranes

This occurs prior to onset of labour and the majority of patients are beyond 36 weeks.

Management

- Monitor maternal and foetal condition.
- If labour does not start within 18 hours, induce with oxytocin.

POSTPARTUM CARE FOR THE WOMAN

Principles of Postpartum Care

During the postpartum period, physical, social, and mental problems can emerge, indicating a need for strategies that encompass both preventive and curative intervention packages. If a woman delivers at home, efforts should be made to ensure that the woman receives postpartum and newborn care within 3 days for early detection of both maternal and newborn infection.

Within the first 6 hours after birth, the woman and newborn should be receiving ongoing assessment, according to her needs, including monitoring of vital signs; monitoring of vaginal blood loss (amount, colour, and consistency), condition of the perineum and uterine contractility; and ensuring bladder is emptied and breastfeeding has been established. Infection prevention and control practices should be adhered to during postpartum care. The basic package of ongoing supportive care until discharge include:

- Lactation management
- Complication readiness plan
- Support for mother-baby-family relationships
- Family planning
- Nutritional support
- Self-care including perineal care (sitz baths if episiotomy or laceration are present)
- Care of the baby
- HIV counselling and testing
- Immunizations and other preventive measures

In addition:

- Encourage early ambulation
- Give:
  - Analgesia if required

- Iron and folic acid as a routine for the first 3 months
- Advise on danger signs (excessive PV [vaginal] bleeding, dizziness, severe headache, convulsions, severe abdominal pains, offensive vaginal discharge; fever, blurred vision) and to return to clinic/hospital if they occur.

- Counsel mother on lactation management, baby care including danger signs, family planning, maternal nutrition, personal hygiene, and perineal care.
- Advise the client on the need for at least one other postnatal check during the first week and again at 6 weeks.
- Within the 48 hour postpartum period, counsel and initiate the woman on immediate postpartum family planning, including IUCD.
- At approximately 6 weeks in addition to a full assessment, counsel and initiate or continue with family planning.

Postpartum care for the woman focuses on the following:

- Provide subsequent postpartum care of the woman using the midwifery management process.
- Provide postnatal care for mother and baby within 48 hours.
- Provide information, education, and counselling on self-care and newborn care. (Refer to the MOH postpartum obstetric protocols and Appendix 6.)
- Counsel the woman on healthy timing and spacing, postpartum FP, including counselling on methods suitable during the postpartum period, and provide the method if the woman has made an informed choice prior to discharge.
- Check the serostatus of the woman. If her serostatus is not known, offer PITC. If she is HIV-positive, start on ART and Niverapine syrup to the baby (option B+).
- In the event of death of the neonate, offer psychological support to the bereaved parents and respect their cultural practices in relation to the burial procedure.
- Provide management of a postnatal mother at 1 and 6 weeks postpartum (refer to protocols).

NEONATAL HEALTH

MANAGEMENT OF THE NEWBORN

Essential Newborn Care

- Immediately after delivery, the baby should be placed on the mother's abdomen.
- For follow-up care, follow the Helping Babies Breathe (HBB) Action plan below.
- Record the time of birth.
- Place identification band on the baby.
- Initiate breastfeeding within half an hour.
- Monitor the newborn condition every 15 minutes.
- Perform eye care.
- Give vitamin K 1mg IM routinely to all term babies, and for preterm give 0.5 mg.
- Conduct initial head-to-toe examination of the baby to exclude life-threatening congenital abnormalities and birth injuries.

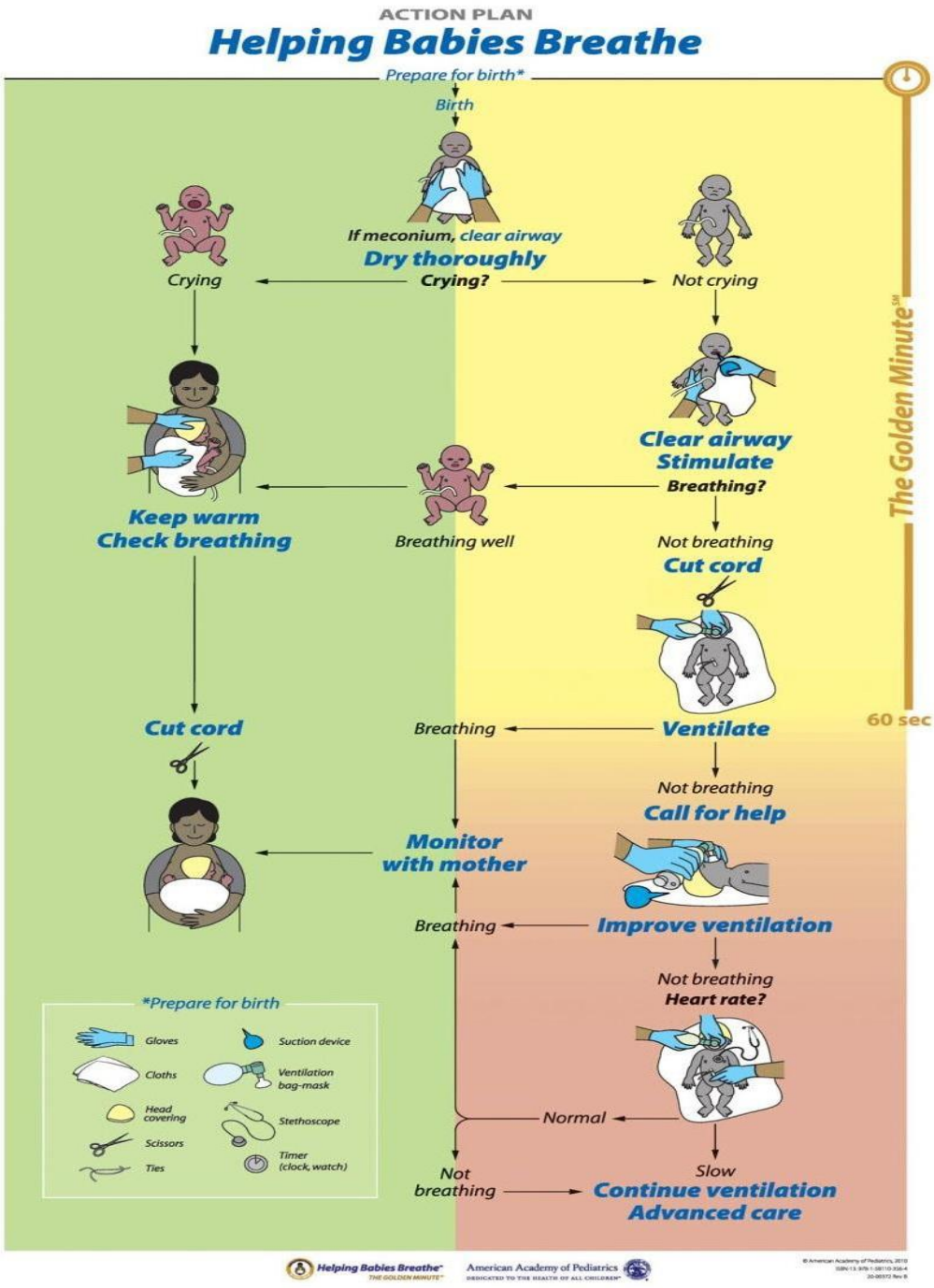
- Weigh baby and record the weight.
- Maintain infection prevention and control practices during care of the newborn (refer to Ministry of Health PQI/IP/ RH standards.

Ongoing Care of the Normal New born up to 48 Hours Includes

- Delay bathing up to 24 hours.
- Promote exclusive breastfeeding.
- Monitor the general condition of the baby (crying, feeding, colour, reaction to stimuli, elimination pattern).
- Keep the baby warm.
- Cord care: Apply chlorhexidine 4% once and keep the cord clean and dry. Observe for bleeding/infection.
- Monitor vital signs (temperature, respiration, and pulse) twice a day.
- Immunize all babies with BCG and polio 0 before discharge.
- Administer ARV prophylaxis to exposed neonates as per guidelines.
- Provide birth registration forms on discharge.

Management of Birth Asphyxia

- Follow the HBB action plan below.



If the baby is not breathing well after 10minutes of ventilation, continue ventilation and seek advanced care, e.g. move up continuous positive airway pressure (CPAP).

Another indication for CPAP is severe respiratory distress (as per the WHO criteria) due to a reversible/respiratory pathology, respiratory distress, or hypoxia not responding to more than 2 l/min of oxygen. The current Pumani CPAP model provides pressure sufficient to help babies weighing up to 10 kg.

LOW BIRTH WEIGHT/PRETERM BABY

Definition

A low birth weight baby is one who weighs less than 2500 grams at birth.

Classification of Low Birth Weight

Low birth weight babies can be:

- Premature or preterm: A baby born before the 37th week of pregnancy
- Small for gestational age: A baby who did not grow well enough in the uterus during pregnancy.

All babies with a birth weight of less than 2500 gm should be initiated on Kangaroo Mother Care (KMC) according to National KMC Guidelines.

Kangaroo Mother Care

- Counsel/support the mother and family on KMC.
- Promote warmth by keeping the baby skin-to-skin with the mother or a substitute such as the father.
- Maintain proper KMC position.
- Promote nutrition by supporting the mother to breastfeed her baby frequently and exclusively.
- Observe infection prevention practices.
- Monitor growth daily.
- Mother and newborn can be discharged early once the baby is able to suckle and the baby is growing well as per KMC guidelines.
- Timely follow-up is necessary.

Table 8-2. Feeding Regimen for Low Birth Weight/Preterm Baby

AMOUNT OF MILK (OR FLUID) NEEDED PER DAY, BY BIRTH WEIGHT AND AGE								
Birth weight	Feed every	Day 1	Day 2	Day 3	Day 4	Day 5	Days 6–13	Day 14
1000–1499 g ≥ 1500 g	2 hours 3 hours	60 ml/kg	80 ml/kg	90 ml/kg	100 ml/kg	11 0 ml/kg	120–180 ml/kg	180–200 ml/kg

Table 8-3. Management of Newborn with Danger Signs

DANGER SIGNS	IMMEDIATE MANAGEMENT
Bleeding	• Stop the visible bleeding. • Give vitamin K 1mg IV/IM. • Take blood for grouping and cross-matching. • If there are signs of shock, infuse normal saline or Ringer's Lactate 10 ml/kg body weight over 10 minutes, and repeat once after 20 minutes if signs of shock continue, then continue with 10% glucose at maintenance volume, give blood transfusion if necessary, oxygen, and ensure warmth.
Respiratory distress	• Maintain clear airway. • Administer oxygen at 0.5-1 litre/minute. • Minimize handling of the baby to reduce oxygen needs. • Maintain warmth. • Feed accordingly. • Give antibiotics X-pen 50,000 IU/kg IV or IM 12 hourly and Gentamycin 7.5mg IV or IM once daily for 5 days if respiratory distress persists after 6 hours of age

DANGER SIGNS	IMMEDIATE MANAGEMENT
Convulsions/ seizures	• Establish need for IV line. • Give phenobarbital 20 mg/kg IV/IM or diazepam 0.2 mg/kg (to check IV/IM). • Repeat phenobarbital 10 mg/kg after 30 minutes if convulsions have not stopped. • If needed, give 5 mg daily as maintenance. • Give oxygen if the baby has signs of cyanosis or breathing difficulties. • Check blood glucose. • If hypoglycaemia, give bolus of 2 ml/kg of 10% glucose IV slowly over 5 minutes (or by nasogastric tube). • Infuse 10% glucose at daily maintenance volume. • If meningitis or neonatal tetanus, sedate, give antibiotics and anti-tetanus serum for tetanus.
Jaundice	• Encourage breastfeeding. • Investigate and treat cause, i.e. check for blood bilirubin, full blood count, blood Rhesus factor, syphilis test. • If indicated, provide phototherapy according to protocol.
Hypothermia	• Commerce oxygen therapy. • If indicated, remove wet or cold clothes. • Re-warm the baby, e.g. skin-to-skin. • Assess the cause, i.e. check blood glucose. • Treat underlying cause. • If signs of infection, treat with appropriate antibiotics.
Hyperthermia	• Assess the cause of hyperthermia. • If signs of infection, treat with appropriate antibiotics. • If signs of excessive heat exposure, regulate temperature accordingly (e.g. sunlight, incubator, heater).
Hypoglycaemia	If blood glucose is less than 45 mg/dl, then: • Establish IV line. • Give bolus of 2 ml/kg of 10% glucose IV slowly over 5 minutes (or by nasogastric tube). • Infuse 10% glucose at daily maintenance volume(Dilute 1 part of 50% glucose solution to 4 parts of sterile water to make 10% glucose) • Measure blood glucose after 30 minutes. • If less than 25 mg/dl, repeat bolus. • If less than 45 mg/dl but more than 25 mg/dl, continue infusion. • Continue monitoring 3 hourly till blood glucose above 45 mg/dl. • Encourage frequent feeding.
Feeding difficulties	• Assess underlying cause and treat accordingly. • Reassure and provide appropriate feeding techniques. • For inadequate weight gain, assess for neonatal sepsis. • Determine the feeding frequency and encourage demand feeding (not less than 8 times a day). • If no improvement, refer. • Assess for incorrect positioning and attachment. • Assess for Inadequate weight gain.

- If signs of infection, treat with appropriate antibiotics.
- If signs of excessive heat exposure, regulate temperature accordingly (e.g. sunlight, incubator, heater).

Table 8-4. Approximate Amount of Breast Milk Needed per Feed, by Birth Weight and Age

BIRTH WEIGHT	NUMBER OF FEEDS	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAYS 6–13	DAY 14
1000 g	12	5 ml	7 ml	8 ml	9 ml	10 ml	11–16 ml	17 ml
1250 g	12	6 ml	8 ml	9 ml	11 ml	12 ml	14–19 ml	21 ml
1500 g	8	12 ml	15 ml	17 ml	19 ml	21 ml	23–33 ml	35 ml
1750 g	8	14 ml	18 ml	20 ml	22 ml	24 ml	26–42 ml	45 ml
2000 g	8	15 ml	20 ml	23 ml	25 ml	28 ml	30–45 ml	50 ml

Note: Tables 8-2 and 8-4 have been adapted from *Kangaroo Mother Care: A Practical Guide* (WHO 2003).

NEONATAL SEPSIS

The baby may present with lethargy, not feeding well, hyperthermia or hypothermia, grunting, irritability, severe chest in-drawing, and central cyanosis.

Management

- Commence oxygen therapy at 0.5-1litre/minute.
- Check blood glucose, FBC.
- Administer antibiotics gentamycin 5 mg/kg once daily IM and benzyl penicillin 50,000 IU/kg 12 hourly.
- IV or IM.
- Maintain warmth.
- Continue breastfeeding/nasogastric tube feeding.
- Adhere to infection prevention guidelines.
- Monitor condition 2 hourly.

Note: Conduct monthly district neonatal death audits.

PARENTAL EDUCATION

Assess the mother's knowledge and social support and counsel on the following:

- General hygiene
- Warmth
- Detection of infection and other health problems that may occur in the baby
- Exclusive breastfeeding
- Bowel and bladder function
- Cord care
- Importance of immunization

- Counselling on family planning

Advise the mother to return to hospital immediately when any of the following danger signs occur in the baby:

- Difficulty in breathing
- Convulsions
- Fever
- Coldness
- Bleeding
- Inability to feed
- Jaundice
- Redness around or pus discharge from the umbilical cord
- Irritability
- Diarrhoea/vomiting

PLAN FOR DISCHARGE

The baby can be discharged if:

- Is breathing without difficulties
- Has normal body temperature
- Mother is confident about ability to take care of baby
- Baby is feeding well and weight loss is not more than 10%
- Baby is eliminating well

Follow up after 1 week and 6 weeks to check:

- Weight
- Feeding pattern
- Umbilical healing and or signs of infection
- General infections, e.g. oral thrush
- Immunization status for both the mother and baby
- Family planning

CHAPTER 9: SEXUALLY TRANSMITTED INFECTIONS (STIS)

DEFINITION

Sexually transmitted infections (STIs) are conditions that affect both women and men and are generally transmitted during sexual activity.

INTRODUCTION

STI's are some of the most common conditions for consultation in outpatient departments. Several studies carried out in Malawi show that STIs and HIV are a major health problem. The bulk of the burden of STI complications and sequelae are borne by women. The increasing problem of STIs requires that all reproductive health (RH) service providers play a leading role in the management of STIs.

Comprehensive STI management includes:

- Proper diagnosis of STIs
- HIV testing and counselling (HTC)
- Effective antibiotic treatment, which in turn requires full compliance to treatment by the user or affected person
- Preventive efforts beginning with patient education on risk reduction
- Condom promotion and behaviour change communication
- Partner notification, follow-up, and treatment

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 aetiological diagnosis through laboratory examination. (For signs and symptoms of specific conditions, refer to *Management of Sexually Transmitted Infections Using Syndromic Management Approach, Guidelines for Service Delivery*, 2007.)
- Since laboratory facilities are not a prerequisite for 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 as well as lowers drop-out rates.

Components of STI Syndromic Management

History Taking

The client's medical history and physical examination are the foundation of accurate treatment in the syndromic management of STIs. The history provides valuable information, which is subsequently used for prevention, counselling, partner notification, and treatment. History taking must therefore be within the context of overall management of the client.

Physical Examination

Physical examination gives the service provider a chance to confirm or rule out various syndromes. Before beginning the examination, the client must receive a clear explanation of what is going to be done and asked for his/her consent.

The client should be examined under good light and should be undressed sufficiently to expose the entire genital and anal areas; however, audio and visual privacy should be maintained at all times.

Treatment

- Patients should be treated syndromically following the flowcharts in the Malawi STI Management Guidelines.

Patient Education and Counselling

- Patients should be informed of their diagnosis, the mode of transmission of the disease, and predisposing factors. The diagnosis should be presented in its syndromic form, i.e. as a group of signs and symptoms that together are indicative of the specific diagnosis. Patients 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.
- Instructions should be given to the patient regarding the return for scheduled follow-up visits as required.
- Discuss other strategies for risk reduction, e.g. abstinence, mutually monogamous relationships.
- Explain and discuss the importance of partner notification and partner treatment.
- Provide condoms during the patient's visits along with instructions on their correct usage.
- Offer provider-initiated testing and counselling (PITC).
- Advise men on voluntary medical male circumcision and offer it when the client has been completely treated for the STI.
- All pregnant women should be screened and treated for STIs (syphilis).
- For flowcharts: Refer to the flowcharts in the STI Management Guidelines, third edition, May 2007.

CHAPTER 10: HUMAN IMMUNODEFICIENCY VIRUS AND ACQUIRED IMMUNE DEFICIENCY SYNDROME (HIV AND AIDS) IN REPRODUCTIVE HEALTH SERVICES

INTRODUCTION

Human immunodeficiency virus (HIV) is a microorganism that destroys an infected individual's immune system and is transmitted through infected blood and some body fluids.

MODES OF TRANSMISSION

HIV is transmitted in many different ways but the most common ways are vertical and horizontal.

Horizontal transmission through:

- Sexual transmission
- Contact with HIV-infected body fluids, e.g. blood, etc.

Vertical transmission:

- During pregnancy
- During delivery
- During breastfeeding

The national HIV prevalence stands at 10.6% (MDHS 2010), which is still unacceptably high. The prevalence is highest amongst women at 12.9% (MDHS 2010).This requires that RH service providers play a leading role in testing and counselling clients, offering linkage to treatment care and support, as well as providing them with information and skills needed to assess and reduce their risk of acquiring HIV.

The Government of Malawi focuses on preventive measures as well as ART in order to reduce the spread of HIV. These preventive measures include education, behaviour change communication, condom use, and proper diagnosis and treatment of STIs because STIs increase the risk of acquiring and/or transmitting HIV. The national response also includes client-initiated testing and counselling, provider-initiated testing and counselling, PMTCT, home-based care, post-exposure prophylaxis, palliative care, pre-ART and ART, and management of HIV-related conditions according to the *Clinical Management of HIV in Adults and Children*, 2011 and 2014.

PROVIDER-INITIATED TESTING AND COUNSELLING

- Group education or health talks that are given in the waiting areas of all health care service sites should always include HIV testing information to increase awareness of the service.
- All providers working in RH should be equipped and mandated to offer PITC to every client who visits the clinic.

- Clients should be allowed to opt out when they are not willing or ready to be tested for HIV.
- 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 stigmatization.
- Privacy (audio and visual) and confidentiality should be observed when offering PITC.
- All HIV-positive clients should be referred to the HIV care clinic where they will be assessed and managed according to the 2014 guidelines for clinical management of HIV in children and adults.
- All clients referred to the HIV care clinic should be escorted for proper linkage between the RH and HIV care clinics; this avoids loss to follow-up in between the two service delivery points.
- All HIV-positive clients should be asked if they have children under-5 to ascertain their HIV exposure or infection.

HIV AND REPRODUCTIVE HEALTH

- Offer PITC to all clients accessing STI and family planning services.
- Family planning services should also be routinely offered in HIV care clinics.
- HIV care clinic staff should be trained on how to offer family planning to all clients of reproductive age, and family planning commodities should be readily available in the HIV care clinic.
- HIV sero-positive clients and those at risk of HIV should be counselled on dual protection (use of condom and other contraceptives)
- All HIV-positive women of reproductive age should be offered PMTCT counselling and referred to the HIV care clinic for assessment and management.
- All HIV-positive pregnant women should be initiated on ART within the maternal and child health settings as soon as possible, regardless of CD4 count and WHO clinical staging with opt out.
- Offer voluntary medical male circumcision to all males.
- Offer TB screening
- Offer cervical cancer screening

HIV AND HORMONAL CONTRACEPTIVES

- Regardless of the contraceptive method used, women living with HIV should be counselled about the importance of combining their chosen method with effective HIV prevention interventions, including condoms and ART initiation.
- Women living with HIV should be counselled that certain ART regimens (protease inhibitors and non-nucleoside reverse transcriptase inhibitors, e.g. Efavirenz) may render some hormonal contraceptive methods (oral contraceptive pills and implants) less effective; ART is unlikely to have an impact on the efficacy of DMPA and hormonal IUCDs.

- Women should be informed that the use of DMPA increases the risk of female-to-male transmission of HIV; therefore, correct and consistent use of dual protection is very important.

HIV AND HOME-BASED CARE

- Communities should be encouraged to provide home-based care and palliative treatment.
- Family members should be taught and given the resources to practice correct infection prevention measures.
- Communities should be provided with home-based care kits.
- Communities should be equipped with knowledge on how and when to refer home-based care patients to health facilities.

HIV CARE-RELATED SERVICES

HIV-related services are available at both community and facility levels, including at family planning clinics. These services are therefore encouraged to be offered in an integrated manner to maximize the use and avoid missed opportunities.

The HIV-related services range from active identification of clients to provision of care and proper follow-up. When providing these services, dates of appointments should be synchronized to avoid frequent visits to the facility, which are time-consuming and costly, i.e. an HIV-positive woman with a baby should be able to get her ARVs, family planning, exposed infant care, and vaccination for the baby on the same day (Mother Infant Pair – MIP Clinics). For more information refer, to *Clinical Management of HIV in Adults and Children, 2014; HIV Testing and Counselling Guidelines*, 2013; and standard operating procedures for early infant diagnosis, November 2013.

General Information

- All HIV-positive clients should be enrolled into an HIV care clinic for continuity of proper follow-up and care.
- All facilities offering family planning and HIV care should have a clear guide on how to refer and improve linkages between the two services. Where it is feasible, ART eligibility assessment, enrolment, and initiation can be done within the family planning setting before referring HIV-positive clients to the HIV care clinic.
- Health workers should avoid stigmatizing any person with an STI (including HIV) in general and AIDS patients in particular. They should be their advocates and educate the community to reduce stigmatization against such clients and patients.
- Providers should respect the HIV-positive client's right to have a baby. When this happens, the provider should be in a position help the client plan by providing PMTCT counselling, follow-up, and care.
- Mother-Infant Pair clinics should be formed in all health facilities, where an HIV-positive woman with a baby receives a holistic, integrated essential health package (EHP) of applicable services, to minimize visits and missed opportunities. EHP services include; ART, family planning, immunization, HIV-exposed care, and follow-up.

CHAPTER 11: PREVENTION OF MOTHER-TO-CHILD TRANSMISSION OF HIV

INTRODUCTION

Mother-to-child transmission (MTCT) is the transmission of HIV from an HIV-infected mother to her baby. MTCT is also known as or referred to as vertical transmission or perinatal transmission of HIV. Prevention of mother-to-child transmission (PMTCT) of HIV relates to a combination of efforts related to the prevention of HIV transmission from mother to child.

MTCT can occur during pregnancy, labour, and delivery and after birth during breastfeeding. Vertical transmission is the main mode of acquisition of HIV infection in children. Without any intervention, 27–30% of babies born to HIV-infected mothers will acquire the virus. Of these HIV-infected babies, the majority (65%) are infected during labour and delivery. HIV transmission is associated with high maternal viral load of HIV. With early initiation of ART by HIV-positive pregnant women, nevirapine syrup for the infant, and good adherence to ART, the transmission rate can decrease to about 4% or below.

THE FOUR PRONGS OF PMTCT

Prong 1: Primary Prevention of HIV in Parents

The following are some of the age- and risk-appropriate interventions:

- Education to reduce high-risk sexual behaviour
- Encouraging abstinence
- Correct and consistent use of condoms
- Promotion and provision of condoms
- Mutual faithfulness
- Prevention and treatment of sexually transmitted infections
- Provision of counselling and testing for HIV to couples and individuals
- RH/FP counselling
- Male involvement in RH
- Voluntary medical male circumcision

Prong 2: Prevention of Unintended Pregnancies among HIV-Positive Women

- All women of reproductive age including HIV-positive women should be offered modern family planning methods.
- Providers should respect the HIV-positive client's right to have a baby. When this happens, the provider should be in a position to help the client plan by providing PMTCT counselling, follow-up, and care.

Prong 3: Prevention of Vertical Transmission

- Provide comprehensive FANC (refer to table 8.1).

- Use safe obstetric practices.
- All pregnant women should be offered PITC and PMTCT information.
- All HIV-positive pregnant women should be initiated on ART as early as possible regardless of gestational age for life.
- All HIV-exposed infants should be given nevirapine syrup once daily from birth to 6 weeks
- All HIV-positive women of childbearing age on ART should be offered FP services.

Prong 4: Treatment, Care, and Support

- All HIV-positive pregnant and breastfeeding women should be on ART using option B + and should receive cotrimoxazole preventive therapy.
- All HIV-exposed infants should be initiated on cotrimoxazole from 6 weeks till proven negative.
- All HIV-exposed children should be routinely offered HIV testing (DNA PCR with Dry Blood Spot [DBS]) at 6 weeks, rapid testing at 12 and 24 months.
- All HIV-positive children under 5 years of age should be initiated on ART as soon as they are confirmed HIV-positive regardless of CD4 and WHO clinical staging. (Refer to *Clinical Management of HIV in Children and Adults*, 2011 and 2014)
- Follow up of mothers and their exposed children should be done (Refer to *Clinical Management of HIV in Children and Adults*, 2014.)

THE INFANT

Useful measures include:

- Use meticulous infection prevention practices.
- Umbilical cord cutting and care should be handled in such a way that minimizes the infant's contact with HIV-infected blood.
- Wipe the baby before contact with mother.
- Avoid unnecessary suctioning.
- Provide passive and active immunization, i.e. two drops of polio and 0.05 ml BCG.
- Give nevirapine syrup once daily till baby is 6 weeks of age (1.5 ml if > 2500 kg and 1ml if < 2500 ml).
- Give vitamin A treatment, 100,000 IU, by mouth stat at 6 months.
- Provide cotrimoxazole prophylaxis for the baby from 6 weeks till proven negative.
- HIV-positive women should be given information on the following:
  - Care of breasts to avoid nipple cracks or breast infection
  - The importance of seeking early treatment of infections
  - The importance of good maternal nutrition
  - Avoidance of breastfeeding if the infant has oral thrush, stomatitis, or pharyngitis

- Avoidance of mixed feeding until baby is 6 months

IMPORTANT ISSUES ON PMTCT

- Counselling about HIV should be part of normal antenatal care services.
- PITC/HTC should be made available to all pregnant mothers.
- HIV testing should be undertaken with the woman's knowledge, understanding, and consent.
- HIV test results should be confidential and shared promptly.
- All HIV positive pregnant women should be screened for TB and referred appropriately

CHAPTER 12: SEXUAL REPRODUCTIVE HEALTH FOR SPECIAL GROUPS

INTRODUCTION

Special groups in this chapter include:

- Breastfeeding women
- Women over 35 years of age
- Menopausal women
- Men

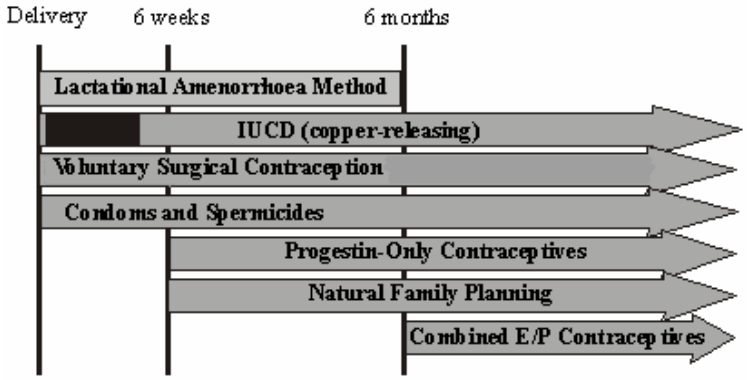
POSTPARTUM CONTRACEPTION

This is contraception provided during the first 12 months after childbirth. All postpartum women should be provided with family planning options, which are:

- Lactational amenorrhoea method (LAM)
- Contraceptive methods that do not interfere with breastfeeding

In breastfeeding mothers, the period of postpartum infertility is longer than in non-breastfeeding 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. IUCDs, progestin-only contraceptives, condoms, and voluntary surgical contraception) refer figure 12.1.

Figure 12-1. Recommended Contraception for Breastfeeding Women and When to Initiate



Note: If a woman has lost a baby, advise her to wait at least 6 months before conceiving again.

CONTRACEPTION FOR WOMEN OVER 35 YEARS

Women over the age of 35 years 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. These risk factors include:

- Women over 35 who smoke, however, should be encouraged to stop smoking for health reasons regardless of whether or not they are using COCs.
- Women age 35 and older who smoke—regardless of how much—should not use COCs, the patch, or the vaginal ring.
- Women age 35 and older who smoke 15 or more cigarettes a day should not use monthly injectables.
- Women age 35 or older should not use COCs, monthly injectables, the patch, or the vaginal ring if they have migraine headaches (whether with migraine aura or not).

Older women can continue to use most contraceptive methods like the IUCD, permanent methods, and condoms, including hormonal methods, if they do not have the additional risk factors mentioned above.

MENOPAUSE

Menopause is the time in a woman's life when menses ceases completely for a continuous period of 1 year. 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.

Note: Menopause could be natural or induced; induced menopause occurs when the ovaries are surgically removed, e.g. total hysterectomy or oophorectomy, radiological exposure.

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 perimenopausal and menopausal symptoms and the available treatments.

Peri- and menopausal signs and symptoms include:

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

- Decreased libido
- Osteoporosis

Management of Women in the Peri- and Menopausal Period

This is a normal physiological change and the couple needs to be counselled on use of Hormonal Replacement Therapy.

Options for treatment include the following:

- Low-dose COCs
- 0.625 mg conjugated oestrogen (Premarin)
- 0.625 mg Oestrone Sulphate daily for 25 days each month

The 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. It is advised that hormonal treatment should be prescribed by a 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 or unevaluated breast lump
- Known or suspected oestrogen-dependent neoplasm

Table 12-1. Management of Postmenopausal Conditions

CONDITIONS	RECOMMENDATIONS
Post-menopausal bleeding	Perform complete gynaecological check-up (speculum and bimanual examination) including diagnostic dilatation and curettage (D&C) to rule out malignancy.
Osteoporosis	Calcium gluconate 1500–2500 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 following check-up (speculum and bimanual examination). If patient is on hormonal contraception, and no gynaecological cause for bleeding is noted, reassure client and continue hormonal contraception. If client has achieved desired family size, counsel for permanent family planning methods.
Dyspareunia (painful intercourse)	Advise on lubrication before intercourse, e.g. K-Y jelly or lubricated condoms, foreplay jelly.
Insomnia	Counsel on reduced intake of caffeine and related substances, e.g. tea and coffee. Advise client to exercise.
Hot flushes	Advise client to avoid stimulants, e.g. alcohol, hot spices, and excessive caffeine use.

MALE SEXUAL REPRODUCTIVE HEALTH

Introduction

The 1994 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.

EFFECTIVE SEXUAL AND RH SERVICES FOR MEN

RH services for men should emphasize:

- Ways to meet men's sexual and reproductive health needs and offer a range of services
- Communication strategies to promote behavioral change focusing on:
    - Ways to encourage couple communication
    - Understanding the influence of gender roles
    - Increasing men's support in women's health-related choices
    - Increasing men's support in family-related, social, cultural, and gender-based issues
    - Responsible efforts by men in STI/HIV prevention
    - Bringing information on RH issues to men
- Increasing equity in accessing all SRH services.

Some of the reasons for including men in reproductive health are:

- Men play important, often dominant, roles in decisions crucial to women's reproductive health.
- Men are not fully involved in RH services; hence there is a need to improve men's involvement in RH services.
- Understanding and influencing the balance of power between men and women can help improve reproductive health behaviour by the couple.
- Couples who talk to each other about reproductive health can reach better, healthier decisions.
- Most of men's reproductive health needs are not generally addressed. There is a need to orient all service providers in providing male-friendly RH services that meet their needs as well as create an environment conducive to such services.
- Male involvement can help:
    - Avoid unplanned pregnancies
    - Slow the STI/HIV epidemic
    - Promote safe motherhood
    - Improve men's roles in RH-related issues (partner communications and relationships, care of children, etc.)

Guidelines for Managing a Male Client

Client Assessment

- History taking
  Sexual and reproductive history, to incorporate screening for risk of STIs including HIV. Screening for substance abuse, sexual problems and mental health needs.
- Physical examination
  Including cancer screening, depending on age, especially for cancer of oesophagus and prostate, which are common cancers in men in Malawi.
- Investigations such as urinalysis, semen analysis

Information and Counselling

These should be provided to every man who visits the clinic and should include education and counselling on:

- Sexuality and physiology
- Genetics so that they understand how the sex of a child is determined
- Family planning with emphasis on all contraceptive methods, including their use and effectiveness
- STIs and HIV
- Genital health and hygiene, including testicular and genital self-examination
- Communication with partners on sexual and reproductive behaviour

Clinical Services

These should be provided only if identified through screening and may include the following:

- Diagnosis and treatment of sexual dysfunction
- STI/HIV diagnosis, treatment, and counselling
- Fertility evaluation
- Provision of condoms
- Vasectomy

MALE SEXUAL REPRODUCTIVE HEALTH PROBLEMS

Impotence

Definition

Impotence is the inability to attain or maintain an erection of the penis adequate for the sexual satisfaction of both 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 the ageing process. Normally, impotence is noticed in persons over 50 years of age.

- Psychological problems
  With younger men, psychological problems are the most likely reason for impotence. Tension, anxiety neurosis, and depression play a major role as a cause 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 STIs, HIV, rejection by partners or peers, or sexual abuse in childhood such as masturbation and other sexual perversions.
- Arteriosclerosis
  Erection is primarily a vascular event. In arteriosclerosis, the narrowing and thickening of the blood vessel wall impair the circulation. It is normal as one ages. Diabetes or smoking tobacco or Indian hemp (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, narcotic drugs, and trauma. Sometimes, medication with modern drugs for various illnesses may produce temporary impotence. Neurological diseases like multiple sclerosis could also be considered as a cause of impotence.
- 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. This may prevent self-consciousness 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. Sildenafil Citrate (Viagra), can be effective.
- If the cause is due to trauma, reassure and/or refer.

Premature Ejaculation

Definition

Premature ejaculation is the persistent or recurrent ejaculation with minimal sexual stimulation 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 commercial sex workers, 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. Some 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.

The sexual response can be seen as proceeding through three levels: desire, arousal, and orgasm. With premature ejaculation, sometimes the real problem is insufficient sexual desire to start with, or lack of true arousal. It is entirely possible for a man to have a decent erection without 100% sexual desire and even without full arousal. If this is the case, the individual actually needs to be aroused more 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 may be prevented by the following ways:

- Couples should know each other well and feel comfortable with one another: no anxiety or worries.
- Both partners should be consenting, without feeling coerced.
- Both partners should be in a comfortable, relaxed (not rushed) and private setting.

Some Techniques That May Prevent Early Ejaculation:

- 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 “start-stop” 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 off 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
  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 the amount of stimulation experienced during sex. If one condom is not enough, advise the client to put on a second one. Condoms provide excellent protection against pregnancy and STIs including HIV and HBV if used correctly and consistently.

CHAPTER 13: GENDER-BASED VIOLENCE

DEFINITIONS

Gender

The term gender refers to the economic, social, and cultural attributes and opportunities associated with being male or female in a particular social setting at a particular point in time.

Gender-Based Violence

According to the National Strategy to Combat Gender Based Violence (GBV) (2002), GBV has been defined as "any unlawful act perpetrated by a person against another person on the basis of their sex that causes suffering on the part of the victim and results in, among others, physical, psychological, emotional harm and economic deprivation."

FORMS OF GENDER-BASED VIOLENCE

- Physical abuse
- Psychological/emotional abuse
- Economic abuse
- Sexual abuse
- Human trafficking

EFFECTS OF GENDER-BASED VIOLENCE

GBV leads to short- and long-term effects not only for the victim (abused) but for other relatives, friends, and children. Victims of GBV experience many problems, including the following:

Physical Health

- Injury (from lacerations to fractures and internal organ injuries)
- Depression; the victim may become immobilized due to constant fear and tension
- Unwanted pregnancies
- Sexually transmitted infections including HIV
- Miscarriage
- Pelvic inflammatory disease
- Chronic pelvic pain
- Headaches
- Permanent disabilities
- Irritable bowel syndrome
- Eating problems
- Inability to reproduce due to damages caused in the private areas
- Self-injurious behaviours (e.g. smoking, unprotected sex)

- Death

Psychological Health

- Stigmatization; some people view rape victims with a negative attitude and the stigmatization may lead to suicide
- Generalized anxiety, e.g. fear, restlessness
- Impaired memory, forgetfulness
- Sexual dysfunction
- Depression, e.g. self-blame and withdrawal from social life activities, loss of self-esteem
- Obsessive-compulsive disorder
- Post-traumatic stress disorder
- High propensity towards promiscuous behaviour

Social Effects

- Difficulty in obtaining, maintaining, and adjusting to employment due to the tense and violent atmosphere
- Low productivity caused by confusion
- Breakdown of family units, which leads to relocation of victim and children
- Physical damage leading sometimes to disability
- Children do not develop to their full potential in an abusive environment
- Perpetuation of violence by a child who grew up in a violent environment
- Delinquency and crime including drug and alcohol abuse
- Breakdown of family structures/eroding family cohesion
- Divorce

PREVENTION OF GENDER-BASED VIOLENCE

GBV is a complex problem whose solutions require multiple strategies. Its total eradication would also require concerted efforts and mobilization of resources.

The role of the health worker:

- Providing a supportive environment to help disclosure
- Gathering information on the health problems associated with the abuse
- Assessing immediate and long-term health and safety needs
- Providing information/sign postings and referring where appropriate (e.g. ONE STOP Centres, victim support units)
- Providing psychological counselling to the client as well as to others who are affected
- Documenting disclosure of abuse and action taken in her records
- Treating any physical and/or psychological symptoms appropriately

- For rape and sexual assault, referring to available management guidelines (PEP, EC, STI, etc.)

CHAPTER 14: HARMFUL REPRODUCTIVE HEALTH AND CULTURAL PRACTICES

Introduction

These are reproductive and cultural practices that can endanger the lives of individuals and couples, leading to diseases, disability, or death, and are of reproductive health importance.

Many Malawian women and children experience harmful practices and domestic and sexual violence, but the magnitude of the problem is not known. Thirty percent of married women experienced forms of physical and sexual violence committed by their husbands, according to the 2010 Malawi Demographic and Health Survey.

Traditional practices harmful to women and children inflict both immediate and long-term mental and physical pain on their victims. These practices expose women to sickness and death from the various causes. Ironically, while many traditional practices are intended to control women's sexuality and SRH capacity, these practices expose them to SRH risk that threatens their fertility and their lives. .

Harmful traditional practices also violate a number of recognized human rights protected in international and regional instruments and reaffirmed by international conference documents. These rights include but are not limited to:

- Right to life
- Right to health
- Right to education

Some of the international instruments that protect the rights of women and children are:

- Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW)
- Convention on the Rights of Children (CRC)
- International Covenant on Civil and Political Rights (ICCPR)

Types of harmful practices

- Inheritance of a wife or husband
- Practice of hiring a man for sex or conception (*Fisi*)
- Death rituals such as hiring a man for the widow to drive out the spirits (*kupita kufa*)
- Sexual cleansing (*kusasa fumbi*)
- Use of traditional herbs to induce labour
- Insertion of herbs into the vagina for dry sex
- Performance of traditional circumcision under unsterile conditions
- Male or female prostitution
- Prolonged postpartum abstinence that predisposes a man to promiscuity

- Traditional treatment of vulva/vaginal warts and haemorrhoids (e.g. by cutting)
- Prohibiting pregnant women from eating certain foods, such as eggs, which interferes with nutrition; e.g.: *"this will lead to prolonged labour since the egg is closed in a shell"*
- Polygamy:
  - Offering a second wife (young sister, cousin, or niece) as a token of thanks to a good in-law (*mbirigha, hlazi, or nthena*)
  - Temporary spousal swapping (*Chimwana mayi or mwana wa mama*)
  - Early marriage
  - Genital mutilation
  - Forced sex
  - Gender inequality, which leads to limited access to education

The role of health worker:

- Being aware of the possibility of abuse
- Recognizing signs and symptoms
- Approaching the subject sensitively
- Listening to and making time for clients who may have experienced harmful practices
- Giving information and referring on to other services (ONE STOP Centres, victim support units)
- Treating any physical symptoms appropriately
- Providing psychological counselling
- Linking up with the existing community structures for support
- Promoting dual protection methods

CHAPTER 15: INFERTILITY

Definition

Failure of a couple to achieve pregnancy as desired 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.

Main causes

The main causes of infertility include the following:

STIs, most commonly those caused by *N. Gonorrhoea* and *C. Trachomatis* resulting in pelvic inflammatory disease (PID) in women and epididymo-orchitis in men. Sometimes advanced syphilis or HIV infection may be implicated.

Other causes of infertility are:

- Ovulatory factors in women, e.g. central defects such as ovarian failure or tumours
- Abnormal sperm motility, e.g. antibody formation
- Abnormal spermatogenesis, e.g. chromosomal abnormalities, radiation or chemical exposure, varicocele, increased temperature to the testes
- Sexual dysfunction, e.g. retrograde ejaculation, impotence
- Anatomic disorders, e.g. undescended testis
- Metabolic disorders in women, e.g. obesity
- Orchitis secondary to mumps
- Schistosomiasis
- Tubo-ovarian and endometrial TB in women and TB orchitis in men
- Endocrine disorders, e.g. thyroid disorders

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.

- Provide health education on dangers of abortion and postpartum infections.
- Encourage early management of incomplete abortion and postpartum infections.

Role of the provider

- Educate and counsel on fertility awareness (refer to chapter 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 testing.

CHAPTER 16: PREVENTION, EARLY DETECTION, AND MANAGEMENT OF CANCERS OF THE REPRODUCTIVE SYSTEM

INTRODUCTION

Cancer is a major problem in Malawi. The AIDS pandemic has exacerbated this burden, particularly reproductive tract cancers, the most common cancers among women.

CERVICAL CANCER

Definition

Cervical cancer is a malignant change of the cervical epithelium usually originating at the transformation zone of the cervix. It is the commonest cancer in females followed by Kaposi's sarcoma.

Cause

Research has concluded that the oncogenic or high-risk human papillomavirus (HPV), a sexually transmitted infection, is a necessary but not solely sufficient cause of cervical cancer: Close to 99.7% of cervical cancers are directly linked to chronic, persistent infection with the oncogenic HPV.

Risk Factors for Cervical Cancer

HPV infection is necessary for development of cervical cancer. Factors that promote acquisition of HPV include: early initiation of sexual intercourse; having multiple sexual partners; having a sexual partner with multiple sexual partners; co-infection with other sexually transmitted infections such as *Chlamydia trachomatis* and herpes simplex virus type 2; and high parity. However, other cofactors are necessary for progression of HPV infection to cancer. These include immunosuppression like in HIV/AIDS infection and tobacco smoking.

Prevention

Prevention of cervical cancer is divided into primary and secondary

Primary prevention

The main aim of primary prevention is to prevent infection with HPV and with cofactors that increase the risk of HPV acquisition and expression. This includes education and awareness to reduce high-risk sexual behaviour, and discouragement of tobacco use/cigarette smoking—a known risk factor for cervical cancer.

The following strategies are recommended for primary prevention:

- Promote Abstinence or delayed sexual debut for adolescents **(A)**
- Promote Being faithful to one partner for those in relationships **(B)**
- Promote Condom use **(C)**
- Promote HPV vaccination
- Promote male circumcision – (This has been associated with a reduced risk of penile HPV infection, and in the case of men with a history of multiple sexual

partners, a reduced risk of cervical cancer in their current sexual partner. Note also that male circumcision is associated with a 60% reduction in transmissibility of HIV, hence conferring a double benefit to the female partner.)

Role of the Provider in Primary Prevention

- Community education on STIs and its complementary role in causing cervical cancer
- Providing information to at-risk teens and young adults on delaying sexual contact or using protection when engaging in sexual activity
- Promoting healthier lifestyle and better choices
- Providing HPV vaccination during school or facility-based immunization efforts

Secondary Prevention

Secondary prevention aims to prevent invasive cervical cancer by detecting and treating precancerous lesions of the cervix before they progress to cancer. Cervical cancer has a long precancerous period, usually taking more than 10 years to progress from precancerous lesions to invasive cancer. As a result, it is rare for cervical cancer to develop in a woman under 30 years of age. This long precancerous stage provides an excellent opportunity for effective intervention measures such as screening and treatment of precancerous lesions.

Screening for cervical cancer aims to detect precancerous lesions that are then treated to prevent progression to invasive cancer. This can be carried out in several ways including cervical cytology (Pap smear test) and visual inspection of the cervix with acetic acid (VIA) or HPV testing.

The Role of the Provider in Secondary Prevention

- Community education on the need to screen women between 30and 49
- Counselling for screening and treatment
- Screening and treatment of eligible lesions at point of care
- Managing side effects and complications from treatment
- Post-procedure instructions for return in either negative and positive cases
- Counselling and testing for HIV if status is unknown

Visual Inspection of the Cervix Using Acetic Acid (VIA)

Dilute acetic acid is used to enhance and “mark” the acetowhite changes of a precancerous lesion in the transformation zone.

Who Should Be Screened Using VIA

The following recommendations should be considered when using VIA as a screening method:

- Women between 30 and 49 years of age will be the primary target for screening.
- Women under 30 years of age should be screened only if they are at high risk for disease. (Women at high risk for cervical abnormalities are those who have had

early sexual exposure, multiple partners, previous abnormal screening results, or CIN, or are HIV-positive).

- VIA is not appropriate for women over 50. These women should be screened at 5-year intervals using cytology or HPV testing.
- Annual screening is not recommended for the HIV-negative population.

Timing of VIA

- For the general population, it is recommended that HIV-negative women be screened for cervical cancer every 5 years. The screening cycle for HIV-positive women is outlined below.
- Screening can be done at any point in the menstrual cycle including during menses (it may be difficult to see, if menstrual blood flow is heavy—in such cases, you may need to re-examine), during pregnancy, and at the postpartum or post abortion care check-up. It can also be performed in a woman suspected to have an STI or HIV/ AIDS.
- Recent sexual intercourse does not affect VIA.

Screening Cycle

The recommended screening cycle in HIV-negative women regardless of screening test is once every 5 years if the initial result is negative/normal. If screening has been normal, it can be stopped when a woman reaches 65 years of age. If a woman can be screened only once in her lifetime, the best age is between 35 and 45 years. If results have been abnormal or the client has undergone treatment, rescreening should be provided in a year. If follow-up screening is normal, she should return for screening every 5 years.

Screening for HIV-Infected Women

Squamous cell carcinoma of the cervix is now an AIDS-defining illness. HPV is detected more frequently and resolves more slowly in HIV-infected women. In these women, HPV-associated disease is also more difficult to treat, recurrence rates are higher, and progression from HPV to cancer is faster. Although antiretroviral treatments improve the quality of life for HIV-infected persons, it is still not known if they have any effect on progression to pre-cancer or cancer. Women presenting for cervical cancer screening should also receive HIV counselling and testing.

All HIV-positive women with history of sexual activity 18–65 years old should be screened for cervical cancer. For these women, start screening at the time of diagnosis of HIV or on first contact. Screen every 6 months for the first year, then annually thereafter. Note that in HIV-positive women, lesions on VIA/visual inspection with Lugol's iodine (VILI) tend to be larger and therefore may not be amenable to cryotherapy.

Note: Women with cervicitis, acute or chronic, should be started on antibiotics and if VIA-positive offered cryotherapy.

VIA Procedure

Client Assessment

1. Greet the woman respectfully and with kindness.
2. Establish why the VIA test is being done and describe the procedure.
3. Tell her what the findings might be and what follow-up or treatment might be necessary.
4. Take a reproductive health history for VIA/VILI or, if medical record is available, confirm the following information:
   - Parity
   - Whether currently pregnant
   - Age at first intercourse
   - Current contraceptive method
   - LMP and menstrual interval (days)
   - Bleeding pattern
   - History of STIs, including HIV/AIDS
   - History of abnormal Pap smear

Getting Ready

1. Check that speculum, gloves and other supplies are available.
2. Ensure that light source and dilute acetic acid (for VIA) are ready to use.
3. Tell the woman what is going to be done and encourage her to ask questions.
4. Check that the woman has emptied her bladder.
5. Ask her to undress from the waist down.
6. Help her onto the examining table.
7. Wash hands thoroughly with soap and water and dry them appropriately.
8. Place a drape over the woman for pelvic examination.
9. Put new examination or high-level disinfected surgical gloves on both hands.
10. 1Arrange instruments and supplies on high-level disinfected tray or container.

Procedure

1. Inspect external genitalia and check urethral opening for discharge.
2. Insert vaginal speculum and adjust the speculum and light source so that the entire cervix can be seen.
3. Fix the speculum blades in the open position so that the speculum will remain in place with the cervix in view.
4. Examine the cervix for cervicitis, ectropion, tumours, Nabothian cysts, or ulcers.
5. Use a clean vaginal swab to remove any discharge, blood, or mucus from the cervix.

6. Identify the external cervical os, the transformation zone, and the squamocolumnar junction.
7. Soak a clean swab in dilute acetic acid and apply thoroughly to the cervix if VIA is being done first.
8. Wait 1 minute for the acetic acid to be absorbed and any acetowhite reaction to appear.
9. Inspect the transformation zone carefully and look for any acetowhite change:
   - Check if there is any overt cervical cancer.
   - Check to be sure the entire SCJ and T-zone can be seen.
   - Check for any VIA-positive lesion and note density, area, and extent.
   - If a positive lesion is seen, determine suitability for cryotherapy.
   - As needed, reapply acetic acid or swab the cervix with a clean swab to remove mucus, blood, or debris.
10. When VIA has been completed, use a fresh swab to remove any remaining solution from the cervix and vaginal fornix.
11. Remove the speculum and place in 0.5% chlorine solution for 10 minutes for decontamination.
12. Have the woman sit up, get dressed, and get down from the table.

Post-VIA Tasks

1. Before removing gloves, dispose of used swabs by placing in a leak-proof container or plastic bag.
2. Immerse both gloved hands in 0.5% chlorine solution. Remove gloves by turning inside out:
   - Dispose of the gloves in a leak proof container
3. Wash hands thoroughly with soap and water and dry with clean, dry cloth or air dry.
4. Wipe down and dry examining table surface and light source with 0.5% chlorine solution after each use.
5. Record findings on the cervical cancer screening form:
   - Remember to draw a schematic representation on the screening Map.
6. Discuss the VIA results with the woman and answer any questions.

Management after VIA Procedure

- If VIA is negative and HIV-negative, tell the client to come for review in 5 years; if HIV-positive, review every 3 years and remind her about risk factors.
- If VIA test is positive, explain the meaning of a positive test and the importance of cryotherapy treatment and follow-up after 1 year for a repeat VIA.
- If ready for cryotherapy, counsel for the procedure to be done preferably the same day or any other day if the client so wishes.

- If there is need for referral, complete the necessary paper work and arrangements:
- If status unknown, offer provider-initiated testing and counselling.

Recommended Referral Actions

- Refer all women suspected of having cervical cancer.
- Refer all women whose lesions occupy more than 75% of the cervix.
- Refer for lesions extending into the vaginal wall or extending more than 2 mm beyond the outer edge of the cryotherapy probe.
- Refer women with acetowhite lesions but who request alternative treatment.
- Refer women who are VIA-positive but decline treatment or request more diagnostic tests.
- Refer for other gynaecological problems such as ovarian mass or uterine fibroids.

Management of Pre-Cancerous Lesions

The elements of a comprehensive cervical cancer prevention programme include a treatment arm. In most cases, precancerous lesions can be treated on an outpatient basis using relatively non-invasive procedures. These treatment methods may be ablative (destroying abnormal tissue by heating or freezing) or excisional (surgically removing abnormal tissues). The choice of treatment depends on:

- The training and experience of the provider
- The location and extent of the lesion
- The advantages and disadvantages of each method
- The cost

Methods for Treatment of Precancerous Lesions of the Cervix

Cryotherapy and LEEP are the recommended treatment options for most cases of precancer. Women should be offered the same treatment options irrespective of HIV status.

Cryotherapy

Cryotherapy is the easiest and least costly treatment method for precancer. Cryotherapy is highly effective, with cure rates of 85–90% for lesions occupying less than 75% of the cervix; however, for larger lesions, the cure rate is < 80%. In developing countries, cryotherapy is being recommended for use in the single visit approach (SVA) to reduce the number of clinic visits by women and thereby avoid loss to follow-up and treatment. Because the area of the cervix that is frozen has very few nerve endings, cryotherapy can be done without anaesthesia because it involves very minimal discomfort.

Eligibility Criteria for Cryotherapy

- The screening test for cervical precancer is positive.
- There is no evidence of invasive cancer.

- The endocervical canal is normal and there is no suggestion of glandular dysplasia.
- The entire lesion is located in the ectocervix without extension to the vagina and/or endocervix.
- The lesion is visible in its entire extent and does not extend more than 2 to 3 mm into the canal.
- The lesion can be adequately covered by the largest available cryotherapy probe (preferably the 19mm probe).
- The lesion extends less than 2 mm beyond the cryotherapy probe.
- The woman is not pregnant.
- If the woman has recently delivered, she is at least 3 months postpartum.
- There is no evidence of pelvic inflammatory disease.
- The woman has given informed written consent to have the treatment.

Procedure

1. The service provider should explain the treatment procedure to the woman and reassure her. This is important to help the woman to relax during the procedure.
2. After ensuring that she has emptied her bladder, the provider should place her in a modified lithotomy position and expose the cervix with the largest speculum that can be introduced comfortably.
3. The secretions are removed with a cotton swab soaked in saline. Then VIA/VILI is performed to delineate the limits of the lesion.
4. The cryoprobe surface is wiped with saline to ensure adequate thermal contact with the cervix and optimal lowering of the tissue temperature.
5. The cryotherapy probe tip is then firmly applied, with the centre of the tip on the os. It is obligatory to ensure that the vaginal walls are not in contact with the cryoprobe tip.
6. The timer is then set and the gas trigger in the cryogun is released or squeezed to cool the cryoprobe in contact with the cervix. The gas escapes through the pressure gauge with a hissing noise. One should be able to observe ice being formed on the tip of the cryoprobe and on the cervix as freezing progresses.
7. The cryoprobe is applied to the cervix twice for 3 minutes each time, with a 5-minute thaw in between (double freeze technique). Adequate freezing has been achieved when the margin of the ice ball extends 4–5 mm past the outer edge of the cryotip. This will ensure that cryonecrosis occurs down to at least 5 mm depth.
8. Once the second freeze for 3 minutes is completed, allow time for adequate thawing before removing the probe from the cervix.
9. When thawing is completed, the ice formation on the cryoprobe tip is totally cleared and the probe is removed by gently rotating on the cervix. Do not attempt to remove the probe tip from the cervix until complete thawing has occurred.

10. After removing the probe, examine the cervix for any bleeding. The vagina should not be packed with gauze or cotton after cryotherapy to allow the secretions to escape. Women may be provided with a supply of sanitary pads to prevent the secretions from staining their clothes.

Side Effects

The main side effect associated with this procedure is profuse, watery vaginal discharge starting a few days after treatment, when sloughing of the "necrotic areas" occurs. The discharge may go on for 4–6 weeks until the healing process is completed. Long-term sequelae are rare. Cervical stenosis occurs in less than 1% of women; reduced mucus production occurs in 5–10% of women. Cryotherapy has no known adverse effect on fertility and pregnancy.

Post-Treatment Instructions

Women should be informed that they may experience some mild cramps and a clear or lightly blood-stained watery discharge for up to 4–6 weeks after treatment.

Women should be advised not to use a vaginal douche or tampons or to have sexual intercourse for 1 month after treatment. If it is not possible to abstain, condoms may be used 2 weeks post-treatment to reduce disturbance to the cervix and facilitate healing.
Women should be instructed to report if they have any one of the following symptoms in the 6 weeks after treatment: fever for more than 2 days, severe lower abdominal pain, foul-smelling, pus-coloured discharge, bleeding with clots, or bleeding for more than 2 days.

It is preferable to give written instructions on the above aspects and on follow-up. Appointments should be made for a follow-up visit 9–12 months after treatment.

During the follow-up, cytology and/or VIA should be performed, followed by colposcopy and directed biopsy depending upon the colposcopy findings, to assess the regression or persistence of lesions. Retreatment is carried out if lesions persist.

Women who are negative for neoplasia may be referred back to a screening programme.

Special Considerations

- The effect of cryotherapy on the potential transmissibility of HIV infection (to or from women) during the healing phase is not known. HIV-1 shedding in the vaginal secretions after treatment of CIN in HIV-positive women has been demonstrated. Therefore, women should be informed that cryotherapy may increase the transmissibility of HIV and be advised to use condoms as an effective means of prevention.
- If the woman is suffering from cervicitis, trichomoniasis, or bacterial vaginosis, she may be offered a choice of having either cryotherapy immediately with simultaneous antimicrobial treatment, or taking treatment and returning 2–3 weeks later for cryotherapy.
- If there is evidence of pelvic inflammatory disease (PID), it is advisable to delay cryotherapy until the infection has been treated and resolved.

- If there is marked atrophy due to oestrogen deficiency in an older woman and staining of the outer margin of a lesion is indistinct, cryotherapy may be carried out after a course of topical oestrogen treatment and colposcopic reassessment, preferably at a higher level of care.

Care and Maintenance of Equipment

The cryoprobes/cryotips should be decontaminated using standard procedure, cleaned, and then subjected to high-level disinfection or autoclaving. The cryogun, regulator, and gas cylinder should be wiped after use with 60–90% ethyl isopropyl alcohol.

Loop Electrosurgical Excision Procedure (LEEP)

LEEP, also referred to as Large Loop Excision of the Transformation Zone (LLETZ), is an excisional method of precancer treatment. It is the treatment of choice for cervical lesions that are large for the cryoprobe, when the lesion involves the endocervical canal, or when a histological specimen is needed.

Eligibility Criteria for LEEP

- There has been a positive diagnostic test for precancer (when possible, CIN is confirmed by cervical biopsy).
- If the lesion involves or extends into the endocervical canal, the distal or cranial limit of the lesion should be seen; the furthest (distal) extent should be no more than 1 cm in depth.
- There is no evidence of invasive cancer or glandular dysplasia.
- There is no evidence of PID, cervicitis, vaginal trichomoniasis, bacterial vaginosis, or anogenital ulcer.
- The woman should not be pregnant. If the woman has recently delivered, she should be at least 3 months postpartum.
- Women with hypertension should have their blood pressure well-controlled.
- There should be no history or evidence of bleeding disorder.
- The woman must give written informed consent to have the treatment.

LEEP Procedure

1. Explain the procedure, obtain informed consent, and prepare the patient for a gynaecological examination.
2. Prepare all the necessary equipment and supplies and attach a return electrode to the inner thigh.
3. Insert a non-conducting speculum with an electrically insulating coating, or a speculum covered with a latex condom.
4. Examine the cervix, and note any abnormalities; if there is no evidence of infection, proceed. If you note signs of infection, suspend the procedure and treat the patient and her partner completely before making a second attempt.
5. Perform colposcopy to determine the location and extent of the lesion.

6. Inject 3–5 ml of local anaesthetic (1% or 2% lidocaine with adrenaline to control bleeding), using a long, 27-gauge needle, just beneath the cervical epithelium at the 12 o'clock, 3 o'clock, 6 o'clock, and 9 o'clock positions (in patients with cardiac problems, use lidocaine without epinephrine).
7. Select the appropriate electrode to remove the entire abnormal area in a single pass: for small, low-grade lesions in nulliparous women, use an electrode 1.5 cm wide by 0.5 cm deep; for larger lesions and multiparous women, use one 2.0 cm wide by 0.8 cm deep.
8. Turn on the vacuum suction on and activate the generator.
9. Excise the lesion: push the electrode perpendicularly into the tissue to a depth of 4–5 mm and draw it laterally across the cervix to the other side, producing a dome-shaped circle of tissue with the canal in the centre. *Do not* insert the electrode deeper than 5 mm at the 3 o'clock and 9 o'clock positions, because this can damage the uterine arteries. Additional passes with the loop can be made to excise residual tissue.
10. Pick up all excised tissues with the forceps, and place in a labelled bottle with formalin to send to the histopathology laboratory.
11. Perform endocervical curettage and place the tissue in a separate bottle with formalin.
12. Fulgurate any bleeding tissue in the crater base using a ball electrode and coagulation current.
13. Apply Monsel's paste to the crater base to prevent further bleeding and remove the speculum.
14. Provide a sanitary pad.

Side Effects

- Severe and moderate postoperative bleeding occurs in a few women. This usually occurs 4–6 days after treatment and often from the posterior lip of cervix. This bleeding can usually be controlled by fulguration, applying Monsel's paste, or using a silver nitrate applicator stick. Rarely, placement of a suture at the bleeding site is necessary.
- Few women complain of post-operative pain. If this occurs, it usually is similar to cramps; women should be instructed to use oral analgesics such as acetaminophen or ibuprofen, if necessary.

Referral

The following should be referred to an obstetrician/gynaecologist:

- Suspected cancer
- Acetowhite lesion greater than 75% of face of cervix

Papanicolaou Smear (Pap Smear)

A method of screening women for abnormal cervical cells. A sample of the cells is obtained from the cervix and is sent to laboratory for analysis by a pathologist or cytologist. Women are asked to return to the clinic for results and treatment 6 weeks later.

Who should be screened using Pap Smear?
Women over 50 years of age.

Management of Abnormal Pap Smear Results

- If Pap smear is abnormal, refer to specialist.
- If Pap smear is abnormal due to infection and specific pathogens have been identified, treat the infection.
- If result is low-grade squamous intraepithelial lesion (LGSIL), which includes CIN I, HPV, or atypical cells of uncertain significance (ASCUS):
  - Repeat Pap smear in 6 months.
  - If patient has two abnormal Pap smears (ASCU and LGSIL), refer to specialist.
- If client has high-grade squamous intraepithelial lesion (HGSIL), which includes CIN II and CIN III, refer urgently to specialist.
- Offer HIV testing and counselling.

BREAST CANCER

Definition

Breast cancer is the malignant change of the mammary gland (breast tissue). It is the second commonest cancer of reproductive system in females Cancer of the breast arises from the epithelium lining the lactiferous ducts therefore all lumps in the breast must be regarded as possible cancer until proved otherwise.

Risk Factors

The major risk factors for breast cancer include:

- Female sex
- Age
- Family history of breast cancer
- Prolonged exposure to oestrogens

Other related factors include: hormone replacement therapy, ionizing radiation, high-fat diet, lack of physical exercise, obesity, alcohol consumption, and family history of other cancers such as ovarian, prostate, colorectal, and endometrial.

The following health behaviours may reduce the risk of developing breast cancer:

- Prolonged lactation
- Regular physical activity
- Avoidance of obesity
- Avoidance of alcohol consumption
- Avoidance of excess exposure to radiation
- Avoidance of prolonged use of exogenous hormones

Signs of Suspected Breast Cancer

As a tumour grows in size, it can produce a variety of symptoms including:

- Lump or thickening in the breast or underarm
- Change in size or shape of the breast
- Nipple discharge or nipple turning inward
- Redness or scaling of the skin or nipple
- Ridges or pitting of the breast skin

Prevention and Screening

Primary prevention measures to prevent breast cancer include practicing a healthier lifestyle and avoidance of risk factors such as: high-fat diet, lack of physical exercise, obesity, and alcohol consumption.

Secondary prevention includes early detection and treatment. Screening for early detection and appropriate treatment are the most effective way of avoiding advanced disease, because lesions treated in the early stages have a high cure rate. Screening for breast cancer involves breast self-examination (BSE), clinical breast examination (CBE), and breast imaging (mammography and/or ultrasound scanning). All of these forms of screening aim to detect breast lesions in their early stages.

Breast Self-Examination (BSE)

This is a simple, quick examination done by the client herself, which improves breast self-awareness and allows individuals who detect breast lumps early enough to present themselves to clinicians in good time for treatment when chance of complete cure is greater. Regular and correct technique of breast examination is important.

Timing

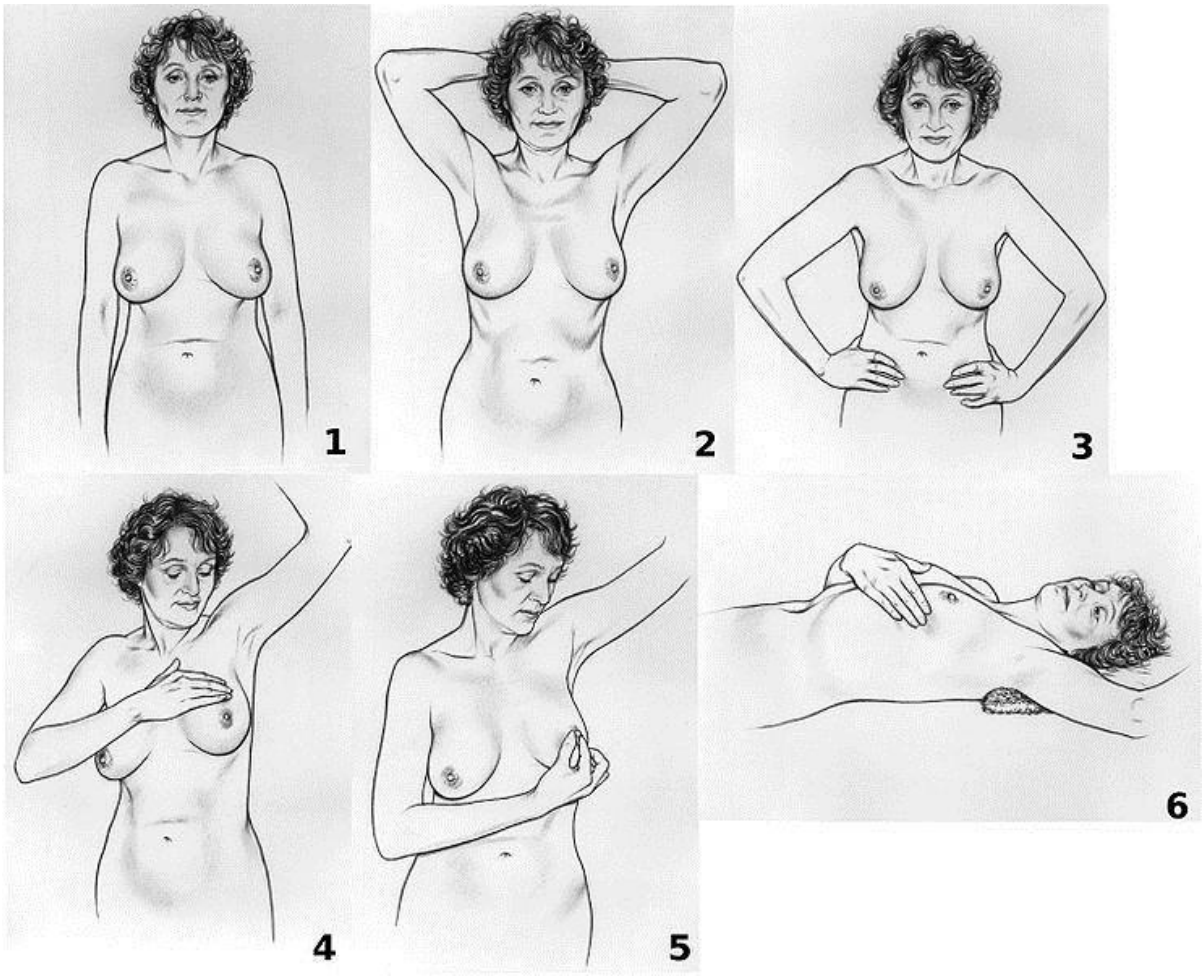
BSE can be done at any time: when lying down, when taking a shower, or when bathing. Women should examine their breasts at least once every month. Because breasts change in shape and feel different at different stages of a menstrual cycle, BSE should be performed at the same time during each menstrual cycle. The best time is immediately after menses. For women on oral contraceptive pills, the best day is the day they start a new packet. For those who have reached menopause, are on an injectable progesterone-only contraceptive method, or implants, and for those with irregular menses, the examination should be done on the first day of each calendar month.

Men, too, should examine their breasts regularly, at least once every calendar month. The best time is the first day of each calendar month.

Technique of BSE

A variety of methods and patterns are used in breast self-exams.

1. Most methods suggest that the woman stand in front of a mirror with the torso exposed to view. She looks in the mirror for visual signs of dimpling, swelling, or redness on or near the breasts. This is usually repeated in several positions, such as while having hands on the hips, and then again with arms held overhead.
2. The woman then palpates her breasts with the pads of her fingers to feel for lumps (either superficial or deeper in tissue) or soreness. There are several common patterns, which are designed to ensure complete coverage. The vertical strip pattern involves moving the fingers up and down over the breast. The pie-wedge pattern starts at the nipple and moves outward. The circular pattern involves moving the fingers in concentric circles from the nipple outward. Some guidelines suggest mentally dividing the breast into four quadrants and checking each quadrant separately. The palpation process covers the entire breast, including the "axillary tail" of each breast that extends toward the axilla (armpit). This is usually done once while standing in front of the mirror and again while lying down.
3. Finally, women who are not breastfeeding gently squeeze each nipple to check for any discharge.



A pictorial example of breast self-examination in six steps. Steps 1–3 involve inspection of the breast with the arms hanging next to the body, behind the head,

and on the side. Step 4 is palpation of the breast. Step 5 is palpation of the nipple. Step 6 is palpation of the breast while lying down.

Clinical Breast Examination (CBE)

CBE is performed by a trained and skilled health care provider. It can be done at any Essential Health care Package level; and includes taking a detailed history and conducting a physical examination. All breast quadrants must be examined in detail. During CBE, the provider inspects the skin for changes and swellings and for tethering of the breast on the chest wall, palpates for lumps, checks for nipple discharge, and advises clients on the next steps. A suspicious lump or bloody nipple discharge requires additional evaluation by mammography or ultrasonography as well as fine needle aspiration and cytology.

Timing

Annual CBE should be provided by a skilled health care provider to individuals aged 40 years or more. Individuals who are younger than 40 years should have CBE every 2 years, beginning from the age of 18 years. Women presenting for breast cancer screening should be offered cervical cancer screening and vice versa.

Management

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

TESTICULAR CANCER

Testicular cancer is the most common in men aged between 20 and 25. If detected and treated early, testicular cancer is one of the most curable of cancers.

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

Instructions to a Client by a Provider

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

- Check yourself immediately after a hot shower/bath. 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.

PROSTATE CANCER

Definition

Prostate cancer is a disease in which cancer develops in the prostate, a gland in the male reproductive system. It is the commonest cancer of the male reproductive system.

Risk Factors

The specific cause of prostate cancer is unknown. However, there is some evidence that several factors play an important role in its occurrence. These factors include:

- **Age:** This is the strongest risk factor for prostate cancer. The disease is rare before age 40, but the risk rises rapidly after age 50. About two out of three prostate cancers are found in men over the age of 65.
- **Race:** The disease appears to be more common among blacks.
- **Diet:** Inadequate intake of micronutrients such as zinc, selenium, and vitamin E has been shown to predispose to prostate cancer.
- **High testosterone levels:** The glandular tissue of the prostate responds to testosterone levels. Thus it has been postulated that onset of prostate cancer is related to high testosterone levels.
- **Infections:** Chronic prostatitis and frequent STIs are risk factors.
- **Family history:** The risk is higher for men with an affected brother than those with an affected father.

Prevention

Measures to prevent prostate cancer include creating and increasing awareness of prostate cancer among the general population, educating them on the risk factors, and encouraging them to improve their diet with reference to micronutrients and vitamins.

Locally available foodstuffs that contain micronutrients that protect against prostate cancer include green leafy vegetables, tomatoes, pumpkins, and water melons, particularly the seeds. Clients should be encouraged to eat them routinely. In addition, there are screening methods described below that can detect early cases when they are still curable.

Screening and Detection Methods of Prostate Cancer

Prostatic cancer screening options includes:

- **Digital Rectal Examination (DRE):** Prostate cancer is screened for and is usually detected through routine DRE. With the patient lying on his left side in knee-chest position, the doctor or nurse inserts a lubricated, gloved finger into the rectum and firmly presses against the prostate gland. Pressing on the prostate gland does not hurt, although it may make one feel like urinating. A healthy prostate gland should feel soft, smooth, and even. The presence of abnormal lumps or hard irregular areas on the prostate indicates pathology, e.g. prostate cancer. Tenderness of the prostate may indicate prostatitis. Note that tumours that are small and located only within the prostate are often not detected during a DRE.

- **Prostate-Specific Antigen (PSA):** PSA is an enzyme produced by the prostate gland and facilitates sperm motility. Since this enzyme is produced in large amounts when there is inflammation and in cases of prostate cancer, it is an important tumour marker for prostate cancer. Normal levels of PSA are up to 4 ng/ml; levels higher than 4 ng/ml indicate over-secretion of the enzyme due to a prostatic pathology.
- **Trans-Rectal Ultra-Sonography (TRUS):** TRUS involves scanning the prostate gland through ultrasound and creating a picture of the gland using sound waves. Ultra-sonography is most useful for directing taking of needle biopsy and ensuring uniform sampling of the prostate lesions. It also helps to document the degree of spread to the bladder and the seminal vesicles, if any. The combined use of DRE, PSA, and TRUS enhances the sensitivity and hence early detection of prostate cancer.

Routine screening should be encouraged in all men at age 50 and above.

Diagnostic Tests

Suspected prostate cancer is typically confirmed by:

- Removing a piece of the prostate (biopsy) using a trocar (transurethral resection of the prostate – TURP) and examining it under a microscope.
- Further tests, such as X-rays and bone scans, may be performed to determine whether prostate cancer has spread.

Treatment

The choice of treatment is determined by several factors such as stage of the disease, the Gleason score, and the PSA level. Other important factors are the man's age, his general health, and his feelings about potential treatments and their possible side effects. Because all treatments can have significant side effects, such as erectile dysfunction and urinary incontinence, treatment discussions often focus on balancing the goals of therapy with the risks of lifestyle alterations. Treatment modalities include surgery, radiotherapy, chemotherapy and/or hormonal therapy.

CANCER OF THE PENIS (PENILE CANCER)

Introduction

Cancer of the penis is a relatively rare cancer, but in Malawi ranks second to prostate cancer among the male genital organ cancers.

Risk Factors

- Infection with human papillomavirus (HPV)
- Smegma and uncircumcised penis
- Age more than 70 years
- Smoking

Signs and Symptoms

- A new growth, lump, or sore that does not heal in 4 weeks

- A spot or sore that continues to itch, hurt, crust, scab, erode, or bleed
- Persistent skin ulcers that cannot be explained
- Bleeding or unusual discharge from the penis

Early Detection

- A biopsy: This is the most definitive way of diagnosing penile cancer.
- An ultrasound scan: If there is cancer, this test can also show how deeply the cancer has invaded into the penis.
- Chest X-ray: This test helps to detect any metastatic deposits of this cancer, which primarily spreads to the lungs.
- Education: On signs and symptoms of penile cancers.

Treatment

- Surgery: Various types of surgical procedures, ranging from tumour excision to total penile amputation, are applied to treat cancers of the penis. Sometimes, treatment using a laser can be used to treat penile cancer.
- Radiotherapy
- Chemotherapy

CHAPTER 17: OBSTETRIC FISTULA

INTRODUCTION

Every year, more than 289,000 women worldwide die due to pregnancy-related complications; 98% of these deaths are in developing countries. For every woman who dies, 15 to 30 others survive, but suffer from disabilities. The most severe is obstetric fistula. According to the World Health Organization (WHO), worldwide an estimated 50,000 to 100,000 women develop obstetric fistulas each year, and over 2 million women currently live with fistula injuries. In Malawi, prevalence of obstetric fistula varies from 0.064/1000–1.6/1000 women. Anecdotal evidence reveals an estimated prevalence of probably up to 20,000 women living with fistula in the country, so fistula remains a major health problem.

DEFINITION OF OBSTETRIC FISTULA

An abnormal connection between the bladder and or the rectum and the vagina, which results in the continuous leakage of urine and or faeces through the vagina following obstructed labour.

CAUSES OF FISTULA

The causes can be listed under the following:

Major Cause

- Obstructed labour leading to necrosis, is by far the most common cause of fistula.

Contributing Factors to Obstetric Fistula

- Poverty, which may lead to inadequate nutrition and stunted growth, is a fundamental cause.
- Early pregnancy is one of the greatest risk factors.
- Low status of women in society and gender discrimination (voiceless and powerless)
- Lack of education
- Culture/traditions such as early marriages
- Limited access to emergency obstetric services including access to family planning
- Poor quality of care

Other Causes of Fistulas

- Surgical trauma during hysterectomy, colporrhaphy, Caesarean section
- Malignancy, e.g. cervical cancer
- Trauma, e.g. road traffic accident leading to fractured pelvis
- Harmful traditional practices
- Congenital malformation
- HIV/AIDS causing rectal-vaginal fistula

- Bladder stones
- Radiation, e.g. cervical carcinoma

PREVENTIVE MEASURES

It is extremely important that at all levels the following be done to prevent obstetric fistula:

1. Provide focused antenatal care (FANC).
2. Do proper monitoring of labour using the partograph.
3. Advise pregnant women to deliver in health facility.
4. Ensure proper management of obstructed and prolonged labour.
5. Ensure that C/sections are conducted by qualified and competent clinicians.
6. Midwives and clinicians should work as a team in labour ward.
7. Promote postpartum family planning.
8. Provide information against early marriages in communities.
9. Practitioners should advise pregnant mothers to await labour at the health facility.
10. Detect cervical cancers early.
11. Work with existing community structures to address harmful and cultural practices.
12. Ensure that all pregnant women with congenital malformations receive c/sections.
13. Promote nutrition to the clients/patients.
14. Encourage personal hygiene.

PRE-OPERATIVE MANAGEMENT

1. Carry out early intervention for prevention or reduction in size of fistula.
2. Take history, perform physical examination, and request necessary investigations.
3. Perform pre-operative counselling.
4. Complete relevant documentations, i.e. consent forms, pre-operative checklists, etc.

Management of a woman following obstructed labour at hospital:

- Insert and maintain bladder catheter for 1–4 weeks.
- Give antibiotics per guidelines.
- Conduct necessary laboratory investigations.
- Prepare the patient for the procedure when the tissues are well-healed.
- Encourage pelvic floor exercises and ambulation.

Management of a woman following obstructed labour at health centre:

- After discharge, maintain the bladder catheter in situ for 1–4 weeks.
- Encourage her to take more than 5 litres of fluids per day.

- Ensure that she continues taking more fluids (more than 5 litres after operation).

MANAGEMENT OF A PATIENT WITH LEAKING WITHIN THE FIRST 4 WEEKS AFTER DELIVERY OR SURGERY

Clinical Presentation

The patient presents with urinary and/or faecal incontinence following delivery or surgery and may have associated complaints like weakness of the legs and pain in the vulval region.

History

Take a thorough general gynaecological patient history.

Clinical Examination/Assessment

Conduct a general examination of the gynaecological patient. Management just before the operation:

- Explore the patient's feelings.
- Provide information on possible side effects and risks of anaesthesia and surgery.
- Seek written informed consent.
- Give 1 dose of antibiotics.
- Give an enema at bedtime and the morning of operation.
- Shave the patient thoroughly.
- Clean the perineum and vulva.
- Explain/teach importance of appropriate postoperative details such as catheter, physiotherapy, mobility, and adequate fluid intake.

POST-OPERATIVE CARE, INSTRUCTIONS, AND FOLLOW-UP

1. Provide appropriate post-operative care.
2. Identify early post-operative complications.
3. Manage the complications.
4. Do a dye test before removal of the catheter.

Post-Operative Counselling

- Explore the patient's feelings, questions, and concerns post-operatively and give support to allay her fears.
- Reaffirm/remind the patient of the side effects, risks, and warning signs and that she should report to the health care provider immediately she notices something amiss, including blockage of catheters.

Post-Operative Management

- Check blood pressure and pulse every 30 minutes for 2 hours, then 4 hourly.
- Encourage oral fluids, at least 4 litres a day.

- Check catheter drainage two times a day and, if blocked, flush it, or if this is not successful, change the catheter.
- Ensure that urine is at least 4,000 ml per 24 hours and completely clear.
- Give prophylactic antibiotics and continue if specifically indicated.
- Ensure that vaginal pack are removed after 24 hours, carefully (otherwise patient will start bleeding) or after 48 hours in case of complicated surgery.
- Have the patient exercise in bed for 2 days post-operatively.
- Leave catheter for 2 weeks and if there is leakage keep for 2 to 4 weeks.
- Perform dye test at 14 days if complicated surgery.
- Promote nutrition to the patients.
- Encourage personal hygiene.
- Promote post-operative family planning.

Instructions to the Patient on Discharge

- The patient should have a health passport and it should be clearly written on the passport that when pregnant she should deliver by Caesarean section.
- Report back to the hospital after 6 months if incontinent.
- Abstain from sex for 6 months.
- Advise on personal hygiene.
- Reaffirm importance of follow-up.
- If pregnant, make sure she delivers through C/section.

Post-Operative Follow-Up

Arrange for post-op follow-up care.

In case of pregnancy, after successful repair:

- Advise patient on the importance of attending ANC and on the mode of delivery.

Post-operative complications:

- Blockage of the catheter
- Haematoma
- Wound infection/fever
- Secondary haemorrhage
- Anaemia
- Urosepsis (which can cause death)

REFERRALS

Identify the types of referrals for obstetric fistula and refer appropriately, including rehabilitation of the patients.

CHAPTER 18: REPRODUCTIVE HEALTH LOGISTICS MANAGEMENT

INTRODUCTION

In providing reproductive health care services, it is important for facility staff to obtain the necessary equipment, drugs, contraceptives, and medical supplies and ensure that they are continuously available. The staff should observe the six logistics "rights": Right **goods** should be given in the **right quantity** in the **right condition** delivered to the **right place** at the **right time** for the **right cost** to the clients. (Refer to Malawi Health Commodity Logistics Management System Manual)

THE ROLE OF THE PROVIDER

- Complete Logistics Management Information System (LMIS) report on a monthly basis.
- Ensure a minimum of 1 month stock by placing order for RH commodities as appropriate.
- Make sure that the Family Planning and Reproductive Health Coordinators work hand in hand with the Pharmacy Technician.
- Submit reports to the district pharmacy by the fifth day of each month.
- Ensure that LMIS forms are always available for recording and reporting purposes. They should be collected from the District Pharmacy Technician at the district health office.
- Store commodities according to proper storage guidelines and apply FEFO (first to expire, first out) policy in dispensing or distributing commodities.

Table 18-1. Types of Forms for Reproductive Health Logistics Management

FORM CODE	NAME	COMPLETED BY WHO
LMIS-1A	Health Centre Monthly LMIS Report	Health Centre-In-Charge or person responsible for managing drugs and medical supplies; currently, Health Surveillance Assistants (HSAs) who have been trained as Drug Store Clerks also help in completing the reports.
LMIS-01B	District Monthly LMIS Report	District Pharmacist, Pharmacy Technician/Assistant
LMIS-01C	Clinic Monthly LMIS Report	Clinic In-Charge (Could be Family Planning Coordinator, VCT Coordinator, STI Coordinator, CHAM/NGO Clinic In-Charge, etc.)
LMIS-01G	Community Clinic Drug and Medical Supplies Reporting and Requisition Form	Health Surveillance Assistants or person responsible for managing drugs and medical supplies at community level
LMIS-RIV	Requisition Issue Voucher	Person requesting supplies from the district hospital pharmacy; could be in-charge of clinic, ward, NGO clinic, CHAM facility, etc.

The LMIS reporting forms contain all drugs and medical supplies that are supposed to be stocked at each service delivery level.

DONATIONS

The policy of the Malawi government on all donations is that they should always pass through Central Medical Stores. The commodities undergo quality assurance testing at Central Medical Stores to ensure that only safe and efficacious drugs are available for distribution to Malawians.

APPENDIX 1: WORLD HEALTH ORGANIZATION (WHO) MEDICAL ELIGIBILITY CRITERIA FOR CONTRACEPTIVE USE

According to the WHO, conditions affecting eligibility for the use of each contraceptive method have 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.

I Initiation

C Continuation

Source: WHO. 2004: *Medical Eligibility Criteria for Contraceptive Use*, 3rd ed. WHO: Geneva.

WHO ELIGIBILITY CRITERIA SUMMARY TABLE

I = Initiation, C = Continuation

CONDITION	COC	POP	NET-EN DMPA	NORPLANT	
Pregnancy	N/A	N/A	N/A	N/A	
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	
Parity a. Nulliparous b. Parous	 1 1	 1 1	 1 1	 1 1	
Breastfeeding a. < 6 weeks postpartum b. 6 weeks to< 6 months (primarily breastfeeding) c. 6 months postpartum	 4 3 2	 3 1 1	 3 1 1	 3 1 1	
Postpartum (in non-breastfeeding women) a. < 21 days b. 21 days	 3 1	 1 1	 1 1	 1 1	
Postpartum (breastfeeding or non-breastfeeding) including post-Caesarean section a. < 48 hours b. 48 hours to < 4 weeks c4 weeks					

CONDITION	COC	POP	NET-EN DMPA	NORPLANT	
d. Puerperal sepsis					

CONDITION	COC	POP	NET-EN DMPA	NORPLANT	
Post abortion a. First trimester b. Second trimester c. Immediate post-septic abortion	 1 1 1	 1 1 1	 1 1 1	 1 1 1	
Past Ectopic Pregnancy	1	2	1	1	
History of Pelvic Surgery (see also postpartum section) (including Caesarean section)	1	1	1	1	
Smoking a. Age < 35 b. Age < 35 i. < 15 cigarettes/day ii 15 cigarettes/day	 2 3 4	 1 1 1	 1 1 1	 1 1 1	
Obesity 30 kg/m^2 body mass index (BMI)	2	1	2	2	
Anatomical Abnormalities a. That distort the uterine cavity b. That do not distort the uterine cavity	 N/A 3/4	 N/A 2	 N/A	 N/A	
Blood Pressure Measurement Unavailable					
Multiple Risk Factors for Arterial Cardiovascular Disease (such as older age, smoking, diabetes and hypertension)					
Hypertension **a. History of hypertension** where blood pressure cannot be evaluated (including hypertension during pregnancy) **b. Adequately controlled hypertension**, where blood pressure can be evaluated **c. Elevated blood pressure** (properly taken measurements) i. Systolic 140–159 or diastolic 90–99 ii. Systolic 160 or diastolic 100 **d. Vascular disease**	 3 3 3 4 4	 2 1 1 2 2	 3 2 2 2 3 3	 2 2 1 1 2 2	
History of High Blood Pressure During Pregnancy (where current blood pressure is measurable and normal)	2	1	1	1	
Deep Vein Thrombosis (DVT)/ Pulmonary Embolism (PE) a. History of DVT/PE b. Current DVT/PE c. Family history of DVT/PE (first-degree relatives) d. Major surgery i. With prolonged immobilization ii. Without prolonged immobilization e. Minor surgery without immobilization	 4 4 2 4 2 1	 2 3 1 2 1 1	 2 3 1 2 1 1	 2 3 1 2 1 1	

CONDITION	COC	POP	NET-EN DMPA	NORPLANT	
Superficial Venous Thrombosis a. Varicose veins b. Superficial thrombophlebitis	 1 2	 1 1	 1 1	 1 1	
Current and History of Ischemic Heart Disease	 4	I 2	C 3	 3	
Stroke (history of cerebrovascular accident)	 4	I 2	C 3	 3	
Known Hyperlipidaemias (screening is NOT necessary for safe use of contraceptive methods)	2/31	2	2	2	
Valvular Heart Disease a. Uncomplicated b. Complicated (pulmonary hypertension, atrial fibrillation, history of sub acute bacterial endocarditis)	 2 4	 1 1	 1 1	 1 1	
Headaches a. Non-migrainous (mild or severe) b. Migraine i. Without focal neurologic symptoms Age < 35 Age > 35 ii. With focal neurologic symptoms (at any age)	 I 1 2 3 4	 C 2 3 4 4	 I 1 1 1 2	 C 1 2 2 3	
Epilepsy	1	1	1	1	
Vaginal Bleeding Patterns a. Irregular pattern *without* heavy bleeding b. Heavy or prolonged bleeding (includes regular and irregular patterns)	 1 1	 2 2	 2 2	 2 2	
Unexplained Vaginal Bleeding (suspicious for serious condition) Before evaluation	2	2	3	3	I4
Endometriosis	1	1	1	1	1
Benign Ovarian Tumours (including cysts)	1	1	1	1	1
Severe Dysmenorrhoea	1	1	1	1	1
Trophoblast Disease a. Benign gestational trophoblastic disease b. Malignant gestational trophoblastic disease	 1 1	 1 1	 1 1	 1 1	 3 4
Cervical Ectropion	1	1	1	1	1
Cervical Intraepithelial Neoplasia (CIN)	2	1	2	2	2
Cervical Cancer (awaiting treatment)	2	1	2	2	I4
Breast Disease a. Undiagnosed mass b. Benign breast disease c. Family history of cancer d. Cancer	 2 1 1	 2 1 1	 2 1 1	 2 1 1	 2 1 1

CONDITION	COC	POP	NET-EN DMPA	NORPLANT	
i. Current ii. Past and no evidence of current disease for 5 years	4 3	4 3	4 3	4 3	4 3
Endometrial Cancer	1	1	1	1	C 2
Ovarian Cancer	1	1	1	1	C 2
Uterine Fibroids a. Without distortion of the uterine cavity b. With distortion of the uterine cavity	1 1	1 1	1 1	1 1	2 4
Pelvic Inflammatory Disease (PID) a. Past PID (assuming no current risk factors of STIs) i. With subsequent pregnancy ii. Without subsequent pregnancy b. PID – current or within last 3 months	1 1 1	1 1 1	1 1 1	1 1 1	C 1 2 3
STIs a. Current or purulent cervicitis or chlamydial infection or gonorrhoea b. Other STIs excluding HIV and hepatitis) c. Vaginitis (including trichomonas vaginalis and bacterial vaginosis) d. Increased risk of STIs	1 1 1 1	1 1 1 1	1 1 1 1	1 1 1 1	C 2 2 2 2
e. HIGH RISK OF HIV f. HIV -infected g. AIDS Clinically well on ARV therapy (See anti-retroviral therapy)	1 1 1	1 1 1	1 1 1	1 1 1	C 2 2 2 2

CONDITION	COC	POP	NET-EN DMPA	NORPLANT	CU-IUCD	LNG-IUCD
Other Infections						
Schistosomiasis a. Uncomplicated b. Fibrosis of liver	1 1	1 1	1 1	1 1	1 1	1 1
Tuberculosis a. Non-pelvic b. Known pelvic	 1 1	 1 1	 1 1	 1 1	I 1 4	C 1 3
Malaria	1	1	1	1	1	1
Endocrine Conditions						
Diabetes a. History of gestational disease b. Non-vascular disease i. Non-insulin dependent ii. Insulin dependent c. Nephropathy/retinopathy/neuropathy d. Other vascular disease or diabetes of > 20 years duration	 1 2 2 3/4 3/4	 1 2 2 2 2	 1 2 2 3 3	 1 2 2 2 2	 1 1 1 1 1	 1 2 2 2 2
Thyroid a. Simple goitre b. Hyperthyroid c. Hypothyroid	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
Gastrointestinal Conditions						
Gall Bladder Disease a. Symptomatic i. Treated by cholecystectomy ii. Medically treated iii. Current b. Asymptomatic	 2 3 3 2	 2 2 2 2	 2 2 2 2	 2 2 2 2	 1 1 1 1	 2 2 2 2
History of Cholestasis a. Pregnancy-related b. Past COC-related	 2 3	 1 2	 1 2	 1 2	 1 1	 1 2
Viral Hepatitis a. Active b. Current	 4 1	 3 1	 3 1	 3 1	 1 1	 3 1
Cirrhosis a. Mild (compensated) b. Severe (decompensated)	 3 4	 2 3	 2 3	 2 3	 1 1	 2 3
Liver Tumours a. Benign (adenoma) b. Malignant (hepatoma)	 4 4	 3 3	 3 3	 3 3	 1 1	 3 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	2	3	1	1
b. Certain anticonvulsants (phenytoin, carbamazepine, barbiturates, primidone)	3	3	2	3	1	1
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
Breastfeeding												
Less than 6 weeks after childbirth	4	3	3	3	Accept		1		1		1	1
6 weeks to 6 months after childbirth (fully or almost fully breastfeeding	3	1	1	1	Accept		1		1	1	1	1
6 months or more after childbirth					Accept		1		1	1	1	
Postpartum (non-breastfeeding women)												
Less than 21 days after childbirth	3	1	1	1	*		1	†	1		1	
21 days or more after childbirth	1	1	1	1	*		1	†	1		1	

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 non-breastfeeding):

- 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 judgment 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 2: WHO CAN USE HORMONAL CONTRACEPTIVES

	COCs	POP	PIC	CIC	Implants
Any women of reproductive age	√	√	√	√	√
Women of any parity including nulliparous	√	√	√	√	√
Women who are breastfeeding	6 months or more postpartum	√	6 weeks or more postpartum		6 weeks or more postpartum
Women who are postpartum and not breastfeeding	√		√		√
Women who have had an abortion or miscarriage	√	√	√		√
Women with anaemia	√		√		√
Women with severe menstrual cramping	√		√		√
Women with irregular menstrual cycles	√				√
Women with history of ectopic pregnancy	√				√
Women infected with HIV, have AIDs or on ART	Excluding women on Ritonavir	Excluding women on Ritonavir	√	√	√
Women who smoke and under 35	√	√	√		√
Women with varicose veins	√				√
Women who prefer not to or should not use oestrogen		√	√		√
Women with desired family size who do not want voluntary surgical contraception			√		√
Women with a history of ectopic pregnancy					√

APPENDIX 3: 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)	Rule out missed pills for clients on pills. Check for pregnancy. If not pregnant, no treatment is required except counselling and reassurance. Explain that absence of menses could most likely be due to lack of build-up of uterine lining. If 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. 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.
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. • For moderate, short-term relief, she can take ibuprofen 800 mg three times a day after meals or other nonsteroidal anti-inflammatory drugs (NSAIDs) beginning when the irregular bleeding starts. • Give COCs for those who are not contraindicated.
Mood change/Reduced libido	Discuss changes in mood or libido. If client thinks she is experiencing bouts of depression that keep getting worse or her libido keeps going down while using hormonal contraceptives, help her choose another method. Consider counselling when depression persists. If mood swings happen during the hormone-free week, consider continuous use. Consider changes that the woman might have gone through in her life.
Weight gain/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.
Headache	• Exclude hypertension and give analgesics. For women who have headaches during the pill-free days, suggest taking the pill continuously: • Rule out other causes such as hypertension. If mild, treat with analgesics and reassure. If headaches persist, counsel and help client choose another method.
Hirsutism	Reassure; not harmful.
Breast tenderness	Exclude pregnancy.
Acne/Oily skin	Advise client about diet (reduce fat intake), using cleansers, and topical antibiotics. If condition is not tolerable, help client choose another (non-hormonal) method.
Jaundice	Perform physical exam or refer. If she has serious active liver disease, refer for care. Help client choose a method without hormones.

PROBLEMS AND SIDE EFFECTS	MANAGEMENT
Amenorrhoea	Exclude pregnancy. If pregnant counsel and refer to ANC. If not pregnant, no treatment is required; just give 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.
Prolonged or heavy bleeding	Carefully review history and check haemoglobin. Speculum examination to exclude gynaecological problem and treat appropriately (perform speculum and bimanual examination). If no gynaecological problem, give short-term treatment of COCs 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. If heavy, treat with ibuprofen 600–800 mg tid for 5 days or COC for 1–2 cycles. If still bleeding after 5 days, give 2 COCs daily for remainder of cycle, then 1 daily in next cycles.

APPENDIX 4: DUAL PROTECTION

PRIMARY METHOD	ADDITIONAL METHOD	REMARKS
Condom		If only one of the two methods is used separately, the outcome is less effective (or efficacy is reduced).
Condom	Emergency contraception (as a backup)	If condom breaks during use
COCs or POPs	Condom	• If client develops vomiting and diarrhoea • If client forgets to take pills: – 2 or more for COCs – 1 for POPs • If client is on an antibiotic, including rifampicin • If client is on ARVs • If client commences taking pills in the middle of the menstrual cycle
LAM	POPs, condom	To increase efficacy
Implants	Condom	
Sterilization (bilateral tubal ligation/ vasectomy)	Condom	Until the establishment of sperm-free ejaculation
Natural Family Planning	Condom	When sex occurs at the fertile period of the cycle

To protect against STI's including HIV and HBV

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

APPENDIX 5: 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. However, if the client answers "YES" to any one of the questions below, she will need further counselling and possible evaluation before making a final decision.

IUCD MEDICAL ELIGIBILITY CHECKLIST	YES	NO
Active STIs		
Active pelvic infection (PID)		
ectopic pregnancy (within the last 3 months)		
Heavy menstrual bleeding (twice as long or twice as much as normal)		
Prolonged menstrual bleeding (> 8 days)		
Severe menstrual cramping (dysmenorrhoea) requiring analgesics and/or bed rest		
Bleeding/spotting between periods or after intercourse		
Missed periods		
Client (or partner) has other sex partners		

Client Assessment Checklist

DRUG ALLERGY	NO	YES	IF YES, SPECIFY
Diabetes			
Heart disease			
Hypertension			
Respiratory disease			
Anaemia or bleeding problem			
Current illness			
Current use of drugs			
Other findings Genital disease			
Genital discharge			

Pregnancy Checklist

Ask the client questions 1–6. As soon as the client answers "yes" to any question, stop and follow the instructions below.

	NO	YES
1. Did you have a baby less than 6 months ago, are you fully or nearly fully breastfeeding, and had no monthly bleeding since then?		
2. Have you abstained from sexual intercourse since your last monthly bleeding or delivery?		
3. Have you had a baby in the last 4 weeks?		
4. Did your last monthly bleeding start within the past 7 days (or within the past 12 days if the client is planning to use an IUD)?		
5. Have you had a miscarriage or abortion in the last 7 days (or within the past 12 days if the client is planning to use an IUD)?		
6. Have you been using a reliable contraceptive method consistently and correctly?		

If the client answered **"no"** to *all* questions, pregnancy cannot be ruled out. The client should wait for her next monthly bleeding or use a pregnancy test.

If the client answered **"yes"** to at least one of the questions, and she has no signs or symptoms of pregnancy, you can give her the method she has chosen.

APPENDIX 6: CARE IN LABOUR

- Welcome the woman and her support person (companion) in a cordial manner.
- Perform full physical and obstetric examination.
- Commence use of the partograph when cervical dilation reaches 4 centimetres.
- Use the partograph throughout labour to help:
  - Evaluate foetal and maternal well-being.
  - Assess progress of labour.
  - Identify problems.
  - Guide decision-making for care.
  - Provide a record of findings.
- Use the partograph to include:
  - Progress of labour (descent, contractions, and cervical dilation)
  - Maternal and foetal condition (vital signs, foetal heart, moulding, caput and colour of liquor)
- Fluid intake and output including testing urine for protein and glucose
- Newborn partograph:
  - Alert line: If plotted line stays to the left of the alert line, labour is considered to be progressing normally. If the line falls to the right, evaluate further for obstructed labour.
- Action line: By the time the plotted line falls to the right of the alert line, action must be taken immediately to address prolonged labour.
- Encourage ambulation in labour.
- Assist her in relaxing between contractions.
- Assist her in changing positions between contractions.
- Provide emotional care to the woman and encourage her support person to be present during labour and delivery.
- Encourage the woman to take fluids and a light diet as desired.
- Maintain infection prevention and control practices according to standards.
- Use pain-relieving agents, if there are no contraindications:
- Non-pharmacologic pain relief is preferred such as back rub, diversional therapy
- Pharmacologic pain relief such as pethidine/pethilorfan
- The provider assists the woman to have a safe and clean delivery.
- Allow the woman to choose position of most comfort (semi-sitting, squatting, hands and knees, lying on side); guide her as needed.
- Perform an episiotomy only if necessary (foetal distress, breech, shoulder dystocia, forceps, vacuum, scarring from female genital cutting or poorly healed third or fourth degree tear)
- For the prevention of PPH and to reduce blood loss, the third stage of labour should be actively managed:

- Within 1 minute of birth, give oxytocin 10 units IM.
- Perform controlled cord traction.
- **Immediately** massage uterus through abdomen until well-contracted.

- Inspect for tears of vagina or perineum.
- Promptly repair lacerations and episiotomy.
- Check vital signs, uterine contractility, and amount of lochia quarter hourly for the first hour.
- Early detection of complications, proper management, and appropriate referral are essential.
- Encourage the woman to remain in care for at least 24 hours to monitor her well-being and that of her baby and to provide counselling prior to discharge.

REFERENCES

AIDS info website at: http://www.aidsinfo.nih.gov.

FHI/USAID. September 1997. *Reproductive Health of Youth Adults*. At: http://www.fhi360.org/sites/default/files/webpages/Modules/ADOL/intro.htm.

Hatcher RH, Rinehart W, Blackburn R, Geller JS, and Shelton JD. *The Essentials of Contraceptive Technology*. Baltimore, Johns Hopkins University School of Public Health, Population Information Program, 1997.

Kelias Phiri Msyamboza et al, Burden of cancer in Malawi; common types, incidence and trends: National population-based cancer registry http://www.biomedcentral.com/1756-0500/5/149

Jhpiego. ReproLinePlus website. At: reprolineplus.org.

Jhpiego. *Cervical Cancer Service Delivery Guidelines,* April 2005.

Jhpiego/USAID/EngenderHealth. April 2003. *Post abortion Care Course Notebook for Trainers.*

Ministry of Health [Kenya]. 2005. *Family Planning Guidelines for Service Providers*. (March)

Ministry of Health [Malawi]. 2014 and 2011. *Clinical Management of HIV in Children and Adults.*

Ministry of Health [Malawi]. 2013. *HIV Testing and Counselling Guidelines.*

Ministry of Health [Malawi]. 2013. *Integrated Manual for Maternal and Newborn Care*.

Ministry of Health [Malawi]. 2007. *Malawi National Reproductive Health Service Delivery Guidelines*.

Ministry of Health [Malawi]. 2007. *Youth-Friendly Health Services Training Manual.*

Ministry of Health [Malawi]. 2006. *Obstetric Life Saving Skills Manual (Updated)*. (July)

Ministry of Health [Malawi]. 2005. *Emergency Obstetric Care Services in Malawi (Report of a Nationwide Assessment)*. (July)

Ministry of Health [Malawi]. 2005. *Rape and Sexual Assault Service Delivery Guidelines*.

Ministry of Health [Malawi]. 2005. *Road Map for Accelerating the Reduction of Maternal and Neonatal Mortality and Morbidity*. (October)

Ministry of Health [Malawi]. 2004. *Neonatal Care Protocols*. (March)

Ministry of Health [Malawi]/NAC. 2003. *Guidelines for the Use of ARV's in Malawi*, First Edition (October)

Ministry of Health [Malawi]. 2003. *Prevention of Mother to Child Transmission of HIV, Guidelines for Implementers.*

Ministry of Health [Malawi].2003. *Prevention of Mother to Child Transmission of HIV, Handbook for Health Workers.*

Ministry of Health [Malawi]. 2003. *PMTCT Guidelines for Implementers*.

Ministry of Health [Malawi]. 2000. *Obstetric Life Saving Skills Manual*. (Original, March)

Ministry of Health [Malawi]. 2010. *Malawi Health Commodity Logistics Management System Manual*

Ministry of Health [Malawi]/Jhpiego. 2007. *Reproductive Health Service Delivery Guidelines*, (September)

Ministry of Health [Malawi]/Jhpiego. 2006. *Infection Prevention Standards*. (April)

Ministry of Health [Malawi]/Jhpiego. 2006. *Reproductive Health Standards*. (November)

Ministry of Health [Malawi]/Jhpiego. 2006. *Reproductive Health Strategy*. (June)

Ministry of Health [Malawi]/Jhpiego. 2002. *Reproductive Health/Family Planning Learning Package for Preservice Education*.

Ministry of Health [Malawi]/NAC. 2007 and 2004. *Management of Sexually Transmitted Infections Using Syndromic Management Approach, Guidelines for Service Delivery*, 3rd ed. 2007, 2nd ed. May 2004; at: http://www.reprolineplus.org.

National Institute of Allery and Infectious Diseases website at: http://www.niaid.nih.gov.

National Statistical Office (NSO) and ICF Macro. 2011. *Malawi Demographic and Health Survey 2010*. Zomba, Malawi, and Calverton, Maryland, USA: NSO and ICF Macro.

Tietjen L, Cronin W, McIntosh N. 1992. *Infection Prevention for Family Planning Service Programs*.

Oncolink website at: http://www.oncolink.org.

Winkler J, Oliveras E, McIntosh N. 1994. *Post abortion Care Reference Manual for Improving Quality of Care*.

World Health Organization (WHO). 2004. *World Health Organization Medical Eligibility Criteria for Contraceptive Use*.

World Health Organization (WHO). 2003. *Kangaroo Mother Care: A Practical Guide*. WHO: Geneva.

World Health Organization (WHO). 2003. *Managing Newborn Problems*. WHO: Geneva.

World Health Organization (WHO). 2002. *Managing Complication in Pregnancy and Child Birth* (Addendum for use in the African Region)

World Health Organization (WHO). 2002. *Managing Complications in Pregnancy and Childbirth: A Guide for Midwives and Doctors*. WHO: Geneva.