THE UNITED REPUBLIC OF TANZANIA

Ministry of Health, Community Development, Gender, Elderly and Children

National AIDS Control Programme

National Guidelines for Voluntary Male Medical Circumcision (VMMC) and Early Infant Male Circumcision (EIMC)

Second Edition

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National AIDS Control Programme
P.O. Box 743
Dodoma

Tel: +255(0) 262960148

E-mail: nacp@afya.go.tz
Website: www.nacpgo.tz

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ABC	Airway-Breathing-Circulation
ABHR	Alcohol-Based Hand Rub
AE	Adverse Event
AIDS	Acquired Immune Deficiency Syndrome
ART	Antiretroviral Therapy
ARV	Antiretroviral
CDC	Centers for Disease Control and Prevention
CHMT	Council Health Management Team
CTC	Care and Treatment Centre
DHIS	District Health Information System
DMO	District Medical Officer
DOD	Department of Defense
CQI	Continuous Quality Improvement
EIMC	Early Infant Male Circumcision
EMLA	Eutectic Mixture of Local Anaesthesia
EQA	External Quality Assurance
GBV	Gender Based Violence
GUD	Genital Ulcer Disease
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HCW	Health Care Worker
HEID	HIV Early Infant Diagnosis
HJFMRI-WRP	Henry Jackson Foundation Medical Research International Walter Reed Program
HIV	Human Immunodeficiency Virus
HLD	High Level Disinfection
HSHSP	Health Sector HIV Strategic Plan
HTS	HIV Testing Services
ICU	Intensive Care Unit
IEC	Information, Education, Communication
ILD	Intermediate Level Disinfection
IPC	Infection Prevention and Control
LLD	Low Level Disinfection
LMIS	Logistic Management Information System
M&E	Monitoring and Evaluation
MC	Male Circumcision
MDH	Management Development for Health
MoHCDGEC	Ministry of Health, Community Development, Gender, Elderly and Children
MSD	Medical Stores Department
MSM	Men who have Sex with Men
NACP	National AIDS Control Programme

NMSF	National Multi-sectoral Strategic Framework for HIV and AIDS
PDSA	Plan Do Study Act
PEP	Post-Exposure Prophylaxis
PEPFAR	President's Emergency Plan for AIDS Relief
PID	Pelvic Inflammatory Disease
PMTCT	Prevention of Mother to Child Transmission
PPE	Personal Protective Equipment
PSS	Painful Scrotal Swelling
QA	Quality Assurance
QI	Quality Improvement
R&R	Recording and Reporting
RBF	Result Based Financing
RHMT	Regional Health Management Team
RMNCH	Reproductive Maternal Neonatal and Child Health
RMO	Regional Medical Officer
SBMR	Standard Based Management and Recognition
SCMS	Supply Chain Management System
SLMTA	Strengthening Laboratory Management Towards Accreditation
SCTA	Stepwise Certification Towards Accreditation
SOPs	Standard Operating Procedures
STI	Sexually Transmitted Infection
TACAIDS	Tanzania Commission for AIDS
TB	Tuberculosis
TDHS	Tanzania Demographic and Health Survey
THIS	Tanzania HIV Impact Survey
THMIS	Tanzania HIV and Malaria Indicator Surveys
TTCV	Tetanus Toxoid Containing Vaccine
TTV	Tetanus Toxoid Vaccine
UDS	Urethral Discharge Syndrome
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV and AIDS
UNICEF	United Nations International Children's Emergency Fund
USAID	U.S. Agency for International Development
USG	United States Government
UTI	Urinary Tract Infection
UV	Ultra-Violet
VDS	Vaginal Discharge Syndrome
VHF	Viral Hemorrhagic Fever
WIT	Work Improvement Team
VMMC	Voluntary Medical Male Circumcision
WHO	World Health Organization
WIT	Work Improvement Team

FOREWORD

HIV and AIDS have been a major public health concern in Tanzania for more than 30 years. The country has implemented various strategies and interventions to curb the spread of HIV, but still more work is still ahead towards epidemic control.

Data from cross-sectional epidemiological studies (mid-1980s) showed that circumcised men had a lower prevalence of HIV infection than uncircumcised men. The three randomized controlled trials (Kenya, Uganda and South Africa) from 2004 brought more light in this fact. The two other trials (2006) confirmed similar results. World Health Organization (WHO) and the Joint United Nations Programme on HIV and AIDS (UNAIDS, 2007) recommend male circumcision as an additional way of reducing risk of HIV infection in men.

The Government of Tanzania embarked on scaling up VMMC services to 12 regions that had low male circumcision prevalence and relatively high HIV prevalence following the formulation of the *National Strategy to Scale up Male Circumcision for HIV Prevention: "Enhancing Men's Role in HIV Prevention"* in 2010. As of December 2018, about 3.8 million males have been circumcised in 17 priority regions in the country (DHIS-2). Following a successful implementation of the Early Infant Male Circumcision (EIMC) pilot in Iringa Region, the MoHCDGEC initiated a scale up of EIMC services as a long-term strategy to maintain high male circumcision coverage for greatest public health impact.

Review of the National Guidelines for VMMC and EIMC was necessary in order to adapt recommendation from World Health Organization (WHO), to cope with new developments in technology and to disseminate best practices accumulated from implementation of VMMC and EIMC in pilot and scale up settings.

Regional and district authorities are called upon to ensure that the Second Edition *National Guidelines for VMMC and EIMC* are referred and adhered to in order to provide high quality and safe medical male circumcision services in all settings certified to offer VMMC/EIMC services.

Dr. Zainab A.S. Chaula
Permanent Secretary - Health

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Prof. Muhammad Bakari Kambi

CHIEF MEDICAL OFFICER

EXECUTIVE SUMMARY

The 2nd edition National Guidelines for Voluntary Male Medical Circumcision (VMMC) and Early Infant Male Circumcision (EIMC) will guide and direct all health care workers at all levels in the health system to deliver services which conform with standard clinical procedures; It will assist VMMC and EIMC providers by refreshing their knowledge and skills in service provision. Not only that the guidelines provide necessary competencies for VMMC and EIMC, but also insists on linking clients to other services, such as HIV testing and counselling, HIV care and treatment services, Sexually Transmitted Infection (STI) services, Reproductive and Child Health (RCH) services, etc. This policy document also shed light to health care workers and managers in monitoring and evaluating VMMC and EIMC services at all levels in the health system.

This Guidelines for VMMC and EIMC is organised in 12 chapters starting with chapter one which give an overview of VMMC and EIMC services in Tanzania. It presents prevalence of both HIV and VMMC per region, Phases of VMMC Service Delivery in Tanzania and Objectives of the National Guidelines. It also provides the minimum packages of VMMC and EIMC services for HIV prevention as well as model for optimizing efficiency.

In the other early chapters (2-4), the guidelines provide details on management and coordination, health education, clinical assessment, counselling and HIV testing. Chapter five and six discusses details of conventional male circumcision surgical procedure followed by post-operative care and management of adverse events. Other areas covered include EIMC procedures (Chapter 7), Infection Prevention and Control – IPC (Chapter 8), Quality Improvement and Quality Assurance (Chapter 9), communication and advocacy (Chapter 10), logistic management (Chapter 11) and Monitoring and Evaluation – M&E (Chapter 12).

The guidelines outline the minimum package of services that all facilities offering VMMC and EIMC services for HIV prevention must fulfil. For VMMC the packages include health education to clients to better understand the link between VMMC and HIV prevention; HIV testing services; Referrals and linkage to appropriate services such as care and treatment for clients who test HIV positive; Screening for STIs; Risk reduction counselling and promotion of safer sex practices; Promotion and provision of male and

female condoms together with the promotion of their correct and consistent use; Surgical procedure that is safe and of high quality and Appropriate postoperative care and care of any associated adverse events.

For EIMC the minimum package of services that all facilities offering EIMC services for HIV prevention must incorporate and provide includes comprehensive information to parents or guardians on advantages and risks of EIMC; HIV testing services to parents or guardians to ensure identification of HIV-exposed infants; Referrals and linkage HIV-positive parents to care and treatment services; Counselling on the post-operative care of circumcised infants and identification of related complications, danger signs and where to go for follow-up care, if required; Surgical procedure that is safe and of high quality; appropriate postoperative care and care of any associated adverse events; referrals to appropriate services such as immunization, well baby care, and HIV care and treatment for HIV-exposed infants and/or those infants found to be HIV-positive through Early Infant Diagnosis (HEID) and referral and linkage of parents or guardians to other services such as GBV and PMTCT.

CHAPTER 1: OVERVIEW OF VMMC AND EIMC IN TANZANIA

1.1 Background

Sub-Saharan Africa is the region with the most severe HIV and AIDS burden in the world. Though it is home to only 13% of the world's population, it shelters approximately 70% of the total number of people living with HIV globally. Recent trends show a decrease in HIV incidence in a number of countries, attributable to HIV prevention programmes and scale-up of treatment programmes. In Sub-Saharan Africa, new HIV infections declined by 41% between 2000 and 2014.

Voluntary Medical Male Circumcision (VMMC) is an important component of comprehensive HIV prevention in areas with a high prevalence of heterosexually-transmitted HIV infection, and VMMC interventions have been implemented in different Sub-Saharan African countries in an effort to reduce the incidence of HIV infection among heterosexual men. Three randomized controlled trials conducted in Uganda, Kenya, and South Africa demonstrated that medical male circumcision is an effective protective factor against heterosexual HIV acquisition, reducing the risk of transmission from females to males by approximately 60%. Surgical removal of the foreskin reduces males' vulnerability to HIV in penile-vaginal intercourse.

In March 2007, the World Health Organization (WHO) and the Joint United Nations Programme on HIV and AIDS (UNAIDS) recommended the implementation of VMMC programmes in 14 countries with low male circumcision rates, high HIV prevalence, and large populations at risk for HIV infection, including Tanzania. The Government of Tanzania has prioritized the scale-up of VMMC and Early Infant Male Circumcision (EIMC) services for HIV prevention in regions that have low male circumcision prevalence and relatively high HIV prevalence.

Early Infant Male Circumcision (EIMC) is another component in Tanzania's national HIV prevention strategy. There are significant benefits in performing EIMC in infancy (between 24 hours to 60 days of age). EIMC procedures are much easier to perform compared to adult/adolescent male circumcision procedures. EIMC also has a lower adverse events rate, faster healing and a lower unit cost than VMMC in adults and adolescents. Furthermore, the wound typically does not need to be sutured and the procedure is not complicated by erections, which can be problematic in adolescent boys and men. Infant male circumcision ensures that the wound will be healed before sexual activity begins, which is beneficial because sexual activity before complete wound healing can complicate circumcision in adolescents/adult males and can put older clients at higher risk of HIV transmission. Another advantage of EIMC is the reduced risk of urinary tract infections in the first 6 months of life.

The goal of VMMC and EIMC scale-up in Tanzania is to reduce the incidence and prevalence of HIV and AIDS by helping to prevent new HIV infections. VMMC and EIMC programmes help to accomplish these aims by reducing men's biological risk of HIV acquisition, and by promoting life-long behavioural risk reduction strategies.

In Tanzania, the National prevalence of male circumcision is about 80 %. This prevalence is largely a result of traditional male circumcision practices, which take place in almost half of Tanzanian communities. In such communities, male circumcision prevalence rates are between 80% and 99%, while the rate is as low as 26% in non-circumcising communities. Since 2014, more than 3.5 million VMMC procedures have been performed as part of the National VMMC catch-up strategy. A comparison of data from the 2007 and 2011 Tanzania HIV and Malaria Indicator Surveys (THMIS) has shown increases in male circumcision prevalence rates from 29% to 60% in the Iringa region, from 34% to 38% in Mbeya region, and from 26% to 39% in Kagera region. Other regions, including non-VMMC programme regions, have also seen slight increases in male circumcision prevalence. This has been a result of implementation of the *National Strategy for Scaling-Up Male Circumcision for HIV Prevention (2010 – 2015)*.

Table 1: HIV Prevalence and VMMC by Region

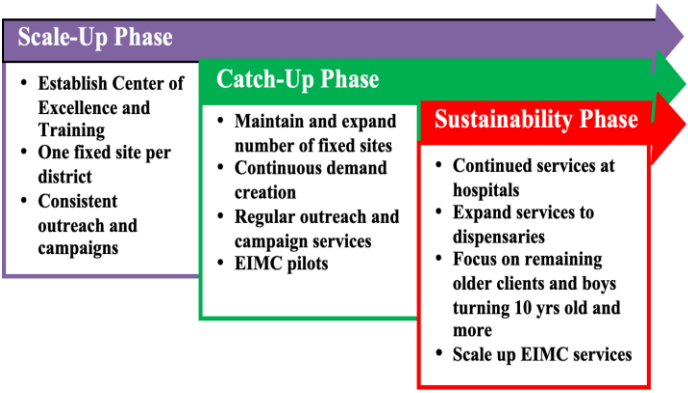
Region	**HIV Prevalence (THIS 2016/2017)**	**VMMC (THIS 2016/2017)**
Arusha	1.9%	93.3
Dar es Salaam	4.7%	92.4
Dodoma	5%	95.7
Geita	5%	63.7
Iringa	11.3%	79.2
Kagera	6.5%	57.3
Katavi	5.9%	61.6
Kigoma	2.9%	63.7
Kilimanjaro	2.6%	96.9
Lindi	0.3%	96.3
Manyara	2.3%	92.5
Mara	3.6%	89.3
Mbeya	9.3%	66.6
Morogoro	4.2%	93.6
Mtwara	2%	93.6

Mwanza	7.2%	74.7
Njombe	11.4%	65.3
Pemba (South)	0.3%	82.2
Pemba (North)	0%	88.3
Pwani	5.5%	94.3
Rukwa	4.4%	43.9
Ruvuma	5.6%	76.3
Shinyanga	5.9%	46
Simiyu	3.9%	46.3
Singida	3.6%	86.4
Songwe	5.8%	40.6
Tabora	5.1%	55.8
Tanga	5%	94.6
Unguja (South)	0%	77.2
Unguja (North)	0.6%	82.7
MjiniMagharibi		85.5
KaskaziniMagharibi		

The *National VMMC Country Operation Plan, 2014-2017* outlined the three stages of VMMC implementation in Tanzania: scale-up phase, catch-up phase, and sustainability phase. EIMC was introduced as a pilot in the catch-up phase and the scale-up of EIMC services is

part of the sustainability phase as a long-term strategy to ensure 80% male circumcision prevalence for greatest public health impact.

Figure 1 Phases of VMMC Service Delivery in Tanzania
Source: Tanzania VMMC Country Operational Plan, 2014-2017



Review of the *National Guidelines for VMMC and EIMC* is intended to guide health care workers that have been trained in VMMC and EIMC to provide VMMC and EIMC services for HIV prevention in Tanzania at acceptable National and International standards. The review is taking in consideration, the new WHO guidance and experiences at implementation level and results from in country pilot projects.

1.2 Objectives of the National Guidelines for VMMC and EIMC

The *National Guidelines for VMMC and EIMC* has the following objectives:

- Guide and direct all health care workers involved with VMMC and EIMC at all levels in the health system.
- Guide VMMC and EIMC providers on the standard clinical procedures when performing VMMC and EIMC.
- Assist VMMC and EIMC providers in refreshing their knowledge and skills in service provision.
- Assist health care workers in VMMC and EIMC sites to link clients with other services, such as HIV testing and counselling, HIV care and treatment services, Sexually Transmitted Infection (STI) services, Reproductive and Child Health (RCH) services, etc.
- Assist health care workers and managers in monitoring and evaluating VMMC and EIMC services at all levels in the health system.

1.3 Minimum Package of VMMC/EIMC Services for HIV Prevention

1.3.1 Minimum Package of VMMC Services

The following is the minimum package of services that all facilities offering VMMC services for HIV prevention must incorporate and provide:

- Health Education to clients to better understand the link between VMMC and HIV prevention.
- HIV testing services so that clients may know their HIV status.
- Referrals and linkage to appropriate services such as care and treatment for clients who test HIV positive.
- Screening for STIs (and treatment, when indicated) since STIs increase a person's risk of acquiring or transmitting HIV.
- Risk reduction counselling and promotion of safer sex practices.
- Promotion and provision of male and female condoms together with the promotion of their correct and consistent use.

- Surgical procedure that is safe and of high quality, performed by trained and competent staff in settings that are adequately equipped and environmentally suitable for minor surgical procedures. Appropriate postoperative care and care of any associated adverse events.

1.3.2 Minimum Package of EIMC Services

The following is the minimum package of services that all facilities offering EIMC services for HIV prevention must incorporate and provide:

- Comprehensive information to parents or guardians on advantages and risks of EIMC.
- HIV testing services to parents or guardians to ensure identification of HIV-exposed infants.
- Referrals and linkage HIV-positive parents to care and treatment services.
- Counselling on the post-operative care of circumcised infants and identification of related complications, danger signs and where to go for follow-up care, if required.
- Surgical procedure that is safe and of high quality, performed by trained and competent staff in settings that are adequately equipped and environmentally suitable for minor surgical procedures.
- Appropriate postoperative care and care of any associated adverse events.
- Referrals to appropriate services such as immunization, well baby care, and HIV care and treatment for HIV-exposed infants and/or those infants found to be HIV-positive through Early Infant Diagnosis (HEID).
- Referral and linkage of parents or guardians to other services such as GBV and PMTCT.

CHAPTER 2: MANAGEMENT AND COORDINATION OF VMMC AND EIMC SERVICES

The *National Guidelines for VMMC and EIMC are* intended to be used by health workers who have been trained on all aspects of VMMC and EIMC service provision which includes client handling, STI/RTI screening and management, HIV Testing Services (HTS), and surgical procedures. The VMMC and EIMC provider is expected to refer to other relevant guidelines or documents for detailed information or knowledge on STI/RTI-related, HIV and AIDS services for management and coordination purposes not covered by these guidelines.

Effective management and coordination of VMMC and EIMC service delivery enhances the quality of services and benefits clients and service providers. Benefits include more efficient and effective use of resources and improved working relationships at different levels of service delivery.

Management and coordination of VMMC and EIMC services require the health facility management teams/authority to consider implementation processes, which include:

- Client identification
- Education
- Counselling for both male circumcision and HIV testing
- Informed consent for both male circumcision and HIV testing
- Client clinical assessment
- Surgery
- Post-operative follow-up care
- Infection prevention and control
- Communication and advocacy
- Logistics management
- Monitoring and evaluation
- To implement each of the above processes, the health management teams at all levels should consider the following:

- Availability of competent health care workers who are equipped with all the necessary tools and supplies to implement the required services.
- Regular supportive supervision to identify and address performance gaps and training needs.

Integrating VMMC and EIMC into existing health systems should not compromise the quality of existing services but rather provide an opportunity to maximize the use of available resources. The most important component of VMMC and EIMC service delivery is to ensure that all VMMC and EIMC providers are trained and equipped to provide the required services under accepted professional standards and ethics. The health facility management must also ensure the availability of all required equipment and supplies, maintain adequate stocks, and ensure an efficient waste management system.

2.1 Model for Optimizing Efficiency of VMMC and EIMC Services

The following guidelines are designed to optimize efficiency of VMMC and EIMC services in Tanzania:

1) **Accessible service locations:** It is important to bring VMMC and EIMC services as close to beneficiaries as possible, through integration into existing primary health care services and employing effective community-based communication strategies in order to increase demand.
2) **Task sharing:** VMMC and EIMC are simple procedures and should be offered by health care workers trained using the national VMMC or EIMC training package. The health care workers will include nurses and clinicians. HIV counselling and testing should be undertaken by a qualified counsellor.
3) **Dedicated service delivery days:** VMMC services will be most efficiently scaled-up if scheduled on specific days when multiple clients can be attended by a dedicated team of providers. For EIMC, the services should be discussed with prospective mothers during antenatal care and offered in line with other services such as postnatal care (including delivery ward and post-maternity clinics) and immunization.

4) **Efficient activity scheduling:** The frequency of VMMC and EIMC service days will be determined according to facility capacity and the size of the beneficiary population within the catchment area. Weekly VMMC and EIMC service schedules for each facility should be established in advance and clearly communicated to beneficiary communities.
5) **Efficient client flow:** VMMC and EIMC clients should be managed in an efficient way to maximize provider time and productivity of dedicated VMMC and EIMC service days. Wherever possible, clients should be offered group education and HIV counselling and testing services in advance.
6) **Mobile outreach services:** In order to meet demand for VMMC and EIMC services at various service locations, facilities should be flexible and include routine outreach services in their plans to supplement facility capacity to improve access to VMMC and EIMC services in remote areas. This should be done in an efficient and targeted manner. It can also be integrated with other existing outreach services to cut down costs and maximize the use of staff. The following are the minimum standards for mobile outreach services:
    - Temporary (tents) or permanent structures (e.g. Health facility, school or community centre), modified for VMMC and EIMC purposes that meets the national standards for infection prevention and control (IPC).
    - VMMC and EIMC health care workers have the required competencies to provide a full package of services, according to established standards.
    - VMMC and EIMC services are carried out voluntarily, safely, under conditions of informed consent, and without coercion.
    - Services are provided according to the national guidelines: offer HIV testing (HTS); screen for and treat STIs/RTIs; provide male and female condoms and promote correct and consistent use; promote safer sex practices and provide risk reduction counselling; provide VMMC and EIMC surgery; provide active linkages of HIV-positive clients to care and treatment.

- Relevant data infrastructure in place so that routine data can be collected from client records.
- Health workers, the community, and/or the environment are protected by ensuring that waste is managed properly as per national IPC guidelines.
- Community is provided with accurate and complete information about VMMC and EIMC services.

CHAPTER 3: HEALTH EDUCATION, COUNSELLING AND HIV TESTING

This chapter guides health care providers on provision of health education and counselling to clients, HIV Testing and provision of HIV test results:

This chapter will include the following;

- Health education on VMMC and EIMC
- HIV counselling and Testing Services.

3.1 Health Education on VMMC and EIMC

3.1.1 Information and Education on VMMC and EIMC

Information and Education on VMMC and EIMC is provided through group education. Group education is used to support counselling services. It allows clients to be given general information about VMMC or EIMC and basic information on sexual and reproductive health, including HIV, before individual counselling sessions.

Benefits of group education include the opportunity for clients to express different opinions, and for health care workers to correct any myth or misconceptions in a relaxed environment. During the information and education stage, general components of VMMC and EIMC will be covered. Partners of clients (e.g. spouses, girlfriends) may be present. Staff providing education regarding male circumcision should be prepared to answer questions that may be posed by women.

3.1.2 Benefits

Health education should focus on the following benefits:

- Reduced risk of heterosexual HIV infection to males
  Male circumcision does not offer total protection from HIV. The following should be emphasized:
    - Male circumcision cannot replace other HIV prevention methods.

- Whether circumcised or not, limiting the number of sexual partners and using condoms consistently and correctly will ensure maximum protection from HIV.

Note;

- It is important for circumcised men and boys to practice other HIV prevention behaviours.
  - Abstain from sex,
  - Reduce or limit the number of sexual partners (e.g., being faithful to one sexual partner),
  - Use condoms correctly and consistently every time a man engages in sexual intercourse.

- Reduced risk of some STIs, especially ulcerative diseases (e.g. chancroids and syphilis).
- Reduced risk of penile cancer
- Reduced risk of HPV and cervical cancer in female sexual partners
- Easier to maintain penile hygiene
- Prevention of several medical problems of the penis and the foreskin, (e.g., inflammation, scarring and swelling of the foreskin (balanitis, phimosis and paraphimosis) especially in infants and children.)
- For infants, EIMC offers additional benefits in addition to the above, namely:
  - Reduced risk of urinary tract infections especially for the first six months.
  - Reduced risk of herpes in the future

For EIMC:
Parents or guardians should be provided with clear and easy-to-understand information on benefits of circumcision in infancy compared to VMMC. The benefits include:

- Faster healing
- The procedure does not require suturing
- Lower rates of Adverse Events (AE)
- Lower costs compared to circumcision targeting adolescent boys and men.

3.1.3 Myths and Misconception on VMMC

It is important to address common misconceptions about male circumcision and HIV. Staff providing VMMC education should address the following concerns:

- Risk compensation: Some men may not have internalized the message that circumcision offers only *partial* protection against HIV. As a consequence, some men may relax their attitude towards safer sex out of the misinformed belief that limiting partner numbers and consistent condom use are no longer required. It is important to emphasize that all circumcised men must practice safer sex, including using a condom correctly and consistently with every sexual act.
- Circumcision and HIV-positive men: There is currently no evidence that circumcising HIV-positive men will reduce the likelihood of HIV being transmitted to their sexual partners. A circumcised man who becomes HIV positive is just as likely to transmit HIV to a female partner as an uncircumcised male with the virus.
- Circumcision among Men who have Sex with Men (MSM): Male circumcision has not been found to be protective against HIV infection among men who have sex with men. Studies suggest that male circumcision does not offer protection from HIV during anal intercourse.

3.1.4 Description of Male Circumcision Procedure

VMMC and EIMC involve the following steps:

- Cleaning the groin area with antiseptic solution.

- Injecting a local anaesthetic at the base of penis to minimize pain during the operation. Clients/parents or guardian will be informed that the injection is may be uncomfortable.
- Removing foreskin and closing of the wound with stitches (VMMC).
- Standard disposal of the foreskin in accordance with national medical waste management protocols.
- Placement of a dressing to protect the wound.
- Relaxation in a recovery area after the procedure.
- Administration of analgesic after procedure.

For EIMC:

- Describe the technique or device used
- Inform the parents or guardians that infant can go home shortly after the procedure (30 minutes after procedure)
- Explain that local anaesthesia will be used to help reduce the pain of the procedure.

3.1.5 Proper Wound Care

Providers should emphasize the importance of hygiene and proper post-operative wound care with all VMMC clients. Inform all clients and/or parents/guardians that after the procedure, they must:

- Keep the wound dry at all times.
- Keep the circumcision wound clean after the dress removal.
- Do not use any antiseptic cream, ointment, or any other substance on the surgical /wound.
- Do not apply local traditional herbs or home remedies (cow dung or any other substance) to the surgical wound. These may potentially cause infection such as tetanus

For EIMC:

- The infant should be brought back to health facility after 48 hours for review and dressing removal
- If the gauze around the infant's penis falls off on its own, it should not be replaced.
- Apply petroleum jelly (Vaseline) to the EIMC surgical wound to protect the area that is healing and prevent the penis from sticking to the nappy/diaper as well as to prevent wound adhesion.

3.1.6 Healing Period

Providers should describe the healing period during group and individual education sessions. It is very important that clients understand the commitment to abstinence.

- Partial healing takes at least 4-6 weeks for adults and adolescents and complete healing takes six months
- No sexual activity may occur for 6 weeks after surgery. This means that clients must not engage in sexual intercourse or masturbation.
  Sexual activity within 6 weeks of surgery can damage the wound, extend the healing period, may lead to serious complications and increase the risk of HIV transmission and acquisition.
- Erections may occur during the healing period and may be uncomfortable, particularly soon after surgery. Emptying the bladder may reduce the frequency of erection.
  The client can resume sexual intercourse after six weeks by using condoms correctly and consistently.

For VMMC

Healing period: Newly circumcised men and boys should abstain from sex until their penis is fully healed, as they could be at increased risk of HIV infection during this time. Usually, this takes approximately six weeks.

For EIMC:

- Healing will generally occur within 7 -14 days.
- It is important for guardian or parents to bring an infant to the health facility at 48 hours and again at 7 days to assess wound healing.

3.1.7 Possible Post-Operative Complications

After explaining the healing process to clients and parents/ guardians, it is important to inform them of the most frequently encountered complications related to VMMC and/or EIMC. A more comprehensive list of complications will be presented in the individualized VMMC and EIMC counselling session. It is important for providers to conduct a straightforward and informative presentation, while not instilling fear or purposefully discouraging clients from obtaining VMMC and EIMC. Reassure clients and parents/guardians that complications during VMMC and EIMC are rare when the procedure is conducted by trained providers, that the clinician will make every effort to reduce the chances of these possible complications, and that follow-up care is provided. The list below details the most common complications of VMMC and EIMC:

- Pain:
  - Explain to clients and parents/guardians that post-operative pain during healing is common, but the pain is rarely severe enough to be considered a complication
- Bleeding
- Swelling of the penis caused by bleeding under the skin (haematoma)
- Injury of the penis and surrounding structures
- Infection of the surgical wound
- Reaction to Anaesthetic or antiseptic agent used in EIMC and VMMC

Risk of Tetanus

- Emphasize and thoroughly explain to clients that appropriate wound care practices (e.g. avoid application of cow dung) helps reduce the risk of other secondary infections such as tetanus.
- Provide the single Tetanus Toxoid Vaccine (TTV) booster dose 14 days prior to VMMC. If this is not possible, at a minimum, provide a TTV booster dose at the time of VMMC.
- For longer-term protection against tetanus from any wound, encourage VMMC clients to return for the VMMC follow-up visit at 4 weeks and provide another dose of Tetanus Toxoid Containing Vaccine (TTCV). Encourage clients to return for a booster dose after one year.

Note:

- Safety: It is recommended that circumcision takes place in certified health facilities that have undergone the assessment and certification process.

Note;

For detailed guidance on health education, refer to the MoHCDGEC job aids on VMMC and EIMC.

3.2 Counselling and HIV Testing on VMMC and EIMC Services

Appropriate effective Counselling is important for behaviour change.

3.2.1 Individualized VMMC Counselling

At the beginning of the individual counselling session, assure clients that the discussion will remain confidential. Some topics that were covered during the general education session should be repeated in the individual counselling session to emphasize their importance, including the risks and benefits of male circumcision, abstinence

during wound healing, and life-long commitment to risk reduction (avoidance of concurrent sexual partnerships and use of condoms during penetrative sex). In this setting, the messages should be tailored to the individual and covered in more detail using an interactive conversational approach. The counsellor should verify that the client understands how to properly use condoms. The most frequently observed adverse events should be discussed again, and more rare adverse events should also be covered at this stage (i.e., anaesthesia reaction, wound disruption, sexual dysfunction, poor cosmetic outcome, excess swelling of penis/scrotum, and difficulty urinating). Reassure clients that the more rare adverse events are uncommon.

VMMC is a good opportunity to contact adolescent boys and provide them with information and counselling about their own sexual and reproductive health and that of their current or future partners. Adequate time should be allowed for counselling before and after the male circumcision procedure.

3.2.2 HIV Testing and Counselling for VMMC

HIV testing prior to VMMC is not mandatory but is strongly encouraged and should be provided in accordance with the *National Comprehensive Guideline on HIV Testing Services.* Though Counselling is provided at every step. The use of HTS eligibility screening tool are recommended to adolescent aged 10 – 19 years old before HIV testing in VMMC. Similarly, parents or guardians of potential EIMC clients should be offered HTS.

Following individual counselling on VMMC, the health care worker should re-state the relationship between HIV and male circumcision and emphasize the importance of knowing one's HIV status. It is important for clients to understand that knowing their own HIV status is important as they consider undergoing male circumcision for HIV prevention. At this stage, an individual risk assessment and a risk reduction plan should be completed, regardless of whether the client elects to undergo HIV testing. The health care worker should offer the client an HIV test; however, testing is not mandatory and clients

should not be coerced. Informed consent should be obtained prior to HIV testing and counselling.

3.2.3 Consent

All clients receiving HTS must be provided with sufficient information about HIV Testing and Counselling so that they may give explicity and voluntary informed consent to receive the services. The information should generally include:

- Benefits and implications of knowing one's HIV status and/or the reasons for recommending HTS.
- HTS process and procedures.
- Recognition of the client's right to withdraw consent at any time.
- Availability of follow-up treatment, care and support, and prevention services.
- Importance of disclosure, index and social network testing and availability of couples HTS.

3.2.4 Age of Consent

The current guidance on the age of consent and procedures to have an HIV test is in accordance with the Tanzania HIV and AIDS Prevention and Control Act (2008) 19 and its regulations that are under discussion for policy revision. The Act states that:

- Individuals above 18 years of age and those below 18 years but married, pregnant, sexually active, or otherwise believed to be at risk for HIV infection, may give consent to access HTS.
- A young person below 18 years of age who does not meet the criteria mentioned in the preceding sentence should receive HTS after receiving consent from their parent or legal guardian.
- All children or youth who receive HTS shall be supported to disclose their results to their parents/guardians.
- For persons with auditory, visual or mental impairment and those who cannot write, a thumbprint should be obtained and be regarded as informed consent.

- HTS process and procedures.
- Recognition of the client's right to withdraw consent at any time.
- Availability of follow-up treatment, care and support, and prevention services.

HTS informed consent form should be available at all sites offering HTS and VMMC and EIMC services. (Refer to Annex 1 on page 150 for a copy of the HTS consent form for guardians).

3.2.5 Confidentiality

HIV Testing Services are confidential. The HTS provider shall not share any information discussed with the client(s) or patient(s) with another person, unless the client(s) or patient(s) give consent.

3.2.6 HIV Test Accepted

Clients who accept the offer of an HIV test should undergo pre-test counselling and then have a HIV test performed.

- **Negative Test Result**
  Clients who test HIV-negative should receive post-test counselling for HIV-negative persons, as directed by Tanzania's *National Comprehensive Guideline on HIV Testing Services.* Following post-test counselling, the client may proceed for Client Clinical Assessment. (Refer to Chapter 4: Client Clinical Assessment on page 25.)

- **Positive Test Results**
  Clients who test HIV-positive should receive post-test counselling, as directed by Tanzania's *National Comprehensive Guideline on HIV Testing Services.* At this point, VMMC considerations become secondary as clients are offered support for the new HIV diagnosis. The client should be made aware of the absolute need to present to a Care and Treatment Centre (CTC) where he may receive care and treatment for his HIV infection, and the health facility should coordinate an appointment for him. If the client is having difficulty understanding his HIV diagnosis or the need for linkage to HIV medical care and treatment, it may be appropriate to maintain the counselling focus

on the HIV diagnosis and not revisit the male circumcision topic.

If a client was already aware of his HIV infection, or if the newly HIV-diagnosed client appears to be coping well with news of his diagnosis, it may be appropriate to revisit the topic of male circumcision to be certain that he understands that male circumcision for HIV prevention is not recommended for HIV-positive persons. This will give him a chance to ask additional questions and get clarity on why male circumcision would not provide him any HIV prevention benefit. If a HIV-positive client says that he would like to continue with male circumcision despite his HIV diagnosis, he should proceed for the Client Clinical Assessment. (Refer to Client Clinical Assessment page 25). The clinician will then determine whether the individual is suitable for surgery based upon the client's medical history and physical examination. All HIV-positive clients should receive referral to CTC for basic clinical assessment as part of routine HIV care and support and to better guide timing of male circumcision.

For those HIV-positive clients who undergo surgery, a special counselling and referral package for male circumcision for HIV-positive persons should be completed. As with all VMMC procedures, the surgical staffs who performs male circumcision should take full precautions to avoid acquiring HIV infection and other blood-borne infections during surgery (known as standard precautions).

3.2.7 HIV Test Refused

Clients who refuse the offer of an HIV test should be encouraged to consider the benefits of knowing their HIV status. Health care workers should reiterate the link between male circumcision and HIV prevention, and review the risks of receiving male circumcision without knowing one's HIV status, including the risks an individual may pose to himself and to current and future sexual partners. Clients who at this time maintain that they want male circumcision despite their unknown HIV status should proceed to the Client Clinical Assessment. (Refer to Chapter 4: Client Clinical Assessment on page

25). The clinician will then determine whether the individual is suitable for surgery based upon the client's medical history and physical examination.

For those clients who undergo surgery without an HIV test, a special counselling and referral package for male circumcision for HIV-status-unknown persons should be completed. HIV testing should be re-offered at the recovery room and at follow-up appointments on days 2 and 7. For further details on HIV testing and counselling, refer the *National Comprehensive Guideline on HIV Testing Services.*

3.2.8 Parent/Guardian Counselling for EIMC

Health care workers play an important role in counselling parents and/or guardians on the benefits of EIMC. During counselling, the health care worker ensures that parents and/or guardians have all the information they need to make an informed decision regarding EIMC for their infant. Counselling should cover both the risks and benefits of EIMC, and should allow time for the parents/guardians to discuss their concerns in more depth than in group education sessions in order to make an informed decision about electing the EIMC procedure for their infant.

Counselling is not:

- Telling parents or guardians what to do.
- Criticizing parents or guardians.
- Forcing ideas or values on parents or guardians.
- Taking responsibility for parents' or guardians' actions or decisions.

3.2.9 Characteristics and Basic Skills for Individual and Group EIMC Counselling

During EIMC counselling sessions, the counsellor should do the following to help the parents/guardians make an informed decision:

- Listen to parents and/or guardians so as to understand any concerns and reasons for or against EIMC.
- Respect parents' or guardians' needs, values, culture, religion, lifestyles, and choices.

- Provide information about the risks and benefits of EIMC services, and discuss the options for timing the procedure.
- Answer questions about the circumcision procedure and correct any false information.
- Allow parents and/or guardians to make their own informed decision on whether or not to choose male circumcision for their infant.
- Ask parents or guardians questions that help them to identify behaviours that may put their children at risk of HIV infection, before or after circumcision.
    - For an HIV-positive mother, there is continued risk of the infant acquiring HIV while the child is on mixed feeding or exclusive breastfeeding, unless the mother is on ART and is fully adherent.
- Help parents and/or guardians to understand their children's HIV test results.
- Encourage parents and/or guardians to know their own HIV status by accepting HTS services
- Help parents and/or guardians to obtain other services for their children or themselves. These may include HIV testing and counselling, HIV care and treatment services, TB services, reproductive and child health services, etc.

CHAPTER 4: CLIENT CLINICAL ASSESSMENT

Client Clinical assessment is an important part of preparation for the VMMC and EIMC procedures. Client assessment includes obtaining each client's informed consent and acquiring information including relevant biographical data, medical history, and physical examination. This assessment should be age-appropriate for all male circumcision clients, including infants, adolescents, and adults. The information and findings obtained from the assessment should be recorded in the patient's record in a timely, complete, and accurate manner. Furthermore, verbal consent should be obtained before client clinical assessment and written consent should be obtained before procedure.

4.1 Biographical Data

The biographic data in VMMC and EIMC are obtained from the client or parent/guardian. The health care worker should collect and record the biographical data in the client card correctly.

4.2 Medical History and Physical Examination

Obtaining a complete medical history and performing a physical examination enables health care workers to ensure that all clients are eligible for the VMMC or EIMC procedure. If there is any doubt about the eligibility, then the client should be referred to a higher level of care for consultation before any male circumcision procedure is performed.

4.2.1 Medical History

The medical history should include assessment of the following components:

- For VMMC
    - Current/general health
    - Current/recent medications
    - Medication allergies

- History of bleeding disorder to a client/family member, (anaemia, or haemophilia),
- Problems with penile erection or other concerns about sexual function
- Reported symptoms indicative of genital disease, including STI (burning sensation of the penis, pain on urination, difficulty urinating, frequent urination, discharge, itching)
- HIV Status
- Uncontrolled diabetes
- Uncontrolled hypertension

- For EIMC:
  - Whether the pregnancy and delivery were normal
  - Gestation age of infant at birth
  - Weight of infant at birth
  - Feeding, urination and bowel habits
  - History of excessive crying
  - General wellbeing of the child
  - History of illness or any previous hospitalizations
  - History of convulsions/seizures.

4.2.2 HIV Status and Medical History

The HIV status of the client should be recorded as part of the medical history. If the client was not tested for HIV on site, then documentation of HIV test results from a known HTS provider within the previous 90 days may be permissible. For HIV negative clients, record the test result and continue with the medical history.

4.2.3 HIV Positive Status

Known HIV Positive Client:

Active linkage of HIV-positive clients identified at VMMC sites to HIV care and treatment programs. As part of the VMMC program, men who test HIV-positive should be referred promptly to a care and treatment site for evaluation and appropriate antiretroviral therapy (ART), when clinically indicated. This may require that sites develop and implement novel mechanisms to facilitate and confirm successful linkage to care (e.g., escorting clients from the VMMC center to the

ART center, or enabling staff to register clients for ART at the VMMC center). The limits of the protective benefits of VMMC should be explained to HIV-positive men and their partners, and if a client requests VMMC anyway (for reasons other than HIV prevention) and is healthy enough for minor surgery. VMMC should be made available to him. It is important for HIV-positive men to be counseled about the increased risk of transmission to female partners if they resume sex before full healing. Records of referred clients should be maintained at site.

- This is also an opportunity to check if the client is attending care and treatment services. If he is lost to follow-up refer him accordingly.

Client testing HIV positive for the first time at VMMC services:

- Counsel him that there is no HIV prevention benefit since he is already HIV infected although he will get the other health benefits of VMMC
- If he still wishes to be circumcised, VMMC should be offered. if the client is clinically stable
- Ensure that he is linked to care and treatment services. Make sure that the referral is also documented at VMMC clinic.
- Suggestion; HIV information should be included in counselling section rather than being to both Counselling and Client screening sections.

NB: Data on safety of VMMC in HIV positive clients affirm that HIV-positive men can be safely circumcised without necessitating pre-surgery CD4 counts determination[1]. There was no statistical difference in wound healing by HIV status[2].

For EIMC:
Circumcision should be offered to neonates/infants irrespective of their HIV exposure status. All HIV exposed infants should be linked to Prevention of Mother to Child Transmission (PMTCT) services and receive HIV Early Infant Diagnosis (HEID) directly after the EIMC procedure. Similarly, the HIV positive mother should be linked to care and treatment services.

4.2.4 Physical Examination

4.2.4.1 VMMC Clients

A complete physical examination should be performed on all clients. Temperature, blood pressure, pulse rate, respiratory rate, and weight should be measured and recorded. Furthermore, the health care worker should assess for clinical signs of wasting, jaundice, pallor, lymphadenopathy, cyanosis and/or oral thrush, any of which may be indicative of medical conditions that are contraindications for VMMC.

Examination of genitalia should also be performed. The following should be observed:

- The foreskin should be easily retractable and the glans exposed.
- The urethral meatus should be at the tip of the glans and free of scarring/disease.

Clinical signs of urethral discharge, phimosis, paraphimosis, and adhesion of prepuce to the glans, balanitis, genital ulcer disease, condylomata lata, condyloma acuminata, and/or epispadias/hypospadias may be contraindications for VMMC.

4.2.4.2 EIMC Clients

A complete physical examination should be performed on all infants prior to performing EIMC. The physical exam should include a full set of vital signs including temperature, pulse rate, oxygen saturation, respiratory rate and weight. The health care worker should assess the infant from head to toe and ensure that there is no cord infection, jaundice or anaemia. Assess the overall health status of the infant, including assessing for lethargy, cyanosis, breathing difficulties,

feeding difficulties and if the infant is passing urine and stool. Conduct an examination of the genitals to rule out penile torsion, penile length <1 cm, hypospadias, hydrocele, buried penis, dorsal hood, swelling of scrotum, median raphe not midline, abnormal urethra, abnormal scrotal rugae, penile scrotal web, and/or abnormal ventral foreskin.

For EIMC:
Routine offer of EIMC should only be undertaken if the infant is healthy, full-term, weighs 2500gm and above, has a normal physical examination, has penile length more than 1 cm and has an intact prepuce and scrotum of completely normal appearance.

4.2.4.3 Contraindications to Male Circumcision Surgery

Male circumcision is a minor surgical procedure; however, there are a few contraindications to male circumcision under local anaesthesia. The contraindications to performing male circumcision are detailed below. These contraindications should be based upon clinical signs and reported symptoms obtained as part of the medical history and physical examination.

4.2.4.4 Contraindications to VMMC

Persons with signs or symptoms of the following should have the male circumcision deferred until the condition has been treated or be referred to a higher level of care:

- Acute medical condition/infection
- Febrile illness
- Anatomical abnormalities of the penis, including hypospadias and epispadias
- Chronic paraphimosis Genital ulcer disease
- Urethral discharge
- Chronic disorders of the penis/foreskin, such as filariasis
- Other obvious visible pathology of the penis, such as penile cancer
- Personal or family history of bleeding disorders, such as haemophilia (such clients require careful pre-operative

assessment and medical preparations that may only be available through higher levels of care)

- Evidence of WHO Stage III or IV HIV infection/disease
- Phimosis
- Balanitis
- Scarification of the frenulum
- Penile warts (extensiveness of infection is important)
- Balanitis Xerotica Obliterans
- Other genital abnormalities, such as hydrocele causing scrotal swelling

4.2.4.5 Contraindications for EIMC

The following are contraindications for EIMC:

- Family history of bleeding disorders
- Premature infants, i.e. infants born at a gestational age < 37 weeks (Specific time since pre-maturity).
- Infant birth weight < 2,500 grams
- Neonatal sepsis, jaundice, and other haematological disorders or severe illness requiring hospitalization of the infant
- Penile length <1cm
- Penile abnormalities such as:
  - Penile torsion / median raphe not in midline
  - Hypospadias / blind urethral pit
  - Buried penis
  - Penile-scrotal web
  - Hydrocele
  - Dorsal hood / ventral foreskin missing
  - Mega meatus
  - Ambiguous genitalia
  - Any other abnormality that may require consultation with a urologist
- Infant with yellow sclera or purpuric skin lesions
- An infant with anaemia or hypoglycaemia

4.2.4.6 Informed Consent

After conducting client clinical assessment, the health care worker must obtain a written consent for the VMMC or EIMC procedure

from the client or from the parent/legal guardian of minor clients (under the age of 18 years). All adults are required to read and sign the standard VMMC consent form, written in Swahili. (Refer to Annex 7.1 on page 148 for the consent form, which is part of the VMMC client record form). Clients (or parents/legal guardian of minor clients) should have the content of the consent form explained to them in clear language, have the opportunity to ask questions, and have all of their questions answered prior to signing the form. The health care worker should ask questions to the client (or parents/legal guardian of minor clients) throughout the process to ensure that they understand the information that is being provided. Clients (or parents/legal guardian of minor clients) should be reminded that they may choose not to be circumcised, and if there is any indication that they are not ready to assent, they should be encouraged to reflect upon the information for a few days and return to the facility when they are ready.

Adolescents under age 18 have the right to participate in decisions affecting their health, and therefore can provide assent for the surgical procedure. Assent is the expression of willingness to undergo a procedure by a person who is by definition (according to his evolving capacity and National laws) too young to give informed consent, but who is old enough to understand the procedure. If assent is given, informed consent must also still be obtained from the client's parents or guardians.

Before signing the consent form, the client (or parents/legal guardian of minor clients) should have a clear appreciation for the following:

- Benefits of VMMC and EIMC in HIV prevention
- Benefit of doing EIMC 24 hrs to 60 days after delivery
- Risks, complications and adverse events of the procedure
- Client and/or parent/legal guardian responsibilities, including post-operative follow-up care

Clients under 18 years of age, as well as those who lack the capacity to comprehend the information and make their own decisions, must have their informed consent signed by a parent or legal guardian. A legal guardian should be any person above 18 years of age taking care

of that client and presenting a document from the court of law or from local government leaders to support their guardianship.

The VMMC and EIMC informed consent form is found in the client record form. (Refer to Annex 7.1 on page 148 and Annex 7.2 on page 155 for VMMC and EIMC consent forms). The EIMC provider should check identification records to verify that the presenting parent or guardian is the true one.

NB: Under all circumstances, VMMC service providers should seek a verbal assent in the presence of the parent/legal guardian from all clients below 18 years of age for both VMMC and HTS prior to beginning any the procedure. Ensure that clients understand all the procedures.

CHAPTER 5: SURGICAL PROCEDURE FOR VMMC

5.1 Introduction

Male circumcision is the surgical removal of the foreskin (the fold of the skin) that covers the head of the penis.

This chapter provides instructions on how to perform surgical procedures for VMMC. It covers requirements for surgical environment, equipment and supplies; pre-operative preparations for clients and the surgical team; surgical preparation and draping of the patient; administration of anaesthesia; and the process of circumcision with different approaches/techniques [20]. There are a number of non-surgical devices being used for VMMC in various programmes in sub-Saharan Africa. Tanzania is piloting non-surgical devices called Shang Ring and Accu-Circ, which are prequalified by WHO; however, these guidelines do not address the use of these devices.

5.2 Surgical Environment, Equipment and Supplies

5.2.1 Surgical Environment

- VMMC should be performed in a safe and clean environment where space and privacy are adequate. It should be performed in certified health facilities

5.2.2 Equipment and Supplies

- VMMC should be performed using appropriate equipment, adequate instruments, and adequate supplies. There are two types of VMMC surgical equipment: disposable and reusable.
- Disposable kits are single use kits that are pre-packaged with the appropriate medical supplies and equipment to perform the surgical procedure.
- Reusable equipment is a set of surgical tools that can be reused after appropriate disinfection and sterilization between uses.

There are benefits and drawbacks on the two types of kits. Programmes and health facility managers should weigh these to determine the best equipment for the procedure.

5.3 Surgical preparations

5.3.1 Preoperative Preparations

- ***Client Preparations***

  The day of the surgery, the client should wash the genital area with water and soap, including the area under the foreskin. Shaving of the pubic hair is not necessary. The client may continue his normal diet; it is not necessary to go without food or water prior to the surgery. Advise all clients to empty their bladders before the procedure.

- ***Staff Preparations***

  - ***Personal Protective Equipment***

    Required Personal Protective Equipment (PPE) includes surgical masks, eye protection, surgical caps, and closed-toe shoes. Sterile surgical gowns are not required; however, a clean apron should be worn.

  - ***Hand Hygiene***

    There are three types of hand hygiene which include hand washing, hand antiseptic and hand scrub.

  Before entering the operating room, all members of the surgical team are required to:

  - Remove all jewellery
  - Ensure nails are trimmed or filed
  - Remove any artificial nails or nail polish
  - Wash hands and arms up to the elbow with a non-medicated soap
  - Make sure hands and nails are not visibly soiled

- ***Surgical Scrub***

  Before each male circumcision surgery, any staff member who during the course of the surgery will touch the sterile surgical

field, surgical instruments, or the wound should scrub their hands and arms to the elbow for 5 minutes with soap and water. If working at a high-volume performing site and health care workers are providing more than one procedure, it is acceptable to use an alcohol-based solution for cleaning hands between cases, but a full scrub should be done after every 10 hand alcohol-based hand rubs or when hands/arms are visibly soiled.

- ***Gloving***

  After completing hand hygiene and scrubbing, put on sterile operating gloves, taking care not to contaminate the sterile outer surface of the gloves.

5.3.2 Intraoperative Preparations

Skin Preparation

The VMMC provider who is preparing the client's skin should inquire from the client or parent/guardian about any allergic reactions to iodine. For those clients who are allergic to iodine, chlorhexidine gluconate solution may be used for skin preparation. Otherwise the skin should be prepared with 10% Povidone Iodine, starting with the tip in a unidirectional manner towards the base of penis and moving out to the periphery. Holding the dorsum of foreskin then with a swab, retract the foreskin and apply the solution to the glans. The prepared area should include the penis, the scrotum, the adjacent areas of the thighs and the lower part of the abdomen. The solution should remain wet on the skin for at least two minutes to ensure that bacterial spores are killed.

Draping

Draping provides a sterile operative field and helps to prevent contamination of the wound. The edges of the drapes that hang below the operating table are considered to be non-sterile.

The VMMC provider draping the clients should scrub/disinfect their hands, and apply sterile gloves prior to covering the client with sterile drapes. Leave only the operative area uncovered. A single drape with a hole in it for the penis is better than four

drapes secured with towel clamps.

5.4 Anaesthesia for VMMC

Use of local anaesthesia is the preferred choice for VMMC. Local anaesthesia has many benefits over general anaesthesia, including easier administration, fewer risks, lower cost, and faster recovery time (i.e., the client can go home on the same day).

5.4.1 Anaesthetic Agent(s)

The recommended anaesthetic agent is plain lignocaine preferably 1% or 2% (Lidocaine). The Lignocaine must not contain epinephrine (adrenaline) because there is a risk of vasoconstriction that can cause gangrene and loss of the penis.

Generally, a mixture of equal volumes of lignocaine 2% and Bupivacaine 0.5% is used. Starting dose is 1.5mg per kg body weight of Lignocaine 2% with 0.3mg per kg body weight of Bupivacaine 0.5%. The maximum safe dose is 2mg per kg body weight of Lignocaine 2% with 0.5mg per kg body weight of Bupivacaine 0.5%. *(See Annex 4: Maximum doses of Lidocaine 2% and 1%)*
This is more expensive but has the advantage of providing long lasting anaesthetic effect (up to 4–5 hours after the operation).

Alternatively, the starting dose of plain lignocaine is 2mg per kg and maximum safe dose is 3 mg per kg body weight. Refer to the tables in Annex 4 for simplified and safe dosing.

> ***Note:***
>
> *Withdraw the maximum safe dose but administer the starting dose to the client.*

5.4.2 Anaesthetic agent Administration

Before the VMMC provider administers the local anaesthesia, they must check the vial(s) of local anaesthetic to ensure that the correct agent and correct concentration has been selected, that the

vial is free of contamination, and that the agent is not beyond the expiry date.

Once the client has been comfortably positioned on the surgical table, the provider should use the dorsal penile nerve block and the ring block techniques to administer local anaesthesia.

Throughout the injection of the local anaesthetic, the VMMC provider should always gently aspirate to ensure that the needle is not in a blood vessel as indicated by blood entering the syringe on aspiration.

Dorsal Penile Nerve Block:
Steps for performing the Dorsal Penile Nerve Block:

- Use a small 23 to 27-gauge 3-4 cm long needle
- Give two injections at 11 o'clock and 1 o'clock position on the dorsum of the penis in the subpubic angle.
- Direct the needle at 45 degrees to the shaft. This improves the success rate of the block and reduces the risk of injury to the underlying penile structures.
- Advance the needle to a depth of about 3mm, so that the anaesthetic agent is adjacent to the nerve before it branches.
- Aspirate to ensure the needle is not in a blood vessel.

Deposit 1ml of anaesthetic agent close to the dorsal nerve. The needle tip should be close to but not touching the nerve itself.

Ring Block Technique
Insert the needle at the base of the penis into the subcutaneous space and advance laterally on both sides towards the ventral part while depositing a local anaesthetic agent to complete the ring block. Once the local anaesthetic has been injected, 3-5 minutes should elapse prior to tissue clamping and cutting.

5.4.3 Additional Analgesia

For post-operative pain control, a dose of an oral analgesic (such as Paracetamol or other recommended analgesic) may be given

1-2 hours before surgery, followed by another dose 6 hours later (dose 500 -1000 mg).

5.5 Preparing the Penis for Surgery

5.5.1 Retracting the Foreskin and Dealing with Adhesions

The foreskin should be fully retracted. If the opening of the foreskin is tight, it may be necessary to dilate the opening with a pair of artery forceps. Care must be taken to stretch only the aperture of the foreskin and not to push the forceps in too far, so as not to accidentally dilate the urethra or cause injury to the urethra and glans. Any adhesions should be separated by gentle retraction or use of a blunt probe such as flexible probe, a pair of closed artery forceps, or by moistening the glans with an antiseptic solution (such as Povidone Iodine or a sterile gel, or Chlorhexidine as an alternative if available). All adhesions from around the glans should be separated until the foreskin is freed from the glans and the corona is exposed.

If a marker pen is not available, dabs of gentian violet may be applied with a blunt probe, tip of an artery forceps, or other sterile instrument. Alternatively, pinch marks made with toothed forceps may be used to mark the circumcision line. Some surgeons prefer to mark the line of incision by making a very shallow incision using a scalpel. This may be useful on clients who are darkly pigmented, as the marker pen and gentian violet may not be very clear. Marking the line with a scalpel carries the added risks of cutting too deeply, and of accidental injury to surgical staff. Care should be taken to cut just through the skin so that blood vessels are not divided.

Note:
Marking is essential before proceeding with VMMC to avoid serious adverse events, which may occur during surgery.

5. 6 Removal of the Foreskin

After the line of circumcision has been marked, removal of the foreskin may proceed. There are three surgical methods for male circumcision under local anaesthesia: Dorsal slit, forceps guided and sleeve resection. The three methods vary by levels of requisite surgical skill, as well as time required to complete the procedure. Tanzania has approved two of the three methods, dorsal slit as the preferred method and sleeve resection as the method for special conditions.

The forceps guided method is strictly prohibited in Tanzania, as it has an inherent risk of causing glans injury.

The VMMC provider should explain to the client that the foreskin

will be disposed of with hazardous medical waste as is customary for all surgeries. If the client asks to take his foreskin with him after surgery, he should be allowed to do so.

5.6.1 Dorsal Slit Method

- Step 1: Skin preparation, draping, anaesthesia, foreskin retraction, and marking the surgical line should all be completed. When performing dorsal slit, extra care should be taken in marking the line of incision to ensure that an even amount of skin is marked for removal from each side of the penis.

- Step 2: Grasp the foreskin with artery forceps at the 3 o'clock and 9 o'clock positions. Take care to apply the artery forceps so that there is equal tension on the inner and outer aspects of the foreskin.

- Step 3: Place two artery forceps on the foreskin in the 11 o'clock and 1 o'clock positions. Check that the inside blades of the two artery forceps are lying between the glans and foreskin and have not been inadvertently passed up the urethral meatus.

- Step 4: Before cutting, it is recommended to apply a straight artery forceps at 12 o'clock position and close it tightly to crush and make a line where the slit will be done. This helps reduce bleeding when the dorsal slit is cut. (Optional; depending on the size of the foreskin, sometimes it is difficult to insert a crushing forceps at 12 O'clock position if the foreskin is narrow)

- Step 5: Between the 11 o'clock and 1 o'clock positions artery forceps, use dissection scissors to make a cut (the dorsal slit) in the 12 o'clock position up to the previously marked incision line.

- Step 6: After dorsal cut, apply a straight artery forceps at 6 O'clock position so as take a 1 cm bite of a foreskin. However

exactly how much a bite to take depends on the length of a foreskin

- Step 7: Using dissecting scissors, cut the foreskin free following the previously marked incision line.

- After the foreskin has been removed, any skin tags on the inner edge of the foreskin can be trimmed to leave approximately 5-10 mm of skin proximal to the corona. Care must be taken to trim only the skin and not to cut deeper tissue. The raw area is exposed.

- Step 8: Ensure haemostasis, suture, and apply dressing as described in Sections 5.7: Haemostasis and 5.8: Suturing on pages 55-57.

NOTE: Starting time of the procedure is when a dorsal cut is performed and end time is when the last suture is cut.

5.6.2 Sleeve Resection Method

- Step 1: Skin preparation, draping, anaesthesia, foreskin retraction, and marking the surgical line should all be completed. When performing sleeve resection, two incision lines are marked: an outer and an inner (mucosal) incision line. The intended outer line of the incision is made with a V-shape, pointed toward the frenulum on the ventral aspect of the penis. The apex of the V should correspond with the midline raphe.

- Step 2: Using a scalpel, make incisions along the marked lines, taking care to cut through the skin to the subcutaneous tissue but not deeper. As the incision is made, the assistant should retract the skin with a moist gauze swab.

  Any significant bleeding vessels should be clipped with an artery forceps and tied or secured with an under-running suture. Electrocautery may be used if available. (Refer to the

Section 5.7: Haemostasis). Most bleeding will be from the skin edge and can be stopped by simple pressure with a swab provided that the cut has not been made too deeply,

- Step 3: Cut the skin between the proximal and distal incision with scissors.

- Step 4: Hold the sleeve of foreskin under tension with two artery forceps and dissect the skin from the shaft of the penis using dissecting scissors. As dissection proceeds, bleeding vessels may be tied off with under-running sutures or coagulated with electrocautery/diathermy. Once the foreskin has been fully removed, the raw area is exposed.

- Step 5: Grasp and trim any skin tags on the inner edge of the foreskin to leave approximately 5 mm of skin proximal to the corona. Care must be taken to trim only the skin and not to cut deeper tissue

- Step 6: Ensure haemostasis, suture, and apply dressing as described in Sections 5.7: Haemostasis and 5.8: Suturing on pages 55-57.

5.7 Haemostasis

Minimizing blood throughout the VMMC procedure is part of good surgical technique and safe medical practice. Prior to placement of sutures to close the surgical wound, it is necessary to ensure that haemostasis has been achieved. The following techniques can be used to reduce blood loss: compression, temporary occlusion, tying and under-running, and diathermy.

5.7.1 Compression

After the incision has been made, and at any time during the procedure, oozing of blood from cut surfaces can be controlled by applying pressure with a gauze swab for a few minutes. Usually this will stop the oozing of blood.

5.7.2 Temporary Occlusion

Control individual bleeding vessels by applying an artery forceps, taking care not to grasp too much tissue. Alternatively, the vessel can be picked up away from the surrounding tissue using tissue forceps or digesting forceps (non-toothed) and then applying an artery forceps.

5.7.3 Tying and Under-Running

Either tie or under-run and tie cut vessels to stop bleeding. The simplest procedure is to tie the vessel below the artery forceps. The basic tie consists of two throws, but many surgeons make a third throw to give the knot extra security. It is important to ensure that the tie will not slip off, particularly in the first few days after surgery during penile erection. An under-running suture is a better technique if unsure of the security of the surgical knot. For an under-running suture, secure the vessel with an artery forceps.

5.7.4 Diathermy

Bleeding can be stopped by coagulation using diathermy, though diathermy is not a mandatory requirement for male circumcision. VMMC providers and other health care workers performing male circumcision for HIV prevention should be skilled at performing surgery without diathermy, in the event that power supplies are not reliable, not available, diathermy equipment malfunctions, or when a cut vessel is too large for diathermy to achieve haemostasis. With the proper training, bipolar diathermy is recommended and should be available at a health facility with skilled staff in using a diathermy machine (preferably Health Centres and above).

5.8 Suturing

Once haemostasis has been achieved, the surgical wound should be closed with a combination of mattress sutures and simple interrupted sutures.

5.8.1 Mattress Sutures

There are two types of mattress sutures: vertical and horizontal.

Vertical Mattress Sutures

Vertical mattress sutures are placed at the 12 o'clock, 3 o'clock, and 9 o'clock position.

Horizontal Mattress Suture

A single horizontal mattress suture is placed at the 6 o'clock position (frenulum).

5.8.2 Simple Interrupted Sutures

A series of simple interrupted sutures are placed between the mattress sutures.

5.8.3 Suture Material

Small absorbable suture material (chromic catgut or vicryl rapide) 3/0 or 4/0 is recommended.

5.8.4 Knot Tying

Knots can be tied by hand or using surgical instruments. Using surgical instruments requires less suture material and thus is more economical.

5.9 Dressing the Surgical Wound

After apposition of the surgical wound with sutures has been achieved, a penile dressing should be placed using a standard technique.

Before applying the dressing, check that there is no bleeding. Minor bleeding from a skin edge will often stop after five minutes of pressure with gauze. Once all bleeding has stopped, place a piece of petroleum-impregnated gauze (tulle gauze) around the wound. Place sterile dry gauze over this, and secure in position with adhesive tape. Take care not to apply the dressing too tightly, as it could restrict the blood supply and cause necrosis of the glans. Strap the dressed penis

to the abdominal wall with the glans pointed in the upward direction to reduce swelling.

CHAPTER 6: POST-OPERATIVE CARE AND MANAGEMENT OF ADVERSE EVENT/COMPLICATIONS FOR VMMC CLIENT

This chapter describes client monitoring and post-operative care after VMMC. It provides details on essential tasks during client discharge, routine follow up visits, emergency follow-up visits and management of post-operative adverse/complications. Quality post-operative care is the key for early recovery and timely management of adverse event/complications.

Post-operative care consists of immediate post-operative monitoring, providing instructions to the client or guardian as he/she leaves, routine follow-up visits, and management of complications.

6.1 Management of Adverse Event/ Complications

Adverse Event/Complications may arise during or after surgery and are categorized according to timing. If complications occur during or after the male circumcision surgery, the team should inform the client/guardian) about what has happened and advise them of the plans to address the complications.

Possible Adverse event/complications of male circumcision include excessive bleeding, formation of haematoma, infection, unsatisfactory cosmetic effect, lacerations of the penile or scrotal skin and injury to the glans. Further information and guidance on complications can be found in the adverse events forms. (Refer Annex 2: Adverse Event Forms on page 143.)
Certain adverse event/complications can be managed in the clinic and other may need to be referred to a higher level of care. Adverse event/Complications of circumcision can be avoided by adhering to infection prevention control (IPC) and standard operating procedure during provision of VMMC services.

6.1.1 Management of Adverse Event/Complications Occurring During Surgery

6.1.1.1 Excessive Adhesions

For the client who has phimosis it is very difficult to separate the foreskin from the glans. Depending on the experience of the circumcision team, it **may be better to stop the procedure** and, in this situation, if the dorsal slit has been made repair the dorsal slit using stitches to stop bleeding, Keep the area as clean as possible, Refer the client to the referral hospital. The client should be seen within 24–48 hours

6.1.1.2 Excessive Bleeding During Surgery

Do not panic. Place sterile gauze around the penis then apply firm pressure, and wait for five counted minutes). Then slowly lift off the gauze If the bleeding has not stopped, the site of the bleeding will be obvious. Apply a haemostatic artery forceps to the bleeding point. If this does not control the bleeding, apply pressure over sterile gauze for a further five counted minutes). At the end of this time, gently lift the gauze again, and under-run the bleeding area with a figure of eight suture. An under-running haemostatic stitch should be used to occlude the artery if there is excessive bleeding from the frenular artery. Great care is needed not to bite too deeply, as the urethra is near the surface and can easily be damaged.

Larger vessels generally run the length of the penis, and the suture should be proximal to the bleeding point (on the side towards the base rather than the tip of the penis). If the bleeding continues, the client should be transferred to a referral centre as an emergency, or a more experienced VMMC provider should be called to help.

6.1.1.3 Severing of the Glans

Immediate surgical repair is required with indwelling catheter in situ. If part or all of the glans is severed, also it should be wrapped in sterile paraffin gauze and placed in a polythene bag. The client and severed glans should be transferred as soon as possible to a referral centre, where it may be possible to reattach the glans.

6.2 Post-Operative Care

6.2.1 Immediate Post-Operative Monitoring

Following a successful VMMC surgery, the male circumcision provider should ensure that the client remain at the facility/site for monitoring for at least 30 minutes after surgery. It is during this half hour period that the effects of surgical trauma and other adverse event/ complications may become apparent. The VMMC provider or staff who performed the male circumcision procedure is the one ultimately responsible for the quality of post-operative care, even if s/he is not the one directly monitoring the client.

The following is a summary of the steps involved in post-operative monitoring of clients who have undergone VMMC procedure:

- Step 1: Make the client comfortable and handle him gently when moving him as he is being received from the theatre.
- Step 2: Review his records.
- Step 3: Monitor the client's vital signs, checking the blood pressure, breathing, and pulse twice, at 15-minute intervals.
- Step 4: Check the surgical dressing for oozing or bleeding.
- Step 5: Assess the client's perception of pain.
- Step 6: Observe the client's general condition.
- Step 7: Administer any medications or treatment prescribed by the surgeon.
- Step 8: Provide bland carbohydrates (such as a biscuit) and liquids to raise blood glucose levels.
- Step 9: Provide the client with instructions before discharging him (refer to Section 3.1: Education on page 13).
- Step 10: Complete the client record form.

If the client experiences a particularly painful or prolonged erection in the immediate post-operative period, it can be stopped by letting him inhale one ampoule of amyl nitrate.

6.3 Post-operative Instructions for Client During Discharge

Tell the client that he should avoid sexual intercourse and masturbation for six weeks after the procedure, to allow the wound to heal. After the six-week healing period, a condom should then be used to continue to protect the wound during every act of sexual intercourse for at least 6 months. Thereafter, sexual risk reduction strategies should be used indefinitely, not necessarily to protect the wound, which should have healed, but to further protect the client from HIV, other STIs, and/or unwanted pregnancy. Clients should be informed that they might experience erections, which may be painful, and reassured that this is normal. Emptying the bladder just before going to bed may reduce frequency of erection. The client should be advised to drink water frequently so as to ensure a full bladder.

The client should be instructed to wear freshly laundered, loose-fitting underwear. Underwear should be changed each day.

- Before leaving the facility/site, clients should understand that though complications are rare, he should remain alert for any of the following emergency signs:
    - Bleeding
    - Severe pain in the penis or genital area
    - Inability to pass urine or severe pain when passing urine
    - Discharge or pus from the surgical wound
    - Increased swelling

The client should return to the facility/site or seek emergency care if a problem develops. Make sure that the client knows where to go if complications arise.

Post-operative instructions should be provided verbally and in writing in Swahili, if possible. Ask the client to repeat the instructions to ensure that he has understood them. Give him any medications

prescribed and arrange an appointment for follow-up on day two (48 hours) and day seven. Check that a responsible adult is available to accompany the client home. (This is of particular importance for clients who are below the age of consent). In this instance, it is helpful to also give the post-operative instructions to any accompanying parent/guardian. Once instructions have been provided, the surgeons or designated staff member should assess whether the client is ready for discharge and then discharge the client

Note:

- Instruct the client/guardian to return for follow up on day two (48 hours) and day seven.
- Instruct the client/guardian to return to the facility where the service was offered or to the nearest health facility if he develops complications.

6.4 Routine Follow-Up Visits

Routine follow-up visits should be scheduled for day two (48 hours after surgery) and day seven following surgery. The day of surgery is counted as day 0.

6.4.1 Follow-up of Day two and seven

A designated health care worker should perform a focused examination to assess the progress of healing and the surgical site for clinical signs of complications.

On day two (48hrs) visit, the dressing should be removed. If the dressing has dried out, it should be gently wiped with an antiseptic solution (normal saline or Savlon) until the dressing softens. If there is bleeding or oozing when the dressing is removed, the client may need to have another dressing applied for an additional 24-48 hours and then be rechecked. In case the dressing falls off the penis before 48 hours, client should be advised not to redress the wound to avoid contamination. After the dressing has been removed, the client can shower twice a day and should gently wash the genital area with non-medicated soap and water.

On both visits (day two and seven) the client should be asked about and medically examined for any of the following symptoms/clinical signs: bleeding; infection; persisting pain; wound disruption; sexual dysfunction; poor cosmetic outcome; swelling of penis/scrotum; or difficulty urinating. The client should also be asked about his satisfaction with the services provided and encouraged to provide feedback that may help improve the services. Additional examinations should be performed as indicated by the case history and symptoms reported by the client. If the client has a problem that cannot be resolved, another visit should be scheduled or he should be referred to a higher level of care. The follow-up visits should be documented in the client's relevant medical records.

6.4.2 Emergency Follow-Up

Clients who come for an emergency follow-up visit should be seen immediately. Staff should be alert to the possibility of excessive bleeding, swelling, and/or severe pain.

Step 1: Examine the client immediately and check all areas related to the complaint.

Step 2: Ask the client about the sequence of events since the operation, including: any problems during the surgery or in the recovery period; how problems developed; any increase in discomfort; and any medication or other treatments taken.

Step 3: Read the medical records, if available.

Step 4: Arrange for treatment of any problems that can be handled on an outpatient basis.

Step 5: Note in the client's medical record all problems and actions taken, including filling of the Adverse Event forms (Refer to Annex 2 on page 143).

Step 6: Refer the client to a higher level of care for treatment of potentially serious complications.

Step 7: Inform the facility where the male circumcision was performed about the follow-up visit (if male circumcision performed elsewhere or if male circumcision team no longer at the location).

Step 8: Fill out necessary documentation related to the adverse event.

6.5. Adverse event/Complications within 48 Hours after Surgery

6.5.1 Bleeding

This is the most likely complication in the first 24-48 hours. A small amount of bleeding onto the gauze dressing is normal but may alarm the client. If the client returns to the facility/site with blood-soaked dressings, these should be removed and the wound inspected for an obvious bleeding point. If there is fresh blood from the skin edge, additional suture(s) should be inserted. This will require a full sterile procedure (follow the instructions in Section 5.2 and Section 5.3 on pages 46-48 for the original VMMC operation), including local anaesthesia and sterile draping. Usually placing one or two additional mattress sutures over the area will stop the bleeding.

6.5.2 Haematoma

Haematoma may be associated with considerable bruising/skin discoloration. Generally, small haematoma are best left alone, unless they are significantly large or there is continued bleeding. A clean dressing should be applied and ask the client to return for re-evaluation in 24 hours. Alternatively, the client may be sent to the referral centre with a clean dressing in place.

6.5.3 Wound Disruption

Though rarely seen in the first 48 hours, wound disruption is sometimes seen in association with subcutaneous bleeding and haematoma formation when the stitches are cut out. When wound disruption occurs within 48 hours of the operation, it is usually better for the surgeon or designated staff member at health facility to explore and re-suture the wound. If it occurs after 48 hours or more, the client should be sent to a referral centre where the wound may be left to heal by secondary intention.

6.6. Adverse event /Complications Between day Three and Fourteen

6.6.1 Infection

The most likely complication to occur after two to three days is wound infection, which causes increasing pain, redness and purulent discharge. Such clients should be given an appropriate antibiotic and change dressing. If the infection is severe, he should be advised to lie on his back to promote drainage of lymphatic fluid and wound healing.

6.6.2 Wound Disruption

When stitches are cut out during this time, there is usually an infection, and the client should be given an appropriate antibiotic. Do not re suture the wound, as the new sutures will also become infected and cut out. The wound should be left to heal by secondary intention, and the client should be seen regularly at the facility/site until the wound has healed. The wound disruption usually leaves an untidy cosmetic result for the first few months; Reassure the client that the appearance usually returns to normal with time.

6.6.3 Fournier's gangrene

Infectious gangrene are rare but serious risks of genital surgery due to infection with multiple types of bacteria, causing progressive skin loss because, the blood supply is cut off and the skin becomes necrotic and turns completely black. This is also known as Fournier's gangrene, synergistic gangrene, or necrotizing fasciitis, condition more common among men with diabetes. Any client with signs of spreading infection or black gangrenous skin should be urgently transferred to a referral centre, where it is usually necessary to remove the dead skin under general anaesthesia.

6.6.4 Tetanus

- It occurs rarely but it is a fatal disease affecting the nervous system caused by Clostridium tetani spore forming bacteria found in abundance in dust, soil and animal faeces. Inoculation of the spores in acute wounds, including circumcision wounds

Management

- Admission in ICU, wound debridement, tetanus immunoglobulin, antibiotics, control of spasms and protection of airway, hydration and nursing care
- Referral to the higher level of care.

Prevention:

- Immunization with tetanus vaccine (3 infancy doses + 2 booster doses in adolescence)
- Clean care approach during VMMC – Apply povidone iodine during cleaning at least three times and waiting for 2 minutes
- Wound care and genital hygiene instructions to clients stressing on not to apply any local remedy to the wound.

6.7 Late Adverse Event/Complications

After the first two-week period, clients may complain of the following:

- Decreased sensitivity or over sensitivity of the glans.
- Cosmetic concerns from ragged scars or unsightly surgical wounds.
- Persistent adhesions at the corona or inclusion cysts (which can be avoided by full retraction of the foreskin during surgery and careful division of adhesions).
- Discomfort during erection if the scrotal skin is pulled up the shaft causing a tight scrotal sac (which can be avoided by proper marking of the incision line to avoid excess foreskin removal).
- Torsion (misalignment) of the skin of the penile shaft (which can be avoided by carefully aligning the midline raphe with the frenulum when placing the horizontal mattress suture).

Such cases may be referred to a higher level of care for evaluation.

Some Adverse event/complications arising during or after male circumcision can be handled in a clinic setting; others require referral to a higher level of care for management (a referral centre). When emergency transfer is required, the following rules apply:

- Client should be transferred with a comfortable transport, which will not cause trauma to genitalia.
- Client and his family should be provided with a full explanation of what is happening and why.
- A clear note should be sent to the referral centre with the client explaining the reasons for the referral and including any pertinent information from the client's record.

CHAPTER 7: EARLY INFANT MALE CIRCUMCISION

Early infant male circumcision (EIMC) has been endorsed by UNICEF, WHO and UNAIDS as an HIV prevention strategy. This chapter provides step-by-step guidance to perform EIMC in clinical settings. In this era of preventive medicine, early infant male circumcision is an important decision that parents should be encouraged to make. In addition to HIV prevention later in life, EIMC provides protection against other common paediatric conditions such as phimosis, paraphimosis, and balanoposthitis. It also helps to prevent Urinary Tract Infections (UTIs), which are common among infants.

There are significant benefits when male circumcision is performed in early infancy: EIMC has low rates of adverse events, wound heals faster than in adolescents and adults, and the procedure does not require suturing. In addition, EIMC is less expensive when compared to circumcision targeting adolescent boys and adult men.

The decision to have a new-born male circumcised is very personal and should be made after careful consideration of the risks and benefits, as well as cultural, religious, and personal preferences. [22]

7.1 Information and Education on EIMC

Information and education must include the benefits of as outlined in *Section 3.1.1.1: Benefits*. It is also important to emphasize the simplicity and safety of the procedure, and to review the rare post-operative complications that may occur. This information should be disseminated routinely to pregnant women and their partners at antenatal clinics and to mothers and their partners during postnatal visits and/or during the provision of child immunization services.

7.2 Eligibility for EIMC

The health care worker should inquire about the general health of the infant. Infants born at term, with a body weight equal to or greater

than 2.5 kg and whose age is between 24 hours and 60 days old are eligible for EIMC. Parents are encouraged to seek circumcision for their male infants as early as possible, preferably within the first week after birth. After 60 days of age, infant circumcision will not fall under the criteria for EIMC.

Circumcision should be offered to all eligible neonates/infants irrespective of their HIV exposure status; however, parents who do not know their HIV status or who have not received an HIV test for the past three months should be encouraged to test for HIV.

- It is also suggested that, male infants of low birth weight (less than 2500 g) should undergo delayed outpatient circumcision and that circumcision should be delayed in infants whose penile shaft length is less than 1 cm.
- Early infant male circumcision is also not recommended in preterm infants (less than 37 completed weeks gestational age) or any infant with a medical contraindication

7.3 Contraindications for EIMC

The following are contraindications for EIMC:

- Family history of bleeding disorders
- Premature infants, i.e. infants born at a gestational age < 37 weeks
- Infant body weight < 2,500 grams
- Neonatal sepsis, jaundice, haematological disorders, any other illness or severe illness requiring hospitalization of the infant
- Penile length less than 1cm
- Penile abnormalities such as:
  - Penile torsion/median raphe not in midline
  - Hypospadias/blind urethral pit
  - Buried penis
  - Penile-scrotal web
  - Hydrocele

- Dorsal hood/ventral foreskin missing
- Mega meatus
- Ambiguous genitalia
- Any other abnormality that may require consultation with urologist

7.4 Preoperative Preparation

7.4.1 Written Consent

After preoperative information is given, written consent must be obtained prior to initiating the procedure. A parent or legal guardian must give the consent.

7.4.2 Environment

The EIMC procedure should be performed in a clean room. The procedure room should adhere to infection control protocols. A sterile theatre environment is not an absolute requirement to perform EIMC.

7.4.3 Hand Hygiene

Refer chapter five on Surgical Procedure for VMMC.

7.4.4 Gloving

Refer chapter five on Surgical Procedure for VMMC.

7.4.5 Personal Protective Equipment

Refer chapter five on Surgical Procedure for VMMC.

7.5 Anaesthesia

The use of anaesthesia for pain management during EIMC procedure is a standard and recommended medical practice. The choice of type of anaesthesia to be used depends on device used or surgical method and the age of the infant.

7.5.1 Anaesthetic Agent(s)

Local anaesthesia using a 0.5% or 1% plain Lignocaine/lidocaine (without Epinephrine/Adrenaline) and Eutectic Mixture of Local Anaesthesia (EMLA) cream are recommended for EIMC. General anaesthesia or sedation should not be used, as they are associated with respiratory depression that requires assisted ventilation

7.5.2 Anaesthetic Agent Administration

- The recommended method of administration of local anaesthesia for EIMC is the dorsal penile nerve block using 1% plain Lignocaine/lidocaine. A maximum of 3mg/kg body weight calculation should be used. (Refer to the tables in Annex 4 on page 183).

A 1-ml syringe is used with a 27-gauge or a 30-gauge needle

- Insert the 27-gauge needle subcutaneously at the 10 o'clock position, just distal to the junction of the pubis and the penis; inject a needle in a posteromedial direction to the base of the penis and to the depth of 0.3-0.5cm to the subcutaneous tissues and then aspirate to confirm the needle is not in a blood vessel.
- Without withdrawing the needle, advance it into the subdermal space and while ensuring that the needle is freely mobile, inject the local anaesthesia continuously. Once 0.5 ml has been administered in the branch of the dorsal penile nerve, withdraw the needle completely.
- Repeat the procedure at the 2 o'clock position to block the other branch of the dorsal nerve using the remaining 0.5 ml of the anaesthetic agent in the syringe.
- Wait for 3 minutes after all the local anaesthetic has been injected before marking and applying the circumcision device.

For most neonates and young infants, 1 ml of 1% lidocaine/lignocaine without epinephrine can be used by injecting 0.5 ml at the 10 o'clock position and 0.5 ml at the 2 o'clock position at the base of the penis.

7.5.3 Other local anaesthetic agent

EMLA is also an acceptable early infant local anaesthetic agent. It contains lidocaine/lignocaine 2.5% and Prilocaine 2.5% as an oil-in-water emulsion. An early infant dose of 1 gram of EMLA is applied on the penis for approximately 60-80 minutes prior to the procedure and covered with an occlusive dressing. It should be wiped off prior to skin preparation.

EMLA is associated with a risk of methemoglobinaemia when used in excessive amounts or in conjunction with other medications that can induce methemoglobinaemia such as sulfa containing medicines. A small amount of prepuce swelling can be expected with the use of EMLA.

EMLA cream the provider should adhere to manufacture on acting time.

7.5.4 Options for comfort

Breast-feeding is a natural and economical way to comfort the baby, encourage the mother to effectively breastfeeding the baby before the procedure.

Data indicate that neonates can be comforted by oral sucrose at 0.05 to 0.5 ml of 24% solution (sugar water) or 10mls of 10% glucose sprinkled in sterile gauze administered at any point during the EIMC procedure.

7.6 Surgical Preparation and Draping

It is recommended that two health providers should perform EIMC. The assistant can keep infants calm during the procedure so as to facilitate a good surgical outcome and assist with the procedure. Infants can be kept from moving by swaddling or restraining in an appropriate restraint board (preferred method) or by having one health provider hold the infant. The parent, guardian or caregiver should be permitted to accompany neonate/infant during the procedure if they request.

For soiled infants, the perineum should be cleaned with wet wipes before application of the antiseptic and the solution should remain wet on the skin for at least two minutes.

The skin of the penis and lower abdomen should be cleaned with antiseptic solution such as Povidone Iodine. (Alternately, Chlorhexidine can be used as an antiseptic solution if needed). 2.5-cm area of skin around the penis should be thoroughly cleaned with at least three swabs means tip to base, left groin, right groin and scrotum.

Cleaning is followed:
A sterile drape with a small hole (fenestration) should be applied, exposing the penis. Care should be taken to ensure that the infant's face is not covered by the drape then administration of a local anaesthetic agent.

7.7 Preparing the Surgical Area

The EIMC provider should prepare the prepuce before its removal by using any of the EIMC devices. The provider should follow the following steps to prepare the foreskin:

- Mark the incision line at the level of the corona prominence using artery forceps or sterile marker pen. This will help to avoid the risk of excessive or insufficient skin removed during the EIMC procedure.
- Remove the adhesions by grasping the fore skin at 3 O'clock and 9 O' clock positions using artery forceps, and then using another artery forceps remove the adhesions up to the level of the marked incision line. Make sure that the artery forceps is visibly seen tenting to the skin.
- Dilate the foreskin and deliver the glans to level of coronal groove. Use artery forceps or sterile gauze to remove the remaining adhesions.
- Retract back the foreskin to its normal anatomical position.

7.8 Removal of the Foreskin

7.8.1 Devices for EIMC

There are five recognized devices for EIMC:

1) Mogen clamp
2) Gomco clamp
3) Plastibell device
4) Shang Ring
5) Accucirc device

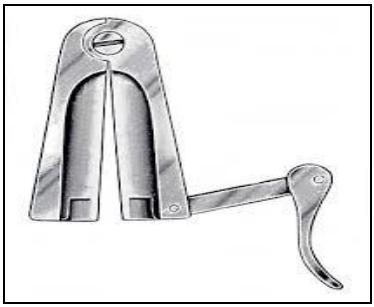
The first three devices (Mogen clamp, Gomco clamp, and Plastibell device) have been approved by the Nation. The Accucirc and Shang Ring devices are still in the WHO pre- approval stage. These guidelines will discuss the first three devices.

Each device has specific advantages and disadvantages. Experience from Tanzania and other countries has shown that there are some advantages in using the Mogen Clamp, as it is easier to use and has fewer risks associated to the device compared to other EIMC devices.

7.8.1.1 Mogen Clamp Technique

The Mogen clamp, one of the four most common circumcision devices, was invented by Rabbi Harry Bronstein in 1954. It is a metal, hinge-shaped device with two flat blades that open approximately 2.5 mm. Single infant sizes can be used for all infant males. It is reusable but requires proper cleaning and sterilization between procedures.

Figure 2: Mogen Clamp



Advantages:

- Faster EIMC procedure than using Gomco clamp technique or Plastibell technique
- No foreign body is left at the site of circumcision after the procedure, since foreskin is removed. (This is in comparison to the Plastibell technique, in which part of the device remains on the penis after the procedure).
- Risk of infection is lower than with the Gomco clamp technique or Plastibell technique
- Enables provider to fully visualize how much foreskin to remove

Disadvantages:

- The Mogen clamp technique does not remove as much inner foreskin as with the Gomco clamp technique
- If the Mogen clamp device is not angled and lined up correctly, the procedure may leave a crooked scar
- The Mogen clamp device does not directly protect the glans during the procedure
- The Mogen clamp device does not allow the provider to visualise the glans before removal of the foreskin

Mogen Clamp Procedure for Removal of Foreskin:

- Grasp the foreskin using two haemostats at 3 O'clock and 9 O'clock positions and then insert one blade of straight artery forceps (dorsal hemostat) at 12 O'clock position to level of incision mark and clamp. Remove the other two hemostats. (Make sure that the inner blade of dorsal hemostat tents outwards to avoid injury to urethra)
- Apply gentle traction on the foreskin using the dorsal haemostat and introduce the free foreskin into the slit of the device, with the concavity facing the glans. If there is any doubt whether the glans might have been pulled into the slit, remove the clamp, inspect the glans for any injury, and reapply the clamp.
- Close the device to crush the foreskin and leave the clamp closed for five counted minutes to reduce the risk of bleeding.

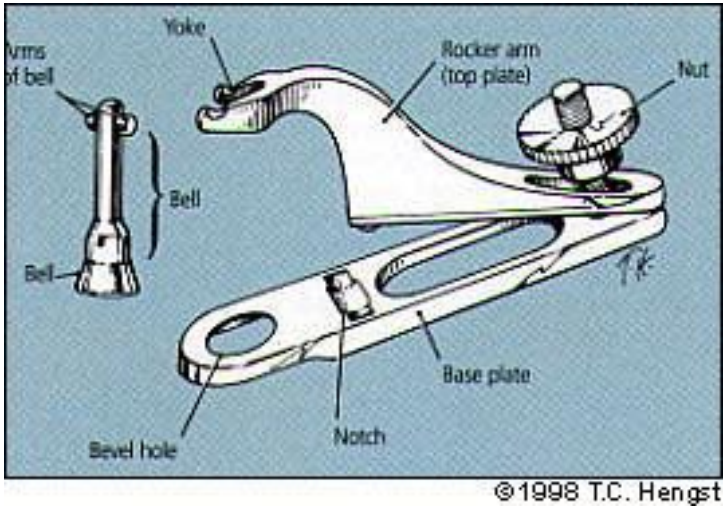
- Cut off the foreskin on the outer side of the clamp with a scalpel.
- Open the device and remove it.
- Using gentle pressure from the side, gently squeeze out the glans buried under the crushed foreskin. This is an important step to prevent adhesions between the edges of the foreskin across the glans. Do not apply too much pressure as the skin edges will separate. If this occurs, place 4/0 or 5/0 absorbable simple sutures to approximate the edges.
- Apply sterile Vaseline impregnated gauze loosely around the penis and dress with sterile absorbent gauze.

• Mogen clamp is reusable device careful precautions have to be taken to ensure that the device is properly cleaned, inspected for its aperture (2.5 mm) and sterilized between procedures. • There is a risk that the glans can be pulled into the slit and crushed or partially severed.

7.8.1.2 Gomco (Yellen-style) Clamp Technique

The Gomco device was developed by Dr. Hiram Yellen, an obstetrician and a veteran of both the First World War and the Second World War, on the basis of his experience of using a Ford motor tyre lever.

Figure 3: Gomco Clamp



Advantages:

- Bloodless circumcision technique
- Leaves a straight scar
- Enables provider to remove most of the inner foreskin
- Reusable device (when proper sterilization techniques are used)
- Faster EIMC procedure than using Plastibell technique

Disadvantages:

- May require a dorsal slit
- Involves several small parts, all of which must be sterile so as to ensure the safety of the patient and minimize the risk of infection.
- The procedure takes longer procedure time than Mogen clamp techniques.
- The scar is more visible.

Procedure for removal of foreskin

- Select a Gomco clamp of the correct size. The size of the Gomco clamp corresponds to the outside diameter of the bell or shield. The correct size depends on the outside diameter of the corona,

not the length of the penis. The bell should completely cover the glans penis without distending the foreskin excessively.

- Place the shield/bell over the glans. If required, a dorsal slit can be made to allow for a larger opening to insert the shield, as previously described. In one method the foreskin is stretched with two haemostats and the bell is inserted directly into the opening of the foreskin. In another method the foreskin is pulled down, completely exposing the glans, the bell is placed on top of the glans and the foreskin is pulled up and over the bell.
- The stem of the bell and the foreskin are maneuvered through the hole in the matching baseplate. Two techniques can be used to accomplish this:
    - The first uses a haemostat to reach through the hole in the base plate to grasp the foreskin and tease it up through the hole. The full thickness of the foreskin has to be adjusted symmetrically in the clamp. This should only be done when the bell and base plate are loose.
    - The second uses a small safety pin to bring the edges of the dorsal slit together over the flare of the bell. The stem of the bell is then fed through the hole of the matching base plate along with the safety pin, which is used to pull through the foreskin. To achieve optimal results the safety pin should be pierced through the full thickness of the foreskin. Pulling the foreskin into a tightly held or fully assembled clamp can cause asymmetry of the tissue and adversely affect the outcome.

In difficult cases some providers find it helpful to close the foreskin over the flare of the bell with a haemostat and to use this haemostat to tease the foreskin up through the base plate hole from the bottom. Once the foreskin is sticking through the hole, another haemostat can be attached to the foreskin from the top of the hole. This haemostat can then be used to help align the foreskin.

- Align the foreskin by using the surgical mark. The apex of the dorsal slit (if made) can also help to guide alignment. With the bell and base plate being loosely held, the foreskin can be adjusted for length and symmetry. If a dorsal slit has been made

the apex should be visible above the base plate. At this time the amount of penile shaft skin that remains below the clamp should be assessed. It should be symmetrical and not stretched too tight.

- The rocker arm (top plate) is attached and aligned with the base plate. The crossbars (arms) on the stem of the bell are settled into the recess on the yoke of the rocker arm (top plate). The crossbar at the top of the bell should sit squarely in the yoke of the clamp; otherwise there can be uneven crushing and a risk of bleeding.
- Once the surgeon is sure that the clamp and foreskin are in the optimal position, the nut is tightened, activating the crushing action.
- Excise the foreskin with a scalpel circumferentially around the bell, distal to the clamp. The bell, securely clamped against a matching base plate, protects the glans.
- The clamp should be left on for 5 minutes to ensure adequate haemostasis.

- The nut is loosened and the clamp is disassembled and removed. Gauze can be used to separate the foreskin from the bell and ensure that the foreskin is pushed below the level of the corona. Any residual adhesions can be removed with a blunt probe or gauze pad.

7.8.1.3 Plastibell (Ross-style) Tourniquet Technique

The Plastibell device is a disposable device for infant circumcision. The Plastibell device has a clear plastic ring with a handle and a deep groove along the circumference of the device. The Plastibell comes in six different sizes, and is used with a ligature tie.

Figure 4: Plastibell Circumcision Device

Advantages:

- The ring of the device protects the glans during the procedure.
- Haemostasis is effective due to the ligature tie.
- No bandage is required following the procedure, enabling health care workers to easily monitor for infection.
- Clients are unlikely to form skin bridges where the end of the foreskin heals to the glans' corona, because healing occurs while the edges of the prepuce are secured in the ring
- Cosmetically, there will be little to no circumcision scar.

Disadvantages:

- May require dorsal slit (e.g., the foreskin must be slit and forced from the glans to allow entry for the plastic dome).
- Equipment requires multiple sizes
- In rare cases, the tip of the glans may protrude through the ring and become swollen, trapping the ring in place. In these settings, removal at a clinic will be required.

- Increased risk of complications with a retained ring such as necrosis, urinary retention, and/or bladder rupture.

Plastibell Procedure for Removal of Foreskin:

- Select the correct size of Plastibell. The device size corresponds to the outside diameter of the shield (in centimetres) for the Plastibell and should roughly correlate with the outside diameter of the patient's glans, not the length of the penis.
- The Plastibell is placed over the glans. If necessary, a dorsal slit can be made to enlarge the foreskin opening and allow placement. The slit needs only to be sufficiently long to allow the Plastibell to be placed over the glans. The procedure is easier if, after opening the Plastibell package, the Plastibell tie is placed loosely around the shaft of the penis before the dorsal slit is made.
- Align the foreskin. Pull the foreskin up and over the Plastibell. The surgical mark should be positioned over the ridge of the Plastibell, where the ligature will be secured. Once the desired alignment has been achieved, it can be helpful to hold the foreskin in position by cross-clamping the foreskin over the Plastibell handle with a haemostat.
- Apply the tourniquet. Before doing so the surgeon must be satisfied with the alignment of the foreskin on the Plastibell. The foreskin should be symmetrical but not taut, and the alignment should be guided by the surgical mark. To adjust alignment, the haemostats must be unclamped and the Plastibell repositioned. Once alignment has been achieved, carefully place the ligature over the groove of the Plastibell. Ensure that it is in the correct position, and then pull it tight and tie.
- Excise the foreskin using scissors, leaving 1–2 mm of cuff to prevent the ligature from slipping off. The wound will contract, and, if the tissue is excised too close to the ligature, haematomas and bleeding can result.
- Snap off the handle of the Plastibell. The index finger and thumb of one hand are used to hold the body of the Plastibell, the other hand is used to grasp the handle and snap it off. The handle is designed to snap off at the base of the wishbone.

- Check that there is no bleeding. If there is no bleeding the child can be sent home and looked after in the normal way, including normal washing and use of nappies/diapers. A dressing is typically not used with the Plastibell, but the use of Vaseline/petroleum jelly should be encouraged to keep the raw skin edges from sticking to the nappy/diaper.

Table 2: Considerations for selecting among the three most commonly used infant male circumcision devices

Consideration	Mogen	Gomco	Plastibell
Single or multiple sizes	• Single infant size can be used for all infant males	• Various sizes must be available	• Various sizes must be available
Number of parts	• Single part simplifies inventory	• Various sizes and multiple parts complicate inventory	• Multiple sizes but a single part simplifies inventory
Sizing errors	• Reduced risk • One size for all infants • Slot size must be checked	• Increased risk (related to mismatching device parts)	• Increased risk (complications associated with bell of wrong size)
Duration of procedure	• Requires the least amount of time to perform	• Requires more time	• Requires more time
Use in older infant males and young boys without suturing	• Routinely requires closure of the wound in infants >60 days of age	• Routinely requires closure of the wound in infants >60 days of age	• Routinely does not require closure of the wound, regardless of age

Consideration	Mogen	Gomco	Plastibell
Disposable/ reusable	• Reusable • Requires processing	• Reusable • Requires reprocessing	• Device itself is disposable (Instruments may require reprocessing)
NB: The shaded areas represent undesirable features that should be considered when each technique is being considered for programme introduction at health facilities of different levels in Tanzania. Notes: 1. The Mogen and Gomco clamps are reusable. This could be a benefit if the infrastructure is available to reprocess the instruments and the cost of sterilization is less than that of purchasing a disposable device.			

***Source**: WHO. (2010). Manual for early infant male circumcision under local anaesthesia. Geneva: WHO.*

Table 7.2: Potential complications of the three most commonly used infant male circumcision devices.

The shaded areas represent undesirable features that must be considered.

Consideration	Mogen	Gomco	Plastibell
Bleeding	• Similar risk (1.0%)	• Similar risk (1.0%)	• Similar risk (1.0%) • Associated with injury to the frenulum during application of the bell and/or loose ligature

Consideration	Mogen	Gomco	Plastibell
Urethral Injury	• Reduced risk (dorsal slit is not routinely required)	• Increased risk (dorsal slit routinely required)	• Increased risk (dorsal slit routinely required)
Penile laceration/ amputation	• Increased risk (glans may not be protected)	• Increased risk (related to mismatching device parts)	• Reduced risk
Urinary retention, bladder rupture, injury from retained parts	• No risk (no retained parts)	• No risk (no retained parts)	• Increased risk if bell of wrong size is used, as it can slip back on to shaft of penis, causing gangrene, urinary retention and bladder rupture
Buried glans	• Increased risk if surgeon does not free glans	• Similar risk	• Similar risk
Other comment	• Penile amputations can occur even under ideal circumstance s	• When matching non-defective parts are used there is essentially no risk of injury to the glans	• Complications from retained parts can occur even under ideal circumstances

Source: WHO (2010). Manual for early infant male circumcision under local anaesthesia. Geneva: WHO.

7.9 Dressing for Surgical Wound

One of the advantages of dressing is its ability to help control bleeding and facilitate healing. After EIMC, the dressing should remain in place for 48 hours, during which time bleeding and urine output should be closely monitored. The dressing is removed at the time of the first routine post-operative visit (Day two). If the dressing falls off prior to 48 hours and there is no significant bleeding, another dressing does not need to be applied and petrolatum should be applied to help protect the wound and keep it from sticking to the nappy/diaper.

The following are steps for EIMC dressing:

- Step 1: Fold gauze to create long narrow dressing and impregnate with petrolatum (Vaseline)/use Vaseline gauze.
- Step 2: Wrap gauze around the penis, crossing the two ends.
- Step 3: Pull gauze ends until dressing is snugly applied to the wound.
- Step 4: Wrap the remainder of the dressing neatly around the penis.

7.10 Postoperative Information and Education

Bleeding is rare with the infant male circumcision devices; however, the baby should be observed for 30 minutes before sending him home with his parents/guardian. The parents/guardians should be instructed not reapply the dressing once it falls off to avoid introducing infection to the wound. Furthermore, the infants wound should be observed regularly, including normal washing and use of nappies/diapers. Tell them that healing is usually complete after one week, and analgesia should not be necessary during that time. Parents are advised to bring the baby back to the health facility after 48hrs and again at 7 days for follow-up visits.

Instruct parents/guardians that they should bring back the infant at any time if any of the following occur:

- The infant appears to be distressed or in pain
- The infant is inconsolable
- The infant is lethargic

- The infant has developed fever
- The infant does not wake up for feeding in accordance with his usual pattern
- There is any separation of the skin edges
- There is any unusual swelling or bleeding
- The infant has any difficulties with passing urine
- The family has any other concerns

7.11. Pain management

Infants do feel pain, hence the administration of oral analgesia (Acetaminophen or paracetamol) 6-8 hourly has been recommended to control pain within 48 hours post EIMC procedure. The dosages should be balanced depending on the body weight (maximum dose is 12.5mg/kgs body weight, 6-8hrly).

7.12. EIMC Postoperative Adverse Event/complications and Management

7.12.1 Post-circumcision bleeding

Most episodes of post-circumcision bleeding can be addressed by simply applying an appropriate dressing. In the event of continued bleeding, direct pressure should be applied with the dressing in place. After 5 minutes of pressure the dressing can be released and the patient observed. The following should be ensured:

- Remove dressing and inspect the wound closely if bleeding persist consider other causes of bleeding, including a clotting disorder and/ an occult injury.
- Replace dressing if the bleeding is minor and localized and apply direct pressure for ten counted minutes.

Consider surgical and medical consultation or referral if bleeding persists.

7.12.2 Insufficient skin removal

There will inevitably be cases where an error is made in determining the amount of foreskin to remove. This is one of the least serious complications, as more tissue can always be removed later. In these cases, the wound should be cared for in the usual manner and the family should be reassured that once the wound heals the procedure can be redone if necessary. The procedure should be delayed until after 6 months of age and scheduled with a provider skilled in performing infant male circumcision revisions.

7.12.3. Excessive skin removal

In mild cases and without significant bleeding the wound can be managed conservatively and will heal reasonably well by secondary intention. Another reasonable approach would be to close the wound with sutures. The severity of this injury warrants specialist consultation.

7.12.4. Injury to penis or surrounding structure

Don't panic and don't try to hide the injury. Most injuries can be successfully repaired without any significant long-term consequences the injuries must be addressed early. Administer a basic first aid and bleeding should be controlled by applying direct pressure on the wound, using a moist dressing. Any injury to the penis or a surrounding structure should be evaluated by a specialist. While consultation is being arranged the infant should be made comfortable and the wound should be closely monitored for bleeding.

Other postoperative adverse event/complications

7.12.5. Reactions to anaesthetic agent

If an infant appears to be having a reaction to the anaesthetic agent, immediate specialist consultation should be obtained to help manage the problem. Manage the signs and symptoms and maintain the Airway-Breathing-Circulation (ABC) approach to resuscitate the client while you are waiting for consultation.

7.12.6. Pain

Paracetamol *is recommended* for treating postoperative pain associated with infant male circumcision.

7.12.7. Infection

Normal wound-healing must be understood so that a true infection can be identified and treated. To the untrained eye a completely normal circumcision wound could look infected. It is normal for a circumcision wound to have a thin yellow film, which can easily be mistaken for pus. One distinct difference is that this yellow film cannot be easily removed. Pus, which is not normal, can typically be easily wiped away with a moist wipe.

During the first 48 hours, infection is rare and the wound looks its worst, with inflammation, redness and tenderness. This is normal. After 48 hours the wound should look better, but if it starts to look worse and is accompanied by more swelling, redness, pain or frank pus, a wound infection should be seriously considered. Fever, poor feeding, decreased urine output (reduced number of wet nappies/diapers) or an infant that is inconsolable or lethargic should immediately raise concern for systemic involvement.

In the event of a wound infection the infant should be evaluated for possible sepsis and other complications and treatment should begin immediately.

7.12.8. Urine obstruction

For any suspicion of urine obstruction, the dressing should be removed immediately. If a Plastibell was used and the ring has not been released, it should be removed urgently. Another cause of urine obstruction following male circumcision is the placement of ventral sutures, which may penetrate the shallow urethra and cause occlusion. Specialist consultation should be considered.

7.12.9. Adhesions

Adhesions that form between any residual foreskin and the glans can be reduced over time by carefully wiping and pushing the foreskin back away from the glans. Without any intervention, most of these

adhesions will resolve spontaneously during adolescence under the influence of androgens. Only rarely will adhesions involve the circumcision wound and require subsequent surgical intervention.
To help avoid adhesions the family can be instructed to gently retract the penile skin at each nappy/diaper change to ensure that no adhesions develop on to the glans or corona. Many providers also suggest the liberal use of petrolatum to create a barrier between the two surfaces.

7.12.10. Trapped penis

The complication of a trapped penis can occur even if the perfect amount of foreskin is removed. To help prevent this complication it is important to ensure that the healing wound stays beneath the level of the corona. If the wound begins to contract above the level of the corona the glans can be pushed down beneath the contracting scar and appear to be buried. This complication can frequently be managed with the application of topical steroids, which can help to reduce the scar and allow the glans to resume its normal anatomical position.

7.12.12. Skin bridge

During healing it is important to isolate the surgical wound from wounds on the glans, where the epithelial layer may have been disrupted during the removal of adhesions.

CHAPTER 8: INFECTION PREVENTION AND CONTROL

Standard precautions and practices ensure good infection prevention during male circumcision surgery.
This chapter outlines basic procedures for infection prevention when performing VMMC and EIMC under local anaesthesia. Following these procedures promotes the safety of clients and health care workers by minimizing infection rates. In HIV prevention programmes, it is important to prevent the potential transmission of blood-borne pathogens (including HIV and hepatitis B virus) to healthcare workers and clients. Exposure to the blood, blood products, or body fluids of an infected person may occur as a result of direct contact with an open wound, direct contact with blood or infected body fluids, or through an accidental needle stick injury.
Such exposure may take place during patient care, clinical or surgical procedures, processing of soiled instruments, or cleaning and waste disposal. Needle stick injuries carry a high risk of infection. The specific level of risk depends upon the type of needle, the depth of the injury, the amount of blood or blood product on the needle, and the viral load of the blood.

8.1 Hand Hygiene

Hand hygiene is a general term that describes the act of cleaning one's hands with or without the use of water or another liquid, or with the use of soap. The purpose of hand hygiene is to remove germs, dirt, and other substances from the hands. In health care, hand hygiene greatly reduces the number of disease-causing microorganisms on hands and arms. It is the most important way of limiting the spread of infection.

In all settings providing male circumcision services, clean water should be available for hand hygiene. Health care workers need to follow recommended practices for preventing infection in order to

protect themselves, other health care workers, and their clients from exposure to HIV and other infections.

The WHO distinguishes between hand washing and hand rubbing. Generally, all staff should wash their hands with soap and water for 40-60 seconds before starting their clinic duties, and again whenever hands are visibly soiled. In addition, staff should use an alcohol-based solution for 20-30 seconds to achieve hand antisepsis, particularly before and after direct contact with each patient.

Hands should be washed or treated with a hand rub before starting clinic duties:

- Whenever hands are visibly soiled (hand wash only). If hands are visibly soiled and running water is not available, use a moistened towelette to remove the visible soil, followed by Alcohol Based Hand Rub (ABHR)
- Before and after direct contact with any patient/client (handrub)
- After removing gloves
- Before handling an invasive device for patient care, whether or not gloves are used
- After contact with blood, blood products, body fluids or excretions, mucous membranes, non-intact skin, or wound dressings.

After using the toilet Handrubs do not remove soil or organic matter, visibly soiled hands should be washed with soap and water. If blood or body fluids are splashed onto non-intact skin, or if there is a percutaneous injury, do not use alcohol-based solutions or strong disinfectants; instead, wash the affected area with soap and water and seek advice on the need for post-exposure prophylaxis)

- In most clinical situations, an alcohol-based handrub 70% to 90% Alcohol-Based HandRub (ABHR) should be used for routine hand antisepsis. Commercial handrubs, liquid soaps, and skin care products are sold in disposable containers and may be used provided they meet recognized international standards and are well accepted by healthcare workers. If

commercial products are not available, an alcohol-based handrub may be produced locally.

Hand hygiene can be done by

- Handwashing with water and liquid soap
- Handwashing with antiseptic agent
- Surgical hand hygiene
- Antiseptic handrub using a waterless, alcohol-based antiseptic agent.

Types of Hand Hygiene

- Hand washing
- Hand antisepsis
- Antiseptic handrub
- Surgical scrub

Standard Operating Procedure for hand washing (in steps)

- Turn on tap.
- Wet hands thoroughly under running water at least 4 inches above the wrist.
- Soap hands adequately.
- Vigorously rub together all surfaces of lathered hands.
- Rub hands vigorously back and front, in between fingers up to and including the wrist, followed by thorough rinsing under running water. This should be for 10 –15 seconds.
- Dry hands from tip of fingers to wrist with paper towel. If paper towels are not available, shake off excess water and allow hands to air-dry.
- Use the same paper towel to turn off tap if tap not elbow controlled.

Note:

- Handwashing and handrubbing are different from surgical hand scrubbing performed by the surgical team members prior to surgery.

Alcohol-Based Solution for Hand Rub

- A non-irritating antiseptic hand rub can be made by adding glycerine, propylene glycol or sorbitol to alcohol (2mL in 100mL of 60-90% ethyl or isopropyl alcohol solution) (Larson, 1990; Pierce, 1990). Use 5mL (about one teaspoonful) for each application and continue rubbing the solution over the hands until they are dry (15-30 seconds).

- *Glycerine is often sold in cosmetic departments because it is used as a hand softener.
- **Preparation of Alcohol-Based Solution for Hand Rub with Hydrogen (refer IPC guideline page 28)**

8.2 Personal Protective Equipment

Personal protective equipment, commonly referred to by the acronym PPE, is equipment worn to minimize exposure to a variety of hazards. In male circumcision services, PPE may include gloves, masks, protective eyewear (face shield or goggles), cap or hair cover, apron, gown, and closed-toe footwear.

Currently, with the emerging of AIDS, viral Hepatitis, viral hemorrhagic fever (VHF), and the resurgence of tuberculosis in our country, use of PPE now has become important for protecting staff. PPE should be used by healthcare workers who provide direct care to clients, support staff (including medical aides, cleaners, and laundry staff), and laboratory staff. Single-use PPE should be disposed of according to healthcare facility protocol. Reusable PPE should be decontaminated according to the manufacturer's instructions or laundered according to national IPC guidelines.

Gloves do not replace the need for hand hygiene and should not be used for the care of more than one patient. Surgical masks, caps, protective eyewear, and footwear (boots or shoe covers) should be used by surgical staff. Aprons provide a waterproof barrier and staff should wear aprons when cleaning instruments.

All clinic staff should be trained in the safe handling of sharp instruments. Because hollow-bore hypodermic needles are the most common cause of injury to all types of staff working in clinical settings, the following measures should be followed:

- Disposable needles and syringes must only be used once
- Do not disassemble the needle and syringe after use
- Do not bend or break needles before disposal
- Dispose of the needles and syringe together in a puncture-resistant container
- Do not recap the needle before disposing of the needle and syringe. If a needle must be recapped, use the "one-handed" recapping method.

Clearly labelled, puncture- and tamper-proof sharps safety boxes or containers are a key component in minimizing injuries from sharps. Generally, the following tips for sharps containers are important:

- Sharps containers should be placed as closely as possible and practical to their point of use.
- Avoid placing them in areas of high traffic where people might accidentally put their hand into them.
- Attach to a wall or other surface at a convenient height, if possible.
- Clearly mark as a sharp's container.
- Mark the fill line at three-quarters full and do not shake the contents to make more room.
- Never attempt to empty a sharps container.
- Close sharp containers when not in use and dispose of the whole container when it is ¾ full (incinerate, bury or encapsulate).

8.3 Processing of VMMC and EIMC Instruments

Effective and safe processing of reusable instruments includes cleaning, disinfection and sterilization to remove all organic and chemical matter. These processes should take place for instruments and equipment that will be used within the body, in sterile tissue, cavities, or the blood stream.

8.3.1. Decontamination

According to Occupational Safety and Health Authority (OSHA), decontamination is "the use of physical or chemical means to remove, inactivate, or destroy blood-borne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface of an item is rendered safe for handling, use, or dispose.

Levels of Decontamination

- **Cleaning**

  The physical removal of body materials, dust or foreign material, cleaning will reduce the number of microorganisms as well as the soil. Therefore, allowing better contact with the surface being disinfected or sterilized and reducing the risk of soil being fixed to the surface.

  Removal of soil will reduce also the risk of inactivation of a chemical disinfectant and the multiplication of microorganisms. The removal of contamination from an item to the extent necessary for further processing or for intended use.

  Cleaning is accomplished by manual cleaning with chemicals (detergent) and water, brushing, flushing using ultrasonic and or washer disinfectors to remove foreign material.

Steps of decontaminating reusable instruments

- Clean the instruments with soap water immediately after use
- Rinse in clear water

- Soak the instrument in a plastic container with 0.5% chlorine solution for 10 minutes
- Clean the instruments with soap water
- Rinse in clear water
- Dry the instruments
- Sterilize the instruments

Steps of decontaminating disposable instruments

- Soak and wash soiled instruments in soap water immediately after use
- Rinse the instruments in clear water
- Soak the instrument in a plastic container with 0.5% chlorine solution for 20 minutes (how to dilute refer IPC guidelines page144)
- Clean the instruments with soap water
- Rinse in clear water
- Dry the instruments
- Then put in a container ready for transportation

➢ **Disinfection**

The destruction or removal of microorganisms at a level that is not harmful to health and safe to handle. This process does not necessarily include the destruction of bacterial spores.

General disinfection is accomplished by wiping surfaces with disinfectant solution. Disinfection can be broken down into three tiers: Low Level Disinfection (LLD), Intermediate Level Disinfection (ILD) and High-Level Disinfection (HLD). LLD eliminates all vegetative bacteria (except tubercle bacilli), lipid viruses, some non-lipid viruses and some fungi in less than 10 minutes. ILD destroys tubercle bacilli, mycobacteria, lipid enveloped and some non-lipid enveloped viruses and fungal spores.

➢ **High Level Disinfection**

A process that eliminates all microorganisms except some bacterial endospores from inanimate objects. Processes

include boiling, steaming or the use of chemical disinfectants. Glutaral (Glutaraldehyde) is generally the most appropriate chemical agent for instruments that cannot be sterilized by heat.

- **Sterilization**
  Complete destruction or removal of microorganisms including bacterial spores. Sterilization validated process used to render a product free from viable microorganisms.

  Processes include high-pressure steam (autoclave), dry heat, chemical sterilant or radiation (UV-light). All viruses, including HIV, are inactivated by autoclaving for 20 minutes at 121-132°C or 30 minutes if instruments are wrapped as packs. Sterilized instruments need to be properly stored to prevent recontamination.

Soaking of instruments in 0.5% chlorine solution or any other disinfectant before cleaning is *not recommended (refer IPC guideline page 145)*

8.4 Environmental Cleaning and Management of Spills

8.4.1 Environmental Cleaning

Patient areas should be cleaned by water. A neutral detergent solution improves cleaning quality. All horizontal surfaces and toilets should be cleaned daily. The operating table and instrument trolley should be cleaned between cases with detergent and water.

8.4.2 Management of Spills

Any area that is visibly contaminated with blood or body fluids should be cleaned immediately with detergent and water. After cleaning, disinfect the area with 0.5% Sodium Hypochlorite solution (bleach).

8.5 Safe Disposal of Infectious Waste Materials

Safe management of infectious waste is important to protect people from accidental injury and spread of infection.

All VMMC/EIMC sites should ensure proper management of health waste products. Waste produced during VMMC and EIMC activities carries a high risk of infection and injury for health care professionals and patients if not managed properly. To avoid serious public health consequences and substantial environmental impact, it is essential for District and Regional managers to develop safe and reliable methods for handling and treating VMMC and EIMC waste including waste management plans for all health facilities.

Waste management involves different stages including waste generation, waste treatment and disposal of waste. (This is also called the waste management cycle or cradle-to-grave cycle). To regulate the many steps within the cycle, health care workers must have clear Standard Operating Procedures (SOPs) on the segregation, handling, storage, transport, treatment, and disposal of waste. Health facilities should develop their waste management plans based on local situations and resources available. These plans should address the waste management cycle as indicated in the *National Infection Prevention and Control Guidelines*.

To ensure proper management, a successful waste management plan should:

- Clearly define the point of generation within the service site(s) (e.g., blood-drawing area, operating theatre, HTS areas, and recovery area)
- Propose waste management product requirements or specifications
- Develop procedures and job aids for the identification, segregation, storage, transport, treatment, and disposal of health care waste
- Set standard requirements for clinical staff safety and training (e.g., training schedule, personal protective equipment, cleaning, and personal hygiene)

- Develop a monitoring and incident reporting system
- Propose environmentally sound treatment and disposal methods
- Define responsibilities of clinical staff, administration, regional and local governments

When designing a waste management system, it is essential to assess local infrastructure upfront to determine which accepted option will emerge as the most practical. The options for the disposal of metal instruments include the burial of instruments in a secure sharps pits/concrete vault, transporting the instruments to a recycling/smelting facility, or specialized encapsulation.

To ensure that short-term and long-term VMMC service sites are fully prepared prior to the launch of services, waste management requirements and specifications must be independently assessed by the MoHCDGEC (in collaboration with implementing partners) to identify waste management practices, procedures, and risks at the national, regional, district and service site levels. In addition, service sites must ensure that all required waste management commodities are clearly specified during the planning stage and allow for adequate lead times.

The following recommendations for safe handling and disposal of infectious waste should be followed:

- Place waste in plastic or galvanized metal containers with tightly fitting colour-coded lids to differentiate infectious and non-infectious waste.
- Place all disposable sharps in designated puncture-resistant containers
- Place waste containers as close as possible and practical to their point of use
- Equipment used to hold and transport wastes should not be used for other purposes
- Regularly wash all waste containers with a disinfectant solution then wash with soap, rinse with water, and allow to air dry.
- When possible, use separate containers for waste that will be treated or that will be disposed of in a particular manner.

Waste containers may be incinerated, encapsulated, and or buried. The most hygienic and environmentally safe method should be chosen. Attention should be paid to the type of medical waste needing disposal in order to minimize human and environmental risks. New and systematic ways of disposal should be explored including separating and autoclaving solid medical waste before releasing it into the standard solid-waste stream. [9]

8.5.1 Roles of the MoHCDGEC

The MoHCDGEC should strengthen the health system and support development and implementation of the waste management system. The following key activities may be considered:

- Development or revision of standard operating procedures (SOPs) for handling, storing, treating, and disposing of health care waste.
- Reinforce the implementation of SOPs for handling, storing, treating, and disposing of health care waste are followed at the site level.
- Create a clearly defined chain of responsibility so that personnel are accountable for every step in the process, and the process is managed accordingly.
- Development of secure storage areas that are protected from the weather and or other environmental factors.
- Establishment of waste collection and delivery system to move infectious waste from the VMMC and EIMC service sites to District or Regional hospitals for treatment and final disposal.
- Development of a monitoring tool that will be used during regular programme monitoring to ensure that practices are properly maintained to minimize risk and disease.
- Procurement of waste disposal commodities, hazardous waste liners, bins, and personal protective equipment.
- Develop training curricula and materials that address the critical requirements for VMMC and EIMC programme so that the safety of staff and safe handling of infectious waste can be ensured.

8.5.2 Roles of VMMC and EIMC sites

Each VMMC site must have the following recommended waste management processes and measures:

- Personnel
  - Trained personnel in waste management
- Waste Generation Storage
  - Suitable health care waste receptacles of appropriate size and number available for different types of waste
  - All waste receptacles labelled with basic information on their content and waste producer. The labels should be permanent.
  - Compliance to colour coding
- Waste Storage
  - Temporary storage facilities located away from patients
  - Leak-proof containers being used for storage
  - Biohazard marks and other warning signs posted conspicuously on doors and walls
  - Appropriately colour-coded vehicles, carts and trolleys are used for transportation
- Waste Collection and Transportation
  - Collection and transportation of health care waste complying with the general waste management plan of the local authority
  - Health care waste sorted before transportation
  - Fixed schedule for collection of waste bags and containers from each department or unit.
  - Use of wheeled trolleys with lids during collection and transportation
  - Equipment used for transportation and collection disinfected
- Waste Treatment and Disposal
  - Uses of a licensed waste management contractor
  - Uses appropriate incinerator for the type of health facility
  - Complies with land disposal guidelines

8.6 Post-Exposure Prophylaxis

Measures should be put in place to prevent health worker exposure to infectious body fluids. In the event that an accidental exposure occurs, a health worker shall abide by the procedures for Post-Exposure Prophylaxis (PEP) as stipulated in the National Guidelines for Management of HIV and AIDS and the National IPC guidelines for health care services. Health facilities and other VMMC and EIMC

settings (e.g. campaign and mobile sites providing VMMC and EIMC services) should adhere to the national PEP protocol. There should be a clear referral system to a PEP referral centre in case there is need.

CHAPTER 9: QUALITY IMPROVEMENT AND QUALITY ASSURANCE

Quality Improvement (QI) and Quality Assurance (QA) are essential components of all VMMC, EIMC, and HTS services. These measures help to ensure that VMMC, EIMC, and HTS programmes conform to set requirements and standards. VMMC and EIMC providers must have a systematic and planned approach to monitor and assess the quality of their services on a continuous basis. They should also seek to consistently modify programmes in a way that improves the effectiveness and quality of all VMMC and EIMC services offered. More details on QI and QA can be found in the National Guidelines for Quality Improvement of HIV and AIDS Services.

9.1 Definition of Terms

Quality is a way to describe a product or service according to standards or specifications.

Quality Assurance (QA): In healthcare settings QA refers to process of assessing whether services provided conform to specify standards (can either be internal or external).

Quality improvement (QI): is a systematic process of assessing the performance of a health system and its services, identifying gaps and causes, and introducing measures to improve quality and monitoring the impact. QI uses scientific principles and tools to understand and address system deficiencies in order to produce efficient and effective healthcare delivery processes through redesign.

Note:
For further details refer to:

- Tanzania National QI Framework [7]
- National QI Guidelines for HIV and AIDS Services

9.2 Quality Improvement Approaches used in Tanzania

- **5 S**: A management tool that is used as a systematic approach for productivity, quality and safety improvement in all types of organizations
- **Improvement Collaborative:** An organized network of sites (e.g. districts, facilities or communities) that work together for a limited period of time to rapidly achieve significant improvements in a focused topic area through shared learning and intentional spread methods using Plan, DO, Study, Act (PDSA) Cycle.
- **SLMTA**: A structured quality improvement program that teaches laboratory managers how to implement practical quality management systems in resource limited settings using available resources.
- **Standard Based Management and Recognition (SBMR)** – An approach that utilizes the performance improvement cycle of measuring actual performance using standards, identifying gaps, determining the root causes of the gaps, and identifying and implementing interventions to address the gaps.
- **Results Based Financing (RBF):** An approach that links financing to pre-determined results. Payment is made only upon the verification of the agreed results which have actually been delivered.
- **Stepwise Certification Towards Accreditations (SCTA):** A process of validation in which facilities are evaluated through standards which are set by a responsible board hence upgraded to a specific level such as 2star, up to 5star.

9.3 Steps in Quality Improvement Process

The performance and quality improvement process involve the following steps:

i. **Defining desired performance:** In order for people to perform well, they must know what they are expected to do. Performance standards need to be set. Staff must know not only what their duties are, but also how they are expected to perform them. The desired performance should be realistic and based on common goals, the expectations of the community and the resources available.

ii. **Assessing performance:** The Health Facility Work Improvement Team (WIT) should continually assess its own performance in relation to how it is expected to perform. This assessment can be done on a continuous basis informally or more formally at periodic intervals, by monitoring specific activities and steps, conducting self-assessments or obtaining feedback from clients.

iii. **Finding the causes of performance gaps:** A performance gap means what is occurring does not meet the performance standards that have been set. If this is found to be the case, a, Health Facility Work Improvement Team (WIT) needs to explore with staff why the gap is occurring. Sometimes the reasons for poor performance are not immediately obvious, and it may take some time to find the real cause.

iv. **Selecting and implement interventions to improve performance:** Once the causes of the performance gap have been determined, the managers and staff will need to identify, put in order of priority, plan and implement interventions to improve performance. These interventions can be directed at improving the knowledge and skills of staff, or the environment and support systems. Many different types of interventions can improve worker performance. To make the best use of resources, it is important to select the most appropriate ones.

v. **Monitor and evaluate performance:** Once an intervention has been implemented, it is important to determine whether it has had the desired result. In other words, did the intervention lead to improved performance? Did the Health Facility Work Improvement Team (WIT) come closer to meeting established

standards? If not, the team will need to look again at what is hindering performance, to make sure that the interventions were targeted at the real cause of the performance gap. If performance has improved, it is important to continue monitoring to make sure that the level of performance is maintained.

9.4 Quality Improvement at the VMMC and/or EIMC Service Provision Clinic

A clinic offering VMMC and or EIMC is the first entry point of male circumcision services for a majority of clients. It is at this level where most of the QI activities take place. In order for QI tasks to be implemented at the clinic level, the following performance measures should be considered:

- Establish a clinic Work Improvement Team (WIT) and appoint a focal person.
- Use existing data to set improvement priorities and objectives.
- Use National CQI Tool for VMMC and EIMC Services to measure and monitor site adherence to VMMC and EIMC standards
- Develop work plans based on agreed services standards, best practices and monitoring indicators and identify resources.
- Implement the work plans and collect data to monitor improvement.
- Share experiences within facility, between facilities, with Council Health Management Teams (CHMTs), and with stakeholders.
- Institutionalize best practices and lessons learnt.
- Integrate WIT activities into facility QI plans and budgets.
- Ensure the use of specific existing guidelines for male circumcision programmes.

The QI team will coordinate planning and implementation of quality improvement activities in the facility. Furthermore, it will conduct periodic monitoring and provide technical advice to VMMC and EIMC work improvement team(s). Likewise, the VMMC and EIMC work improvement team will give feedback to the facility QI team on progress in implementation of QI action plan(s) in the facility.

9.5 Role of the Work Improvement Team (WIT) at a VMMC/EIMC Clinic

9.5.1 Work Improvement Team

Each clinic providing VMMC and or EIMC should establish a WIT to implement the standards adopted at the national level. Team members should represent all categories of service providers, clinic staff, and the community (e.g., community participants, client/user participants, etc.). An ideal WIT at the clinic should include VMMC and EIMC surgeons or designated staff members, VMMC and EIMC counsellors, data personnel, community mobilization personnel, etc.

Benefits of team work include:

- A more complete working knowledge of the process
- A greater number of ideas for resolving problems
- Greater acceptance and a higher implementation rate for solutions

The male circumcision WIT should meet regularly and document all meetings. QI is a continuous process that requires regular routine meetings. Depending on the level attained in the QI process, the WIT meetings can happen weekly, monthly or quarterly. The team should review quality and safety information and implement actions to improve the services. QI depends on planning, implementing, and evaluating the success of changes. This process is achieved by developing and implementing action plans and/or work plans. If, for example, the team feels that the reason for increased surgical site infections is related to a lack of proper surgical scrub by clinic staff, the action plan depicted in Table 9.1 might be implemented.

Table 3: Example of an Action Plan

Gap: There is an increase in the number of infections at the surgical site, as observed during client post-operative follow-up visits.			
Activity *(What needs to be done?)*	**How will it be done?**	**Who is responsible?**	**When will it be done?**
Review hand-scrubbing procedure with staff	Staff meeting	Ms. Maara	15 September 2016
Obtain disposable towels for drying hands	Request disposable towels from district supply office	Mrs. Tango	30 September 2016
Re-assess hand-scrubbing procedure	The procedure will be re-assessed in three months to evaluate the effect of the actions	Ms. Ruka	15 October 2016

9.5.2 Areas of Assessment at a Male Circumcision Clinic

Areas of assessment differ for circumcision programmes targeting adults and adolescents (e.g., VMMC programmes) and programmes targeting infants (e.g., EIMC programmes).

In VMMC programmes (targeting adult and adolescent clients), the areas of assessment include the following:

- SOPs, Guidelines and policies
- Facilities, supplies and equipment
- Clients' record review
- Emergency management

- Adequacy of staffing
- Circumcision equipment and procedures
- Communication to clients

EIMC programmes are usually assessed in the following areas:

- Facility space, registration for EIMC and linkages to other relevant services
- Information and education on EIMC and preparation for surgery
- EIMC surgical procedure
- Continuity of care in EIMC services

Each of the areas listed above have a number of required and/or desired performance standards. Each of these standards may have several verification criteria to help determine to what level the standard has been achieved.

9.5.3 Individual Provider's Competency Assessment

To ascertain the quality of services provided by each individual provider, the WIT should periodically assess performance and competency of all the providers within the male circumcision clinic while performing actual services. Competency assessment should make use of standardized competency assessment tools (developed by MoHCDGEC) that can objectively assess skill performance of each individual provider.

Different skills required during VMMC and/or EIMC services should be assessed using tools designed specifically for each skill. National guidelines and/or competency assessment tools are preferred and should be used. Furthermore, assessment can use competency-based assessment checklists, such as those checklists used during trainings to validate trainee skill development.

Each provider's competency assessment score should be documented and filed in a QI documentation file. Each provider who is assessed should immediately receive constructive feedback that emphasizes what the provider has done well and how the provider can improve.

For performance improvement, the WIT should formulate individualized plans for each provider to address any gaps identified.

Table 4: Essential Competencies for Male Circumcision Service Provision

Essential competences	Knowledge, skills and attitudes required	Provider
Management	Knowledge: • Principles of facilitative supervision • Guiding principles and standards • Principles of communication, including giving and receiving feedback and constructive feedback • Development of communication plans • Designing services • Health information management • Systems management, including logistics, procurement and referral mechanisms	• Facility in charge
Management	Skills: • Implementation of standards • Communication skills • Implementing a quality assessment and improvement programme • Supporting an environment for confidentiality and • Privacy Attitude: Shared responsibility, supportive management	• Facility manager

Essential competences	Knowledge, skills and attitudes required	Provider
Education and counselling	Knowledge: • Sexual and reproductive health • HIV testing and counselling standards • Risk, benefits and potential complications of circumcision • Confidentiality • Informed consent procedures (HIV testing and surgical procedures) • Risk reduction and safer sex • Promotion of condoms • Postoperative instructions Skills: • Effective counselling techniques Attitude: • Men are appropriate clients for sexual and reproductive health services; clients have rights	• Community health worker • Counsellor • Non-physician provider (nurse or clinical officer) • Non-specialist doctor • Surgeon
Assessment	Knowledge: • Normal and abnormal anatomy of male genitalia • Identification of medical contraindications for surgery • Referral agencies • Referral process Skills: • History-taking • Physical examination	• Non-physician provider • Non-specialist doctor • Surgeon

Essential competences	Knowledge, skills and attitudes required	Provider
	Attitude: • Accuracy and completeness	
Treatment of sexually transmitted infections	Knowledge: • Signs and symptoms of sexually transmitted infections • Guidelines for treatment of sexually transmitted infections Skills: • Diagnostic, including use of flowcharts Attitude: • Importance of use of evidence-based guidelines	• Non-physician provider (nurse or clinical officer) • Non-specialist doctor • Surgeon
Surgery	Knowledge and skills: • Sterilization of equipment/supplies • Aseptic technique • Infection prevention • Operating room safety • Use of needle/syringe • Surgical procedure • Holding scissors and cutting sutures • Holding artery forceps and applying them to a blood vessel • Holding a scalpel and cutting tissue • Putting scalpel blade on and off handle safely • Holding tissue safely with forceps	Sterilization: • Technician Other competences: • Non-physician provider • (nurse or clinical officer) • Non-specialist doctor Surgeon

Essential competences	Knowledge, skills and attitudes required	Provider
	(tweezers) • Tying knots with instruments • Tying off an artery with forceps • Under- running a bleeding vessel • Suturing • Local anaesthesia • Postoperative care and follow-up Attitude: • Precision	
Record-keeping	Knowledge: • Requirements for record-keeping Skills: • Documentation Attitude: • Importance of keeping records	• All levels of staff
Quality improvement and safety	Knowledge: • Male circumcision standards • Data collection • Data analysis • Use of data to make improvements • Reporting Skills: • Self-assessment • Peer assessment (giving and receiving feedback) • Working in teams • Brainstorming	• Managers • Supervisors • All staff

Essential competences	Knowledge, skills and attitudes required	Provider
	• Problem-solving • Developing action plans Attitude: • All staff take personal responsibility for the quality and safety of services	

9.6 Supportive Supervision, Mentoring and Quality Assurance

9.6.1 Supportive Supervision

Supportive supervision aims to improve the quality of male circumcision services through joint observation, discussion, and direct problem solving, mentoring, and learning from each other.

Supportive supervision is guided by national guidelines and tools. The implementation of supportive supervision is organized according to levels. (For additional information, please refer to the National QI guidelines for HIV & AIDS and/or the national *Manual for Comprehensive Supportive Supervision and Mentoring on HIV and AIDS Health Services*)

Comprehensive supportive supervision: VMMC and EIMC services should also receive supportive supervision visits similar to other clinical services in Tanzania according to the comprehensive supportive supervision framework. The comprehensive supportive supervision tool includes information on male circumcision services and can be used to provide meaningful supportive supervision in VMMC and EIMC health facilities.

9.6.2 Clinical Mentorship

Mentorship is a system of practical training and consultation that fosters ongoing professional development to yield sustainable high-quality health care outcomes. It is an integral part of the continuing

education process and takes place at the facilities where health care workers manage patients.

Effective mentorship for VMMC and EIMC providers involves regular visits by regional and district mentors. These mentors spend time with circumcision providers at lower levels of care and provide regular on-the-job training on various aspects of male circumcision services.

Mentorship is most effective when it takes place:

- Immediately following VMMC and EIMC training
- After identification of performance gaps (identified during QI, QA, and/or supportive supervision)

9.6.3 Mentorship versus Supportive Supervision

Mentorship and supportive supervision are similar, and may be used interchangeably; however, some differences may be observed. These are outlined in Table 5.

Table 5: Clinical Mentorship versus Supportive Supervision

Supportive Supervision	Supportive Supervision/ Clinical Mentoring	Clinical Mentoring
• Space, equipment & forms • Supply chain management • Training, staffing and other human resource issues • Entry points for VMMC and EIMC • Client's satisfaction	• Client flow and triage • VMMC and EIMC clinic organization • VMMC and EIMC patient monitoring & record-keeping • VMMC and EIMC case management observation • Team meetings • Review of referral decisions	• Clinical case review related to VMMC and EIMC • Bedside teaching • Journal club • Morbidity and mortality related to VMMC and EIMC • Assist with care & referral of complicated cases • Available via distance communication.

9.7 Internal Quality Assurance (IQA)

This is an internal process of assessing compliance to set National Standards using standardised tools. Two quality improvement approaches: self-assessment and peer assessment can be used to measure, monitor and improve compliance to set standards.

9.8 External Quality Assurance (EQI)

It is conducted by external agent to ensure that the services provided at each site meet the global standard for safe VMMC and EIMC, e.g. International agent assess the country, national level assess regions as well as districts.

EQA supports the adoption of efficient service provision. Like other health interventions, performance and quality improvement of VMMC and EIMC services is an on-going process that a site needs to implement on routine basis. EQA visits for VMMC and EIMC should be integrated to the existing quality assurance to identify areas that need support and lessons that could be replicated in other sites with similar situations.

CHAPTER 10: COMMUNICATION AND ADVOCACY

10.1 Overview

Communication is exchange of ideas, experiences, knowledge and feelings that targets a specific audience on a given specific issue while advocacy is an attempt to influence opinion leaders, influential people and other decision makers at all levels from the community right up to the national level to support and promote the identified social or health interventions undertaking.

10.1.1 Communication

The goal of communication in VMMC and EIMC is to create demand and promote the use of services to meet national, regional, and district targets; and to meet sustainable community uptake and acceptance.

VMMC and EIMC, also entails scaling up communities and advocacy activities at different levels alongside the scale-up of VMMC and EIMC services to ensure that demand is aligned with the supply.

Communication regarding VMMC and EIMC must identify and address:
Communication issues – that both promote and hinder VMMC/EIMC service provision. Target audience(s) and their characteristics based on their cultural norms and practises. Strategic communication approaches and channels with tailored messages for specific audience segmentation

Communication shall take place at the following levels:

- The national level should promote development and utilization of a VMMC and EIMC communication and advocacy framework that guides all VMMC and EIMC communication and advocacy planning.
- The regional administration and local government level should support implementation of communication and advocacy activities through its communication outlets, promoting public-private partnerships and coordinating actors in their jurisdiction.

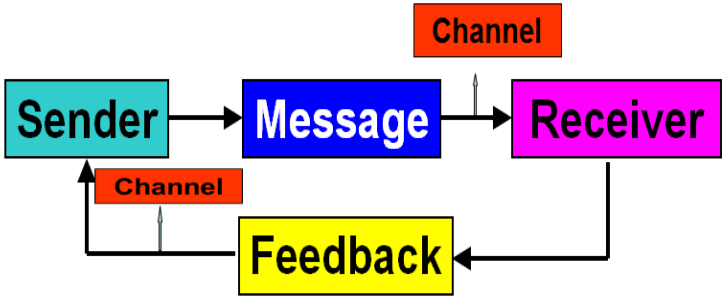
- VMMC and EIMC sites and providers should build around intra-departmental, interpersonal communication and leverage VMMC and EIMC-specific communication by linking with other health and development outreach activities taking place in the catchment area.
- VMMC and EIMC providers should actively promote the procedures via word-of-mouth and distribute VMMC and EIMC IEC materials through satisfied clients, local leaders and influential people by reaching out to community- and faith-based organizations active in the catchment area.

10.1.2 Communication Goals

For VMMC and EIMC, the goals of communication include:

- Continue to create demand to meet national, regional, and district targets.
- Support promotion of VMMC and EIMC services at both campaign sites and static sites, with a gradual shift to static sites over the next five years.
- Focus on promoting services among uncircumcised males (infants aged 24 hours to 60 days, aged 10 years and ages 10-34 years).

Figure 5: Communication Flow/Process



10.1.4 Communication components

- The SENDER initiates the communication to transmit a message

- The CHANNEL is the media or means through which the information is being sent

- The **MESSAGE** is the information, ideas, or feelings being shared
- The **RECEIVER** is the one who takes in the information and translating it into meaning
- **FEEDBACK** is a verbal or non-verbal response from the receiver indicating that the message has been received and understood

10.1.5 Channels of Communication

- Audio examples Radio, Public Addressing System, Call centre
- Audio visual examples TV, Cinemas, comics
- Paper based examples Posters, Billboards, flyers, flip charts, Referral slips e.t.
- Theatre arts examples Drama, Comedies, choirs

10.1.6 Effective Communication Skills

Refers to the ability to convey or share ideas and feelings effectively, and involves the following:

- Active listening
- Demonstrating a caring, respectful attitude
- Praising
- Encouraging
- Speaking clearly and simply at a level the client can understand
- Encouraging client to ask questions
- Attending
- Paraphrasing
- Reflection of feeling
- Summarizing
- Asking checking questions to check for understanding
- Interpreting
- Probing

10.1.7 Principles of Effective Communication

In order to communicate effectively, it is important to be aware of who the person you are communicating with is, what the purpose of the communication is, when the best time to convey your message is and how the message is presented.

10.1.8 Myths and Misconceptions in VMMC/EIMC Services

VMMC/EIMC providers should reassure clients and clarify and/or correct any myths and misconceptions in the society about male circumcision procedures.

Some of these myths may be barriers to VMMC/EIMC services. Table 6 offers messages that can counteract common myths and/or misconceptions in Tanzanian communities.

Table 6: Myths and Misconception for VMMC/EIMC and possible solutions

Common myth/ misconception	Possible solution
VMMC	
Pain	• Reassure that pain is temporary & local anaesthesia will be used
Belief that they will lose sexual feeling	• No relationship between sexual feeling and male circumcision
Discovery of being HIV-positive during the VMMC process	• Counselling for stigma reduction and explanation on the fact that HTC is voluntary and is not a condition to receive VMMC.
Change in social status	• Address health benefits of male circumcision over social status. Explain alternative social status around VMMC such as “modern man” who cares for his health, that of his family and community and is a role model.
Difficulty abstaining for six weeks, particularly in relation to marital	• Health education and partner involvement. • Reach women with VMMC messages

Common myth/ misconception	Possible solution
responsibilities	about the health value of abstaining to allow for proper wound healing after partner is circumcised, and their role in supporting this process.
Belief that VMMC is inappropriate for older men	• Counselling on VMMC benefits and being a role model for young generation.
Public acknowledgment of sexuality which may be associated with promiscuity	• Address individual health decisions such as choosing VMMC impact on public health. • Individuals have opportunity to be role model in advocating VMMC.
Reluctance to expose one's genitals	• Reassurance on confidentiality, privacy and professionalism during the procedure.
Considered unusual, embarrassing among peers and age mates	• Promote VMMC and provide current data from the respective area
Seasonality preference (near unanimous preference for circumcision to be performed during the cold season months of May, June, July, and August)	• Educate on wound healing process. • Consider sharing figures of MCs carried out "off-season" in the area/district/region to emphasize that many people are doing so/how normal it is to do so.
Belief that cooler weather promotes wound healing	• As above
Mixing services for young boys and older men is viewed as unacceptable by older men	• Provide friendly and confidential services based on age and other relevant factors
Lack of confidentiality	• Maximise confidentiality
Non-traditionally circumcising culture	• Educate on VMMC
Lack of openness between partners in sexual relationships	• Counselling on disclosure and encourage couples counselling

Common myth/ misconception	Possible solution
Private matters are kept secret from sexual partners	• Educate clients about different types of healthy sexual activity and good relationship skills, including communication, trust, foreplay as a precursor to intercourse, etc.
Belief that it is dangerous for older men to get circumcised	• Reassure and provide education.
Religious beliefs against male circumcision	• Educate the importance and health benefits of VMMC.
Despite lower risk of HIV transmission, VMMC clients still need to use condoms properly and appropriately.	• Educate on partial protection of VMMC
EIMC	
The penis is too fragile for the procedure	• Educate the parents that EIMC is done by only well-trained providers
The penis will not grow	• Reassure parents/guardians that the procedure removes only the foreskin and does not affect the size off the penis
The infant will be impotent or infertile in later life	• Educate the parents that this is just a myth, no study has shown EIMC causes impotence/infertility
EIMC is part of a global Muslim strategy/ conspiracy to convert all people into Muslims	• Educated them this is just a myth, stress on health and medical benefits of EIMC
Infants foreskins are raw materials for making some medicines/body lotions	• This is a myth, tell the parents are allowed to take the fore skins and will be instructed on how to dispose. If the parents choose not to take the foreskins, they will be disposed of following proper medical waste disposal procedures.

10.1.9 Communication Messages

Messages should be designed carefully to meet the intended objectives. All VMMC and EIMC messages should be culturally sensitive, and should be delivered in simple language using symbols, Braille and sign language where appropriate. Messages should be tailored to the particular age and literacy level of the target audience (e.g., parents, adolescents, adult men, etc.).

The following key facts should be emphasized in the development of messages for both VMMC and EIMC, where applicable:

Key Messages for VMMC and EIMC:

- Research shows that male circumcision reduces the risk of HIV infection, and has additional sexual and reproductive health benefits for both men and women.
- Male circumcision cannot replace other HIV prevention methods whether men are circumcised or not, limiting the number of sexual partners and using condoms consistently and correctly will ensure maximum protection from HIV infection.
- Healing period: Newly circumcised men and boys should abstain from sex until their wound is fully healed, usually after about six weeks – as they could be at increased risk of infection during this time.
- Safety: It is recommended that circumcision takes place in certified health facilities; however, whether the procedure takes place in a clinical setting or in a cultural, traditional or religious context, it is vital to ensure and demand safety.
- Informed choice: All possible information should be made available so that men, boys and parents can make informed decisions about male circumcision. Health care workers should be prepared to correct misinformation that may arise during scale-up.
- Risk compensation: Some men may not have internalized the message that circumcision offers only partial protection against HIV; as a consequence, they could relax their attitude towards safer sex out of the misinformed belief that limiting partner numbers and

consistent condom use are no longer required.

- Circumcision and HIV-positive men: There is currently no evidence that circumcising HIV-positive men will reduce the likelihood of HIV being transmitted to their sexual partners; a circumcised man who becomes HIV positive is just as likely to transmit HIV as an uncircumcised male with the virus.

NB: For more details regarding circumcision in infants, refer to the national EIMC training package.

10.1.10 Appropriate Settings for Effective Communication

It is important to identify an appropriate setting for effective VMMC and EIMC communication based on selected communication issues, characteristics of the target audience, and available resources. All opportunities shall be taken to provide VMMC and EIMC information through venues such as youth centres, RCH clinics, outpatient clinics, family planning clinics, STI and HIV clinics, and schools. It is also beneficial to utilize peer education and local media, including television, radio, print, and drama. Furthermore, venues such as bus parks, motorcycle/bicycle parks, shopping centres, construction or plantation work sites, market stalls, drinking joints, soccer halls, pool table sheds and soccer fields can also be considered for social marketing. It is important obtain relevant VMMC and EIMC information, education, and communication materials that are appropriate for the targeted audience.

10.1.11 Common Barriers to Effective Communication:

It is useful to keep in mind some common barriers to effective communication. Barriers may include the following:

- The use of jargon, over-complicated, unfamiliar and/or technical terms.
- Emotional barriers and taboos. Some people may find it difficult to express their emotions and some topics may be completely ‘off-limits’ or taboo.
- Lack of attention, interest, distractions, or irrelevance to the receiver.

- Differences in perception and viewpoint.
- Physical disabilities such as hearing problems or speech difficulties.
- Physical barriers to non-verbal communication. Not being able to see the non-verbal cues, gestures, posture and general body language can make communication less effective.
- Language differences and the difficulty in understanding unfamiliar accents.
- Expectations and prejudices which may lead to false assumptions or stereotyping. People often hear what they expect to hear rather than what is actually said and jump to incorrect conclusions.
- Cultural differences. The norms of social interaction vary greatly in different cultures, as do the way in which emotions are expressed. For example, the concept of personal space varies between cultures and between different social settings.

Whenever possible, try to overcome these barriers when communicating about VMMC and EIMC.

10.2 Advocacy

In many cases, advocacy is used when there is little recognition of the importance of a given policy, social and health problem affecting many communities. Due to the protective effects of male circumcision, the MoHCDGEC has emphasized the importance of scaling up VMMC and EIMC in communities with low male circumcision rate and high HIV prevalence.

For effective advocacy activities, it is important to identify obstacles to the acceptance of the service being promoted or introduced. In VMMC and EIMC, major obstacles may be based on the following:

- Inadequate knowledge on the services
- Cultural and social norms
- Perceived protective effects
- Religious beliefs and influence
- Improve policy

10.2.1 Advocacy Strategies

The primary advocacy strategy for VMMC and EIMC is to incorporate VMMC and EIMC into the routine activities at the community level. It is important to design an advocacy plan to be used for specific target groups in the community, who may include:

- Community leaders (including: cultural, tradition or tribal/custom)
- Decision makers
- Influential people
- Religion leaders
- Policy makers
- Private sectors
- Funding agencies
- Media personnel
- Peer groups

10.2.2 Advocacy Approaches

The plan should specify how to engage and involve each target group or individual in order to gain acceptance and partnership in the process towards scaling up VMMC and EIMC services in the community.

The following approaches in relation to VMMC and EIMC may be used:

- Encourage local opinion leaders and influential people to teach men how to honour their masculinity by actively caring for their partner's and their children's health by accepting VMMC and EIMC.
- Train local healers to act as cultural intermediaries between traditional and modern health care systems and equip them with correct knowledge on benefits of VMMC and EIMC.
- Encourage religious leaders to use their influence to advocate the importance of male circumcision and inspire social responsibility among boys, men and families.

- Identify and promote positive images of masculinity and male behaviour for promoting HIV prevention. These may include men as fathers caring for their family, and men with a sense of responsibility and reliability towards themselves and their partners.

To incorporate VMMC and EIMC into the routine activities at all levels; Community, District, Regional and National level using the following approaches:

- Meetings and consultations
- Education sessions to increase knowledge and empowerment to influence others
- Media involvement

To design an advocacy plan to be used for specific target groups in the community, who may include:

- Community leaders (including: cultural, tradition or tribal/custom); Decision makers; Influential people
- Religion leaders; Policy makers; Funding agencies
- Media personnel

As an advocacy plan is implemented, you may identify or develop sources of advocacy materials that may assist in further advocating VMMC and EIMC activities. When services have been scaled up in the community, it may be helpful to involve some of the beneficiaries in advocacy activities as role models or champions in the community. During VMMC and EIMC advocacy, communication, and service provision, health care workers need to be clear and consistent in identifying and correcting myths and misconceptions coming from the community that are likely to distract from smooth scale-up of VMMC and EIMC services.

At all times, VMMC and EIMC providers should adhere to both medical and communication ethics, which include maintaining the health and safety of patients/clients and delivering medically accurate information.

CHAPTER 11: LOGISTICS MANAGEMENT

11.1 Overview

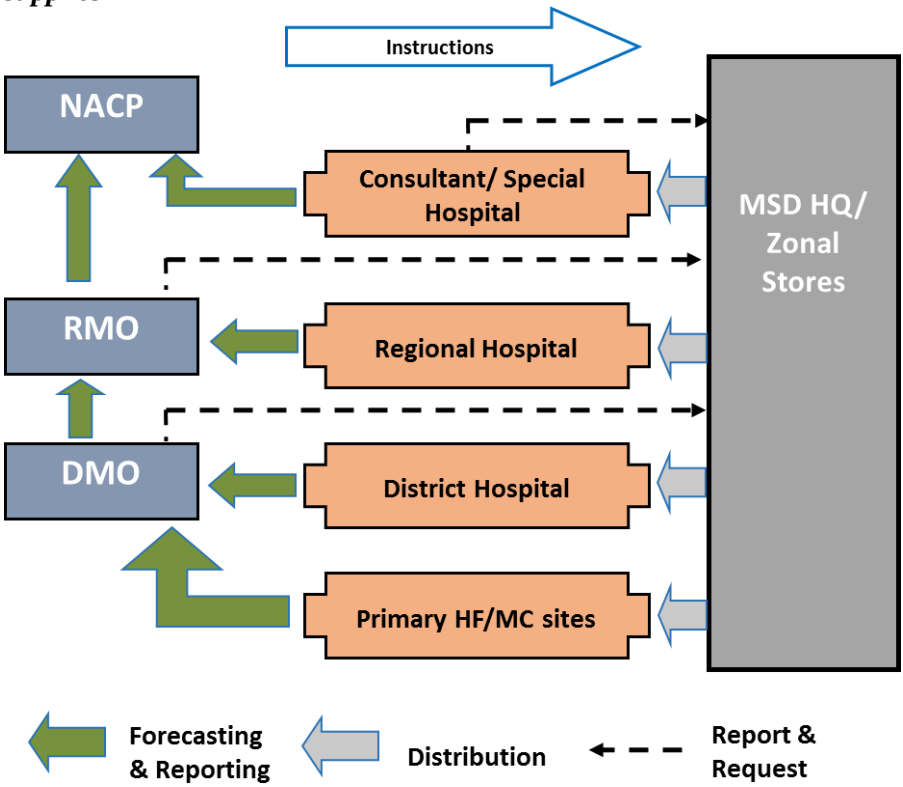
The process of getting goods through the supply chain from the point of origin to the point of consumption which aims to get the product to the customers thereby providing good and reliable customer service.

Successful implementation of high quality VMMC and EIMC services relies largely on developing and maintaining systems for quantification, procurement, storage distribution and monitoring of essential commodities and supplies including VMMC and EIMC kits, latex gloves, equipment for infection prevention and control, and supplies and medications required to treat complications. This chapter outlines the required supplies and describes the proper logistics management systems to allow uninterrupted VMMC and EIMC service provision.

The key components of procurement and supply management cycle includes product selection, forecasting and supply planning, procurement, storage and distribution, Logistics Management Information System (LMIS), use or serving customers, quality monitoring and policy.

The figure below summarizes the ideal flow of VMMC and EIMC supplies and other material from the Medical Stores Department (MSD) or designate to VMMC and EIMC sites. In addition, it highlights the way that forecasting data should flow up the chain to MSD/Designate which is ultimately used for procuring VMMC and EIMC kits and other equipment.

Figure 6: Logistics Management Flow chart for VMMC/EIMC supplies



11.2 The Purpose of a Logistics System

Is to get the: right quantities of the right goods to the right places at the right time in the right condition at the right cost.

11.2.1 Existing Situation of VMMC and EIMC Supply Chain Management

Current VMMC supply chain is a parallel to national supply system. The Quantification of VMMC and EIMC Kits are coordinated by MOHCDGEC through NACP and other stakeholders. Procurement of VMMC and EIMC Kits in the country has so far been coordinated by the donor (PEPFAR) through a central procurement system. Additional VMMC and EIMC consumables and supplies are being procured by the individual implementing partners. VMMC and EIMC kits and supplies are received directly to health facilities from the implementing partners/donor but not through MSD. Currently distribution of the kits and related commodities is done within the facility or by the implementing partner. However, for sustainability of VMMC and EIMC services, the supply chain management for the items described will be through MSD by ensuring that:

- VMMC supplies and commodities are forecasted, procured, stored, distributed and monitored through the national supply chain system
- All VMMC items will be listed/available in MSD catalogue
- National, Regional and District systems will be utilized to forecast needed equipment, supplies and consumables for VMMC and EIMC services

11.2.2 Components of the Logistics Cycle

11.2.3 Basic Concepts of Logistics Management Cycle for VMMC and EIMC Kits and Supplies

- Forecasting
- Procurement
- Storage and maintenance
- Distribution
- Monitoring

11.3 Forecasting

Realistic forecasting for VMMC and EIMC kits and commodities shall be based on the VMMC and EIMC programme's capacity to conduct male circumcision services. Accurate forecasting shall be based on the capacity of the facility to ensure the availability of an adequate and on-going supply of VMMC and EIMC kits and other necessary supplies. Forecasting depends on accurate and timely reporting from all the VMMC and EIMC sites. Each site shall report the requisite consumption data to the District Medical Officer (DMO), indicating the number of VMMC and EIMC kits used each month and the number expired each month. The site should also note if there is a needed for a greater number of kits in particular month due to planned outreach events or other situations/events that are expected to increase VMMC and EIMC procedures. (For example, in some regions, the December school holidays are a time when clinics perform an increased number of circumcision procedures).

All VMMC and EIMC sites shall bear in mind the lead time between ordering and delivery of supplies. Sites are strongly encouraged to submit orders for VMMC kits early enough to avoid stock outs. Sites shall observe minimum and maximum levels for inventory. The DMO shall compile monthly reports form all VMMC and EIMC sites in the Districts and shall send a final report to the Region, and then to NACP and to MSD on a quarterly basis using the Recording and Reporting (R&R) form. The DMO shall also note if there is need for greater numbers of the VMMC and EIMC kits due to planned activities or increased capacity for kit utilization.

The NACP shall work with MSD to assess the total number of kits and other commodities requested, consider the capacity of the VMMC and EIMC sites, and estimate the total number of kits needed for the next one year. This includes forecasting and planning for all special campaigns.

The Regional and District health authorities shall ensure proper adherence to inventory management protocol, including maintenance of quality records, timely reporting, accurate forecasting, prompt

ordering, proper storage, and strategic distribution to ensure adequate supply of supplies for VMMC and EIMC service provision.

11.4 Procurement

All VMMC and EIMC kits and related commodities should be procured centrally through MSD. Following the reporting procedure outlined above, the sites will request VMMC and EIMC kits and other supplies from the DMO. The DMO request supplies directly from MSD. Medical officers and in charges of the regional and district hospitals order their supplies.

VMMC and EIMC kits and other male circumcision commodities should be stored and managed properly to ensure high quality of male circumcision services.

11.5 Storage and Maintenance

At the national level, VMMC and EIMC kits should be received centrally and distributed to the zone MSD stores. All facilities/ sites providing VMMC and EIMC services shall keep an accurate inventory of their supplies and commodities. All facilities/sites should also ensure that VMMC and EIMC kits and other commodities are properly sorted and used before the expiry date. The kits and other commodities must be store as specified by the manufacturer. At every facility where commodities are stored, a designated person shall ensure an accurate and timely ordering of VMMC and EIMC kits and supplies, appropriate storage (including accurate stock rotation), record keeping, and reporting. This person shall be accountable for maintaining the quality of VMMC and EIMC supplies and shall promptly report any problems with the management of commodities to the site supervisor or in-charge of the facility.

11.6 Distribution

MSD will be responsible for distribution of VMMC and EIMC kits and related commodities to all health facilities in accordance with the Integrated Logistic System Protocol and as indicated in Figure 11.1.

11.7 Accountability System

NACP shall conduct annual audits of the logistics management systems for the VMMC and EIMC kits and other commodities. This will enable MSD to determine the effectiveness of the process and to prevent mismanagement of VMMC and EIMC kits and supplies. Monitoring and evaluation systems for tracking distribution and use of VMMC and EIMC kits and other commodities shall be made functional and used at all levels.

11.8 Stock-Outs

Staff at every level of the logistics management process for VMMC and EIMC commodities shall strive for high quality logistics management in order to avoid stock outs. In an event that any VMMC and EIMC kits (including supplies) are out of stock at a VMMC and EIMC site, the DMO shall be informed in order to mobilize kits or supplies in the area. Rarely, after consultation with MSD, emergency procurement may be required to fill the stock out gaps and ensure continuous provision of VMMC and EIMC services. This procurement should be coordinated by the MSD (Designate).

11.9 VMMC/EIMC Kits

VMMC and EIMC kits are a critical component of the National VMMC and EIMC scale-up strategy. Standardized kits save time, reduce costs, and ensure the use of only sterile sanitary equipment which helps to protect the patient. There are two types of kits:

- Disposable kits: These can be used in remote sites where most VMMC and EIMC services take place with limited human resource capacity and sterilization services.
- Reusable kits: These are most appropriate for major hospitals with sterilization facilities and qualified staff.

Table 7: Advantages and Disadvantages of Disposable versus Reusable VMMC & EIMC Kits

	VMMC and EIMC Kits with Disposable Instruments	**VMMC and EIMC Kits with Reusable Instruments**
Advantages	• Ensure high-quality, sterile content in both non-hospital and hospital settings • For VMMC: are logistically and operationally easier, especially in mobile outreach services • For EIMC: enable EIMC providers to more easily provide services in off-site settings during routine RCH outreach • Reduce initial start-up programme costs • Eliminate autoclave maintenance, personnel, training, and other costs. • Can combine consumables, disposable instruments, and even client education materials into one kit • Can be bundled to ease ordering and managing of supplies • Increase service	• Ensure high-quality, sterile content in both non-hospital and hospital settings • Well-maintained re-usable instruments are easier to use than disposable plastic and stainless-steel instruments • Build health system capacity and infrastructure • Employ local personnel • Create less waste and there is less need for waste management procedures • Require fewer long-term resources to procure additional instruments

	VMMC and EIMC Kits with Disposable Instruments	VMMC and EIMC Kits with Reusable Instruments
	delivery efficiency	
Disadvantages	• Create substantial amounts of waste, including stainless steel instruments that require smelting or burying, thus raising environmental concerns • Limit the flexibility of clinicians to use their preferred equipment and surgical method • Are prone to having some contents pilfered, which could compromise the sterility of the remaining contents	• Require additional staff time for cleaning, sterilizing, and packaging instruments, and monitoring procedures • Require autoclave availability and regular maintenance for sterilization • Require water and power supply at site of autoclaving • May require additional time for procurement, because kits are secured from multiple sources

Source: PEPFAR. 2013. *PEPFAR's Best Practices for VMMC Site Operations: A Service Guide for Site Operations.*

11.10 Required VMMC and EIMC Supplies

The type and quantity of the supplies needed at each site performing VMMC and EIMC is dependent on the volume of clients handled by the facility and the specific services offered. Supplies for VMMC and EIMC include infection prevention accessories, operating theatre equipment, and emergency medical supplies. The following terms are used to describe packaging of male circumcision supplies:

- ***Consumables pack*:** Bundled consumable materials such as gauze, needles, scalpel blade, and gloves that are used in a male circumcision operation and then discarded. The items are disposable.
- ***Instrument set*:** Bundled surgical instruments that are used in a male circumcision operation. The items may be disposable or reusable.
- ***Male circumcision kit*:** Combination of a consumables pack and an instrument set. A male circumcision kit is needed for each male circumcision operation. The three key factors determining kit contents are:
    - The surgical technique (dorsal slit, sleeve resection, the use of disposable or reusable surgical instruments
    - The use of diathermy.

There are three types of kits:

- **Kit 1** includes the standard consumables pack and the reusable surgical instrument
- **Kit 2** includes the standard consumables pack and the reusable surgical instrument set for the sleeve resection and dorsal slit methods.
- **Kit 3** includes the standard consumables pack and the disposable surgical instrument

In addition to the kits described above, VMMC and EIMC sites also require modules. A module is a set of bundled supplies that are used for infection prevention, the furnishing of operating theatres, and the management of emergency medical situations. The items may be disposable or reusable. There are three modules used in VMMC and EIMC:

- **Module 1** includes supplies needed for infection prevention.
- **Module 2** includes operating theatre equipment.
- **Module 3** includes emergency medical management supplies.

Regardless of the kit chosen, male circumcision sites should also order Modules 1, 2 and 3.

In order to run a site efficiently and simplify ordering, the following three purchase options for male circumcision commodities are available:

Purchase Option 1	Purchase Option 2	Purchase Option 3
• **Kit 1** (standard consumables pack and reusable instrument) • **Module 1** (infection prevention) • **Module 2** (OR equipment) • **Module 3** (emergency medical supplies)	• **Kit 2** (standard consumables pack and reusable instrument set for sleeve resection and dorsal slit methods) • **Module 1** (infection prevention) • **Module 2** (OR equipment) • **Module 3** (emergency medical supplies)	• **Kit 3** (standard consumables pack and disposable instrument) • **Module 1** (infection prevention) • **Module 2** (OR equipment) • **Module 3** (emergency medical supplies)

For more information and details, refer to Annex 3

11.11 Additional Supplies for VMMC/EIMC Services

The following are additional supplies that VMMC and EIMC sites are encouraged to have on hand, in order to provide comprehensive, high-quality services.

11.11.1 STI Management

The following are STI syndromes and their aetiological agents: -

Table 8: STI Syndrome and their aetiological agents

STI/RTI SYNDROME	COMMON AETIOLOGIC AGENT
1. Urethral Discharge Syndrome (UDS)	*Chlamydia trachomatis* *Neisseria gonorrhoeae*
2. Painful Scrotal Swelling (PSS) (acute epididymoorchitis)	*Chlamydia trachomatis* *Neisseria gonorrhoeae*
3. Vaginal Discharge Syndrome (VDS)	*Candida albicans* *Chlamydia trachomatis* *Gardnerella vaginali* *Neisseria genorrhoeae* *Trichomonas vaginalis*
4. Pelvic Inflammatory Disease (PID) (Lower Abdominal Pain)	*Anaerobic bacteria* *Chlamydia trachomatis* *Neisseria gonorrhoeae*
5. Genital Ulcer Disease(GUD)	*Chlamydia trachomatis* *Haemophilus ducreyi* *Herpes simplex virus type-2* *Treponema pallidum* *Klebsiella granulomatis*
6. Inguinal Bubos	*Chlamydia trachomatis* *Haemophilus Ducreyi*
7. Anorectal Syndrome	*Neisseria gonorrhoeae* *Chlamydia trachomatis* *Herpes simplex* *Treponema pallidum* *Human papilloma virus*
8. Neo-natal Conjunctivitis 9. (Opthalmia neonatorum)	*Neisseria gonorrhoeae* *Chlamydia trachomatis*

STI/RTI SYNDROME	COMMON AETIOLOGIC AGENT
10. Oropharyngeal infection	*Treponema pallidum* *Neisseria gonorrhea* *Chlamydia trachomatis* *Klebsiella spp*

For further information on STI management, refer to the national STI treatment guidelines.

11.11.2 HIV Testing Services

In addition to standard VMMC and EIMC supplies, the following supplies are required for HTS services:

- HIV rapid test kits and accessories as specified by the national testing algorithm
- Lancet and capillary tubes
- Timer or watch for ensuring that test kits are read within the recommended time frame
- PEP protocol displayed
- ARVs for PEP
- Registers for record keeping
- Reporting forms and log book
- Condoms (both female and male)
- Penile and pelvic models for demonstration of condom use
- Adequate information, education, and communication (IEC) materials.

For further information on HIV testing and counselling, refer to the national HTS guidelines.

A complete list of all equipment, supplies and consumables needed for VMMC and EIMC is provided Annex 3.

CHAPTER 12: MONITORING AND EVALUATION

12.1 Overview

Monitoring and evaluation (M&E) is an essential component of quality of VMMC and EIMC service delivery. M&E allows the programme to observe the trends in VMMC and EIMC outcomes, utilize the programme data for strategic planning and re-direction of resources, and report on key indicators. The National M&E tools such as paper-based and National VMMC and EIMC electronic system shall be used at all VMMC and EIMC sites, and routine reporting on key indicators should be completed on a regular basis. In addition to regular reporting, data quality assessments shall be done to ensure the quality assurance system is implemented as required, and that improvements are implemented when needed.

The MoHCDGEC through NACP, in collaboration with partners and stakeholders, shall conduct periodic reviews and evaluations to assess the VMMC and EIMC outcomes, efficiency, impact, and effectiveness. VMMC and EIMC programme evaluation will capture and share specific information on VMMC and EIMC programme successes, and identify best practices that can be documented and shared.

12.2 Data Collection

Data collection is a process of information gathering from all relevant primary sources which can be done through paper or electronic based system.

Client-level information shall be collected at all VMMC and EIMC sites using client's cards. The collected data should then be entered into the National VMMC and EIMC electronic database system and the VMMC and EIMC registers. This will enable routine monitoring of VMMC and EIMC service delivery in a standardized manner and allow for analysis and reporting of VMMC and EIMC data in accordance with the HMIS reporting requirements.

Capacity building on data collection, analysis and utilization shall be conducted with health care workers at the Facility level to ensure quality and utilization of their own data for monitoring and quality improvement purposes. Districts, Regions and key personnel at the National level should likewise have the capacity to collate, analyse, and utilize VMMC and EIMC data, and ensure that their analyses are also fed back down to the lower levels.

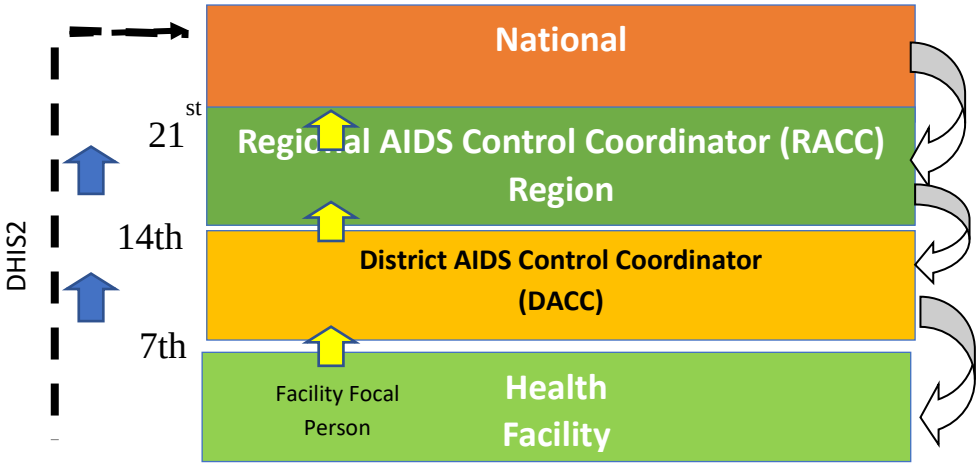
12.3 Data Reporting

At the end of every month, VMMC and EIMC sites shall compile data from the registers and or National VMMC and EIMC electronic database into a standard monthly VMMC reporting form (see Annex 7 on page 214).

This monthly summary report shall be directly sent to the DMO's office. The DMO will then validate the data and advise accordingly. It is important for all reporting levels to retain copies and utilize the information for planning, evaluation, and quality improvement purposes. NACP will report key indicators to the HMIS unit at the MoHCDGEC.

National reports will be developed on annual basis and disseminated to all relevant stakeholders for feedback. Figure 8 shows the flow of data and feedback between the service delivery points to the National level.

Figure 7: Flow of VMMC/EIMC Data



12.4 Data Analysis and Interpretation

Simple analysis of data shall begin at the facility. Data analysis will also take place at the District level and at Regional level for monitoring and evaluation of VMMC and EIMC services delivered. The findings will be utilized for future planning and quality improvement. A comprehensive analysis and interpretation of data shall be done at the national level by MoHCDGEC-NACP.

12.5 Data Demand and Data Use

Routinely collected VMMC and EIMC data shall be utilized at the site level to guide strategic programme planning and implementation, and for resource allocation to meet programme goals. VMMC and EIMC sites shall use their data to monitor the uptake of VMMC and EIMC services over a period of time, and evaluate sub-population groups that utilize VMMC and EIMC services. VMMC and EIMC sites shall

also use data from the registers to monitor the quality of VMMC and EIMC services and address any gaps identified.

At the District and Regional levels, data shall be utilized for planning, resources mobilization and allocation, and to document successful interventions and lesson learnt that can be shared to improve the National programme. The National VMMC and EIMC programme shall also use VMMC data to determine geographic areas that may need extra efforts for VMMC and EIMC service delivery.

12.6 Data Storage

All data collected at all VMMC and EIMC sites shall be treated with the same level of protection and confidentiality as other medical data, including storing the data in a lockable file cabinet. Monthly data registers shall be stored at VMMC and EIMC sites as permitted by facility archiving systems and MoHCDGEC. Each VMMC and EIMC site should have a data backup plan for security purposes.

12.7 Data Retention and Disposal

Data shall be retained appropriately and disposed as per law.

12.8 VMMC and EIMC Targets

The National targets for VMMC and EIMC shall be developed based on contributions from the District level and the Regional level. VMMC and EIMC sites shall also establish targets, and these will contribute to the District target setting. The targets should be realistic estimations of intended goals.

12.9 Outcome Indicators at the National Level

National outcome indicators for VMMC and EIMC are as follows:

- ***Population coverage of VMMC:*** Proportion of males who have been circumcised (disaggregated by age)

- ***Population coverage of EIMC:*** Proportion of infants who have been circumcised (disaggregated by age)
- ***HIV status:*** Number of circumcised males who are HIV positive, HIV negative and unknown status. (disaggregated by age)
- ***Adverse Events (AEs):*** Proportion of moderate AEs and severe AEs among circumcised males.
- ***Follow-Up:*** Proportion of circumcised males with at least one post circumcision visit.

12.10 Monitoring Routine Data on VMMC and EIMC sites

NACP shall link the database of all VMMC and EIMC sites within the existing DHIS2 database using updates from the District level. The database will record the site's current status of programme implementation. This will be done for all VMMC and EIMC sites, and this information will be used for programme reporting and evaluation.

12.11 Monitoring Routine Data and Individual Service Providers

On behalf of NACP, the Regional Medical Officers (RMOs) shall maintain a database of individual service providers (partners) in their Regions that are certified to conduct VMMC and EIMC.

12.12 National Level Support for M&E

The NACP M&E Unit shall maintain a secure database within the existing National HMIS database that includes monthly summary-level data based on information received from the District level and Regional level. NACP shall be responsible for analysing, interpreting, and providing feedback regarding VMMC and EIMC service delivery. NACP will also disseminate VMMC and EIMC reports and provide overall guidance. In addition, NACP in collaboration with implementing partners shall provide supportive supervision of M&E activities at VMMC and EIMC sites to guide implementers on interpretation and use of their own data for programme improvement. NACP will also review the tools when the need arises.

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ANNEXES

Annex 1: National Minor Consent Form

JAMHURI YA MUUNGANO WA TANZANIA

Wizara ya Afya, Maendeleo ya Jamii, Jinsia, Wazee na Watoto

Mpango wa Taifa wa Kudhibiti UKIMWI

KIBALI CHA MZAZI/MLEZI WA MTOTO ALIYE CHINI YA UMRI WA MIAKA 18 AU MTU MWENYE ULEMAVU WA KUONGEA AU KUSIKIA

Mimi…… (jina) ninathibitisha kwamba mimi ni mzazi/mlezi halali wa huyu mtoto aliye chini ya umri wa miaka 18 au mtu mwenye ulemavu wa kuongea/kusikia …….. (jina).

Baada ya kuwa nimeelezwa na kuelewa umuhimu wa huyu mtoto aliye chini ya umri wa miaka 18 mwenye matatizo ya kuongea/kusikia kupimwa virusi vya UKIMWI, natoa idhini yangu kama mzazi/mlezi ili apimwe. Naahidi ya kwamba nitazingatia yote ikiwemo kutunza siri ya majibu yoyote yatokanayo na kipimo hiki.

Pia ninathibitisha ya kwamba, nimemweleza mtoto/mtu huyu mwenye matatizo ya kuongea/kusikia kuhusu taratibu za kipimo hiki cha kupima virusi vya UKIMWI kwa kutumia uwezo wangu.

_____	_____
Mzazi/Mlezi	Mtoa huduma ya Upimaji VVU na Ushauri Nasaha

_____
Msimamizi wa Kituo

Mahali: _____ Tarehe: _____

Annex 2: Adverse Events Forms

2.1 VMMC Adverse Event (AE) Form

THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY, AND CHILDREN

MALE CIRCUMCISION SERVICES

VMMC ADVERSE EVENT (AE) FORM

1. **Health Facility:** _____
2. **Client's name:** _____
3. **Date of male circumcision:**_____ / _____ / _____
   DD MM YYYY
4. **Date of adverse event:** _____ / _____ / _____
   DD MM YYYY
5. **Patient's ID Number:** _____

Instructions: Check (√) appropriate box for any adverse events

INTRAOPERATIVE AE

Adverse event	Description	Severity	√
Pain	3 or 4 on pain scale	Mild	
	5 or 6 on pain scale	Moderate	
	7 on pain scale	Severe	
Excessive bleeding	More bleeding than usual, but easily controlled	Mild	
	Bleeding that requires pressure dressing to control	Moderate	
	Blood transfusion or transfer to another facility required	Severe	
Anaesthetic-related event	Palpitations, vaso-vagal reaction or emesis	Mild	
	Reaction to anaesthetic requiring medical treatment in clinic, but not transfer to another facility	Moderate	
	Anaphylaxis or other reaction requiring transfer to another facility	Severe	
Excessive skin removed	Adds time or material needs to the procedure, but does not result in any discernible adverse condition	Mild	
	Skin is tight, but additional operative work not necessary	Moderate	

Adverse event	Description	Severity	√
	Requires re-operation or transfer to another facility to correct the problem	Severe	
Damage to the penis	Mild bruising or abrasion, not requiring treatment	Mild	
	Bruising or abrasion of the glans or shaft of the penis requiring pressure dressing or additional surgery to control	Moderate	
	Part or all of the glans or shaft of the penis severed	Severe	

Treatment outcome:

Treatment Outcome:	**Tick one (√):**
Adverse event completely resolved	
Adverse event partially resolved	
Adverse event unchanged	

Was patient referred? □No □ Yes If yes, to where? Specify: _____

Please describe the AE: What was the nature of the AE, what was done, and what was the outcome?

Date _____
Surgeon _____ Cadre _____
Signature_____
Continue to next page for Post-Operative AE

POST-OPERATIVE AE

Adverse event	Description	Severity	√
Pain	3 or 4 on pain scale	Mild	
	5 or 6 on pain scale	Moderate	
	7 on pain scale	Severe	
Excessive bleeding	Dressing soaked through with blood at a routine follow-up visit	Mild	
	Bleeding that requires a special return to the clinic for medical attention	Moderate	
	Bleeding that requires surgical re-exploration	Severe	
Excessive skin removed	Client concerned, but there is no discernable abnormality	Mild	
	Skin is tight, but additional operative work not necessary	Moderate	
	Requires re-operation or transfer to another facility	Severe	
Insufficient skin removed	Foreskin partially covers the glans only when extended	Mild	
	Foreskin still partially covers the glans & re-operation is required	Moderate	
Swelling/ haematoma	More swelling than usual, but no significant discomfort	Mild	
	Significant tenderness and discomfort, but surgical re-exploration not required	Moderate	
	Surgical re-exploration required	Severe	

Adverse event	Description	Severity	√
Damage to the penis	Mild bruising or abrasion, not requiring treatment	Mild	
	Bruising or abrasion of the glans or shaft of the penis requiring pressure dressing or additional surgery	Moderate	
	Part or all of the glans or shaft of the penis severed	Severe	
Infection	Erythema more than 1 cm beyond incision line	Mild	
	Purulent discharge from the wound	Moderate	
	Cellulitis or wound necrosis	Severe	
Delayed wound healing	Healing takes longer than usual, but no extra treatment necessary	Mild	
	Additional non-operative treatment required	Moderate	
	Requires re-operation	Severe	
Appearance	Client concerned, but no discernible abnormality	Mild	
	Significant wound disruption or scarring, but does not require re-operation	Moderate	
	Requires re-operation	Severe	
Problems with	Transient complaint that resolves without treatment	Mild	

Adverse event	Description	Severity	√
urinating	Requires a special return to the clinic, but no additional treatment required	Moderate	
	Requires referral to another facility for management	Severe	

Treatment outcome:

Treatment Outcome:	**Tick one (√):**
Adverse event completely resolved	
Adverse event partially resolved	
Adverse event unchanged	

Was patient referred? □No □ Yes If yes, to where? Specify: _____

Please describe the AE: What was the nature of the AE, what was done, and what was the outcome?

Date _____
Attending provider _____ Cadre _____
Signature_____

Adapted from: World Health Organization (WHO) 2010. Manual for early infant male circumcision under local anaesthesia. Geneva: WHO.
http://www.who.int/hiv/pub/malecircumcision/manual_infant/en/

2.2 Early Infant Male Circumcision Adverse Event (AE) Form

THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY, AND CHILDREN

MALE CIRCUMCISION SERVICES

EIMC ADVERSE EVENT (AE) FORM

1. **Health Facility**: _____
2. **Infant's name: _____ Infant's ID number: _____**
3. **Date of EIMC:**_____ / _____ / _____
   DD MM YYYY
4. **Date of adverse event:**_____ / _____ / _____
   DD MM YYYY

Instructions: Check (√) appropriate box for any adverse events

INTRAOPERATIVE AE

Adverse event	Description	Severity	√
Excessive bleeding	More bleeding than usual, but easily controlled	Mild	
	Bleeding that requires pressure dressing to control	Moderate	
	Blood transfusion or transfer to another facility required	Severe	
Anaesthetic-related event	Bradycardia, tachycardia	Mild	
	Reaction to anaesthetic requiring medical treatment in clinic, but not transfer to another facility	Moderate	
	Convulsions, coma, loss of consciousness, anaphylaxis or other reaction requiring transfer to another facility	Severe	
Excessive skin removed	Adds time or material needs to the procedure, but does not result in any discernible adverse condition	Mild	
	Skin is tight, but additional operative work not necessary	Moderate	
	Severe or de-gloving wound requiring re-operation or transfer to another facility to correct the problem	Severe	

Adverse event	Description	Severity	√
Damage to the penis	Mild bruising or abrasion, not requiring treatment	Mild	
	Bruising or abrasion of the glans or shaft of the penis requiring pressure dressing or additional surgery to control	Moderate	
	Part or all of the glans or shaft of the penis severed	Severe	

Treatment outcome:	***Tick one* (√):**
Adverse event completely resolved	
Adverse event partially resolved	
Adverse event unchanged	

Was patient referred?	***Tick one* (√):**
Yes *If yes, to where:* _____	
No	

Please describe the AE: What was the nature of the AE, what was done, and what was the outcome?

Surgeon name: _____ Cadre: _____

Signature: _____ Date: _____

POST OPERATIVE AE

Adverse event	Description	Severity	√
Excessive bleeding	Dressing soaked with blood post-operative but no active bleeding	Mild	
	Bleeding post-operatively which stops with compression	Moderate	
	Bleeding that requires surgical exploration	Severe	
Excessive skin removed	Parent/guardian concerned, but there is no significant deficiency of the skin	Mild	
	Skin is tight, but additional operative work not necessary	Moderate	
	Requires re-operation or transfer to another facility	Severe	
Insufficient skin removed	Foreskin partially covers the glans only when extended	Mild	
	Foreskin still partially covers the glans and re-operation is required	Moderate	
Swelling/ haematoma	Mild swelling but not causing distortion of the anatomy	Mild	

Adverse event	Description	Severity	√
	Moderate swelling causing distortion of the anatomy. No surgical exploration required	Moderate	
	Swelling that may impede urination or requires surgical intervention	Severe	
Infection	Erythema	Mild	
	Purulent discharge from the wound	Moderate	
	Cellulitis or wound necrosis	Severe	
Delayed wound healing	Healing takes longer than usual, but no extra treatment necessary	Mild	
	Additional non-operative treatment required	Moderate	
	Requires re-operation	Severe	
Appearance	Parent/Guardian concerned but no discernible abnormality	Mild	
	Visible abnormality, not requiring surgical correction	Moderate	
	Significant abnormality requiring surgical reconstruction	Severe	

Adverse event	Description	Severity	√
Urine retention	Micturition possible but with discomfort or irritability	Mild	
	Dribbling of urine post-operatively	Moderate	
	Complete obstruction of urine	Severe	
Adhesions	Parent/guardian concerned, but no significant adhesions.	Mild	
	Adhesions requiring daily application of petrolatum jelly at home	Moderate	
	Significant adhesions requiring surgical intervention	Severe	

Treatment outcome:	***Tick one* (√):**
Adverse event completely resolved	
Adverse event partially resolved	
Adverse event unchanged	

Was patient referred?	***Tick one* (√):**
Yes *If yes, to where:* _____	
No	

Please describe the AE: What was the nature of the AE, what was done, and what was the outcome?

Attending Provider: _____Cadre: _____

Signature: _____Date: _____

Source: Jhpiego-Swaziland, with technical support from Jhpiego staff representing multiple countries including Tanzania.

Annex 3: List of VMMC and EIMC Commodities and Supplies

The lists of VMMC and EIMD commodities and supplies below have been adapted from the President's Emergency Plan for AIDS Relief (PEPFAR) Supply Chain Management System (SCMS) programme.

The following tables outline the contents of the following VMMC/EIMC kits:

- Kit 1: Set of reusable surgical instruments plus pack of consumables
- Kit 2: Set of reusable surgical instruments plus pack of consumables
- Kit 3: Fully disposable surgical instruments and consumables
- Module 1: Infection prevention and waste disposal
- Module 2: Equipment for male circumcision sites
- Module 3: Male circumcision emergency medical supplies

Kit 1: Set of Reusable Surgical Instruments plus Pack of Consumables

- This kit is needed for any site choosing to use the forceps-guided surgical technique.
- In addition to the list below, facilities should also include the supplies in module 1, module 2 and module 3.

Item No.	Name of item	Product specification	Quantity	Remarks
Set of reusable surgical instruments in autoclave storage box				
1	Autoclave storage box	Size of box might vary depending on the final selection of instruments (lengths can vary) as well	1	

Item No.	Name of item	Product specification	Quantity	Remarks
		as in-country pilot testing (as some tiny autoclaves might not accommodate a large box) Estimated size approximately: 5 x 10 x 2 inches.		
2	Combination needle-holder/ suture scissors	Combination needle-holder/suture scissors: total length 13–15 cm, working surface approximately 20mm. (*Example*: Olsen-Hegar needle-holder scissors, 5.5 inches (14cm))	1	If this instrument cannot be obtained affordably then both suture scissors and a needle-holder/driver will be required
	or needle-holder	Needle-holder/driver: total length 12–14 cm, working surface 20mm (*Example:* Baumgartner needle-holder)		Either a combination of needle-holder and scissors is needed or separate needle-holders and scissors, depending on price and availability
	and suture scissors	Suture scissors: total length 12–15 cm.		Either a combination of

Item No.	Name of item	Product specification	Quantity	Remarks
		(*Example:* Mayo scissors)		needle-holder and scissors is needed or separate needle-holders and scissors, depending on price and availability
3	Toothed tissue forceps	Toothed tissue forceps (AKA pick-ups, dissection forceps): total length 13 cm, working surface 15 mm, serrated, (Example: catalogue number EF 15998B)		
4	Mosquito clamps straight	Mosquito clamps straight (AKA 'Snaps', mosquito forceps, haemostatic forceps): total length 12–14 cm, working surface 20–30 mm. (*Example*: Halstead mosquito)		
5	Mosquito clamps curved	Mosquito clamps curved (AKA 'Snaps', Mosquito forceps, haemostatic forceps): total length 12–14 cm, working surface 20–30 mm. (*Example*: Halstead mosquito)		

Item No.	Name of item	Product specification	Quantity	Remarks
6	Forceps haemostatic cross-clamp	Circumcision forceps haemostatic cross-clamp: total length 20 cm, working surface 64 mm. (*Example:* Rochester Pean forceps, code 14-405)		
Pack of essential consumables in multipurpose recyclable plastic container tray				
1	Multipurpose container tray	Stable recycled plastic tray to conduct procedure, minimum 700micron virgin plastic, with 4 compartments (compartment 1 = 13 x 26 cm, compartment 2 = 5 x 8 cm, compartment 3 = 5 x 5 cm, Compartment 4 = 5 x 13 cm and the total size of the tray is 26 x 18 cm)	1	
2	O-drape	Disposable O-drape 100 x 75 cm (one side absorbable and one side impermeable; the two sides should be fused together and not lint).	1	
3	Scalpel blade with handle	Disposable scalpel and handle (retractable and lockable): blade type 23,	1	*Example:* Medisafe safety scalpel

Item No.	Name of item	Product specification	Quantity	Remarks
		total length 11 cm.		
4	Gauze, plain	Gauze swabs 100 x 100 mm (12-ply)	20	
5	Gauze, petroleum jelly impregnated	Gauze, petroleum jelly impregnated Paranet gauze 10 cm x 10 cm (1-ply)	1	
6	Syringe	Syringe 10 ml	1	
7	Injection needles	Needle 21 g and 23 g, 1.5 inch	2	
8	Suture, braided/ absorbable	Suture 3/0 braided synthetic (Polyglycolic acid suture) 75 cm, on reverse cutting needle 26 mm.	2	*Example:* Vicryl, Polysorb
9	Surgical gloves	Sterile surgical glove sizes 8 and 71/2	2	
10	Apron, disposable	Apron, plastic disposable, quality of the trash bag.	2	
11	Alcohol swabs	1 1/4 x 2 1/2 inches, Isopropyl alcohol 70%.	2	
12	Surgical tape	Surgical paper tape micropore12 mm, length 1–3 m.	1	
13	Sterile prep gloves	Examination gloves, large.	1	
Packaging and sterilization of the pack				
14	Surgical	Pack is wrapped in		

Item No.	Name of item	Product specification	Quantity	Remarks
	crepe paper	surgical crepe paper 60 x 60 cm.		
15	Indicator bag and sterilization	Pack EtO sterilized in a 0.3µsterilization indicator bag with the expiry date of items clearly indicated. All items in the pack must have an expiry date greater than 2 years from the date of delivery, and the pack should have an expiration date of 18 months from the date of delivery.		
These items should be ordered in bulk (outside the set or pack):				
1	Diathermy/cautery tips	Diathermy/electrocautery tips (‘electrodes’) with blade-type configuration. Disposable.	N/A	Must be compatible with diathermy wand.
2	Lignocaine	Lignocaine 1% 20-ml ampoule (1 ampoule per male circumcision) or alternatively, 5-ml ampoule (use 2–4 per male circumcision).	N/A	1% is acceptable if Marcaine is used, otherwise 2% is recommended (note: WHO training manual uses plain

Item No.	Name of item	Product specification	Quantity	Remarks
				Lignocaine 1%).
3	Marcaine	Marcaine (Bupivacaine Hydrochloride) 0.5% 10cc bottles (about 3cc per male circumcision needed)	N/A	If used with Lignocaine 1%. An alternative can be to use Lignocaine 2%.
4	Paracetamol	Sachet with 18 tablets of 500 mg of Paracetamol (quantity needed for 1 male circumcision)	N/A	
5	Iodine	Povidone Iodine 100 ml Bottle (10% Povidone Iodine solution) (50–100 cc needed per male circumcision)	N/A	
6	Compression bandage	Bandage - cohesive 7.5 m x 4.5 cm 1 x roll Coban	N/A	
7	Sterile gauze	Gauze swabs 100 x 100 mm (12-ply) – STERILIZED.	N/A	Excess quantity for instances of excess bleeding, where the 20 swabs in the kit will not suffice.
8	Suture — braided/ absorbable	Suture 3/0 braided synthetic 75 cm, on reverse cutting needle	N/A	Excess quantity where more than 2 sutures

Item No.	Name of item	Product specification	Quantity	Remarks
		26 mm. (Example: Vicryl, Polysorb).		are needed. This can be the case during training or if there is excessive bleeding.
9	Sterile surgical gloves	Range of sizes: 7, 7.5, 8, 8.5.	N/A	For clinicians whose hands do not fit the sizes provided in the kit and instances where an additional person needs gloves.

Source: PEPFAR Supply Chain Management System (SCMS). 2011. Male Circumcision Core List.

Kit 2: Set of Reusable Surgical Instruments plus Pack of Consumables

- This module is needed for any site choosing to use sleeve or dorsal slit surgical technique.
- In addition to the list below, facilities should also include the supplies in module 1, module 2 and module 3.

Item No.	Name of item	Product specification	Quantity	Remarks
Set of reusable surgical instruments in autoclave storage box				
1	Autoclave storage box	Size of box may vary, depending on the final selection of instruments (lengths can vary) as well as in-country pilot testing (as some tiny autoclaves might not accommodate a large box) Estimated size approximately: 5 x 10 x 2 inches.	1	
2	Dissection scissors	Tissue dissecting scissors: total length 13–15 cm. (*Example:* Metzenbaum scissors curved).	1	
3	Combination needle-holder/ suture scissors	Combination needle-holder/suture scissors: total length 13–15 cm, working surface approximately 20 mm. (*Example:* Olsen-Hegar needle holder scissors, 5.5 inches (14 cm).	1	If this instrument cannot be obtained affordably then both suture scissors and a needle-holder/driver will be required.
	or needle-holder	Needle-holder/driver: total length 12–14 cm, working surface 20 mm. (*Example*: Baumgartner	1	Either a combination of needle holder and scissors is

Item No.	Name of item	Product specification	Quantity	Remarks
		needle-holder)		needed or separate needle-holders and scissors, depending on price and availability.
	and suture scissors	Suture scissors: total length 12–15 cm, (Example: Mayo scissors).	1	Either a combination of needle holder and scissors is needed or separate needle-holders and scissors, depending on price and availability.
4	Toothed tissue forceps	Toothed tissue forceps (AKA pick-ups, dissection forceps): total length 13 cm, working surface 15 mm serrated. (Example: catalogue number EF 15998B).	1	
5	Mosquito clamps straight	Mosquito clamps straight (AKA 'Snaps', mosquito forceps, haemostatic forceps): total length 12–14 cm, working surface 20–30 mm. (Example: Halstead	4	

Item No.	Name of item	Product specification	Quantity	Remarks
		mosquito).		
6	Mosquito clamps curved	Mosquito clamps straight (AKA 'Snaps', mosquito forceps, haemostatic forceps): total length 12–14 cm, working surface 20–30 mm. (Example: Halstead mosquito).	1	
7	Haemostatic clamps	Haemostatic clamps, AKA 'Artery Forceps' (for dorsal slit male circumcision): total length 13–15 cm, working surface 40 mm. (Example: Kelly haemostat – straight).	2	
Pack of essential consumables in multipurpose recyclable plastic container tray				
1	Multipurpose container tray	Stable recyclable plastic tray to conduct procedure, minimum 700 micron virgin plastic, with 4 compartments (compartment 1= 13 x 26 cm, compartment 2 = 5 x 8 cm, compartment 3 = 5 x 5 cm, compartment 4 = 5 x 13 cm and the total size of the	1	

Item No.	Name of item	Product specification	Quantity	Remarks
		tray is 26 x 18 cm)		
2	O-drape	Disposable O-drape 100 x 75 cm (one side absorbable and one side impermeable, the two different sides should be fused together and not lint.)	1	
3	Scalpel blade with handle	Disposable scalpel and handle (retractable and lockable): Blade type 23, total length 11 cm.	1	Example: Medisafe safety scalpel.
4	Gauze, plain	Gauze swabs 100 x 100 mm (12-ply)	20	
5	Gauze, petroleum jelly impregnated	Paranet gauze 10 cm x 10 cm (1 ply)	1	
6	Syringe	Syringe 10 ml	1	
7	Injection needles	Needle 21 g and 23 g, 1.5 inch	2	
8	Suture, braided/absorbable	Suture 3/0 braided synthetic (Polyglycolic acid suture) 75 cm, on reverse cutting needle 26 mm	2	Example: Vicryl, Polysorb
9	Surgical gloves	Sterile surgical gloves, sizes 8 and 71/2.	2	

Item No.	Name of item	Product specification	Quantity	Remarks
10	Apron, disposable	Apron, plastic disposable, quality of the trash bag.	2	
11	Alcohol swabs	1 1/4 x 2 1/2, Isopropyl alcohol 70%.	2	
12	Surgical tape	Surgical paper tape micropore 12 mm, 1–3m.	1	
13	Sterile prep gloves	Examination gloves, large	1	
Packaging and sterilization of the pack				
14	Surgical crepe paper	Pack is wrapped in surgical crepe paper 60 x 60 cm.	1	
15	Indicator bag and sterilization	Pack EtO sterilized in a 0.3 µ sterilization indicator bag with the expiry date of items clearly indicated. All items in the pack must have an expiry date greater than 2 years from the date of delivery, and the pack should have an expiration date of 18 months from the date of delivery.	1	
These items should be ordered in bulk (outside of the set or pack)				
1	Diathermy/ca	Diathermy/electrocauter	N/A	Must be

Item No.	Name of item	Product specification	Quantity	Remarks
	utery tips	y tips (‘electrodes’) with blade type configuration. Disposable.		compatible with diathermy wand.
2	Lignocaine	Lignocaine 1% 20-ml ampoule (1 ampoule per male circumcision) or alternatively, 5-ml ampoule (use 2–4 per male circumcision)	N/A	1% is acceptable if Marcaine is used, otherwise 2% is recommended (note: WHO training manual uses plain Lignocaine 1%).
3	Marcaine	Marcaine (bupivacaine hydrochloride) 0.5% 10cc bottles (about 3cc per male circumcision needed)	N/A	If used with Lignocaine 1%. An alternative can be to use Lignocaine 2%.
4	Paracetamol	Sachet with 18 tablets of 500 mg of Paracetamol (quantity needed for 1 male circumcision)	N/A	
5	Iodine	Povidone Iodine 100 ml Bottle (10% Povidone Iodine solution) (50–100 cc needed per male circumcision)	N/A	

Item No.	Name of item	Product specification	Quantity	Remarks
6	Compression bandage	Bandage - cohesive 7.5 m x 4.5 cm 1 x roll Coban	N/A	
7	Sterile gauze	Gauze swabs 100 x 100 mm (12-ply) – STERILIZED.	N/A	Excess quantity for instances of excessive bleeding, where the 20 swabs in the kit will not suffice.
8	Suture — braided/absorbable	Suture 3/0 braided synthetic 75 cm, on reverse cutting needle 26 mm. (Example: Vicryl, Polysorb).	N/A	Excess quantity where more than 2 sutures are needed. This can be the case during training or if there is excessive bleeding.
9	Sterile surgical gloves	Range of sizes: 7, 7.5, 8, 8.5.	N/A	For clinicians whose hands do not fit the sizes provided in the kit and instances where an additional person needs gloves.

Source: PEPFAR Supply Chain Management System (SCMS). 2011. Male Circumcision Core List.

Kit 3: Fully Disposable Surgical Instruments and Consumables

- This module is needed for any site choosing to use disposable instrument and forceps-guided surgical technique.
- In addition to the list below, facilities should also include the supplies in module 1, module 2 and module 3.

Item No.	Name of item	Product specification	Quantity	Remarks
Item 1 to 12 of the kit are disposable consumables				
1	Multipurpose container Tray	Stable recyclable plastic tray to conduct procedure, minimum 700-micron virgin plastic, with 4 compartments (compartment 1 = 13 x 26 cm, compartment 2 = 5 x 8 cm, compartment 3 = 5 x 5 cm, compartment 4 = 5 x 13 cm and the total size of the tray is 26 x 18 cm).	1	
2	O-drape	Disposable O-drape 100 x 75 cm (one side absorbable and one side impermeable; the two sides should be fused	1	

Item No.	Name of item	Product specification	Quantity	Remarks
		together and not lint).		
3	Gauze, plain	Gauze swabs 100 x 100 mm (12-ply)	20	
4	Gauze, petroleum jelly Impregnated	Paranet gauze 10 x 10 cm (1-ply)	1	
5	Syringe	Syringe 10 ml.	1	
6	Injection needles	Needle 21 g and 23 g 1.5 inch	2	
7	Suture, braided/absorbable	Suture 3/0 braided synthetic (Polyglycolic acid suture) 75 cm, on reverse cutting needle 26 mm.	2	*Example:* Vicryl, Polysorb
8	Surgical gloves	Sterile surgical gloves, size 8 and 7 1/2.	2	
9	Apron, disposable	Apron plastic disposable, quality of the trash bag.	2	
10	Alcohol swabs	1 1/4 x 2 1/2, Isopropyl alcohol 70%.	2	
11	Surgical tape	Surgical paper tape micropore 12 mm, length 1–3 m.	1	
12	Sterile prep gloves	Examination glove, large.	1	
Items 13 to 18 into the kit are disposable surgical instruments				

Item No.	Name of item	Product specification	Quantity	Remarks
13	Combination needle-holder and scissors	Combination disposable needle-holder/suture scissors: total length 13–15 cm, working surface approximately 20 mm.	1	Either a combination of needle-holder and scissors is needed or separate needle-holders and scissors, depending on price and availability.
	or needle-holder	Needle-holder/driver: total length 12–14 cm, working surface 20 mm (*Example:* Baumgartner needle holder).	1	Either a combination of needle-holder and scissors is needed or separate needle-holders and scissors, depending on price and availability.
	and suture scissors	Suture scissors: total length 12–15 cm (*Example:* Mayo scissors).	1	Either a combination of needle-holder and scissors is needed or separate needle-holders and scissors, depending on price and

Item No.	Name of item	Product specification	Quantity	Remarks
				availability
14	Non-toothed plastic forceps	Non-toothed plastic forceps (pick-ups, dissection forceps): total length 13 cm, working surface 15 mm serrated. (Example: catalogue number EF 15998B).	1	
15	Mosquito clamps, straight	Mosquito clamps, disposable straight (mosquito forceps, haemostatic forceps): total length 12–14 cm, working surface 30 mm. (Example: Halstead disposable straight mosquito)	1	
16	Mosquito clamps, curved	Mosquito clamps, disposable curved (mosquito forceps, haemostatic forceps): total length 12–14 cm, working surface 30 mm.	1	
17	Disposable scalpel and handle	Disposable scalpel and handle (retractable and lockable): blade type 23, total length 11 cm.	1	
18	Circumcision forceps, haemostatic	Disposable circumcision forceps, haemostatic cross-clamp: total length 20 cm, working surface	1	

Item No.	Name of item	Product specification	Quantity	Remarks
		64 mm.		
Packaging and sterilization of the kit				
19	Surgical crepe paper	Pack is wrapped in surgical crepe paper, 60 x 60 cm	1	
20	Indicator bag and sterilization	Pack EtO sterilized in a 0.3µsterilization indicator bag with the expiry date of items clearly indicated. All items in the pack must have an expiry date greater than 2 years from the date of delivery, and the pack should have an expiration date of 18 months from the date of delivery.	1	
These items should be ordered in bulk (outside of the kit):				
1	Diathermy/ cautery tips	Diathermy/electrocautery tips (AKA 'electrodes'), blade-type configuration. Disposable.	N/A	Must be compatible with diathermy wand.
2	Lignocaine	Lignocaine 1% 20-ml ampoule (1 ampoule per male circumcision) or	N/A	1% is acceptable if Marcaine is

Item No.	Name of item	Product specification	Quantity	Remarks
		alternatively, 5-ml ampoules (use 2–4 per male circumcision).		used; otherwise 2% is recommended (note: WHO training manual uses plain 1%).
3	Marcaine	Marcaine (Bupivacaine hydrochloride) 0.5% 10 cc bottles (about 3cc per male circumcision needed)	N/A	If used with Lignocaine 1%. An alternative can be to use Lignocaine 2%.
4	Paracetamol	Sachet with 18 tablets of 500 mg of Paracetamol (quantity needed for 1 male circumcision)	N/A	
5	Iodine	Povidone Iodine 100 ml bottle (10% Povidone Iodine solution) (50–100 cc needed per male circumcision)	N/A	
6	Compression bandage	Bandage, cohesive 7.5 m x 4.5 cm 1 x roll Coban	N/A	
7	Sterile gauze	Gauze swabs 100 x 100 mm\	N/A	Excess quantity for

Item No.	Name of item	Product specification	Quantity	Remarks
		(1-ply) – STERILIZED.		instances of excessive bleeding, where the 20 swabs in the kit will not suffice.
8	Suture — braided/ absorbable	Suture 3/0 braided synthetic 75 cm, on reverse cutting needle 26 mm. (Example: Vicryl, Polysorb).		Excess quantity where more than 2sutures are needed. This can be the case during training or if there is excessive bleeding.
9	Sterile surgical gloves	Range of sizes: 7, 7.5, 8, 8.5.		For clinicians whose hands do not fit the sizes provided in the kit and instances where an additional person needs gloves.

Source: PEPFAR Supply Chain Management System (SCMS). 2011. Male Circumcision Core List.

Module 1: Infection Prevention and Waste Disposal
This module is needed for any site using disposable or reusable surgical instruments.

Item No.	Name of item	Product specification	Quantity *(per month for 8-bed site)*	Remarks
1	Surgical mask	Face mask, 1-ply, disposable.	320	
2	Surgical cap	Surgical cap, disposable	160	Cloth caps (reusable) could be considered, in which case 2 per provider would needed.
3	Biohazard trash bag, small	15-litre size.	800	Colour coding for biohazard varies by country.
4	Biohazard trash bag, large	50-litre size	400	Colour coding for biohazard varies by country.
5	Medical plastic bin, small	Plastic pedal bin, 15 litres.	10	Use with biohazard bag above
6	Medical plastic bin, large	Plastic pedal bin, 50 litres.	10	Use with biohazard bag above
7	Buckets for instrument	10-litre size	20	

Item No.	Name of item	Product specification	Quantity *(per month for 8-bed site)*	Remarks
	disinfection and soaking			
8	Instrument brush	Instrument brush, 360 mm and bristles of 120 x 50 mm.	10	
9	Surgeon's nail scrub brush		10	
10	Protective eyewear	Protective eyewear (goggles)	20	
11	Utility gloves	Utility gloves, medium.	10	
12	Surgical scrub for providers	Chlorhexidine 4% solution.	50	
13	Sharp boxes	Capacity approximately 3 gallons but could vary by volume of male circumcisions at the site.	6/week	For low-resource and mobile settings, consider using cardboard version.
14	Alcohol hand washes for providers	Contain Isopropanol, Ethanol, N-Propanol or a combination of these ingredients.	25 litres	
15	Soap for scrubbing	Best if contains enzymes that dissolve	25 litres	

Item No.	Name of item	Product specification	Quantity *(per month for 8-bed site)*	Remarks
	instruments	proteinaceous material.		
16	Bleach for soaking instruments	3.5% Sodium Hypochlorite.	50 litres	

Source: PEPFAR Supply Chain Management System (SCMS). 2011. Male Circumcision Core List.

Module 2: Equipment for Male Circumcision Sites
This module is needed for any site using disposable or re-usable surgical instruments.

Item No.	Name of item	Product specification	Quantity *(per month for 8-bed site)*	Remarks
1	Operating stool	Operating stools, adjustable height.	8	Optional, depends on surgeon's preference for standing or sitting.
2	Operating table	Table, examination, folding, 2-section with washable pad, minimum height of 68 cm.	8	
3	Standing lamp	Standing one-bulb spotlight/lamp with adjustable arm.	8	
4	Autoclave	Autoclave, size depending on size of site	1	Optional for programmes that use all disposable instruments.
5	Step ladder	Step ladder, 1 step, anti-slip rubber, Chrome-plated steel, plastic-covered feet.	8	Optional.
6	Intravenous stand	Intravenous stand, 2 hooks, on 5 castors, adjustable from 115 to	1	Optional.

Item No.	Name of item	Product specification	Quantity *(per month for 8-bed site)*	Remarks
		210 cm.		
7	Wheelchair	Wheelchair with removable arms and footrests.	1	Optional.
8	Recovery bed	Recovery bed with mattress.	2	
9	Recovery chair	Recovery chairs.	4	
10	Patient trolley	Patient trolley with side rails and washable pad, estimated dimensions 183 x 69 x 87 cm.	1	Substitute spine board if mobile unit or static male circumcision unit in rural area.
11	Instrument stand	Mayo stand (extends over the patient).	8	
12	Diathermy machine	Diathermy machine, monopolar (can be dual monopolar/bipolar if this does not increase cost).	8	
13	Diathermy plate	Diathermy (AKA cautery, electro surgery) plates (AKA 'patient return electrodes' or 'grounding pads').		In the US, these are almost always disposable adhesive pads. However, metal plates

Item No.	Name of item	Product specification	Quantity *(per month for 8-bed site)*	Remarks
				are available internationally for the same purpose and are reusable. Best to get a machine that uses a plate that does NOT require the addition of a gel or a wet cloth in order to be effective. *Example:* Sutron 80 diathermy plates can be used without water or gel.
14	Diathermy pencil	Diathermy (electrocautery) pencil (wand).		This also includes the tip (which is part of the consumable package).

Source: PEPFAR Supply Chain Management System (SCMS). 2011. Male Circumcision Core List.

Module 3: Male Circumcision Emergency Medical Supplies
This module is needed for any site using disposable or reusable surgical instruments.

Item No.	Name of item	Product specification	Quantity *(per month for 8-bed site)*	Remarks
1	Emergency trolley	Cart with labelled drawers, including mechanism for plastic tab 'locks'.	1	For mobile male circumcision units, this will need to be in a portable 'jump bag'. Picture provided of both options.
2	Adrenaline	Adrenaline 1mg/ml, 1ml	Box of 10 ampules	
3	Atropine	Atropine 500 mcg/ml.	Box of 10 ampules	
4	Glucose	Glucose 50%.	50ml/bottle	
5	Sodium chloride	Sodium Chloride 0.9% IV solution: 1-litre bottle or bag.	5	
6	Non-rebreather oxygen mask and oxygen tubing	Non-rebreather oxygen mask and oxygen tubing.	1	

Item No.	Name of item	Product specification	Quantity *(per month for 8-bed site)*	Remarks
7	Ambu bag	Ambu bag: adult-size face mask with reservoir bag and oxygen tubing.	1	
8	Pen torch	Pen torch, battery-operated.	1	
9	Oropharyngeal airway	Oropharyngeal airway, transparent, size 3 (96 mm)	1	Also known as Guedel airways or OPAs.
10	Oropharyngeal airway	Oropharyngeal airway, transparent, size 4(103 mm).	1	
11	Oropharyngeal airway	Oropharyngeal airway, transparent, size 5 (120 mm).	1	
12	Glucometer	Glucometer	1	
13	Glucometer strips	Glucometer strips.	10	
14	Sphygmomanometer	Sphygmomanometer, aneroid, 300 mm Hg, with adult cuff (for arm diameter approximately 9–14 inches).	1	
15	Stethoscope, binaural	Stethoscope, binaural, standard, dual head.	1	
16	Tourniquet	Small elastic tourniquet/band, 90 x 5 cm.	1	To compress arm for I.V. access.

Item No.	Name of item	Product specification	Quantity *(per month for 8-bed site)*	Remarks
17	Laryngoscope	Laryngoscope, battery operated, with three blades (#1, #2, #3), either Miller or MacIntosh.	1	
18	I.V. infusion tubing	I.V. administration tubing (connects bottle or bag of fluid with canula in patient's vein). At least one injection port required through which to give medications.	2	
19	I.V. catheter	I.V. catheter: 18 G x 1.75 inch (1.3 x 45 mm) with port & wings, sterile, disposable.	5	
20	I.V. catheter	I.V. catheter: 22 G x 1 inch (0.9 x 25 mm) with port & wings, sterile, disposable.	5	
21	I.V. catheter	I.V. catheter: 16 G x 1 inch (0.9 x 25 mm) with port & wings, sterile, disposable.	2	
22	Tape	Tape: to secure I.V. catheters and ET tubes.	1 roll	
23	Pump, aspirating, surgical	Pump, aspirating, surgical, portable, foot operated, capacity up to 600 mm Hg.	1	

Source: PEPFAR Supply Chain Management System (SCMS). 2011. Male Circumcision Core List.

3.1 Commodities and Supplies for EIMC

Sample Checklist for Early Infant Male Circumcision Equipment	
Equipment	☐ Secure work surface (table or infant warmer) with sufficient height for provider. ☐ Assistant or mechanism to restrain/position infant. ☐ Check handwashing/cleaning facilities. ☐ Check light source.
Supplies	☐ Infant padding, blankets and towels. ☐ Clean nappies/diapers and wipes. ☐ Sterile gloves. ☐ Sterile drapes with small opening in the centre (fenestration). ☐ Betadyne or other skin-sterilizing preparations. ☐ Sterile marking pen or gentian violet. ☐ Sterile 2 x 2 or 4 x 4 gauze pads. ☐ White petrolatum (Vaseline) or white petrolatum gauze.
Instruments	☐ Instrument trays, wrapped and sterile. ☐ One 7.5-cm to 12.5-inch flexible probe. ☐ Three small mosquito haemostats, two curved and one straight. ☐ Small straight scissors. ☐ Desired male circumcision device (Mogen, Gomco or Plastibell). ☐ Scalpel (no. 10 blade or similar).
Anaesthesia administration	☐ 1% Lidocaine (WITHOUT EPINEPHRINE). ☐ 1-ml sterile syringes with small 27-gauge or similar needle. ☐ Alcohol wipes.
Post-Circumcision bleeding	☐ Topical Epinephrine. ☐ Gel foam or equivalent. ☐ Adson forceps. ☐ 5-0 absorbable suture (chromic or catgut) on a needle. ☐ Needle holder.

	Petroleum-coated gauze.

Source: World Health Organization (WHO) 2010. Manual for early infant male circumcision under local anaesthesia. Geneva: WHO. http://www.who.int/hiv/pub/malecircumcision/manual_infant/en/

Annex 4: Maximum Doses of Lidocaine 2% and Lidocaine 1%

Table 4.1: Maximum Doses of 2% with and without Bupivacaine, by volume

Weight (kg)	**Lidocaine 2% with and without Bupivacaine[1]**		
	Lidocaine 2%[2]	**Lidocaine 2% / Bupivacaine 0.5%[3,4]**	**Lidocaine 2% / Bupivacaine 0.25%** ***This combination likely rare; This is NOT a 1-to-1 mix; Use extreme caution***
30	4.5ml	3.0ml / 3.0ml	3.0ml / 6.0ml
35	5.0ml	3.5ml / 3.5ml	3.5ml / 7.0ml
40	6.0ml	4.0ml / 4.0ml	4.0ml / 8.0ml
45	6.5ml	4.5ml / 4.5ml	4.5ml / 9.0ml
50	7.5ml	5.0ml / 5.0ml	5.0ml / 10.0ml
55	8.0ml	5.5ml / 5.5ml	5.5ml / 11.0ml
60	9.0ml	6.0ml / 6.0ml	6.0ml / 12.0ml
65	10.0ml	6.5ml / 6.5ml	6.5ml / 13.0ml
70	10.5ml	7.0ml / 7.0ml	7.0ml / 14.0ml
75	11.0ml	7.5ml / 7.5ml	7.5ml / 15.0ml
80	12.0ml	8.0ml / 8.0ml	8.0ml / 16.0ml
85	12.5ml	8.5ml / 8.5ml	8.5ml / 17.0ml
90	13.5ml	9.0ml / 9.0ml	9.0ml /18.0ml

Notes:

1. Lidocaine 2% is preferred, if Bupivacaine to be used in combination with Lidocaine 2%, preferred concentration is 0.5%
2. When used as single anaesthetic agent, the maximum dose of Lidocaine used should be 3.0mg/kg.
3. When used in combination, the maximum dose of Lidocaine used should be 2.0mg/kg and the maximum dose of Bupivacaine should be 0.5mg/kg.
4. Bupivacaine should not be given to any person who weighs less than 30kg.
5. Before dosing with the combination of 2.0% Lidocaine and 0.25% Bupivacaine, be absolutely certain the Bupivacaine concentration is 0.25%; accidental use of 0.5% Bupivacaine in the larger volumes will result in over-dosage

Source: Population Services International (PSI) and College of Surgeons of East, Central and Southern Africa (COSECSA). 2014. Adverse Event Action Guide for Voluntary Medical Male Circumcision by Surgery. https://www.malecircumcision.org/file/33277/download?token=RwemJMR5

Continued on next page

Table 4.2: Maximum Doses of 1.0% Lidocaine with and without Bupivacaine, by Volume

Weight (kg)	**Lidocaine 1.0% with and without Bupivacaine[1,6]**		
	Lidocaine 1.0%[2]	**Lidocaine 1.0% / Bupivacaine 0.5%[3,4]** ***This combination likely rare;*** ***This is NOT 1-to-1 mix. Use extreme caution.***	**Lidocaine 1.0% / Bupivacaine 0.25%[3,4,5]**
30	9.0ml	6.0ml / 3.0ml	6.0ml / 6.0ml
35	10.5ml	7.0ml / 3.5ml	7.0ml / 7.0ml
40	12.0ml	8.0ml / 4.0ml	8.0ml / 8.0ml
45	13.5ml	9.0ml / 4.5ml	9.0ml / 9.0ml
50	15.0ml	10.0ml / 5.0ml	10.0ml / 10.0ml
55	16.5ml	11.0ml / 5.5ml	11.0ml / 11.0ml
60	18.0ml	12.0ml / 6.0ml	12.0ml /12.0ml
65	19.5ml	13.0ml / 6.5ml	13.0ml / 13.0ml
70	21.0ml	14.0ml / 7.0ml	14.0ml / 14.0ml
75	22.5ml	15.0ml / 7.5ml	15.0ml / 15.0ml
80	24.0ml	16.0ml / 8.0ml	16.0ml / 16.0ml
85	25.5ml	17.0ml / 8.5ml	17.0ml / 17.0ml
90	27.0ml	18.0ml / 9.0ml	18.0ml / 18.0ml

Notes:

1. Lidocaine 2.0% is preferred.
2. When used as single anaesthetic agent, the maximum dose of Lidocaine should be 3.0mg/kg.
3. When used in combination, the maximum dose of Lidocaine used should be 2.0mg/kg and the maximum dose of Bupivacaine used should be 0.5mg/kg.
4. Bupivacaine should not be given to any person who weighs less than 30kg.

5. Before dosing with a combination of 1.0% Lidocaine and 0.25% Bupivacaine, be absolutely certain the Bupivacaine concentration is 0.25%; accidental use of 0.5% Bupivacaine in the larger volumes will result in over-dosage.
6. Before dosing with 1.0% Lidocaine (alone or in combination), be absolutely certain the Lidocaine concentration is 1.0%; accidental use of 2.0% Lidocaine in the larger volumes will result in over dosage.

Source: Population Services International (PSI) and College of Surgeons of East, Central and Southern Africa (COSECSA). 2014. Adverse Event Action Guide for Voluntary Medical Male Circumcision by Surgery. https://www.malecircumcision.org/file/33277/download?token=RwemJMR5

Annex 5: Management and Coordination of VMMC and EIMC Services

Level	Roles & Responsibilities
National	• Establish an operational strategy that includes the appropriate communication, operational standards and quality control, human and financial resources required for effective implementation of VMMC/EIMC. The strategy shall be implemented jointly with partners and other stakeholders, including the community. • Establish and enforce standards for training of health staff on task sharing for the performance of VMMC/EIMC. • Facilitate the effective coordination and management of VMMC/EIMC programme at various levels in accordance with the general organization of the Ministry. • In liaison with traditional and religious VMMC/EIMC practitioners explore opportunities to provide safe medical circumcision within traditional and religious contexts or explore other forms of collaboration with traditional practitioners of male circumcision. • Establish, convene and chair the Technical Working Group (TWG) and develop technical guidelines and training materials to ensure delivery of safe VMMC/EIMC services • Facilitate integration of VMMC/EIMC services in pre-service training in collaboration with training institutions • Develop and revise VMMC/EIMC in-service training package • Facilitate accreditation of health facilities providing VMMC/EIMC services • Monitor and assess implementation of VMMC/EIMC quality improvement activities at all levels • Support RHMTs and CHMTs in data analysis and use for decision making and resource allocation.

Level	Roles & Responsibilities
Regional	• Provide technical support to districts in provision of VMMC and EIMC services through training, supportive supervision and clinical mentoring visits. • Encourage timely (as per reporting guidelines) data reporting from districts, aggregate and analyse data for decision making and support district level quality improvement efforts towards addressing programmatic gaps • For harmonization, regulation and coordination purposes, RHMT should reinforce application of VMMC and EIMC service delivery standards across the districts. • Assist and support CHMTs in efforts of mobilizing VMMC and EIMC resources including collaboration with development partners and budget allocation for VMMC and EIMC budget in annual health plans
District	• Establish site and health facilities for VMMC and EIMC services • Plan and oversee training and capacity building initiatives for HCWs • Ensure availability of equipment and necessary devices • Conduct Supportive supervision and clinical mentoring • Identify programmatic gaps and adjust work plans and budget accordingly through analysis and use of quality data from VMMC and EIMC service delivery points • Encourage timely submission of VMMC and EIMC performance data from service delivery points as per MOHCDGEC reporting timelines. • Include VMMC and EIMC services plans in their annual health plans and be accountable for the results.
Facility	• Link VMMC/EIMC services with other service delivery points within the facility i.e. OPD, RCH, STI, etc. • Adhere to respective medical ethics and other SOPs. • Each health facility must:

Level	Roles & Responsibilities
	○ Form VMMC/EIMC team with identified leadership and spelt out roles and responsibilities for each category of leadership. ○ Ensure proper record keeping and reporting on all services along with the VMMC/EIMC process of care. The health facility will ○ Form a coordination unit to link health facility based VMMC/EIMC and community services to strengthen partnership; community participation and resource mobilization among different stakeholders for VMMC/EIMC scale up.

Annex 6: Steps to Follow Once a Health Care Worker (HCW) or Client is Exposed to Blood and Other Body Fluids

PEP STEP 1: TREATMENT OF EXPOSURE SITE

- Wash with soap and water as soon as possible.
- Flush mucous membranes with clean water.
- Flush exposed eyes with a litre of clean water or normal saline solution.
- Get a tetanus immunization or booster, if indicated, for a needle stick (e.g., > 10 years since immunization).

Remember: The application of caustic agents (e.g., bleach) or a disinfectant to the exposure site is not recommended and may do more harm than good. There is no evidence that squeezing a puncture site helps prevent infection or that the use of antiseptics is better than soap.

PEP STEP 2: REPORT AND DOCUMENT

- The accident should be reported to a senior work supervisor immediately.
- An injury report form should be filled out as soon as possible.

PEP STEP 3: EVALUATE THE EXPOSURE

- HCWs or clients should be evaluated within 2 hours (rather than days) after their exposure and started on prophylaxis, if indicated, and not later than 72 hours after exposure.
    - If determined to be exposed to HIV, they should be counselled and tested for HIV; baseline testing and further follow-up of the exposed person is necessary.
    - Baseline testing of the exposed HCW should include the following tests: Full blood count, liver function tests, renal function tests and pregnancy testing for female HCW if the status is not known.

- Exposed individuals who either are known to be HIV-positive or found to have positive results on HIV testing should not be offered prophylaxis. They should be referred to the care and treatment clinic (CTC) for long-term management of their HIV infection.
- The risk of HBV exposure should be assessed and the immune status of the client (e.g., history of jaundice, hepatitis, previous immunization with HBV vaccine) should be determined. If the status is unknown, continue assessment.

PEP STEP 4: EVALUATE THE EXPOSURE SOURCE

- This should be started immediately after the HCW or client has agreed to start PEP.
- If HIV status is unknown, perform HIV diagnostic testing after obtaining the person's consent.
- Because most occupational HIV exposures occur at odd hours when counselling and HIV testing of the exposed person cannot be done, the initial PEP treatment should involve the use of the basic regimen.
- Exposed HCWs or clients should be referred to a PEP physician who will then decide whether to continue with PEP and will select the appropriate regimen.
- Do not test discarded needles or syringes for viral contamination.
- If the source person is not known, evaluate the exposure as though at high risk for infection.

PEP STEP 5: PROVISION OF ANTI-RETROVIRAL (ARV) MEDICATIONS FOR PEP

- A combination of time passed since exposure, magnitude of exposure, condition of a source person and HIV status of the exposed individual should guide a clinician to decide whether or not to start/continue the exposed person on prophylactic treatment and whether to provide dual or triple therapy.
- PEP should be initiated as soon as possible, preferably within two (2) hours. PEP is not indicated for exposures that occurred more than seventy two (72) hours previously.
- The choice of ARV regimen for PEP is based on the country's available first-line ARV regimen. MoHCDGEC recommends Tenofovir + Lamivudine + Efavirenz as the preferred HIV PEP first choice regimen.

Table 5.1: Recommended Regimen for HIV PEP Following Occupational &Non-Occupational Exposures
Adopted from the *National Guidelines on Post-Exposure Prophylaxis Following Occupational and Non-Occupational Exposures to Blood and Other Body Fluids (2015)*

HIV PEP (ARV) Regimen	Current MoHCDGEC Recommendations	Comments
Tenofovir 300 mg PO od, Lamivudine 300 mg PO od & Efavirenz 600 mg PO od	Preferred first option for HIV PEP	Compared to Zidovudine-containing regimen, current evidence shows that this combination is better not only in terms of tolerability, but also efficacy in preventing post-exposure transmission of HIV infection. Studies have shown increased rates of adherence

		and regimen completion when Tenofovir and Lamivudine have been used as components of HIV PEP regimen.

Table 5.2: Preferred Alternatives Regimens for HIV PEP following Occupational & Non-Occupational Exposures

Adopted from the *National Guidelines on Post-Exposure Prophylaxis Following Occupational and Non-Occupational Exposures to Blood and Other Body Fluids* (2015).

HIV PEP (ARV) Regimen	Current MoHCDGEC Recommendations	Comments
Zidovudine 300 mg bd, Lamivudine 150 mg PO bd & Efavirenz 600 mg PO od	Acceptable alternative to the recommended first option above (Table 5.1). ***Note: This regimen is not recommended for routine HIV PEP***	Due to the treatment-limiting side effects of Zidovudine, this regimen should only be reserved for cases in which Tenofovir is contraindicated (e.g., renal insufficiency) or unavailable
Tenofovir 300 mg PO od, Lamivudine 300 mg PO od & Lopinavir/ritonavir (400mg/100mg) twice	Acceptable alternative to the recommended first option above (Table 5.1). ***Note: This regimen is not***	Lopinavir/ritonavir–containing HIV PEP regimen has greater potential for side effects and medicine interactions, (with little added efficacy as compared to the first-choice regimen above (Table

HIV PEP (ARV) Regimen	Current MoHCDGEC Recommendations	Comments
daily	***recommended for routine HIV PEP***	5.1). Therefore, this regimen should only be reserved for cases by which Efavirenz is contraindicated or unavailable.

SIDE EFFECTS

All of the antiretroviral agents have been associated with side effects. Many of these can be managed symptomatically. Possible side effects are mainly gastrointestinal (e.g., nausea and vomiting), but malaise, fatigue and headache have also been reported.

Note: Refer to the *National Guidelines on Post-Exposure Prophylaxis Following Occupational and Non-Occupational Exposures to Blood and Other Body Fluids for* more details on ARV regimen for PEP, dosage, side effects and their management.

PEP STEP 6: FOLLOW-UP OF HEALTH PROVIDERS AND CLIENTS EXPOSED TO HIV

- HIV antibody testing should be performed for at least 6 months post-exposure (i.e., at 6 weeks, 12 weeks and 6 months) even if the HCWs or client do not want PEP.
- If PEP is used, HCWs or clients should be monitored for medication toxicity by testing at baseline and again 2 weeks after starting PEP. Minimally, it should include a full blood picture, renal and hepatic function tests.
- Exposed HCWs or clients who choose to take PEP should be advised of the importance of completing the prescribed regimen.
- Counselling on possible HIV transmission during the follow-up period should be done.
- The exposed HCW or client should be counselled about having safe sex (use of condoms) or abstinence.
- The exposed HCW or client should not donate blood, plasma, organs, tissue or semen.
- Female HCW should be counselled on FP methods and avoiding pregnancy for up to 6 months.
- Prophylaxis should be continued for 4 weeks, if tolerated.
- The exposed individual should be evaluated within 72 hours as additional information about the source is obtained including serologic status, viral load, current treatment, any resistance test

results or information about factors that would modify recommendations.

Remember:
Post-exposure prophylaxis for HIV, HBV, and HCV should follow the guidelines below.

HIV:
PEP should be:

- Initiated as soon as possible (preferably within 2 hours and not later than 72 hours after exposure)
- Administered for 4 weeks
- Discontinued if the source person is determined to be HIV-negative or the exposed person is HIV-positive

HBV:

- If HBV-susceptible, get Hepatitis B Immunoglobulin (HBIG) 5mL IM (intramuscularly) within 7 days of exposure, and also give the first dose of HBV vaccine, which should be repeated at 1 and 6 months.

HCV:

- There is no post-exposure vaccine or medication prophylaxis for hepatitis C (immunoglobulin is ineffective). Prevention of exposure, therefore, is the only effective strategy for prevention of HCV.

Annex 7: VMMC and EIMC Reporting Forms

7.1 VMMC Appointment Card

FRONT PAGE	**BACK PAGE**
JAMHURI YA MUUNGANO YA TANZANIA WIZARA YA AFYA, JINSIA, MAENDELEO YA JAMII, WAZEE NA WATOTO  KADI YA UTAMBULISHO KWA HUDUMA YA TOHARA (TAFADHALI ONYESHA KADI HII KILA HUDHURIO)	**JINA LA KITUO**_____ **JINA LA MTEJA**_____**NAMBA YA UTAMBULISHO**____ **UMRI**_____ **KIJIJI/MTAA**_____**KATA**_____ **TAREHE YA TOHARA**_____ **TAREHE YA KURUDI MARA YA KWANZA**_____ **MUDA**_____ Tafadhali rudi siku uliyo pangiwa au muda wowote ukiwa na tatizo KWA MATUMIZI YA KITUO TAREHE_____ MAELEZO_____SAHIHI_____ TAREHE_____ MAELEZO_____SAHIHI_____ TAREHE_____ MAELEZO_____SAHIHI_____

7. 2 Individual Client Record

THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY AND CHILDREN

MALE CIRCUMCISION SERVICES

INDIVIDUAL CLIENT RECORD

CLIENT PROFILE	√	**Tick and fill appropriately**

1. **Name of health facility or MC site_____**
2. **Service Delivery Approach: Static □ Outreach/mobile/campaign □**
3. **Client's Name: _____Age in years_____**
4. **Phone:_____ Self □_Relative □**
5. **Client ID Numbe**□□□□□□-□ □□□□ □□□□
   HFR-Code Client Number Year
6. **Client's Address:**
   Region _____District _____
   Ward _____
   Village/Mtaa _____
7. **Marital status:Married □ Single □ Cohabiting □ Widower □ Divorced □ Not applicable (minor) □**
8. **Visit Date:** □□ □□ □□□□
   d d m m y y y y
9. **REFERRED FROM**
   a. **Self-referred** □
   b. **OPD** □
   c. **IPD** □
   d. **CITC** □
   e. Other (Specify) ……

MEDICAL HISTORY

10. **Has the client had any STIs in the last 3 months? Yes □ No □ NA□**
11. **Does the client currently have any of the following complaints?**
    a. **Urethral discharge: Yes □ No □** **e. Genital sore (ulcer): Yes □ No □**
    b. **Pain on erection: Yes □ No □** **f. Swelling of the scrotum: Yes □ No □**
    c. **Pain on urination: Yes □ No □** **g. Difficulty in retracting foreskin: Yes □ No □**
12. **Genital warts: Yes □ No □** **h. Others specify_____**

Is client under treatment for any of the following?

CONDITION	DIAGNOSED	ON MEDICATION
Hypertension	**Yes □ No □**	**Yes □ No □ NA□**
Diabetes	**Yes □ No □**	**Yes □ No □ NA□**
HIV/AIDS:	**Yes □ No □**	**Yes □ No □ NA□**
Others (eg. TB)_____		

13. **Has client ever had any surgical operation? Yes □ No □**
14. **Any complications related to previous surgery? Yes □ No □ NA □**

If Yes tick below

    a. **Infection □**
    b. **Excessive bleeding □**
    c. **Other (specify) _____**
15. **Any history of bleeding problems in self or family members? Yes □ No □**
16. **Any known allergies to any of these medications:**
    a. **Local Anesthetics: Yes □ No □**
    b. **Antiseptics: Yes □ No □**
    c. **Any other medications (specify) _____**
17. **Any history of Tetanus vaccination? Yes □ No □ Don't Know □**
    a. **Date of most recent tetanus booster _____**
    b. **Verified by vaccination record? Yes □ No □**

PHYSICAL EXAMINATION

18. **Any significant physical abnormality on general examination? Yes □ No □**

If yes, specify_____

19. **Weight _____Kg: Vital signs before procedure: Pulse rate: _____beats/min**

Blood pressure: _____/_____mmHg Temperature _____(°C) Respiration rate_____

20. **Penile examination (tick):**

a. **Urethral discharge Yes □ No □**
b. **GUD Yes □ No □**
c. **Smegma under the foreskin Yes □ No □**
d. **Phimosis Yes □ No □**
e. **Paraphimosis Yes □ No □**
f. **Undescended testicles Yes □ No □**
g. **Adhesion of Prepuce to glans Yes □ No □**
h. **Condylomata lata/ acuminate Yes □ No □**
i. **Balanitis/redness/swelling of foreskin/ glans/ shaft Yes □ No □**
j. **Hydrocele Yes □ No □**
k. Chordae (banana shaped penis) Yes □ No □
l. **Urethral opening abnormality Yes □ No □**

k. Other (specify)_____

HIV TESTING

*****Parent or Guardian for under 18 client should sign HIV consent form before test**

21. **Client tested for HIV as part of MC service Yes □ No □ (If No specify…….)**

22. **Date of testing:** □□ □□ □□□□
d d m m y y y y

a. **Test result: Negative □ Positive □ Indeterminate □**

CLIENT REFERRED TO

23. **a. STI □ b. Other surgical/medical □ c. CTC □ d. Psychosocial support □ e. Client not referred □**

24. **Client medically cleared for MC procedure? Yes □ No □ If no, why?**

_____

RIDHAA YA KUFANYIWA TOHARA

Mimi _____nimekubali □nifanyiwe □ mwanangu afanyiwe upasuaji wa kuondoa govi. Nimeelezwa na kutambua kwamba upasuaji huu ni kwa ajili ya afya □yangu □ mtoto wangu na kwamba unaweza kuwa na madhara.

Baada ya kupatiwa maelezo ya kina na kupatiwa muda wa kuuliza maswali, nimeridhika na majibu niliyopatiwa.

Mimi ni □**mteja** □ **mzazi** □**mlezi.** Saini yangu chini ni kuashiria kuwa kwa idhini yangu mwenyewe bila kushurutishwa nimetoa kibali cha upasuaji huu □kwangu □kwa mwanangu.

_____ _____

_____

Saini ya □**Mteja** □**Mzazi**□**Mlezi** **Jina na** Saini ya Mtoa huduma / Mshauri Tarehe

MC PROCEDURE

25. **MC procedure conducted Yes□ No□ (If No specify)**
……
26. **Date of MC procedure** □□ □□ □□□□
d d m m y y y y
Time Started _____ Time Finished _____
27. **Anaesthesia Used: Lignocaine_____ml _____% Bupivicaine: _____ ml_____%**
Other _____ml _____%
28. **Method: Dorsal Slit □ Sleeve Resection □ Device □ If device specify**
_____
Surgeon's Name:_____Cadre:
_____
Assistant's Name:_____Cadre: _____
Additional Notes (if needed):_____
29. **Intraoperative AE: Any adverse event occurrence during procedure? Yes□ No□ If yes tick type of AE below..**
    a. **excessive skin removal Yes□ No□**
    b. **damage to penis Yes□ No□**
    c. **excessive bleeding Yes□ No□**
    d. **anesthetic-related event Yes□ No□**
    e. **others_____**
30. **Classification of intraoperative AE:**
    a. **Mild □** **b. Moderate □** **c. Severe □** **d. NA □**

POST-OP AND DISCHARGE

31. **Please describe the condition of the bandage in relation to bleeding:**
    a. **Bandage clear □** **b. Blood spot on bandage □** **c. Bandage soaked□**
32. **Vital Signs after procedure:**
    Pulse rate: _____beats/min **c. Blood pressure: ___/___mmHg d. Body temperature_____(°C)** Respiration rate_____
33. **General condition at discharge:**
    Satisfactory □ **b. Needs follow up □** **c. Not discharged □**
34. **Analgesics given Yes □ No□** **Type and dosage given. Specify_____**

Discharge time:_____

Provider's name_____ Carde:_____
Signature:_____

FOLLOW-UP NOTES

Did the client come for the first follow up visit Yes □ No□ **Date of first follow up visit: □□ □□ □□□□** **d d m m y y y y** **Days post-op:_____** **Notes: _____** **_____** **Did a post-operative AE occur? Yes □ No□** **If AE occurred, date of AE** **□□ □□ □□□□** **d d m m y y y y** **Condom given Yes □ No□** **Quantity given _____** **Discharge time:_____** **Provider's Name:_____ Cadre:_____** **Signature:_____**	**Did the client come for the second follow up visit Yes □ No□** **Date of Second follow up visit: □□ □□ □□□□** **d d m m y y y y** **Days post-op:_____** **Notes: _____** **_____** **Did a post-operative AE occur? Yes □ No□** **If AE occurred, date of AE** **□□ □□ □□□□** **d d m m y y y y** **Condom given Yes □ No□** **Quantity given _____** **Discharge time:_____** **Provider's Name:_____** **Cadre:_____** **Signature:_____**

POST OPERATIVE AE BY TYPE

Type of AE first follow up visit: (i) **a. Bleeding or blood soiling of the BANDAGE Yes □ No□** **b. Swelling of the penis or scrotum Yes □ No□** **c. Persistent pain Yes □ No□**	**Type of AE Second follow up visit:** (i) **a. Bleeding or blood soiling of the BANDAGE Yes □ No□** **b. Swelling of the penis or scrotum Yes □ No□** **c. Persistent pain Yes □ No□**

d. Infection Yes □ No□ **e. Failure to pass urine Yes □ No□** **f. Other: Specify_____** **(ii) Severity, post-operative adverse event** **Mild □ Moderate □ Severe □ d. NA □**	**d. Infection Yes □ No□** **e. Failure to pass urine Yes □ No□** **f. Other: Specify _____** **(ii) Severity, post-operative adverse event** **Mild □ Moderate □ Severe □ d. NA □**

Other AEs Occurred after 7 days Date: Specify type and classification

_____

Notes:_____

_____

_____

Instructions: Check (√) appropriate box for any adverse events

INTRAOPERATIVE AE

Adverse event	Description	Severity	√
Pain	3 or 4 on pain scale	Mild	
	5 or 6 on pain scale	Moderate	
	7 on pain scale	Severe	
Excessive bleeding	More bleeding than usual, but easily controlled	Mild	
	Bleeding that requires pressure dressing to control	Moderate	
	Blood transfusion or transfer to another facility required	Severe	
Anaesthetic-related event	Palpitations, vaso-vagal reaction or emesis	Mild	
	Reaction to anaesthetic requiring medical treatment in clinic, but not transfer to another facility	Moderate	
	Anaphylaxis or other reaction requiring transfer to another facility	Severe	
Excessive skin removed	Adds time or material needs to the procedure, but does not result in any discernible adverse condition	Mild	
	Skin is tight, but additional operative work not necessary	Moderate	
	Requires re-operation or transfer to another facility to correct the problem	Severe	
Damage to the penis	Mild bruising or abrasion, not requiring treatment	Mild	
	Bruising or abrasion of the glans or shaft of the penis requiring pressure dressing or additional surgery to control	Moderate	
	Part or all of the glans or shaft of the penis severed	Severe	

Treatment outcome:

Treatment Outcome:	**Tick one (√):**
Adverse event completely resolved	
Adverse event partially resolved	
Adverse event unchanged	

Was patient referred? □No □ Yes If yes, to where? Specify: _____

Please describe the AE: What was the nature of the AE, what was done, and what was the outcome?

Date _____

Surgeon _____ Cadre _____

Signature_____

Continue to next page for Post-Operative AE

POST-OPERATIVE AE

Adverse event	**Description**	**Severity**	√
Pain	3 or 4 on pain scale	Mild	
	5 or 6 on pain scale	Moderate	

Adverse event	Description	Severity	√
	7 on pain scale	Severe	
Excessive bleeding	Dressing soaked through with blood at a routine follow-up visit	Mild	
	Bleeding that requires a special return to the clinic for medical attention	Moderate	
	Bleeding that requires surgical re-exploration	Severe	
Excessive skin removed	Client concerned, but there is no discernable abnormality	Mild	
	Skin is tight, but additional operative work not necessary	Moderate	
	Requires re-operation or transfer to another facility	Severe	
Insufficient skin removed	Foreskin partially covers the glans only when extended	Mild	
	Foreskin still partially covers the glans & re-operation is required	Moderate	
Swelling/ haematoma	More swelling than usual, but no significant discomfort	Mild	
	Significant tenderness and discomfort, but surgical re-exploration not required	Moderate	
	Surgical re-exploration required	Severe	
Damage to the penis	Mild bruising or abrasion, not requiring treatment	Mild	
	Bruising or abrasion of the glans or shaft of the penis requiring pressure dressing or additional surgery	Moderate	
	Part or all of the glans or shaft of the penis severed	Severe	

Adverse event	Description	Severity	√
Infection	Erythema more than 1 cm beyond incision line	Mild	
	Purulent discharge from the wound	Moderate	
	Cellulitis or wound necrosis	Severe	
Delayed wound healing	Healing takes longer than usual, but no extra treatment necessary	Mild	
	Additional non-operative treatment required	Moderate	
	Requires re-operation	Severe	
Appearance	Client concerned, but no discernible abnormality	Mild	
	Significant wound disruption or scarring, but does not require re-operation	Moderate	
	Requires re-operation	Severe	
Problems with urinating	Transient complaint that resolves without treatment	Mild	
	Requires a special return to the clinic, but no additional treatment required	Moderate	
	Requires referral to another facility for management	Severe	

Treatment outcome:

Treatment Outcome:	**Tick one (√):**
Adverse event completely resolved	
Adverse event partially resolved	
Adverse event unchanged	

Was patient referred? □No □ Yes If yes, to where? Specify: _____

Please describe the AE: What was the nature of the AE, what was done, and what was the outcome?

Date _____

Attending provider _____ Cadre _____

Signature_____

7.3 Male Circumcision Service Register

THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY AND CHILDREN

Male Circumcision Service Register

Name of Health Facility ..... **District.....**

START YEAR..... **END YEAR** .....

						-	

HFR-CODE

S/NO	Date dd/mm/yyyy	Name Of COUNSELOR	ID NO. (4 Digits)	Client Name	Age in Year	Referred From (Code A)	Counselled and Tested For HIV This visit	Today's HIV Test Result (Code B)	Referred To (Code C)	Date Of MC (If not done use Code D)	MC Procedure	First follow ups		First follow ups		Post- Operative AE Occurred		Comments
											Intra-Operative AE Occurred	Date & (Code F)	Y/N	Date & (Code F)	Y/N	First follow up	Second follow up	

CODES

(A) Referred From	(B) HIV Test Result	(C) Referred to	(D) Date of MC	(E) Adverse Event	(F) Follow up visit
SR = Self-referral OPD= Out patient department IPD=In patient department OTH= Other (Specify)	1 = Positive 2 = Negative 3 = IND 4 = Known status 5 = Not tested	CTC = care and treatment Centre STI = Sexually transmitted Infection clinic PS = Psycho-Social Support N= Not referred OTH = Others	D = Declined M = Not medically cleared for mc procedure	MI = Mild MO = Moderate Se = Severe NA= Not applicable	Y = Yes (within required time) N = No (Beyond required time)

7.4 VMMC Theatre Register

MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY AND CHILDREN

MALE CIRCUMCISION SERVICES

MALE CIRCUMCISION SURGICAL THEATRE REGISTER

S/NO	DATE (dd/mm/yyyy)	CLIENT ID	NAME (first, middle, last)	AGE (YEARS)	METHOD (USE CODE A)	ANAESTHETIC (USE CODE B)	SURGERY START TIME	SURGERY END TIME	SURGEON'S NAME	ASSISTANT'S	EVENTS/REMARKS (USE CODE C)

CODES

(A) METHOD	***(B) ANAESTHETIC***	(***C) EVENTS / REMARKS***
DS = Dorsal Slit	LOCAL=Local Anaesthesia	0= None (No problems outside what is expected during male circumcision procedure)
SL = Sleeve Method	GEN= General Anaesthesia	
Other (specify e.g. Plastibell)	REG= Regional Anaesthesia	***If Client has <u>any</u> of the following, please complete the Adverse Event Form:***
		1= Excessive Pain
		2 = Excessive Bleeding
		3 = Excessive Skin Removed
		4= Anaesthetic-related event
		5 = Damage to Penis
		6=Any Other

7.5 VMMC Monthly Summary Form

THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY AND CHILDREN

MALE CIRCUMCISION SERVICES

MONTHLY SITE SUMMARY FORM

Site Name_____
Name of person reporting_____ Contact _____
District _____Region _____
Reporting Month_____ Year_____ Reporting date_____
Service Delivery approach: □ Outreach / Campaign □ Static Site

Indicators	
1. Number of male circumcised (by age group)	
<1	
1 - 9	
10 - 14	
15 - 19	
20 - 24	
25 - 29	
30 -34	
35-39	
40-44	
45-49	
50+	
Total	
2. No. of male circumcision clients counselled & tested for HIV at male circumcision site:	
HIV positive	
HIV negative	

Total	
3. Number of clients circumcised who experienced one or more adverse events:	
Moderate	
Severe	
4.Number of clients circumcised who returned for follow up visit	
First follow up visit/ 48 Hours	
Second follow up visit / 7 days	
5. Coming from (client source):	
Self-referral	
OPD	
IPD	
Others	
6. Referred to:	
CTC	
Enrolled to CTC	
STI clinic	
Other medical / Surgical services	
Psychosocial support services	

Approved by_____

Name

_____Signature_____

Date _____

7.6 EIMC Individual Client Card

THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY AND CHILDREN

EARLY INFANT MALE CIRCUMCISION SERVICES
INDIVIDUAL CLIENT RECORD

Name of health facility: _____ District: _____
Region: _____

Tick where appropriate ☐

Name of Infant: (BLOCK CAPITALS)		EIMC ID Number:
Date of Birth ☐☐ ☐☐ ☐☐☐☐ dd mm yyyy	Visit Date ☐☐ ☐☐ ☐☐☐☐ dd mm yyyy	☐☐☐☐☐☐-☐ ☐☐☐☐ ☐☐☐☐ HFR-code Number yyyy

General Information

	Name	***Relationship***
Names of parents/guardian **present today:**		Mother ☐ Father ☐ Guardian ☐
Residence	(village/Street)	ward
Phone number		
Referred from:	☐ Self-referral ☐ Paediatric ward ☐ RCH ☐ Maternity ☐ OPD	

	□ Other (specify)……

Infant History

Place of delivery:	□ This facility □ Another Facility (Facility name: _____) □ Home		
Health History of Infant	Birth weight ……Kg		
	Premature delivery	□ Yes	□ No
	Other history of abnormal birth? If Yes specify……	□ Yes	□ No
	History of fussiness/crying that is abnormal	□ Yes	□ No
	History of lethargy	□ Yes	□ No
	Family history of bleeding disorder	□ Yes	□ No
	Has the baby been urinating and passing stool normally?	□ Yes	□ No
	History of fever, difficulty breathing?	□ Yes	□ No
	History of hospital admission or illness?	□ Yes	□ No
	History of convulsions	□ Yes	□ No

Physical Examination:

To be conducted prior to EIMC:

General body			
Current Body weight:	_____kgs	Jaundice	□ Yes □ No
Body temperature:		Cord Infection	□ Yes□ No
Paleness of the conjunctiva/ other mucous membranes	□ Yes □ No		
Paleness of the palms	□ Yes □ No		
Other			
Haemoglobin (If necessary)	Fever today:		□ Yes□ No
Blood glucose (if necessary)	Cord Bleeding		□ Yes□ No
Breastfeeding	□ Yes □ No □ Mixed		
Cardiac examination:			
Pulse rate		Cyanosis (bluish colour in tissue and/ or lips)	□ Yes□ No
Heart beat counts (if no Pulse Oximeter):			
Oxygen saturation			
Respiratory examination:			
Respiration rate:			
Intercostal recessions	□ Yes □ No		
Lower chest wall in drawing	□ Yes □ No		
Wheezes	□ Yes □ No		
Nasal flaring	□ Yes □ No		
Difficulties in Breathing	□ Yes □ No		

Penile examination:					
Penile torsion	□ Yes	□ No	Median raphe not	□ Yes	□ No

			midline		
Penile length <1cm	□ Yes	□ No	Abnormal urethra	□ Yes	□ No
Hypospadias	□ Yes	□ No	Abnormal scrotal ruggae	□ Yes	□ No
Hydrocele	□ Yes	□ No	Penile scrotal web	□ Yes	□ No
Buried penis	□ Yes	□ No	Abnormal ventral foreskin	□ Yes	□ No
Dorsal hood	□ Yes	□ No			
Swelling of scrotum	□ Yes	□ No	Other abnormal finding: ……		
Patency of anal opening	□ Yes	□ No			

HIV Status / Testing

	Mother	□***Father*** □***Guardian***
Previous HIV status	□ Negative □ Positive □ Indeterminate □ Not known	□ Negative □ Positive □ Indeterminate □ Not known
HIV test performed today	□ Yes □ No	□ Yes □ No
Today's HIV test results	□ Negative □ Positive □ Indeterminate □ Known HIV status □ Not tested	□ Negative □ Positive □ Indeterminate □ Known HIV status □ Not tested

Referral	□ No □ PMTCT Name:……. □ Other specify… □ N/A	□ No □ CTC Name:……. □ Other specify… □ N/A
Infant exposed to HIV	□ Yes □ No □ Not known	
Referral for Infant	□ No □ CTC (Name:……..…) □ For HIV Early Infant Diagnosis-HEID (PMTCT)	

Eligibility for EIMC

Is the Infant medically cleared for circumcision today?

□ Yes □ No If No

Explain……
……..

Ridhaa ya tohara kwa watoto wachanga

Mimi_____□,Mzazi □ Mlezi wa mtoto nimeridhia mtoto wangu afanyiwe Tohara ya watoto wachanga. Nimeelezwa na kutambua kwamba upasuaji huu ni kwa ajili ya afya ya mwanangu na kwamba unaweza kuwa na madhara. Baada ya kupatiwa maelezo ya kina na kupatiwa muda wa kuuliza maswali nimeridhika na majibu niliyopatiwa.

Saini yangu chini ni kuashiria kuwa kwa idhini yangu mwenyewe bila kushurutishwa nimeridhia na kutoa kibali cha upasuaji huu kwa mwanangu.

Saini /Dole gumba: Saini/Dole Gumba

_____ _____

Tarehe: _____ Tarehe _____

(□Mzazi □Mlezi 1) (□ Mzazi □ Mlezi 2)

Jina la Mnasihi/ Mhudumu anayefanya Toharaya watoto wachanga

_____ (HERUFI KUBWA)

Nimempa □ Mzazi □ Mlezi ufafanuzi na fursa ya kuuliza maswali kuhusu tohara ya watoto wachanga.

Nimemuuliza □ Mzazi □ Mlezi maswali ili kujiridhisha kuwa ameelewa taarifa zote nilizompa. , □ Mzazi □ Mlezi anauwezo wa kutoa ridhaa na ana taarifa za kutosha kufanya maamuzi sahihi juu ya kuendelea ama kuto endelea na tohara ya watoto wachanga.

Jina na Saini _____ (Mtoa huduma) Tarehe:_____

ANAESTHESIA USED

(Put a tick √ where appropriate)

☐	Lidocaine 1% without epinephrine Dose: ……	☐ ☐	EMLA Cream (Lidocaine 2.5% and Prilocaine 2.5%) Other (specify)……..
	NOTE: Maximum dose of Lidocaine is 3mg/kg body weight (example: 3kg infant-- maximum dose is 0.9 ml of 1% 10mg/ml Lidocaine without epinephrine		
☐	Dorsal penile nerve block	☐	
☐	Combination of nerve block and EMLA cream		
☐			
☐	Anaesthesia Administration time: ……		

PROCEDURE

Device Used: ☐ Mogen ☐ Other (specify): ……
Haemostasis was achieved using: ☐ No intervention ☐ Direct pressure ☐ Gelfoam ☐ Liquid epinephrine ☐ Surgical Suture (type & number): ……
Vaseline impregnated sterile gauze dressing applied: ☐ Yes ☐ No
Time of procedure: Start time: …… End time: ……
Additional Note:
Adverse Event Mild AE ☐ Yes ☐ No Moderate AE ☐ Yes ☐ No Severe AE ☐ Yes ☐ No If YES specify type_____ Fill in and attach AE form in case of AE occurrence
Surgeon's name: …… Cadre: …… Assistant's name: …… Cadre: ……

POST-OP AND DISCHARGE

Condition of the bandage:	☐ Bandage dry ☐ Blood spot on bandage ☐ Bandage soaked
Vital signs:	Body temperature: …… Pulse rate: …… Respiration rate: ……

Medication given:	☐ Paracetamol: Dosage…… ☐ Other (specify): ……..Dosage…… ☐ None
General conditions at discharge:	☐ Satisfactory ☐ Needs follow-up ☐ Not discharged
Provider	Name:…… Signature: …… Time of discharge: ……

FOLLOW-UP VISITS

Date of first follow up visit: _____/_____/_____
DD MM YYYY

Timing:	☐ Within 48 hours ☐ After 48 hours
Vital signs:	Body temperature: …… Pulse rate: …… Respiration rate: ……
Condition:	☐ Excellent (wound closed) ☐ Satisfactory ☐ Poor, please tick if: ☐ Infection ☐ Poor wound healing ☐ Pus ☐ Other (specify): ……
Review of client management	☐Postoperative care instructions/precautions reviewed with parent/guardian ☐Emergency contact information/procedures reviewed with parent/guardian
Follow-Up Notes:	
Provider	Name:……Cadre: …… Signature: …… Time of assessment: ……

Date of second follow up visit: _____/_____/_____
DD MM YYYY

Timing:	☐ Within 7 days ☐ After 7 days
Vital signs:	Body temperature: …… Pulse rate: …… Respiration rate: ……

Condition:	☐ Excellent (wound closed) ☐ Satisfactory ☐ Poor, please tick if: ☐ Infection ☐ Poor wound healing ☐ Pus ☐ Other (specify): ……
Review of client management	☐ Postoperative care instructions/precautions reviewed with parent/guardian ☐ Emergency contact information/procedures reviewed with parent/guardian
Follow-Up Notes:	
Provider	Name: …… Cadre: …… Signature: …… Time of assessment: ……

Referral

Referral given	☐ Yes ☐ No ☐ Refused	
Referred to	☐ CTC/RCH ☐ Paediatric outpatient department ☐ Clinical or surgical services ☐ Other (specify): ……	
Date of Referral:	_____/_____/_____ DD MM YYYY	Referral Feedback ☐ Yes ☐ No

7.7 EIMC Service Register

The United Republic Of Tanzania

MINISTRY OF HEALTH, COMMUNITY DEVELOPMENT, GENDER, ELDERLY AND CHILDREN

EARLY INFANT MALE CIRCUMCISION SERVICE REGISTER

Name of Health Facility ..... District.....

Start Year ..... End Year.

						-	

HFR-CODE

SERVICE REGISTER

S/N	ID EIMC	Infant Name	Date of Birth dd/mm/yyyy	Place of birth (A)	Referred from: (B)	Is Infant HIV Exposed Y/N/Not known	Infant circumcised Y/N	Date of EIMC dd/mm/yyyy	Age at circumcision (in Days)	Surgeon's name	Cadre	Infant referred to (C)	**Follow ups**		AE occurred Y/N	AE Classification (D)	AE Type (E)
													1st follow up	**2nd follow up**			

Codes:

(A) Place of delivery:	**(B) Referred from:**	**(C) Referred to:**	**(D) AE Classification**	**(E) AE Type**
1= This facility	**1= Self-referral**	**1=Not referred**	**2=Moderate**	**1= Excessive bleeding**
2= Another facility	**2 = Pediatric ward**	**2=** PMTCT for HEID	**3= Severe** **1=Mild**	**2=Anaesthetic –related event**
3=Home	**3= RCH**	**3= Other;Specify…….**		**3= Excessive skin removal**
	4=Maternity	4=		**4=Damage of the penis**
	5=OPD			**5=Insufficient skin removal**
	6=Others; Specify……			**6=Swelling /haematoma**
				7= Infection
				8=Other; Specify…….

Annex 8: List of Contributors

S/N	NAME	INSTITUTION
1	DR ANGELA RAMADHAN	NACP
2	DR GISSENGE LIJA	NACP
3	DR SUSAN D. MMBANDO	NACP
4	AGNES FLORENT	NACP
5	DR ZAYNAB LWENO	INTRAHEALTH
6	DENNIS FISCHER	INTRAHEALTH
7	DR NYAMIZI GEORGE	INTRAHEALTH
8	RENATUS KIDUGO	INTRAHEALTH
9	PETER B LUBAMBI	INTRAHEALTH
10	DR JOHNSON JOACHIM	INTRAHEALTH
11	DR ALOYCE MABULA	HJFMRI-WRP
12	ANIPA A. WISYE	HJFMRI-WRP
13	AGATHA MWASHIMAHA	HJFMRI-WRP
14	DR KANISIUSY NGONYANI	JHPIEGO
15	ROSE MADINDA	JHPIEGO
16	MICHAEL MACHAKU	JHPIEGO
17	DR PROTAS O. NDAYANGA	HQPI ASSOCIATES
18	DR YOHANA MKIRAMWENI	HQPI ASSOCIATES
19	DR HAMIS G. MATALU	BUGANDO MEDICAL CENTRE
20	DR FARIDA SHESHE	IRINGA DC
21	DR JOHN KASWIJA	LAKE ZONE TI
22	DR HANS G. ULAYA	RUKWA
23	DR KAZAURA JOSEPH	NJOMBE
24	DR PAUL J. LUVANDA	FREELANCE

25	DR PENZIA HAULE	MAKAMBAKO TC
26	DR PETER W. MLACHA	SHINYANGA
27	BONIVENTURE PETER ASUBISYE K.	MISUNGWI DC
28	ANDOBWISYE	RUKWA
29	THOMAS NDUMBARO	MBINGA DC
30	DANIEL K. KAYANDA	FREELANCE
31	RITHA P. TESHA	KILOLO DC
32	EDITHA ALEXANDER	MISENYI DC
33	ELINA M. MALILA ELLEN D.	IRINGA
34	MWANDEMELE	RUNGWE DC
35	EPIMACK KALUNGWIZI EVELEEN E.	NKASI DC
36	LUGABANDANA	KAGERA
37	EVODIA NYONI	RUVUMA
38	FARAJA MAPUTA	TABORA
39	FLORIDA A. KACHUCHU	MULEBA DC
40	FRANSISCA LEOPORD	IRINGA MC
41	JAVAN J. SEDEKIA	RUNGWE DC
42	JOAN F. CHALE	LUGALO HOSPITAL
43	LEONIDA RWEYEMAMU	KAGERA
44	LINDA E. HANAI	ARUSHA
45	MARGARETH MSASI	MAKAMBAKO TC
46	MARTHA N. MALOLELA	MNH
47	NCHAMA T. SAMSON	KAHAMA TC
48	NOEL L. KASANJALA	MUHEZA N/SCHOOL ST. HOUSE
49	REHEMA S. MTONGA	DISPENSARY
50	DR ROSE ALFRED	SONGWE
51	SUBBY MBAMBA	IRINGA

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