MMC 2025

SOUTH AFRICAN NATIONAL GUIDELINES FOR MEDICAL MALE CIRCUMCISION

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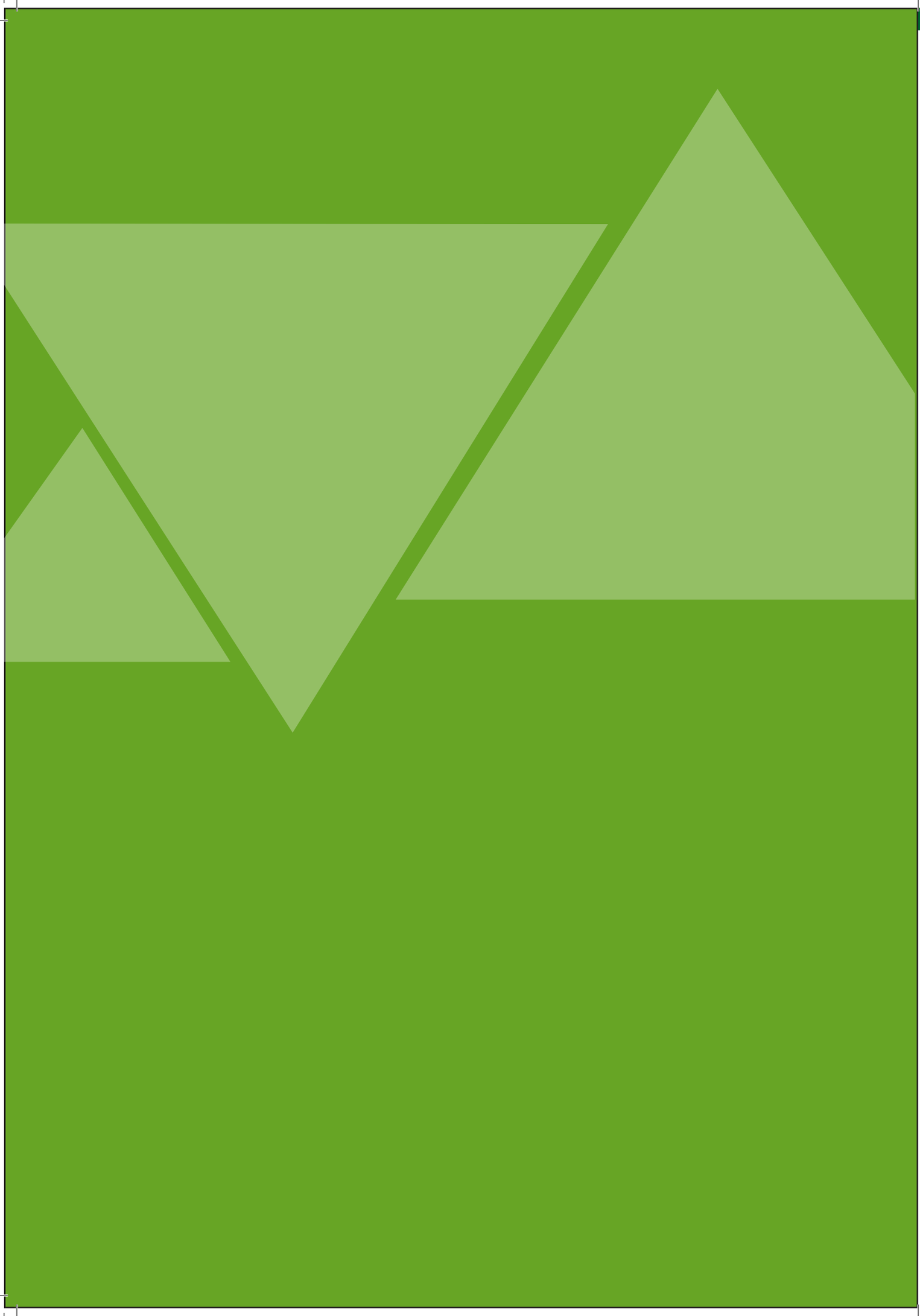

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Acknowledgements

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The conclusions and standards presented in this document are derived from the literature evidence and do not necessarily reflect the authors' personal opinions. While considerable reference was made to the WHO guidelines, this guideline has been adapted from the *Manual for Male Circumcision under Local Anaesthesia and HIV Prevention Services for Adolescent Boys and Men* (Geneva: World Health Organization, 2018) to support the NDOH's medical male circumcision programme.

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Foreword

Dr SSS Buthelezi
Director-General of Health

The South African National Guidelines for Medical Male Circumcision (MMC) 2025 represents a significant milestone in our ongoing efforts to combat the HIV epidemic and improve public health outcomes. These guidelines, adapted from the WHO guidelines of 2020, are designed to provide healthcare workers, programme managers, and policymakers with comprehensive, evidence-based recommendations for the safe and effective delivery of MMC services.

Since 2010, heeding the clarion call from WHO and UNAIDS for countries with high HIV burden to embrace MMC as a key add-on HIV prevention strategy, South Africa has made substantial progress in implementing the MMC programme. The cliché that men generally have poor health-seeking behaviours and are unlikely to interact with the health system has been rebutted as 6.0 million men and boys have been medically circumcised in our health facilities to date. The programme has significantly changed the way men view the health system, as evident by the high number of medical circumcisions performed annually. The latest SABSSM survey (2022) shows that for males >15 years, medical circumcision coverage has spiralled to just over 60 percent and the Human Sciences Research Council recommends that the programme focuses its efforts on increasing coverage/scale-up programme performance, and continue to engage with traditional houses, leadership, and practitioners to ensure maximum health benefits among circumcised men. A recent publication in the Lancet Global Health, 2022, shows that MMC is highly cost-effective and cost-saving for South Africa, and that the programme must be significantly scaled up to have a sustained effect on HIV incidence reduction.

Despite these achievements, we recognise that there is still much work to be done to reach our target of circumcising more than 80 percent of eligible males to significantly reduce community transmission of HIV.

These guidelines emphasise the importance of quality improvement, technical proficiency, and the integration of broader health issues, such as male sexual and reproductive health with MMC services. They provide detailed guidance on various surgical approaches, infection prevention, waste management, and the management of adverse events. Additionally, the guidelines address the unique needs of adolescent boys and outline strategies for enhancing the uptake of MMC among adult men, particularly those at higher risk of HIV infection.

We are committed to ensuring that MMC services are delivered safely, efficiently, and sustainably. This requires the collaboration of healthcare workers, government officials, non-governmental organisations, community leaders, the private sector, traditional sector donors, and developmental partners. By working together, we can create an enabling environment that supports the health and well-being of adolescent boys and men, while maximising the HIV prevention impact of MMC.

We extend our gratitude to the experts, healthcare providers, and stakeholders who have contributed to the development of these guidelines. Their dedication and expertise are invaluable in our collective effort to achieve the ambitious goal of ensuring that HIV is no longer a health threat by 2030.

Let us continue to strive for excellence in the delivery of MMC services, ensuring that every procedure is performed with the highest standards of safety and care. You will agree that an intervention with multiple benefits (protection from HIV/STIs/UTIs/cervical /penile cancer) and an efficacy (HIV) of 60 percent should be prioritised and effectively scaled up.

Together, we can make a significant difference in the fight against HIV and improve the health outcomes for all South Africans.

DIRECTOR-GENERAL OF HEALTH
DR SSS BUTHELEZI
DATE: 22/04/2025

Abbreviations and Acronyms

AE	Adverse Event
ART	Antiretroviral Therapy
BAL	Balanitis/Balanoposthitis
BP	Blood Pressure
CDC	Centers for Disease Control and Prevention
CA	Clinical Associate
CHC	Community Health Centres
CQI	Continuous Quality Improvement
DCS	Department of Correctional Services
DHIS	District Health Information System
DHMIS	District Health Management Information System
DoH	Department of Health
ELISA	Enzyme-linked immunosorbent assay
EMOD	Epidemic Modelling
EN	Enrolled Nurse
ENA	Enrolled Nurse Assistant
FFP	Fresh Frozen Plasma
FG	Forceps-Guided
GP	General Practitioner
GUS	Genital Ulcer Syndrome
HBsAg	Hepatitis B surface antigen
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HPCSA	Health Professions Council of South Africa
HBIG	Hepatitis B Immune Globulin
HIV	Human Immunodeficiency Virus
HISP	Health Information System Programme
HTS	HIV Testing Services
IP	Implementing Partners
IPC	Infection Prevention and Control
kg	kilograms
L	Litre
MMC	Medical Male Circumcision
mL	millilitre
MM Hg	Millimetres of mercury
MMWR	Morbidity and Mortality Weekly Report
MUS	Male Urethritis Syndrome
N/A	No Applicable
NaCl	Sodium Chloride (Salt)
NDOH	National Department of Health
NSP	National HIV/AIDS Strategic Plan
OTH	Online Training Hub

PEP	Post-Exposure Prophylaxis
PEPFAR	President's Emergency Plan for AIDS Relief
PHC	Primary Healthcare
PLHIV	People Living with HIV
POPIA	Protection of Personal Information Act
PrEP	Pre-Exposure Prophylaxis
PT	Proficiency Test/Testing
PTT	Partial Thromboplastin Time
QA	Quality Assurance
RTCQI	Rapid Test Continuous Quality Improvement
SABSSM	South African National HIV prevalence, incidence, behaviour, and communication Survey
SANC	South African Nursing Council
SASA	South African Society for Anaesthesiologists
SEMDSA	Society for Endocrinology, Metabolism and Diabetes of South Africa
SBP	Systolic Blood Pressure
SOP	Standard Operating Procedures
STI	Sexually Transmitted Infections
SSW	Scrotal Swelling
TB	Tuberculosis
TLD	Tenofovir/ Lamivudine/ Dolutegravir
TMI	Traditional Male Initiation
UNAIDS	Joint United National Programme on HIV/AIDS
UTI	Urinary Tract Infection
VAS	Visual Analogue Scale
VL	Viral Load
VMMC	Voluntary Medical Male Circumcision
WHO	World Health Organization

Definition of terms

Adolescence: Adolescence is one of the most rapid and formative phases of human development; and the distinctive physical, cognitive, social, emotional, and sexual development that takes place during adolescence demands special attention in national development policies, programmes, and plans. An adolescent is a person 10–19 years of age. Younger adolescents refer to 10–14-year-olds, while older adolescent refers to 15–19-year-olds.

Adverse Events (AEs) Management: The process of identifying, documenting, and managing any unintended and harmful events that occur during or after medical procedures or treatments. This includes monitoring, reporting, and implementing corrective actions to prevent recurrence.

Confidentiality and Privacy: The ethical and legal obligation to protect patient information from unauthorised access and disclosure. This includes maintaining the privacy of patient records and ensuring that personal health information is shared only with those who have a legitimate need to know.

Continuous Quality Improvement (CQI): CQI is an ongoing process of identifying, describing, and analysing strengths and problems and then testing, implementing, learning from, and revising solutions.

Effective service coverage: Effective service coverage is defined as follows: People who need health services obtain them on time and at a level of quality necessary to obtain the desired effect and potential health gains. Male circumcision: Male circumcision is the complete surgical removal of the male penile foreskin.

HIV Prevention: Strategies and methods used to prevent the transmission of the Human Immunodeficiency Virus (HIV). This includes behavioural interventions, biomedical approaches like PrEP (pre-exposure prophylaxis), and structural interventions such as policy changes.

HIV Testing Services (HTS): Services that provide testing for HIV, including pre-test counselling, the actual test, post-test counselling, and linkage to care and treatment if the test is positive.

Infection Prevention and Control (IPC): A set of practices and procedures used in healthcare settings to prevent the spread of infections. This includes hand hygiene, use of personal protective equipment (PPE), sterilisation of instruments, and isolation protocols.

Local Anaesthesia and Surgical Techniques: Local anaesthesia involves numbing a specific part of the body to prevent pain during surgical procedures. Surgical techniques refer to the methods and procedures used by surgeons to perform operations.

Medical male circumcision (MMC): Medical Male Circumcision (MMC) is the complete surgical removal of the foreskin covering the head of the penis. This procedure is performed for medical reasons, which can include reducing the risk of certain infections and diseases, including HIV. It is conducted under local anaesthesia in a sterile setting by a trained clinician.

People-centred healthcare: an approach to care that consciously adopts individuals', carers', families', and communities' perspectives as participants in, and beneficiaries of, trusted health systems that are organised around the comprehensive needs of people rather than individual diseases, and that respects social preferences. People-centred care also requires that patients have the education and support they need to make decisions and participate in their care and that carers can attain maximal function within a supportive working environment. People-centred care is broader than patient and person-centred care, encompassing not only clinical encounters but also attention to the health of people in their communities and their crucial role in shaping health policy and health services.

Person-centred healthcare: care approaches and practices that see the person as a whole with many levels of needs and goals, with these needs coming from their social determinants of health.

Postoperative Care and Follow-up: The care provided to patients after a surgical procedure, including monitoring for complications, managing pain, and ensuring proper healing. Follow-up involves scheduled visits to assess recovery and address any ongoing issues.

Quality Assurance (QA): QA involves systematic activities to ensure that healthcare services meet certain standards.

Sexually Transmitted Infections (STIs): Infections that are primarily spread through sexual contact. This includes but are not limited to diseases such as chlamydia, gonorrhoea, syphilis, and HIV.

Voluntary medical male circumcision (VMMC): Voluntary Medical Male Circumcision (VMMC) refers to the surgical removal of the foreskin of the penis. This procedure is undertaken with informed consent and without undue influence. It is performed voluntarily and is often promoted as part of HIV prevention strategies in high-prevalence areas.

CHAPTER 1: PROGRAMME OVERVIEW

This Chapter provides information on the following:

1. Background
2. Introduction
3. Minimum package of services
4. Expanded package of services
5. An opportunity of expanded services for adolescent boys
6. Safety as a priority
7. Confidentiality and privacy
8. The benefits, risks and limitations of MMC
9. Suggested client flow for male circumcision procedures and related services
10. Alignment of the South African Men's Health Strategy with VMMC Guidelines
11. Key messages

1.1 Background

In 2007 the World Health Organization (WHO) and the Joint United Nations Programme on HIV/AIDS (UNAIDS) recommended voluntary medical male circumcision (VMMC) as an important strategy for the prevention of heterosexually acquired HIV in men in settings where the prevalence of heterosexually transmitted HIV is high and with low prevalence of male circumcision. This was after evidence from randomised controlled trials from three countries demonstrated that VMMC reduced the risk of HIV transmission by 60 percent from a female to a male partner in a heterosexual intercourse. This recommendation was reviewed and reinforced in 2020 through a guideline development process that reviewed additional evidence and reinforced the 2007 recommendation. VMMC is part of a broader package of interventions designed to reduce HIV incidence among men in a generalised epidemic. It is a one-time, efficient, safe, cost-effective intervention. VMMC offers men partial protection against HIV and offers both women and men protection against other sexually transmitted infections, including human papillomavirus. Importantly, VMMC services reach men and adolescent boys who typically face barriers to accessing healthcare compared to women. VMMC also provides an opportunity to increase awareness of HIV status among millions of men and boys who might otherwise not have the opportunity to test for HIV. VMMC protective effects also extend to female sexual partners of circumcised men—for example, there is a protection association between male circumcision and of, cervical cancer, cervical dysplasia, HSV-2 infection, chlamydia, and syphilis. These benefits are highlighted in the World Health Organization's 2020 recommendations on preventing HIV through safe voluntary medical male circumcision for adolescent boys and men in generalized HIV epidemics.

Fourteen countries were prioritised for implementation of the VMMC programme for HIV prevention in sub-Saharan Africa since 2007 including South Africa, Botswana, Eswatini, Ethiopia, Kenya, Lesotho, Malawi, Mozambique, Namibia, Rwanda, Uganda, United Republic of Tanzania, Zambia, and Zimbabwe. South Sudan was included in 2017 as the fifteenth country.

By the end of 2023, a total of 37.5 million men and boys accessed the VMMC package of services, according to UNAIDS Global AIDS Monitoring 2023. A total of 18 million men and boys underwent VMMC between 2016 and 2020, falling short of the 2020 target of 25 million by over seven million. The country data reported by UNAIDS showed varying progress in numbers and the coverage of VMMC serve provision for HIV prevention by country. In 2020, the VMMC momentum was uneven across priority countries due to challenges related to the interruption of the COVID-19 pandemic, reducing financing of the VMMC programmes among others.

South Africa has circumcised more than 5.5 million men 10 years and older between 2008 and 2022 as part of the HIV prevention programme (DHIS 2024). This is after the successful implementation of multiple modalities of VMMC service delivery while prioritising 27 districts out of 52 with high HIV prevalence and low VMMC coverage. However, South Africa still falls short of reaching the required target of circumcising more than 80 percent of eligible males in the communities to enjoy reduced community transmission of HIV. According to the recently released sixth South African National HIV prevalence, incidence, behaviour, and communication survey (SABSSM), 2022, 49.9 percent of males 15-24 years were medically circumcised.

Updated WHO guidance recommends focusing VMMC on males aged 15 years and older to reach people most at risk of acquiring HIV infection and increase chances of reaching the 2030 HIV prevention targets, it also indicates that circumcising boys aged 10-14 years will offer significant public health benefits in the future, though these benefits may not be fully realised until around 2030. Recent mathematical models have shown that investing in VMMC in the next five years focusing on males 15-24 years will have the greatest impact in reducing HIV incidence. Additionally, many countries continue to report a high proportion of circumcisions among males under 15 years each year. WHO has published a framework for the process of achieving service coverage among the target population. Countries including South Africa will need to align to this framework and concentrate efforts on reaching older males at risk of HIV acquisition.

Mathematical modelling and scientific evidence have already shown the impact of the VMMC programme on HIV prevention in sub-Saharan Africa. In 2021, WHO reported an estimated 340 000 infections averted between 2008 and 2019 in the 15 WHO VMMC priority countries of East and Southern Africa based on modelling methods used by McGillen and colleagues. This included 260,000 infections in men and 75 000 in women (due to reduced secondary transmission from men). In a modelling study that included results from Goals-ASM, Thembisa, and EMOD estimated that VMMC had averted up to 83 000 HIV infections from 2010 to 2017 and had already had a modest impact on HIV incidence in South Africa. Bansi-Matharu et al., in their review of the cost-effectiveness of VMMC for HIV prevention across sub-Saharan Africa using five independent mathematical models, found that VMMC was more likely to be cost-effective in countries and settings with high HIV incidence such as South Africa.

With the demonstrated impact of the VMMC programme implementation for HIV prevention through focusing on males aged 15 years and above and the gains already achieved, South Africa needs to double efforts and scale up VMMC services across communities with high HIV incidence. Innovative, cost-effective, individualised demand-creation strategies need to be implemented to target older males at high risk of HIV acquisition. High-quality and safe VMMC service delivery models and methods, including the safe use of surgical aids and devices, need to be exploited.

HIV Burden

According to UNAIDS, in 2023, 39.9 million people were estimated to be living with HIV. There were 1.3 million new HIV infections recorded globally, and 630 000 people died from AIDS-related illnesses. Since 2010, new HIV infections have declined by 38 percent, from 2.1 million

to 1.3 million in 2023. Women and girls accounted for 43 percent of all new HIV infections globally in 2023. In sub-Saharan Africa, adolescents, girls, and young women accounted for more than 77 percent of new HIV infections among young people 15-24 years. In sub-Saharan Africa, adolescent girls and young women (aged 15-24 years) were more than three times as likely to acquire HIV than their male peers in 2022. Every week, 4 000 adolescent girls and young women aged 15–24 years became infected with HIV globally in 2022. 3 100 of these infections occurred in sub-Saharan Africa. Only about 42 percent of districts with high HIV incidence in sub-Saharan Africa had dedicated HIV prevention programmes for adolescent girls and young women in 2021 (UNAIDS,2022).

The SABSSM 2022 study data showed that the overall national estimate for HIV prevalence for all ages (0+ years) was 12.7 percent, translating to an estimate of 7.8 million people living with HIV (PLHIV). The national HIV prevalence was 16.3% among adults aged 15 years and older, translating to an estimated 7.4 million adults aged 15+ years living with HIV. Among adults aged 15+ years, HIV prevalence was nearly twice as high among females (20.3%) as compared to males (11.5%). By race, HIV prevalence was highest among Black Africans (19.8%), followed by Coloured (5.1%), White (1.3%), and Indian/ Asian (1.2%). Viral load suppression (VLS) (defined as <1 000 copies/mL) among PLHIV aged 15+ years was 81.2 percent overall, 82.9 percent among females, and 77.6 percent among males. Among females, HIV prevalence was highest in ages 35–39 years at 34.2 percent, whereas among males, HIV prevalence was highest in ages 45–49 years at 27.1 percent. Pronounced differences in HIV prevalence by sex were seen among younger populations. Compared to males, HIV prevalence was approximately two-fold higher in females aged 15–19 (5.7% vs. 3.1%), and 20–24 years (8.0% vs. 4.0%), and three-fold higher in females aged 25–29 years (19.5% vs 6.3%). Among adults aged 15 years and older, HIV prevalence varied geographically, ranging from 8.2 percent in the Western Cape to 21.8 percent in KwaZulu-Natal.

Additionally, the SABSSM, 2022 study showed that in South Africa, 90% of PLHIV aged 15 years and older knew their HIV status: slightly higher among females (92%) than among males (85%). Among PLHIV aged 15 years and older who knew their HIV status, 91% were on ART, and this was similar between females (91%) and males (90%). Overall, 94% of PLHIV aged 15 years and older who were on ART were virally suppressed.

Among other HIV prevention modalities, the South African National Strategic Plan for HIV, TB and STI 2023-2028 in its second goal, sub-objective 2.2.3 seeks to promote the uptake of VMMC through targeted demand creation. This will be achieved through opening more facilities for VMMC and integrating VMMC operations and databases with both the private sector and traditional circumcising communities.

Medical Male Circumcision in South Africa

The South African National Department of Health (NDOH) has endorsed Medical Male Circumcision (MMC) as an HIV prevention strategy for adolescent boys and men. The South African National Guidelines for Medical Male Circumcision 2025, adapted from World Health Organization (WHO) guidelines 2020, are designed for healthcare workers and programme managers to deliver universal, integrated, safe, and accessible voluntary MMC services. These guidelines support the National HIV/AIDS Strategic Plan for HIV/TB/STIs 2023-2028 (NSP), aiming to reduce new HIV infections by 95% by 2030.

Key components of the guidelines

- **Quality Improvement Framework**: For providers, programme managers, and national medical authorities to ensure high-quality services.
- **Technical Information**: Detailed guidance on various surgical approaches.
- **Broader Health Issues**: Guidance on addressing male sexual and reproductive health.

Intended audience and scope

These guidelines are intended for all healthcare workers involved in the MMC programme, as well as DOH officials, NGOs, and implementing partners. They provide step-by-step guidance on the implementation of the MMC programme, covering aspects such as counselling, surgical procedures, quality assurance, supplies, and operational issues. The content has been reviewed by experts and providers from various healthcare settings.

Summary of major changes in the revised guidelines

These guidelines aim to update NDOH recommendations to maximise the HIV prevention impact of safe VMMC services and to guide the transition to sustained provision of interventions with a focus on the health and well-being of both adolescent boys and men.

Informed by reviews of the evidence, these guidelines address:

- Male circumcision for HIV prevention
- Considerations on VMMC for adolescent males ages 10–14 years
- Surgical method recommendations (including discontinuing certain techniques)
- Interventions to enhance uptake of VMMC for HIV prevention among adult men
- The transition to adolescent-focused, sustainable VMMC services

1.2 Introduction

What is male circumcision, and how is it performed?

Male circumcision is the permanent and complete removal of the foreskin (or prepuce), the fold of skin that covers the head (or glans) of the penis. Male circumcision can be performed by several conventional or device-based surgical methods. It can be performed for medical reasons or as part of traditional and religious practices (called traditional foreskin cutting in guidelines). Male circumcision can be performed for therapeutic reasons, such as to correct a pathological condition (for example, phimosis). It can also be performed for elective purposes, such as improved hygiene, prevention of HIV or other sexually transmitted infections, and aesthetic preferences. In these guidelines, male circumcision refers to elective (versus therapeutic) circumcision of males performed by trained healthcare providers unless otherwise noted.

These guidelines prioritise male circumcision for adolescents (aged 10 or older) and adults performed under local anaesthesia. The 10-year age cut-off is based on evidence of both safety considerations and the client's capacity to provide informed assent (agree to the procedure after understanding the details). Parental or guardian-informed consent is required for minors (children under 18). Given the potential for coercion, the program will put in place additional checks to ensure that circumcision is fully voluntary and with the informed consent and assent of the client. While male circumcision can be performed on infants under two months old, this document focuses on the adolescent and adult populations.

1.3 A comprehensive prevention package of services for VMMC programmes

In 2007, the WHO and the Joint United Nations Programme on HIV/AIDS recommended medical male circumcision (MMC) as a strategy that provides partial protection against HIV infection. This recommendation is based on evidence showing that circumcision offers partial protection for adolescent boys and men. For many, accessing MMC services is their first encounter with health services since early childhood. Therefore, the WHO and the National Department of Health (NDOH) recommend expanding basic HIV prevention services to include additional health services for men and adolescent boys.

Package of Services:

- HIV testing services (including self-screening) and linkage to prevention, treatment, and care programmes
- Screening for sexually transmitted infections and provision of or referral for treatment
- Promotion and provision of condoms
- Screening for TB
- Promotion of PrEP and PEP
- Promotion of sexual and reproductive health education and services
- Education on safer sex practices
- Correct and consistent use of male or female condoms
- Screening for non-communicable diseases
- Harm reduction services

Procedures Ensuring Quality Delivery of VMMC:

- The informed consent process
- Medical male circumcision procedure
- Pre-operative counselling on MMC benefits, risks, and wound care, including abstinence for 6 weeks post-MMC
- Post-circumcision follow-up and appropriate management of adverse events
- MMC surgical procedures performed as described in these guidelines

1.4 Tailoring MMC services for adolescent boys

When developing interventions that could contribute to the health of adolescent boys, it is crucial to consider the differences in age groups within the adolescent phase. The changes during adolescence have significant implications for physical development, intellectual capacities, relationships, and parental, peer, and social influences. Therefore, it is important to tailor MMC services to the specific needs of adolescent boys and acknowledge the diverse developmental stages within adolescence, which range from ages 10 to 19.

Adolescence is typically divided into early (10-14 years) and late adolescence (15-19 years). These periods correspond roughly, but not perfectly, to physical, social, and psychological development stages.

- **Physical development**: Younger adolescents may not be physically mature enough for VMMC, making safety a key consideration.
- **Cognitive and psychosocial development**: The capacity to provide informed consent is crucial, and this hinges on cognitive and psychosocial maturity.
- **Uneven development**: Maturation in different areas (physical, social, emotional) occurs at varying rates. Physical maturity does not guarantee cognitive maturity.
- **Individual differences**: Adolescents of the same age can differ in sexual behaviour, family roles, and community responsibilities.

1.5 Safety as a priority

The foundation of quality healthcare lies in the training and resources of providers, enabling them to deliver services that adhere to the WHO global safety standards.

The following are recommended practices relevant to providing safe MMC services:

- Standard precautions for infection prevention - Infection prevention and control are vital to protecting both clients and clinic staff. This includes hand hygiene; use of personal protective equipment; safe handling and proper use of needles, syringes, and sharp instruments; and appropriate measures for cleaning and proper waste disposal.
- Trained clinicians- Clinicians who perform MMC must be trained and certified as competent in performing high-quality MMC as per the latest WHO surgical manual and NDOH guidelines and routinely provided refresher training on knowledge and skills related to MMC.

- Client eligibility and deferral or referral as appropriate - To ensure eligibility for MMC, providers must conduct appropriate screening. The following conditions must be noted and referred to: known or suspected bleeding disorder, keloid risk, hypospadias, epispadias, pathological phimosis, and newly diagnosed HIV reactive. It is important to treat some conditions, such as acute febrile illness or infection, uncontrolled hypertension, and uncontrolled diabetes before the procedure to ensure the client's safety. In the case of immature genitalia, MMC must be deferred.
- Tetanus mitigation: Tetanus is a deadly disease that is preventable through proper vaccination and wound care. Clinics that perform MMC should adhere to national guidelines on tetanus vaccination. This may involve referring clients for tetanus toxoid-containing vaccination based on their risk factors or unknown vaccination history. While the Tetanus vaccination may not be mandatory for MMC procedures, it is important to inform clients about potential risks associated with using traditional medicines on circumcision wounds, such practices can increase the risk of tetanus infection.
- Anaesthesia - Local anaesthesia is recommended for MMC services and is simpler, safer, and less expensive than general anaesthesia. General anaesthesia is not recommended in the South African VMMC programme.
- Haemostasis - Providers can help prevent life-threatening bleeding by carefully screening clients to identify those at increased risk for significant bleeding. All providers must be competent in using surgical techniques to stop bleeding.
- Emergency plan - The team should be able to identify conditions that require emergency care and have a plan that outlines the roles and responsibilities of all team members in an emergency, outlines each step in the emergency response, and identifies emergency referral facilities.

Client education

Pre and post-procedure instructions and follow-up - Key messages relating to the following:

- Proper hygiene practices
- Proper wound care and warnings against the use of home remedies on the wound
- The need for abstinence during the wound-healing period (or wearing a condom if abstinence is not possible)
- The importance of returning for follow-up care as recommended and a description of symptoms that indicate a need to return to the clinic or a need to seek medical attention immediately.
- Quality Assurance (QA) - The VMMC programme embraces a quality management approach called Continuous Quality Improvement (CQI). This method empowers healthcare teams to constantly ask critical questions like "Are we delivering the best service?" and "How can we improve?" It is an integral part of how everyday services are performed and is a constructive process, whereby sites are assessed to gauge the extent of compliance against quality standards and guidelines, identified gaps are noted, remedial actions are put in place and monitored, onsite mentoring and coaching is performed, and reassessments are conducted on regular basis.

1.6 Confidentiality and privacy

Confidentiality means that healthcare providers and other staff protect and do not share clients' personal information— it is an individual's right to decide when and with whom to share information about his health. All client information should be kept confidential, and client records should be safely secured as per requirements of the Protection of Personal Information Act (Act 4 of 2013). Privacy is about making sure that anyone who is not accompanying or directly interacting with the client neither hears (audio privacy) nor sees (visual privacy) the client during the discussion of personal health matters, physical examination, and surgical procedure.

1.6.1 Informed consent and assent

Informed consent and assent are critical components of male circumcision service delivery. The client—or in the case of a minor, the client and his parent(s)/guardian(s)—must be given understandable, complete, accurate information about the risks, benefits, and limitations of the procedure. All clients—or parent(s)/guardian(s) in the case of a minor—need to sign a consent form to document the consent process before the procedure. Consent or assent is also needed for HIV testing.

1.7 Benefits, risks, and limitations of medical male circumcision

1.7.1 Benefits of medical male circumcision for males

- Between 2008-2023 886,495 new HIV infections were prevented by the 37 million circumcisions performed during this period, equating to one infection averted for every 42 VMMCs. Through 2030 The number of infections averted from these circumcisions is projected to rise to 1.4 million, representing one infection averted for every 26 VMMCs. By 2050 The cumulative impact is expected to reach 3.2 million infections averted, with one infection averted for every 12 VMMCs. According to Avenir Health projections 2024.
- Reduced risk of female-to-male transmission of HIV
- Reduced risk of some sexually transmitted infections, including syphilis, herpes, chancroid, and ulcers
- Reduced risk of human papillomavirus and resultant lower risk of penile cancer
- Possible increased ease of keeping the penis clean or having better hygiene
- Reduced inflammation of the glans (balanitis) and the foreskin (posthitis)
- Reduced risk for formation of foreskin scar tissue, which may lead to phimosis (inability to retract the foreskin) and paraphimosis (swelling of the retracted foreskin, resulting in the inability to return the foreskin to its normal position)

1.7.2 Benefits of medical male circumcision for female partners

- Reduced risk of HIV transmission—as more men are circumcised, fewer men will become infected with HIV, thereby decreasing the chance that a woman will encounter an HIV-positive sexual partner; thus, over time, female HIV incidence will decline
- Reduced risk of transmission of human papillomavirus from male-to-female and, therefore, of developing cervical cancer
- Reduced risk of acquisition of ulcerative STIs (herpes simplex, syphilis trichomonas vaginalis and bacterial vaginosis and, therefore, of developing related consequences to pregnancy outcomes, including preterm labour)

The provider needs to assess the client's beliefs about the benefits of medical male circumcision.

1.7.3 Limitations of medical male circumcision

- Although MMC reduces the client's risk of becoming infected with HIV, that risk is not eliminated. MMC provides partial (not 100%) protection against female-to-male HIV transmission. After medical male circumcision, clients must practise additional risk-reduction strategies to further reduce the risk of acquiring HIV; such strategies include correct and consistent condom use, PrEP, fewer sexual partners, and avoidance of concurrent sexual partnerships.
- There is insufficient evidence to determine whether circumcision reduces HIV infection among men who have sex with men. Also, circumcision does not provide any direct protection against HIV transmission from HIV-positive men to their female partners.

1.7.4 Risks of medical male circumcision

Medical male circumcision, as with any surgical procedure, carries some risk to clients, although this risk is generally low. One study followed the outcome of medical male circumcision in more than one million men across six African countries; the study occurred from 2010 to 2012 and found the combined risk of moderate and severe adverse events to be less than one percent. In rare instances, complications progressed, resulting in permanent deformity or disability. Death following male circumcision is extremely rare; causes include tetanus, bleeding disorders, and local anaesthetic toxicity

Most clients in male circumcision programmes do not experience adverse events. However, when such events occur, they are usually mild and resolve quickly. In cases of moderate or severe adverse events, accurate identification and prompt treatment help limit the severity of outcomes. The level of risk is counteracted by the appropriate training, skills, and precautionary safety measures practised by the surgeon.

List of potential complications and side effects associated with male circumcision:

- **Pain**: Common immediately after the procedure.
- **Bleeding**: Usually minor but can sometimes be more significant.
- **Haematoma**: A collection of blood outside of blood vessels.
- **Infection**: At the circumcision site, which can be managed with proper wound care.
- **Increased sensitivity of the glans**: Often temporary, lasting for a few months.
- **Irritation of the glans**: Due to exposure and friction.
- **Meatitis**: Inflammation of the opening of the urethra.
- **Injury to the penis**: Rare but possible.
- **Adverse reaction to the anaesthetic**: This can occur, though it is uncommon.

The following are additional risks associated with male circumcision, though they are generally rare. These can include:

- **Scarring**: Some degree of scarring is normal, but excessive scarring can occur.
- **Loss of sensation**: While increased sensitivity is common initially, some men report a decrease in sensitivity over time.
- **Urethral fistula**: An abnormal connection between the urethra and the skin.
- **Phimosis**: Incomplete removal of the foreskin can lead to phimosis, where the foreskin cannot be retracted.
- **Psychological impact**: Some individuals may experience emotional or psychological effects post-procedure.
- **Buried penis**: The penis can become hidden under the pubic fat pad, especially in overweight individuals.
- **Excessive skin removal**: This can lead to tightness and discomfort.

When adverse events do happen, they typically occur within the first week after the procedure, although this is not always the case. More information on the risks of male circumcision is in Chapter 5, and the management of adverse events is in Chapter 8.

1.8 Risk compensation

Risk compensation is the practice of increasing sexual risk behavior due to a false sense of security, which is a concern with any partially protective intervention against HIV, including male circumcision. According to studies published in AIDS 2016, PLoS One 2008, AIDS Behav 2014, and Bhekisisa 2017, men's sexual risk behaviors did not significantly change after circumcision. Additional studies, such as those published in PLoS One 2013, PLoS One 2015, and BMC Public Health 2016, indicated higher-risk behaviors among circumcised men compared to their uncircumcised counterparts. However, it may be that men choosing circumcision engage in higher-risk behaviors before becoming circumcised and simply continue those behaviors after circumcision, which is not risk compensation. A good way to help clients avoid engaging in risk compensation behavior is to ensure they understand that male circumcision provides only partial protection against HIV, as noted in studies published in PLoS One 2013, PLoS One 2015, and BMC Public Health 2016.

1.9 Sexual function and satisfaction after male circumcision

A systematic review of studies on the effect of male circumcision on sexual sensation, function, or satisfaction did not demonstrate any significant changes. The only consistent finding was a slight prolongation in the time to ejaculation (about 30 seconds longer). This was reported by J Sex Med in 2008 in their study on adult male circumcision's effects on sexual function and satisfaction. A study of female sexual partners of men who had been circumcised during the partnership found that most women either had no preference or preferred circumcision for their partners; only three percent preferred their partners to be uncircumcised. The study, published in *BJU Int* **in 2009, reported that women preferred circumcision due to improved hygiene and longer duration of coitus. Another study published in** PLoS One in 2014 explored women's beliefs about male circumcision, HIV prevention, and sexual behaviors in Kisumu, Kenya. MMC is neither treatment nor cure for erectile dysfunction, sexual performance problems, infertility, and other conditions that some clients may believe the procedure will address.

1.10 Alignment of the South African Men's Health Strategy with VMMC Guidelines

The South African National Integrated Men's Health Strategy 2020-2025 aims to improve the overall health and well-being of South African men and boys. This strategy aligns closely with the Voluntary Medical Male Circumcision (VMMC) guidelines in several key areas:

- **HIV Prevention**:
  - **VMMC as a Core Component**- The strategy recognizes VMMC as a crucial intervention for reducing HIV transmission. By promoting VMMC, the strategy aims to lower the incidence of HIV among men, which aligns with the VMMC guidelines' emphasis on circumcision as a preventive measure against HIV.
  - **Targeted Age Groups**- Both the strategy and the VMMC guidelines prioritize males aged 15 years and older, who are at higher risk of acquiring HIV. This targeted approach aims to maximize the impact of HIV prevention efforts while still addressing the needs of younger adolescents.
- **Comprehensive Health Services**:
  - **Integrated Care**- The strategy advocates for a comprehensive and integrated package of care for men and boys, which includes VMMC services. This integration ensures that men accessing VMMC services also receive other essential health services, such as HIV testing, STI screening, and sexual and reproductive health education.
  - **Health Promotion**- The strategy emphasizes health promotion and education, which are also key components of the VMMC guidelines. Educating men about the benefits and risks of VMMC, as well as promoting safer sexual practices, is crucial for the success of both initiatives.
- **Accessibility and Quality of Services**:
  - **Service Delivery Models**- The strategy supports the implementation of high-quality and safe VMMC service delivery models, including the use of surgical aids and devices. This aligns with the VMMC guidelines' focus on ensuring the safety and quality of circumcision procedures.
  - **Demand Creation**- Both the strategy and the VMMC guidelines highlight the importance of innovative and cost-effective demand-creation strategies to encourage more men to undergo circumcision. This includes targeted campaigns and community engagement efforts.
- **Monitoring and Evaluation**:
  - **Data Integration**- The strategy calls for the integration of VMMC operations and databases with both the private sector and traditional circumcising communities. This aligns with the VMMC guidelines' emphasis on monitoring and evaluating the impact of circumcision programs to ensure they meet their targets and improve over time.
- **Addressing Barriers to Healthcare**:
  - **Overcoming Barriers**- The strategy acknowledges the barriers that men face in accessing healthcare and aims to address these through targeted interventions. This is in line with the VMMC guidelines' goal of reaching men and adolescent boys who typically face barriers to accessing healthcare.

By aligning with the South African National Integrated Men's Health Strategy, the VMMC guidelines ensure a coordinated and comprehensive approach to improving men's health and reducing HIV transmission in South Africa.

Box 1: Key messages

Key messages

- Medical male circumcision is the permanent removal of the foreskin.
- MMC is a one-time procedure that reduces the risk of female-to-male transmission by about 60%.
- MMC provides partial protection and should be offered as a minimum package of services.
- Informed consent (and assent, for minors) is a critical component.
- Assurance of confidentiality and privacy is an important aspect of quality health services.
- MMC provides other health benefits for men and women.
- The rate of reported adverse events has been low and needs to be improved.
- Client safety is a priority in all settings.
- Services, communication, and counselling need to be adapted to the specific needs of adolescent clients (10-19 years old); the services need to be age-appropriate and include different messaging for younger (10-14 years old) and older adolescents (15-19 years old).

CHAPTER 2: FACILITIES, HUMAN RESOURCE, SUPPLIES AND INFRASTRUCTURE

This chapter provides information on the following:

1. Different types of service delivery models
2. Traditional male circumcision
3. The clinic staff compliment and training
4. Equipment and supplies
5. Maintenance and care of instruments
6. Continuity of services
7. Clinic design for good client flow
8. Key messages

Effective implementation of the Voluntary Medical Male Circumcision (VMMC) programme hinges on the availability and quality of facilities, human resources, supplies, and infrastructure. This chapter outlines the essential components and standards required to ensure that VMMC services are delivered safely, efficiently, and sustainably.

By addressing these critical elements, we aim to create an enabling environment that supports the health and well-being of adolescent boys and men while maximising the HIV prevention impact of VMMC.

Additionally, MMC facilities must comply with the guidance of the Office of Health Standards and Compliance (OHSC). https://ohsc.org.za/

2.1 Service delivery models

From a programmatic perspective, three different types of service delivery settings can be combined to serve the community effectively within the constraints and requirements of the MMC programme.

- **Fixed sites** are in permanent structures and are appropriate in areas where the population is dense and there is likely to be a continuing demand for services. These sites may be dedicated sites or integrated into other healthcare facilities. Services are typically rendered at these facilities on a daily basis.
- **A mobile site** is often a temporary structure that may expand the reach of fixed sites or provide services that supplement those offered at fixed sites. Such sites may be used for outreach during periods of high demand, for example, during male circumcision campaigns. Mobile sites comprise fully contained surgical units in a mobile truck, augmented by temporary structures such as gazebos for registration, counselling, and post-operative review.
- **Outreach sites** are often established in existing structures that are modified to make male circumcision services available to harder-to-reach clients, such as those in rural areas. They can also help in raising awareness and generating demand in such populations and provide temporary short-term support during campaigns. Such sites could comprise community halls, schools' halls, or servicing public health facilities on a roving basis.

Although MMC sites may vary in significant ways, all sites should have sufficient space and other necessary resources to provide confidential counselling, perform safe circumcisions, and manage emergencies. For more information on determining the most appropriate site options in the context of creating demand or addressing other local needs, see PEPFAR's best practices for voluntary medical male circumcision site operations.

Settings for VMMC programme delivery in South Africa

In South Africa, the VMMC programme is provided through various traditional healthcare settings, including:

- **Community Settings**: Clinics, Primary Healthcare (PHC) centres, Community Health Centres (CHC), hospitals, General Practitioner (GP) sites, private sites, and private standalone sites.
- **DCS Clinics**: Clinics operated by the Department of Correctional Services.
- Globally, the prevalence of HIV is much higher among inmates than in the general population (Gilbertson et al.). Inmates in correctional services in South Africa are also at a higher risk of contracting HIV. In order to reach this key population and reduce the incident rate of HIV, South Africa has been implementing MMC services, which provide a significant reduction in the risk of HIV transmission. This is a collaboration between the Department of Correctional Services (DCS) and the Department of Health (DoH). Though different in context, MMC in DCS should follow the same process as in the general population, adhering to minimum quality standards. This modality uses available DCS space, and it is considered an outreach model.

Traditional male circumcision in initiation schools:

- Male circumcision within traditional settings is regarded as a sacred and indispensable cultural rite intended to prepare initiates for the responsibilities of adulthood and usually marks a transition from boyhood to manhood. This ritual is part of the indigenous knowledge systems that have been passed on from one generation to another in various communities. The details of what is taught during initiation are considered sacred and as such, have not been well documented. The actual cutting of the foreskin is usually performed by non-healthcare individuals and may sometimes involve only partial removal, depending on the specific cultural practice.
- The national MMC programme has established links with the communities that practice circumcision as part of the traditional male initiation (TMI) ceremonies, and an important component of the programme is strengthening the engagement with traditional leaders and promoting MMC in place of the traditional ritual. The number of adverse events associated with TMI/CMI is significantly reduced by training traditional circumcision providers in infection prevention control or through trained clinicians performing the actual surgery.
- The government has found ways of working with traditional leaders to make circumcision in these settings safe. With the introduction of the Customary Initiation Act, 2021 (Act 2 of 2021), section 24, the medical practitioner's role (Chapter 3) of supervisory or direct performance of the procedure was included in the traditional initiation settings as a means of providing safe medical circumcisions to the initiates. This collaboration is envisaged to improve the safety and acceptability of circumcision, reduce complications, enhance health education, and improve the sexual and reproductive health of men while preserving the sociocultural importance of the initiation process.
- These guidelines make specific recommendations for different ways in which clinical and traditional male circumcision services can collaborate for better health outcomes for traditional initiates going through circumcision.

Recommended process for safe male circumcision within traditional settings:

- Identify health professionals to assist with health screening (counsellors, nurses, clinical associates, doctors, etc.).
- Ensure all initiates undergo a health screen, including screening for noncommunicable diseases before the initiation process. Allow sufficient time for referral and management of any condition.
- Establish clear referral mechanisms for screened initiates.
- Offer HIV testing to all initiates before initiation and

provide appropriate support and referral.

- Consent for VMMC.
- Ensure that initiates who have been diagnosed with a medical condition obtain clearance from a Clinician prior to undergoing circumcision and participating in the initiation process.
- It is recommended that trained and certified competent clinicians should do the surgical removal of the foreskin during the initiation process. (Using those who have undergone initiation improves acceptability).
- Circumcising more than one person with the same instrument increases the risk of exposure to HIV and other infections, and such a practice should be avoided by all means.
- Allow medically trained male clinicians to assist with wound care.
- Standardise training and include awareness of health issues and HIV prevention strategies for communities and initiation schools.
- Raise community awareness and promote health screening prior to initiation.
- If possible, separate the initiation process from the surgical removal of the foreskin so that the ritual of initiation may not be compromised and, at the same time, allow medical interventions to improve the health outcomes of initiates.

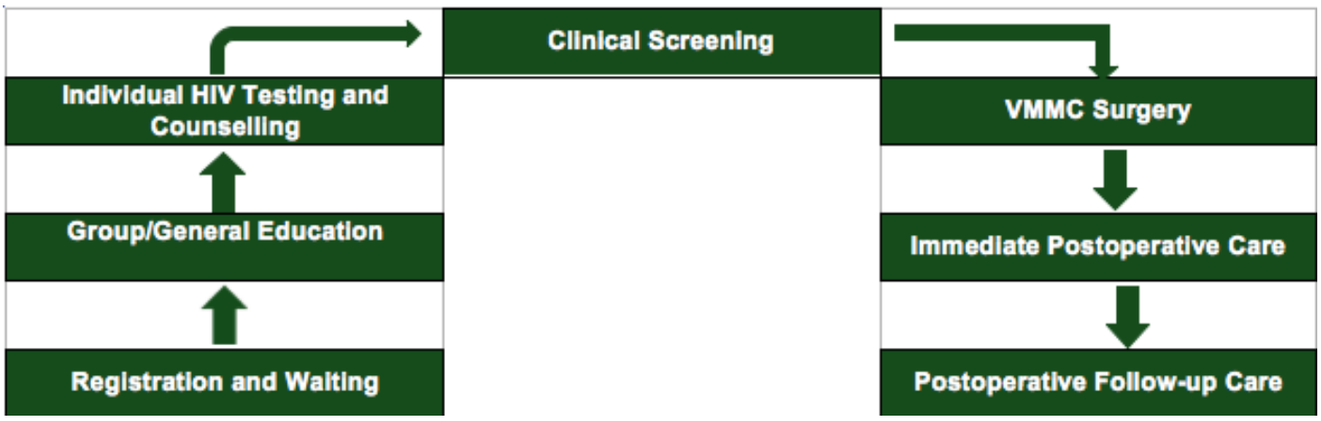
Refer to the South African National Framework for Oversight in Traditional Initiation Schools 2023

2.2 Clinic design for good client flow

Efficient client flow is crucial in male circumcision services. It minimises waiting times and confusion for both clients and staff. This streamlined process allows for better service delivery, potentially leading to improved health outcomes. Additionally, the saved time and resources can be used to expand healthcare offerings.

The procedure room

Figure 1: Client flow through MMC services



Source: PEPFAR's best practices for voluntary medical male circumcision site operations: a service guide for site operations. Washington, DC: United States President's Emergency Plan for AIDS Relief; 2017 https://2017-2020.usaid.gov/sites/default/files/documents/1864/pepfar_best_practice_for_vmmc_site_operations.pdf

Some characteristics of service delivery design and function, which support good client flow in medical male circumcision or general health sites, are the following:

- Clients have easy access to separate entry and exit points, ideally at opposite ends of the clinic, to facilitate a logical patient flow through the service.
- Waiting areas and periods of waiting between different service components are used rather than wasted—these may be opportunities to educate clients, reinforce key health messages, or provide other services.
- Where possible, closely related services are conducted together if doing so does not compromise the client's rights to privacy and confidentiality, as well as safe quality services (for example, counselling and screening are often combined).
- The risk of exposure to biohazardous material for clients is minimised.
- A recovery area is available and preferably close to the exit, allowing clients to rest while being monitored until the provider deems it safe for them to leave.
- The exit point is situated close to a place where the client can easily receive, in private, the following:
- Post-procedure counselling, a brochure on post-procedure self-care instructions, and a list of warning signs that indicate a need to seek emergency care, with emergency contact details.
- Specific information about the upcoming follow-up appointment.
- Analgesics are provided for the client to take home.

The procedure room used in medical male circumcision services should be used only for circumcisions, but the room may, if necessary, be used for other surgical procedures. A dedicated medical male circumcision procedure room helps staff achieve a high level of quality and consistency in service delivery and cleanliness and maintain the appropriate equipment and supply setup for circumcision. The procedure room itself must have the following characteristics:

- Temperature controlled
- Be well-ventilated (for example, with a window, air conditioner, or vent)
- Adequate lighting
- Be free of clutter (containing nothing that is not required for performing the procedure—for example, storage boxes)
- Hard surfaces: Ensure floors and other surfaces are made of materials that are easy to clean and disinfect, such as tiles or vinyl. Avoid materials that are difficult to sanitise, like carpeting or rugs
- No porous materials: Eliminate porous surfaces, which can harbour bacteria, such as wood or fabric
- Access: Minimise foot traffic in the procedure room. Restrict access to authorised personnel only
- PPE: All clinical staff must wear appropriate personal protective equipment (PPE) within the procedure room. This includes disposable theatre shoe caps, head caps, goggles, and surgical masks
- Designated Areas: Mark areas within the procedure room where PPE is mandatory. Use red tape or other visual cues to indicate restricted areas
- Allows for visual and audio privacy
- Have a floor made of seamless nonporous material that is easy to clean and disinfect
- Adequately furnished
- Surgical Bed: Ensure the surgical bed is stable, intact, and at a suitable height to allow the provider to perform the procedure comfortably without bending.
- Instrument Trolley: Provide a trolley or table for organising surgical instruments and supplies
- Step Stool: Offer a small step stool to assist clients in climbing onto the bed easily
- Room Divider: If necessary, use a room divider, screen, or curtains made of a cleanable material (such as plastic) to create privacy
- Emergency Kit: Have an emergency medical trolley or jump bag readily available, equipped with necessary consumables, equipment, and oxygen

Storage Room

- The storage room is essential for keeping medical supplies and equipment organized and readily accessible. Key features include:
    - Organisation: Shelving units and labelled bins help keep items sorted and easy to find.
    - Climate Control: Temperature and humidity control to preserve the integrity of medical supplies.
    - Security: Restricted access to ensure only authorised personnel can enter.
    - Inventory Management: Regular inventory checks to prevent shortages and overstocking.

Sluice Room

The sluice room, also known as a dirty utility room, is essential for infection control in VMMC sites. It is used for disinfecting medical items and ensuring a clean and safe environment. Key features and considerations:

Decontamination Equipment

- Biocide or Disinfectant Solution: Used for cleaning surgical instruments and other medical items.
- Basin with Water: For rinsing and cleaning MMC surgical instruments.
- Mops and Decontamination Buckets: For cleaning the room and maintaining hygiene standards.

Storage Solutions

- Boxes or Buckets: For storing clean and disinfected disposable surgical instruments before they are moved to the waste room. This helps in organising and ensuring that clean items are not contaminated again.

Safety Protocols

- Handling Biological Risks: Procedures for safely handling and disposing of biological waste to prevent contamination.
- Chemical Safety: Guidelines for using and storing disinfectants and other chemicals safely.
- Physical Safety: Ensuring that the room is free from hazards that could cause injury to staff or clients.

Waste Storage Room

This room is designated for storing medical waste before it is disposed of. Important aspects include:

- **Segregation**: Separate bins for different types of waste (e.g., biohazardous, sharps, general waste).
- **Security**: Restricted access to prevent unauthorized entry and ensure safety.
- **Ventilation**: Proper ventilation to control odors and prevent the buildup of harmful gases.
- **Compliance**: Adherence to local regulations and guidelines for medical waste management.

Patients' Files Area/Medical Records Room

The medical records room, also known as the filing room, is crucial for the organised storage and management of all patient-related documents. Here are the key characteristics:

1. Organisation

- Shelving Units and Cabinets: Adequate shelving and lockable cabinets to store patient files, MMC surgical registers, AE registers, referral registers, follow-up registers, and other important documents.
- Labelling System: Clear and consistent labelling of files and storage units to ensure easy retrieval and return of documents.

2. Security

- Restricted Access: Only authorised personnel should have access to the medical records room to ensure patient confidentiality and data security.
- Lockable Storage: Secure storage solutions to protect sensitive information from unauthorized access.

3. Climate Control

- Temperature and Humidity Control: Maintaining an optimal environment to preserve the integrity of paper records and prevent damage from moisture or extreme temperatures.

4. Digital Integration

- Electronic Health Records (EHR): Where possible, integrating digital records with physical files to streamline access and improve efficiency.
- Backup Systems: Regular backups of digital records to prevent data loss.

5. Workflow Efficiency

- Clear Filing Protocols: Established procedures for filing, retrieving, and archiving documents to ensure smooth operations.
- Designated Workspaces: Areas for staff to review and update records without disrupting the organisation of the room.

6. Compliance:

- Regulatory Adherence: Ensuring that the storage and handling of medical records comply with Department of Health regulations and standards for patient privacy and data protection.

2.3 Equipment and supplies

2.3.1 Standard equipment, instruments, and supplies needed for a single surgical male circumcision procedure:

Instruments and Supplies

- 1% or 2% lidocaine/lignocaine (without Adrenalin)
- 0.25% or 0.5% Bupivacaine
- Alcohol swab, with isopropyl alcohol 70% - 2 pieces
- Gentian violet (no more than 5mL) or sterile marker pen
- ETO Indicators - 1 piece
- Instrument tray wrapped with sterile drape O drape (100 cm x 75 cm, with ~ 5cm hole)
- Artery forceps, also known as mosquito forceps (1 straight, 2 curved)
- Crepe paper, surgical, wrapping - 1 piece
- Curved dissecting scissors
- Dissecting forceps (finely toothed), also known as tweezers
- Forceps haemostatic cross clamp - 1 piece
- Gloves, examination, latex, large - 1 pair
- Gloves, surgical, sterile - 2 pair
- Gloves, surgical, sterile, non-powdered, size - 1 pair
- Surgical masks, face shield/googles, caps, and aprons
- Injection needles (21-gauge, 23-gauge, 25-gauge, or 27-gauge)
- Instrument tray wrapped with sterile drape
- Needle holder – 1 piece
- Gauze, swab, 10cm x 10cm, 12 ply - 20 pieces
- Gauze impregnated with petroleum jelly (5cm x 5cm or 5cm x 10cm) and sticking plaster or paper tape
- Plain gauze swabs (10 x 10cm; 10 for the procedure, five for the dressing)
- Povidone iodine (50 mL 7.5–10% aqueous-based solution)
- Scalpel knife handle and blades for surgical aid (not needed for dorsal slit method)
- Suture material (chromic catgut or polyglactin 910 [Vicryl Rapide TM] 3-0 and 4-0) with 3/8 circle reverse-cutting needle (19mm or less)
- syringe,3, 5, or 10mL

Equipment

- Sharp containers
- Waste receptacles for contaminated and non-contaminated waste
- Properly colour-coded bin liners
- Buckets for decontamination
- Diathermy Machine

2.3.2 List of emergency equipment and supplies

- Adhesive tape (strapping)
- Alcohol swabs
- Guidelines for emergency care, Basic Life Support Algorithm, and emergency management of adult and child anaphylaxis algorithm (job aide)
- Blood pressure measuring equipment, including adult and paediatric cuffs
- Stethoscope
- Glucometer
- Gauze
- Gloves (examination)
- Intravenous cannulas and infusion sets
- Oropharyngeal airway (adult and paediatric sizes)
- Resuscitator bag valve and mask (adult and paediatric)
- Normal saline solution for intravenous infusion: 0.9% sodium chloride (NaCl)
- Syringes with needles (disposable)
- Tourniquet
- AED Defibrillator
- Emergency drugs (Adrenalin, atropine, hydrocortisone)
- Oxygen source with mask
- Laryngoscope

Make sure that there is an inventory list of emergency equipment and supplies to cross-reference against items in stock. For each item, determine the minimum recommended amount you should have in stock (e.g., 5 per item).

Additional items per national guidance should also be included.

All surgeons and nurses must possess current Basic Life Support certification and undergo regular medical emergency training every 24 months to ensure they can effectively manage critical situations and confidently utilise the emergency trolley.

2.4 Maintenance and care of instruments

The NDOH MMC programme recommends the use of disposable surgical instruments rather than reusable ones. If reusable instruments are used, they should be confined to department hospital settings and not community primary healthcare or other outpatient care facilities. Providers in settings where reusable surgical instruments are utilised should be aware that these instruments wear out with use and repeated disinfection and sterilisation. Failure to maintain instruments in good working condition can lead to operative difficulties and complications. For example, haemostatic artery forceps with bent blades will not properly occlude a bleeding vessel, while blunt dissection scissors can result in a ragged wound.

In sites where both reusable and disposable instruments are available, care must be taken to prevent mixing the two types because disposable instruments may not be autoclaved for proper sterilisation, which can lead to sub-optimal strength of the surgical equipment and increased risk of infection.

Table 1: Checklist for surgical instruments

Table 1: Checklist for surgical instruments

Checklist for Surgical Instruments			Tick
Haemostatic artery forceps	Do the points meet accurately?		
	Is the grip on the points worn?		
	Does the ratchet lock securely or is it worn?		
Surgical dissection scissors	Is the cutting edge of the blade sharp?		
	Do the blades meet securely?		
	Is the screw loose?		
Needle holders Is the grip on the points worn?		Do the points meet accurately?	
Dissection forceps (tweezers) If toothed, are the teeth worn?		Do the points meet accurately? (crossed points are a common problem with old instruments)	

Record of faulty equipment

A record of faulty equipment and instruments should be kept as a means of quality assurance of equipment and instruments used for the procedure. The records should be part of assessments during continuous quality improvement activities at the site. This will also help inform managers on resource management.

Table 2: Assessments during continuous quality improvement activities at the site

	Fixed	Outreach	Mobile
Description	Daily VMMC services are offered 5-6 times a week within permanent healthcare facilities, such as district hospitals and PHC. May share resources with facilities and support outreach and mobile sites.	VMMC services are offered on specific days of the week in selected facilities by a roving team. Also includes outreach to traditional male initiation schools.	VMMC services are taken to convenient locations within the community or hard-to-reach locations via a mobile surgical unit. It can be used during high-demand periods.
Team structure	**Minimum Team Requirements:** • 1 surgeon (doctor/CA/PN under supervision) • nurses (assistant nurse/runner i.e. PN, EN, ENA) • 1 counsellor • 1 mobiliser • 1 driver (optional) • 1 receptionist/data capturer • 1 hygienist/cleaner Staff may be fully dedicated to VMMC or split their time across other tasks.	**Minimum Team Requirements:** • 1 surgeon (doctor/CA/PN under supervision) • nurses • 1 counsellor • 1 mobiliser • 1 driver • 1 receptionist/data capturer • 1 hygienist	**Minimum Team Requirements:** • 1 surgeon (doctor/CA/PN under supervision) • nurses • 1 counsellor • 1 mobiliser • 1 driver • 1 receptionist/data capturer • 1 hygienist
Target population	Men who live in close proximity to the static facility.	Men who live in remote areas who do not have easy access to VMMC in a facility.	Men who live in remote areas who do not have easy access to a facility, or who are not comfortable visiting a facility.

Continuity of services: Back up water and electricity

Mandatory - water back up for hand washing, cleaning of instruments, and floors. 100 litres. It is recommended that facilities have backup electricity. Each facility should ensure the availability of backup power generators and water sources in the event of power or water cuts by the municipality. This will ensure the continuous safe provision of services to the clients.

2.5 Clinic staff complement and training

Medical Circumcision Service Delivery Circumcision service delivery is categorised by models of service delivery: fixed, mobile, and outreach sites. VMMC services are provided through several different vehicles, including sites that are funded by the NDOH, sites that are funded through the National Treasury using Transversal Contracting, and sites that are funded or supported through donor mechanisms. General Practitioners operating from a private practice are expected to meet the fixed site-mandated standards in order to perform VMMC safely. The following staff categories should be available to run a successful circumcision programme within each setting.

Table: below describes the various service delivery models (fixed sites, outreach and mobile) and guides team structure and target population.

Roles and responsibilities of VMMC staff:

Surgical providers (Doctors, Clinical Associates within their scope and Professional Nurse under Supervision)

- **Perform circumcisions:** Conduct the surgical procedure safely and efficiently.
- **Pre-operative care:** Assess patients, provide preoperative counselling, and ensure they are medically fit for the procedure.
- **Post-operative care:** Monitor patients for complications, provide wound care instructions, and manage any post-operative issues.
- **Adverse Event (AE) management**: Identify, manage, and document any adverse events that occur during or after the procedure.
- **Training and supervision**: Train and supervise other healthcare workers involved in the VMMC programme

Professional Nurses

- **Assist in surgery**: Support the surgeon during the circumcision procedure.
- **Patient care**: Provide pre- and post-operative care, including wound care and monitoring for complications.
- **Counselling and education**: Educate patients about the procedure, aftercare, and HIV prevention.
- **AE management**: Assist in identifying and managing adverse events, ensuring proper documentation and follow-up.

Enrolled Nurses and Enrolled Nursing Assistants

- **Assist with circumcision procedures:** by handling instruments, cleaning the patient, and dressing wounds. As per SANC regulations, they are not allowed to inject or suture.
- **Patient care**: Assist with pre- and post-operative care under the supervision of professional nurses.
- **Support services**: Help with patient preparation and post-operative monitoring.
- **AE management:** Support the team in monitoring and managing adverse events.

Counsellor

- **Pre-procedure counselling**: Inform and counsel patients about the benefits, risks, and process of VMMC.
- **HIV testing and counselling**: Offer HIV testing and provide counselling based on the results.
- **Post-procedure support**: Provide emotional and psychological support to patients after the procedure.

Mobiliser

- **Community engagement**: Raise awareness about VMMC in the community and encourage men to undergo the procedure.
- **Recruitment**: Identify and recruit eligible candidates for VMMC.
- **Follow-up**: Ensure patients return for follow-up visits and adhere to post-operative care instructions.

Driver

- **Transport**: Safely transport the VMMC team and equipment to various service delivery sites.
- **Logistics support**: Assist with setting up and dismantling mobile units and outreach sites.

Receptionist/Data Capturer

- **Patient registration**: Register patients and manage appointment schedules.
- **Data management**: Accurately capture and maintain patient records and data related to VMMC services.
- **Administrative support**: Provide general administrative support to the VMMC team.

Hygienist/Cleaner

- **Maintain cleanliness**: Ensure that the surgical area and equipment are clean and sterile.
- **Infection control:** Follow strict infection control protocols to prevent contamination.

Support staff: Assist with general duties to support the smooth operation of the VMMC site.

These roles are essential for the successful delivery of VMMC services, ensuring that the programme runs smoothly and effectively while maintaining high standards of care.

Volume numbers of beds and human resource staffing for VMMC sites

Table 3: Human Resource Staffing Options for High, Middle, and Low Volume Sites

Items	High-Volume Sites	Middle Volume Sites	Low Volume Sites
Beds	8	4	Less than 4
VMMCs performed per day	Greater than 80 (with task sharing)	30-80 (with task sharing)	Less than 30
Site Manager	1	1	Shared role
VMMC providers[1]	2	1	1
Nurses[2]	8	4	Shared role
Theater Assistant – “suture nurse”	1	1	1
Post-operative Care Nurse	1	1	Shared role
Hygienist/ Cleaner/ Infection Prevention Officer	1	1	Shared role
Counselors can overlap with trained nurses for efficiency	2 (minimum)	1 (minimum)	Shared role
Expert Clients	2	1	N/A
Community Health Workers	8-10	5-8	1-4
Runner	1	1	Shared role
Data Clerk	1	1	Shared role
Receptionist	1	1	Shared role
Driver (for mobile sites)	1	1	N/A

These staffing models ensure that VMMC services are delivered efficiently and safely, tailored to the volume of clients at each site.

Number of MMCs per clinician per day

The number of Medical Male Circumcisions (MMCs) a surgeon can perform per day varies based on several factors, including the surgeon's experience, the efficiency of the team, and the setup of the facility. On average, a surgeon can perform between 30 and 80 MMCs per day in a well-organised, middle-volume setting with adequate support staff and resources.

Several factors contribute to a surgeon's efficiency in performing Medical Male Circumcisions (MMCs):

1. **Experience and skill level:** Surgeons with more experience and specialised training in MMC procedures tend to perform them more efficiently and with fewer complications.
2. **Team coordination:** Effective collaboration and communication among the surgical team, including nurses, counsellors, and support staff, streamline the process and reduce delays.
3. **Preparation and organisation:** Well-prepared facilities with all necessary supplies and equipment readily available help minimise downtime and ensure smooth workflow.
4. **Standardised protocols**: Following standardised surgical protocols and checklists helps maintain consistency and quality, reducing the likelihood of errors.
5. **Patient flow management:** Efficient scheduling and patient flow management ensure that there are no bottle-necks, allowing the surgeon to focus on the procedure without unnecessary interruptions.
6. **Supportive infrastructure:** Adequate infrastructure, including clean and well-equipped surgical areas, contributes to a more efficient and safer surgical environment.
7. **Use of surgical aids:** Utilising surgical aids and devices designed for MMC can speed up the procedure and improve outcomes.
8. **Continuous training and education:** Ongoing training and professional development for the surgical team help keep skills sharp and up to date with the latest best practices.
9. **Monitoring and feedback**: Regular monitoring of performance and feedback from peers and supervisors can help identify areas for improvement and enhance overall efficiency.

By focusing on these factors, surgeons can improve their efficiency in performing MMCs, ultimately leading to better patient outcomes and higher quality of care.

Training requirements

All staff must have proof of current training documents available on site. The following table is a guide on training expectations for each category of staff.

Table 4: Guide on training expectations for each category of staff

Staff category	Professional Registration	MMC Training (OTH)	IPC Training	Waste Manage-ment	BLS	HTS	CQI	Management of Adverse events	Demand Creation	Data management & Record Keeping
Site Manager		*√	*√	*√		*√	*√	*√	*√	*√
Clinician/ Surgeon	*√	*√	*√	*√	*√	*√	√	*√	√	√
Nurse	*√	*√	*√	*√	*√	*√	√	*√	√	√
Administrator/ Data Capturer		√	√	√		√	*√		√	*√
Counsellor		√	√	√		*√	√	√	√	√
Social Mobil-iser		√	√	√		√	√		*√	√
Hygienist			*√	√			√			
General clinic staff		√	√	√		√	√		√	

Note: *√ - Compulsory training and annual registrations

Frequency of training

HTS

Frequency of training for HIV testing services (HTS) providers:

1. **Refresher training:** HTS providers should undergo refresher training every 24 months and be recertified. If an HTS provider has not conducted testing for more than 12 months, they must complete refresher training before resuming practice. For those who have not provided HTS for more than 24 months, retraining is necessary, and a new certificate of completion and competency will be issued.
2. **Rapid Test Continuous Quality Improvement (RTCQI) training**: All HIV testers must complete RTCQI training and implement the quality monitoring system.
3. **Proficiency testing:** Every six months, each HTS site should receive a proficiency panel of blood specimens from the national reference laboratory. HTS service providers rotate in performing HIV testing on these samples and record the results. The accuracy of test results is verified by the PT provider. Sites receive feedback on any errors or mistakes, allowing for necessary corrections.
4. **Technical support**: Facilities failing proficiency testing require technical support from the national, regional, referral lab, or implementing partner.
5. **Collaboration**: VMMC HTS providers in DoH facilities should collaborate with DoH HTS providers in PT. Stand-alone VMMC sites not registered for the PT scheme should also work closely with nearby DoH facilities.

VMMC surgical training

Clinicians working continuously under the MMC program, with no breaks exceeding 12 months and having more than 2 years of experience, must be trained on VMMC using the updated 2022 Dorsal Slit training material. They must also provide proof of refresher training every 5 years. MMC mentors are required to complete refresher training every 7 years. All new clinicians must be trained on MMC, and those with breaks in service must undergo refresher training on VMMC practical and theoretical aspects every 2 years.

The following training courses are available and provided for by the DoH:

Table 5: **Training Courses available and provided by the Department of Health**

Module #	Courses	Target Audience
1	Introduction to Voluntary Medical Male Circumcision	Medical Officer, Clinical Associates and P/N
2	Before the Procedure: Facilities and Supplies	Clinical (all categories of clinical teams)
3.	Medical Procedure for Adults and Adolescents	Clinical (all categories of clinical teams)
4.	Post Procedure care	Clinical (all categories of clinical teams)
5.	Management of Adverse Events	Clinical (all categories of clinical teams)
6.	Infection Prevention and Control	Clinical (all categories of clinical teams)
7.	Continuous Quality Assurance	Clinical staff and general assistants
8	Counselling	Counsellors
9.	Demand Generation	Social Mobilisers
10.	Data Management and Recording	Data capturers and data managers

CHAPTER 3: RECORDKEEPING, REPORTING AND QUALITY ASSURANCE

3.1 Recordkeeping, reporting and good data

Under the National Health Act, 2003 (Act 61 of 2003), the NDoH is mandated to facilitate and coordinate the establishment, implementation, and maintenance of health information systems, including VMMC data at all levels.

The District Health Management Information System (DHMIS) Policy 2011 outlines the requirements and expectations for providing comprehensive, timely, reliable, and high-quality routine evidence to track and improve health service delivery. The policy's strategic objectives are to enhance monitoring and evaluation (M&E) by standardising data management activities and clarifying the roles and responsibilities at each level for each staff category to optimise data completeness, quality, use, ownership, security, and integrity.

Information is a crucial resource for organisations, both now and in the future. A robust records management strategy offers guidance on efficiently managing both physical and electronic records. Accurate, complete, and carefully reviewed records help providers ensure that clients receive the safest and most appropriate care possible.

Data from various records and other data collection tools from individual medical male circumcision service delivery sites or programmes can be used for quality assurance purposes to:

- Identify, manage, monitor, and report adverse events early at the individual facility or regional level.
- Assess whether services are provided according to the standard of care.
- Measure progress towards achieving service delivery standards or programme objectives.
- Guided decision-making and trigger actions to address identified problems and improve overall service quality.

Data are facts, measurements, and other variables that serve as the building blocks of strategic information within the monitoring and evaluation framework. For data to be useful, it must meet the following quality characteristics:

- **Accuracy**: Tools should be designed to determine the accuracy of data.
- **Completeness**: Data gathered must fulfil the requirements of the data collection tool used. The appropriate tool should be used every time the corresponding service or event occurs. No field should be left blank; if information is unavailable or a question is not applicable, an appropriate notation should be made. All requested information on monitoring forms should be provided, even if it means documenting what did not happen.
- **Consistency and validation**: Data of the same type should be recorded consistently. The same definitions, rules, and tests should always be used for reporting the same type of information.
- **Time stamping**: The full date (day, month, year, and sometimes time of day) when data were collected and recorded should be clearly indicated. Each time a healthcare provider performs an activity, it should be recorded in the appropriate field on the appropriate form. All clinical staff should include their full names and signatures on relevant documentation as required.
- **Relevance and appropriateness**: Data should effectively serve a specific purpose in the context of the services being delivered. Staff responsible for keeping records should know exactly what information is needed and understand its importance. Training in using data collection tools and reviewing good and poor examples can help staff achieve competence in using these tools.

Alteration of records

- No information or entry may be removed from a health record.
- Errors or incorrect entries discovered in the record may be corrected by placing a line through them with ink and correcting them. The date of change must be entered, and the correction must be signed in full. The original record must remain intact and fully legible.
- Additional entries added later must be dated and signed in full.
- The reason for an amendment or error should also be specified on the record.
- Records should be kept in non-erasable ink, and erasure fluid should not be used.

Scope

This chapter on MMC data management is intended for all employees and implementing partners involved in data collection activities, including the filing, management, and storage of MMC data at DoH facilities, partner facilities, traditional medical circumcision schools, and private sector sites. Managers from facilities, sub-districts, districts, and all other MMC implementing partners must ensure that all relevant staff and team members are trained on the contents of this data management chapter. For general data management, please refer to the DHMIS Standard Operating Procedures (SOPs). This MMC data management process specifically addresses the capturing and verification of MMC data.

MMC information management processes:

1. **Recording MMC data:** All MMC data must be recorded on DHIS, regardless of who conducts the MMC (IPs or DoH). MMCs should be performed by trained health practitioners, and data should be captured into DHIS at the lowest level possible (preferably at community-level facilities). There should be a paper trail or source of data in the form of patient files and registers for client follow-up, audit, and litigation purposes.

2. **Community-level facilities:** These refer to non-fixed healthcare sites (e.g., mobile units) or non-healthcare outreach sites (e.g., schools, stadiums, camps, campaigns, traditional initiation schools, and events).

3. **Data captured at fixed healthcare sites:** All data for MMCs conducted at a fixed healthcare site should be captured at the same healthcare facility.

4. **Data captured at outreach or non-healthcare sites:** Data for MMCs conducted at outreach or non-healthcare sites with DoH staff should be captured at the healthcare facility where the staff is based. If staff from multiple healthcare facilities are involved, the data should be captured at the facility that initiated the camp or has the majority of staff supporting the event.

5. **Data captured outside healthcare facilities**: Data for MMCs conducted outside healthcare facilities (e.g., GPs, traditional initiation schools, camps, mobile units) should be captured at health facilities identified by the district as having the relevant infrastructure to support DHIS submission at sub-district and district levels.

General instructions for VMMC service providers and data capturers

1. Patient files and registers:

- **Centralised storage**: All patient files, AE registers, HTS registers, and MMC registers should be securely kept at the specific site where the MMC procedure was conducted, regardless of the provider (DoH, IPs, or private sector partners).
- **Implementing partners' (IPs) obligations**: IPs must leave the original patient's file and relevant registers at the VMMC site. If IPs or private sector partners cease services at a facility, they must ensure that patient files and registers remain at the site.
- **Daily data entry**: Data for all successfully circumcised clients must be entered into the appropriate register (surgical, theatre, or MMC register) daily at the VMMC site.

Exceptions to centralised storage:

- **Community-based MMC**: If the MMC is performed in a community setting (TMC, mobile, non-fixed healthcare site, or non-healthcare site), the patient file should be transferred to and kept at the catchment facility. A patient folder tracking tool should be in place.
- **MMC provider completion**: Patient files must be completed by the MMC providers who attended to the client. Third-party individuals not involved in the MMC process are not authorised to complete or alter patient files.

Referrals and follow-up

- **Referral documentation:** If a client is referred from another facility, the referring facility's name should be noted in the patient file and referral and linkage register.
- **Follow-up recording:** VMMC follow-up consultations, including AE cases, should be documented in the patient file.

2. Data management:

- All MMC data must remain at the site where the MMC was conducted, regardless of the provider. If submitted by an IP, the person submitting the data should sign for it. MMC data must not be altered or replaced.
- Community Level MMC: If performed at the community level (non-fixed healthcare site or non-healthcare site), the MMC data must be submitted to the catchment facility before the end of the month utilising the monthly summary output form, data receipt slip, and the carbon copy of the MMC register.

3. Monthly input form (Monthly Statistics Form):

- Catchment facilities must collate all reported data at the end of each month, including data submitted by partners, from MMC providers at the community level, Correctional Services, and private practitioners, and enter the total MMCs performed on the Monthly Input Form.
- MMC patient data totals transferred from registers into Monthly Input Forms should tally.
- All MMCs must be reported and captured in line with the current National Indicator Data Set (NIDS).

4. Data capturing onto the DHIS:

- Data must be captured from the Monthly Input Form onto the DHIS.
- If the facility has the infrastructure to capture data: Capture data directly onto the DHIS from the Monthly Input Form.
- If the facility lacks the infrastructure (e.g., some DoH clinics, private GP rooms): submit monthly input forms to the sub-district/district for capturing onto the DHIS.

5. Registering Organisational Units:

- Correctional Services, mobile units, and private GPs conducting more than 10 MMCs per year should register as Organisational Units (OrgUnits) on the DHIS.

6. Recruitment of clients and follow-up:

- Facilities without the capacity to conduct MMCs but with allocated targets by the district may initiate or recruit clients and refer them to facilities offering MMC services.

- The facility recruiting but not conducting the MMC must send a referral note with the client to the site where the MMC is conducted. The site conducting the MMC will then send a referral note back to the initiating facility. Follow-up may occur at either facility.
- Facilities recruiting clients can keep internal records to prove their role in recruiting clients contributing to district targets. These records should not be captured onto DHIS.
- Partners and DoH should recruit clients for MMC camps from the catchment area of the facility where the MMC will be conducted to ensure most clients return to the facility for follow-up.

Documents for verification/validation

The Department of Health uses standardised forms and registers in MMC services, including:

1. Client Intake File/Forms (including consent section)
2. Appointment Cards
3. HTS Registers
4. MMC Registers
5. Facility Monthly Summary Reporting Forms
6. Data Receipt Form
7. Adverse Event Reporting Forms
8. Adverse Event Registers
9. AE Log Sheet
10. VMMC Referral/Linkage Forms
11. VMMC Referral/Linkage to Care and Treatment Register
12. Stock Cards/Stock Control Forms
13. VMMC Booking Register for Non-MMC Sites
14. Follow-Up Register for Non-MMC Sites
15. Follow-Up Care Forms for Non-MMC Sites
16. Critical recording on patient files

Healthcare practitioners must enter and maintain at least the following information for each patient consulted:

- Personal (identifying) particulars of the patient
- The biopsychosocial history of the patient, including allergies and idiosyncrasies
- The time, date, and place of every consultation
- The assessment of the patient's condition
- The proposed clinical management of the patient
- The medication and dosage prescribed
- Details of referrals to specialists, if any
- The patient's reaction to treatment or medication, including adverse effects
- Test results
- Imaging investigation results
- Information on the times the patient was booked off from work and the relevant reasons
- Written proof of informed consent, where applicable

Each member of the male circumcision team, including site managers, receptionists, counsellors, nurses, clinicians, and data capturers, is responsible for maintaining accurate, complete, and timely records for all clients. Data can be used at the site level to support adherence to standards and reported to higher-level entities within the health system or programmes to track progress towards specific indicators.

National VMMC programme indicators

- **National Data Elements DHIS:**
  - Number of MMCs performed in healthcare facilities (MMC)
  - Number of MMCs performed by clinicians in the traditional setting (MMC-T)
- Inputs for MMC and MMC-T
- Medical male circumcision 10-14 years
- Medical male circumcision 15 years and older
- **Additional Provincial/District Data Elements on DHIS (varies per province):**
- Number of Day two follow-ups
- Number of Day-seven follow-ups
- Number of Severe, Moderate, and Mild Adverse Events
- HIV test for males 15 years and older
- HIV test for males 10-14 years
- HIV test positive on males 15 years and older
- HIV test positive on males 10-14 years
- Number of MMC sites offering HIVSS
- Number of MMC sites offering PrEP
- Screen for TB symptoms in patients 10 years and older
- TB symptomatic client 10 and older - referred for sputum
- Clients 45 years and older screened for diabetes
- Clients 18-44 years screened for hypertension
- Clients 18-44 years screened for hypertension - referred to Healthcare Facility
- Clients 45 years and older screened for hypertension
- Clients 45 years and older screened for hypertension - referred to Healthcare Facility
- Number of people reached through social mobilisation

The VMMC programme offers a comprehensive minimum package of services, and all data elements must be collected and verified.

Data verification at the district level

Data validation involves checking the accuracy and quality of source data before using, importing, or processing it. The goal is to ensure data is consistent, accurate, and complete to prevent data loss and errors and to ensure data is available for decision-making. Verification applies to each reporting level.

At the district level, data verification involves recounting health facility reports received and comparing them to the summary reported on DHIS and prepared by the district for reporting to the province. This review should occur quarterly. An extract from DHIS containing four months of data is compared to the following source documentation:

- Client Intake Form
- MMC Register
- Consent Forms
- Supporting documents (IDs and birth certificates)

Additional source documentation includes:

- Monthly summary input forms
- Adverse events register
- Follow-up register

Data validation steps

1. **Review of Data**: There should be a process to review data for any errors in data entry. This includes verifying the data submitted for MMC indicators within DHIS:
    - Total medical male circumcision
    - Medical male circumcision 10-14 years
    - Medical male circumcision 15 years and older
    - MMC-T

Verify the consistency of reported numbers, including whether the disaggregated numbers add up to the total. Check for substantial variations from previously reported data and ensure data was not previously reported by districts to avoid duplication. Data must be comparable across different sources and districts. During the review, liaise with the following M&E focal points:

- DHIS
- HISP
- District Information Offices
- Implementing Partners M&E Managers

This process allows for error clarification and data revision/ correction.

2. **Facility level verification**: This involves recounting from source documents and comparing reported values for the month. Data verification is conducted using the data review assessment tool that collaborates different sources of data on-site. This assessment should happen quarterly to verify whether client information is traceable to the source documentation.

3. **Additional site-level validation**: The purpose is to ensure data can be traced from facility level to district level. Review a sample of client records to assess their accuracy. A sample of 10 percent of client records within the previous three-month period should be reviewed, assessing:

    - Client age
    - Client HIV status
    - The consent process for the HIV test and circumcision
    - Taking of client health history and conducting physical checks
    - Details of the surgeon
    - The date and method of the procedure
    - The accuracy of anaesthetic dosing
    - The documentation of adverse events
    - The documentation of follow-up visits

Spot checks

A sample of the client records assessed should be randomly selected, every 25th client. The record should be followed up with a spot check. These spot checks can be telephonic or community visits. This is to verify that the client records correspond with the information given by the client.

3.2 Storage of patient records

All the documents mentioned above are the property of the programme owner (DoH) and must be stored securely at the place of service provision. These records should be kept in a locked and secure location and must be available for verification upon request. (National Guideline for Filing, Archiving, and Disposal of Patient Records 2020)

In cases where clients (e.g., inmates) are required to carry their clinical records, the facility where the services were provided must ensure copies of the clinical procedures (e.g., circumcision) are retained. Health records should be stored safely, and if in electronic format, they must be protected by passwords. Only CD-ROM technology that allows recording a CD once, preventing old information from being overwritten, should be used. Effective safe-guards must be in place to prevent unauthorized use or retransmission of confidential patient information before it is entered on the computer disc. Patients' rights to privacy, security, and confidentiality must always be protected.

Hard-copy health records should be stored for at least six years from the date they become dormant. The National Health Act, 2003 (61 of 2003) requires public institutions to appoint information officers to manage access to information, with similar provisions for private bodies. All medical records must be under the care and control of the clinical manager, and access to these records must comply with the Promotion of Access to Information Act, 2000 (Act 2 of 2000) and any conditions approved by the superintendent.

3.3 Adverse Event (AE) management, monitoring, and reporting

The following mechanisms and processes have been implemented for the management, monitoring, and reporting of all AEs:

- Standard Operating Procedures (SOPs) for management and reporting of AEs
- The list of MC-related AEs, as well as definitions of the respective severity levels, can be found in the Adverse Event Action Guide for Voluntary Medical Male Circumcision (MMC) by Surgery or Device 2nd Edition, updated 2020
- Standalone MMC register updated to collect data on intra-op AE
- AE register for post-op AEs

The progress and management of all mild, moderate, and severe AEs shall be recorded in the AE log sheet and documented in the client intake form. Reports of AEs provide data necessary to conduct monitoring of service delivery, safety, programme progress, and patient outcomes. AEs should be reported according to NDOH guidelines, and regardless, programmes should continue internal AE reporting for quality control.

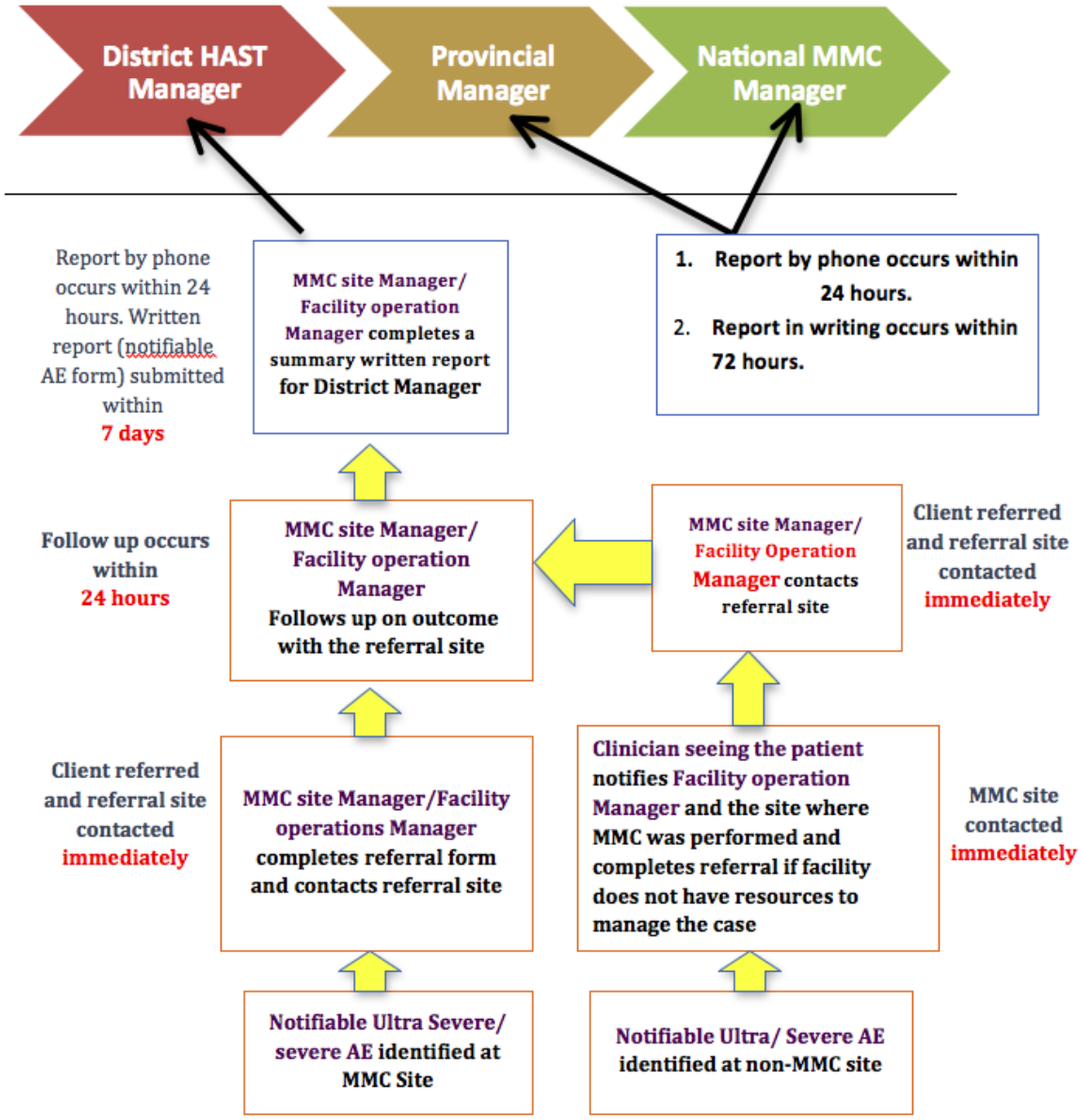
Reporting systems should include clear guidance on moderate and severe AEs, which are expected to be reported through standard reporting mechanisms regardless of the appearance of relatedness.

AEs will be reported according to their Severity as follows:

1. Mild AEs should be appropriately documented in the MMC register and reported monthly to the national MMC programme team
2. Moderate AEs to be documented and reported on a monthly basis
3. Severe AEs, for purposes of reporting, will be notifiable

Refer to National Medical Male Circumcision Standard Operating Procedures (SOPs) for management and reporting of SAEs, SA, January 2020

Figure 2: Severe Adverse Event Reporting



3.4 Quality Assurance

For circumcision providers, commitment to safe, quality services should be a top priority. Quality improvement and quality assurance help assure the provision of safe services (reducing adverse events and protecting clients and providers), adherence to relevant policies, client satisfaction, client returns for follow-up, including after treatment of a sexually transmitted infection, continued demand for services, and job satisfaction among providers.

Quality improvement activities involve the routine use of health and programme data (including client and facility records, training, supervision, observation of practice, etc.) to meet client and programme needs and improve service systems and processes.

Quality assurance activities evaluate service systems and processes against quality standards and any proposed recommendations or corrective action plans. In male circumcision services, maintaining a quality improvement process is necessary for quality assurance. Quality assessments are done by a quality improvement team – internal or external to the clinic. A better assessment may be done if the team is external to the facility being assessed, like the district continued quality assessment (CQI) team. The following methods may be used to assess quality:

- **Observation:** Observation is used to assess attitudes, knowledge, and skills in clinical practice, including client-provider interaction, client management, and surgical practice.
- Formal and informal interviews: One-on-one interviews may be conducted with managers, staff, and clients.
- **Focus group discussions**: These discussions can be used to gain an understanding of attitudes, beliefs, and perceptions. They are open conversations in which each participant has an opportunity to speak, ask questions of other participants, and respond to the comments of others, including the facilitator, who guides the conversation and stimulates interaction among participants by asking questions on various themes.
- **Inventory**: This is an inspection process to identify the availability of essential medicines, supplies, and equipment and to assess the storage and maintenance of supplies and equipment. An inventory is used to assess the condition of facilities, availability of space for performing services efficiently, and safety of the environment.
- **Review of documents**: It is important to obtain and review the content of documents, such as the client register and client records.

Incorporating Continuous Quality Improvement (CQI) in VMMC programmes

The 12 stages of incorporating CQI are as follows:

1. **Engage Stakeholders**: Involve all relevant parties from the beginning.
2. **Adapt Standards and Tools**: Customize standards and tools to fit the programme's needs.
3. **Plan the CQI Baseline Assessment**: Prepare for the initial assessment.
4. **Conduct the CQI Baseline Assessment**: Perform the assessment, provide feedback, and develop action plans.
5. **Form CQI Teams**: Establish teams dedicated to CQI.
6. **Provide Training in CQI**: Train team members in CQI principles and practices.
7. **Test Changes at the Site Level**: Implement and test changes at individual sites.
8. **Provide Coaching Support**: Offer ongoing support and guidance.
9. **Conduct CQI Re-assessments**: Regularly re-assess to measure progress.
10. **Share Learning**: Disseminate lessons learned and best practices.
11. **Coordinate with Stakeholders**: Maintain communication and coordination with all stakeholders.
12. **Sustain High-Quality Care**: Ensure continuous improvement and maintenance of high standards.

Establishing CQI in MMC Sites and Districts
Preparation:

1. **Sensitise District Managers**: Educate DoH and IP managers on CQI processes.
2. **Involve the Right People:** Ensure the right individuals are part of the CQI process.
3. **Train New CQI Teams**: Provide initial training for new CQI teams.
4. **Refresher Training**: Offer refresher training for existing CQI teams.

Implementation

5. **Conduct Site Readiness Assessments**: Evaluate sites for readiness to implement CQI.
6. **Conduct CQI Assessments**: Perform detailed CQI assessments.
7. **Compile CQI Plans**: Develop comprehensive CQI plans based on assessments.
8. **Convene CQI Reviews**: Hold regular reviews to discuss progress and challenges.

Upkeep

9. **Ongoing Monitoring and Mentoring:** Continuously monitor progress and provide mentorship.

CQI team structure

- **Number of Teams:** Ideally, each facility, sub-district, and district should have CQI teams. At a minimum, there should be a district CQI team supported by sub-district teams, depending on the district's size.
- **Team Composition**: Teams should primarily consist of DoH officials, with implementing partner staff included to foster collaboration. Once district and sub-district teams are established, they can work with facility management to identify facility-level CQI teams.
- **Getting People On-Board**: To address concerns about time commitment or unfamiliarity with the role, involve senior district officials in assigning CQI team members. A signed letter of appointment from a senior official can formalise the process and justify the time commitment.

Multidisciplinary Teams: Teams should be able to evaluate a range of services, including:

- Safety of Procedure Assessor: e.g., HAST Manager
- Quality of Services Assessor: e.g., Clinician
- HTS Assessor: e.g., Clinician or Counsellor
- Quality of Programme Assessor: e.g., M&E/Data Official

Training New Team Members on VMMC and CQI

Formal training in VMMC and CQI is crucial for team members to perform their duties, especially for those without prior VMMC experience. The training is divided into three parts:

Part 1: Theory via the Online Training Hub

CQI team members should enrol in both the VMMC surgical theory course and CQI training on the NDoH's Online Training Hub (OTH). https://knowledgehub.health.gov.za/

Part 2: Refresher Training

- Team members may need regular refresher orientations on CQI tools.

Implementation: Continuously Improving Quality

Conduct CQI Assessments

CQI teams may facilitate activities such as:

1. **Assess Site Readiness and Capacity**: For facilities not currently providing VMMC services but interested in doing so, CQI teams can conduct readiness assessments using the VMMC Site Readiness and Preparation Tool.
2. **Empower Facilities for Future CQI Activities**: District CQI teams should help facilities establish site-level CQI teams and empower them to identify and address potential problems. Involve facility heads in CQI training/orientations and ensure each facility maintains a CQI folder for Quality Improvement Plans (QIPs), meeting minutes, and other documentation.

Conduct Baseline Assessments at VMMC Sites

- For facilities already providing VMMC, a day-long baseline assessment will determine the level and frequency of quality improvement support needed. Support frequency is summarised as follows:

Monthly support: For Sites with Significant Quality Gaps (Red Dashboard)

- **Data Criteria**: <70% for MMC procedure and/or infection control, <50% average compliance with all components/indicators.
- **Support Frequency**: Need-based monthly coaching visits with CQI teams.
- **CQI Re-assessments**: Monthly.
- **Approach**: Use quality improvement methodologies and tools, track MMC indicators, identify gaps, test changes, integrate improvements, hold monthly CQI meetings, and use data for decision-making.

Quarterly Support: For Sites with Moderate Quality Gaps (Amber Dashboard)

- **Support Frequency**: Quarterly CQI support visits alternated with quarterly CQI re-assessment visits.
- **CQI Re-assessments**: Quarterly.
- **Approach**: Sites should forward CQI meeting minutes/reports to the district.

Annual Support: For Sites with Minimal Quality Gaps (Green Dashboard)

- **Support Frequency**: Annually. Sites will develop an overall programme-level QIP.
- **CQI Re-assessments**: Annually.
- **Benchmarking/Showcasing Results**: Quarterly support sites will share best practices at quarterly meetings and learning sessions.

Conduct Routine Facility Assessments

Quality improvement assessment tools cover eight major areas:

1. Infrastructure, Supplies, Equipment, and Environment
2. Surgical Procedure
3. Infection Prevention and Waste Management
4. Group Education, Registration, IEC
5. Individual HIV Testing and Counselling
6. Monitoring and Evaluation
7. Management Systems
8. Leadership, Planning, and Sustainability

Diagnose Under- and Overperformance with Root Cause Analysis

- CQI teams help facilities balance capacity to avoid safety breaches from overworked providers and inefficient resource use from underperformance. Root cause analysis examines service delivery, staff shortages, demand creation, and catchment area saturation.

Compile CQI plans

- After baseline assessments, CQI teams work with facilities to develop Quality Improvement Plans (QIPs) addressing identified challenges, establish improvement timelines, and conduct follow-up assessments. Store QIPs in the facility's CQI folder.

Convene CQI reviews

- CQI teams organize regular meetings with DoH officials, donor agencies, implementing partners, and other representatives to review VMMC site performance, discuss successes and challenges, and share best practices.

Continuously monitor and mentor

- District-level CQI teams continuously monitor performance indicators at VMMC facilities, including reports on adverse events and quarterly client satisfaction assessments. They also:
  - Coordinate ongoing training for VMMC service providers based on assessment gaps.
  - Connect clinicians-in-training to mentors to ensure the practical application of theoretical skills.

3.5 Programme transgressions and clarification

The following required standards of care in the MMC programme are essential in the provision of safe services to all the males who volunteer for the medical circumcision procedure.

Table 6: Standards of care in the MMC programme

MMC Standards	
Standard 1	An effective management system is established to oversee the provision of MMC services
Standard 2	A minimum package of MMC services is provided
Standard 3	The facility has the necessary medicines, supplies, equipment, and environment for providing MMC services that are safe and of good quality
Standard 4	Providers are qualified and competent
Standard 5	Clients undergo an informed consent and assent process and are provided with information and education on HIV prevention and MMC.
Standard 6	Assessments are performed to determine the condition of clients
Standard 7	MMC surgical care is delivered according to evidence-based guidelines
Standard 8	Infection prevention and control measures are practiced
Standard 9	Continuity of care is provided
Standard 10	A system for monitoring and evaluation is established

The NDOH recognises the following acts or omissions to these standards of care as violations of the programme that could potentially compromise client safety, and they have subsequently implemented the associated mitigations against the violations. The table below guides on the different categories of violations.

Table 7: Guide on the different categories of violations

Transgressions	Clarification
Circumcision of underage clients (less than 10 years old)	Not recommended
Inaccurate capturing of data in clinical records	• This means Recording of clinical notes; • Completion of registers; • Integrity of support documents (ID copies/consent forms/affidavits etc.) • Missing support documents • Inaccurate data capturing
Use of general anaesthesia or performing circumcision without local anaesthesia	The recommendation is to use only local anaesthesia for MMC procedures, with dosing based on the patient's weight and proper injection technique.
No MMC training (and lack of evidence thereof)	All surgeons (doctors, clinical associates and professional nurses) must be trained on the dorsal slit procedure, with refresher training every two years. Proof of training must be documented. Enrolled Nurses and Enrolled nursing assistants MMC training, including IPC, Adverse Events management and CQI, with refresher training every two years. Proof of training must be documented. Counsellors must be trained in counselling, rapid testing, and quality assurance every two years and should take a proficiency test annually. Counsellors should have basic MMC training, and proof of training must be documented.
No valid registration with relevant councils	All doctors and clinical associates must be registered with the Health Professions Council of South Africa (HPCSA) and renew their registration annually. General practitioners must also have valid BHF practice licenses. All nurses must be registered with the South African Nursing Council (SANC) and renew their registration annually.
Concealing of adverse events (AEs)	All AEs, regardless of severity, must be reported according to the prescribed guidelines and recorded in the Client Intake form, MMC, and AE registers. A
Performing the Forceps Guided /any other unrecommended method of circumcision on clients	The FG method has been phased out of the programme. The only recommended surgical technique is the dorsal slit method and surgical aid method
Incorrect MMC technique	Incompetency in performing the MMC surgical procedure
Gross absence of clinical records	All patient files must be available and securely stored in the facility.
Absence of Infection Prevention and Control Measures	The failure to maintain a clean and safe environment suitable for surgical procedures to minimise the risk of infection.
Data falsification and intentional duplication (Data fraud)	Falsifying records results in defrauding the DoH of resources.

CHAPTER 4: INFECTION PREVENTION AND CONTROL AND WASTE MANAGEMENT

Basic concepts:

Infection prevention and control practices are vital to minimise the risk of infections in people having surgery and to minimise the risk of transmitting HIV and other infections to clients and healthcare staff, including cleaning and housekeeping staff. In the context of circumcision services, there are two important pathways for transmission of infection:

Direct transmission

Enteric and skin infections can be transmitted by this route, as can bloodborne pathogens, such as HIV and hepatitis B virus, either by direct contact with an open wound or blood, blood products, and body fluids, or by accident through a needle stick injury.

Airborne transmission

Pneumonia, pertussis, diphtheria, influenza, mumps, and meningitis can be transmitted through droplets in the air, usually within a range of about one metre, while active pulmonary tuberculosis, measles, chickenpox, pulmonary plague, and haemorrhagic fever with pneumonia can be transmitted via droplet nuclei (small-particle aerosols) over larger ranges.

In male circumcision programmes, a major concern is the potential direct transmission of bloodborne pathogens, such as HIV and hepatitis B virus, to healthcare workers or patients. Exposure may take place during patient care, clinical or surgical procedures, processing of soiled instruments, cleaning, and waste disposal. Needle-stick injuries carry a high risk of infection; the actual level of risk will depend on the type of needle, the depth of the injury, the amount of blood or blood product on the needle, and the viral load in the blood.

Preventing and controlling infection in clients is essential for both their safety and the public's acceptance of the male circumcision procedure. In healthcare facilities, most instances of infection transmission can be prevented through the application of standard precautions.

4.1 Standard precautions

Standard precautions are a set of good practices known to prevent and control the transmission of infection and include the following key components:

- Hand hygiene
- Use of personal protective equipment
- Environmental cleanliness, including safe management of blood or bodily fluid spills
- Decontamination of medical devices, patient care items, and equipment
- Safe use, handling, and disposal of needles, syringes, and sharp instruments
- Proper disposal of all clinical and biohazardous waste
- Aseptic practices
- Respiratory hygiene
- Safe management of linens
- Mandatory immunisation (e.g., Hepatitis B)

Even with standard precautions and mandatory immunisation for health workers in place, accidents can occur. Often, during clinical care, it is not known whether a patient is infected or colonised with potentially pathogenic microorganisms. Every patient, and every member of staff, should therefore be considered at risk, both of infecting others and of acquiring an infection. Apply standard precautions during all contact between healthcare workers and patients, in all healthcare facilities at all times.

In the event of accidental exposure, such as a needle-stick (sharps) injury, staff members are urged to manage occupational exposure to bloodborne pathogens, such as hepatitis B virus, hepatitis C virus, and HIV, by following a well-defined protocol that includes:

1) the initiation of post-exposure prophylaxis (PEP) as soon as it is safe to do so (see section 4.9), and
2) the completion of the recommended 28-day course of post-exposure prophylaxis.

4.2 Hand hygiene and surgical hand disinfection

4.2.1 Hand hygiene

All staff should wash their hands with non-medicated soap and water before starting their clinic duties and whenever their hands are visibly soiled. Staff should also use an alcohol-based rub frequently, particularly before and after direct contact with each patient. Surgical hand disinfection.

Surgical hand disinfection

a. Steps before starting surgical hand preparation - Surgical staff should keep nails short and avoid the use of artificial nails and/or nail polish. All jewellery (rings, watches, bracelets) must be removed from hands before entering the operating theatre.
b. Surgical hand scrubbing - scrubbing with a suitable antimicrobial soap and water.
c. Hand disinfection using alcohol-based hand rub - After the firsthand scrub with an antiseptic soap and water, an alcohol-based hand rub can be applied between surgical cases provided hands are not visibly soiled with blood or other body fluids. If hands are visibly soiled, a scrub with an antiseptic soap and water should be repeated. It is essential that after applying an alcohol-based hand rub, the hands must be completely dry before putting on sterile gloves for the next procedure.

Find the steps, procedures, and techniques for washing hands with soap and for using an alcohol-based hand rub in Annexure D.

Keep in mind the following:

- Alcohol-based handrubs do not remove soil or organic matter. If hands are visibly soiled, wash them with soap and water.
- Staff who frequently wash hands or use an alcohol-based handrub should use hand lotions and creams regularly to minimise drying of the skin and reduce the risk of irritant contact dermatitis.
- Staff with an allergy or adverse reaction to alcohol-based handrubs should use other handrubs or soap and water.

If potentially infectious blood or other body fluid is splashed onto non-intact skin, or if there is a potentially infective percutaneous injury, do not use alcohol-based solutions or strong disinfectants; wash the affected part with water and soap, and seek advice on the need for post-exposure prophylaxis (PEP).

4.2.2 Hand care

Moisturising the hands at the end of the day to minimise chances of acquiring dermatitis. Chronic dermatitis is caused by frequent and repeated use of soap and other detergents.

4.3 Personal protective equipment

Personal protective equipment is designed to protect both healthcare workers and clients from exposure to infectious agents, helping to prevent them from contaminating hands, eyes, clothing, hair and shoes, and from being transmitted to patients and staff. This equipment works by providing a physical barrier against microorganisms.

In male circumcision services, the following personal protective equipment is recommended:

- Sterile surgical gloves (for the procedure)
- Non-sterile examination gloves (for physical examination, dressing changes, etc)
- Surgical masks and caps
- Protective eyewear
- Sterile aprons for the surgical procedure
- Gowns
- Footwear (boot or shoe covers)

Personal protective equipment should be used by healthcare workers who provide direct care to patients, support staff, including medical aides, cleaners, and laundry staff, and family members who provide care to patients in situations where they may have contact with blood, blood products and body fluids. Laboratory staff who handle patient specimens should always use personal protective equipment. Do not reuse protective equipment that is designed for single use (e.g., disposable gloves, eyewear, masks, caps, gowns, aprons and footwear). It should be disposed of according to the healthcare facility protocol. Decontaminate reusable equipment according to the manufacturer's instructions or launder it according to the healthcare facility protocol.

Gloves:

The use of gloves does not replace the need for hand hygiene by either hand rubbing or hand washing. Wear gloves whenever the person is likely to come into contact with blood or other potentially infectious materials, mucous membranes, or non-intact skin. Remove gloves immediately after caring for a patient. Do not use the same pair of gloves for the care of more than one patient.

Change or remove gloves in the following situations:

- During patient care if moving from a contaminated body site to a clean body site within the same patient
- After patient contact before touching another patient

In areas with a high prevalence of hepatitis B, hepatitis C and HIV infection, wearing two pairs of gloves (double gloving) may be appropriate for surgical procedures lasting more than 30 minutes or involving contact with large amounts of blood or body fluids. This situation is not likely to apply with properly screened patients undergoing clinic-based circumcision.

Table 8: Gloving requirements for common tasks in a male circumcision service

Activity	Type of gloves
Checking blood pressure or temperature, giving an intramuscular injection	No gloves required
Drawing blood and testing for HIV	Non-sterile examination gloves
Handling and cleaning instruments, handling contaminated waste, cleaning spills of blood or other body fluid	Strong utility gloves
Surgical procedure	Sterile surgical gloves
Administering local anaesthesia	Non-sterile examination gloves

Keep in mind the following:

- Wear gloves of the correct size, particularly for surgery.
- Use water-soluble (non-fat-containing) hand lotions and moisturisers, to prevent skin from drying, cracking, and chapping. Avoid oil-based hand lotions and creams because they can damage latex rubber surgical and examination gloves.
- Keep fingernails short: they should not extend beyond the fingertip. Bacteria and other microorganisms that cause disease can collect under long nails. Long nails also tend to puncture gloves more easily.
- Store gloves in an area where they are protected from extremes of temperature.
- Glove reprocessing is strongly discouraged and should be avoided. There is currently no standardised, validated and affordable procedure for reprocessing gloves.
- Using gloves when they are not necessary represents a waste of resources.

Masks, caps and protective eyewear:

Masks protect the mucous membranes of the mouth and nose from possible infections, as well as reduce the risks of transmission of infections from the healthcare worker. They should be worn by anyone undertaking a procedure that is likely to generate splashes of blood, blood products and body fluids. Surgical masks are designed to resist fluids and are preferable to cotton or gauze masks.

Caps or hair covers and eyewear, such as plastic goggles, safety glasses, face shields and visors, protect against accidental splashes, spills and leaks of blood and other body fluids.

Protective eyewear should be worn by theatre staff during circumcision surgery. Caps are recommended but are not essential.

Aprons and the circumcision provider's gown:

Aprons made of rubber or plastic provide a waterproof barrier to keep contaminated fluids off the health worker's clothing and skin. Staff should wear aprons when cleaning instruments and other items used for patient care.

In the MMC programme, providers use a clean, sterile, or disposable apron for each client. If a disposable gown is used, an apron is worn underneath the surgical gown. During circumcision surgery, it is recommended that the provider wears a disposable apron.

Footwear:

Appropriate footwear is necessary to protect the feet from injury from sharp or heavy items. Rubber boots or leather shoes provide the best protection but must be regularly cleaned. Avoid wearing sandals, thongs, or shoes made of soft material.

Immunisations:

Vaccines, such as hepatitis B and Tetanus are recommended in the MMC programme because they effectively protect healthcare workers and laboratory staff from diseases they may encounter during their work.

4.4 Safe handling of sharps and safe injection practices

All clinic staff should be trained in the safe handling of sharp instruments.

- Healthcare workers are most often stuck by hypodermic needles during patient care.
- Cleaning staff are most often stuck by needle when washing soiled instruments.
- Housekeeping staff are most often stuck by needles when disposing of waste material.

Tips for safe use of hypodermic needles and syringes

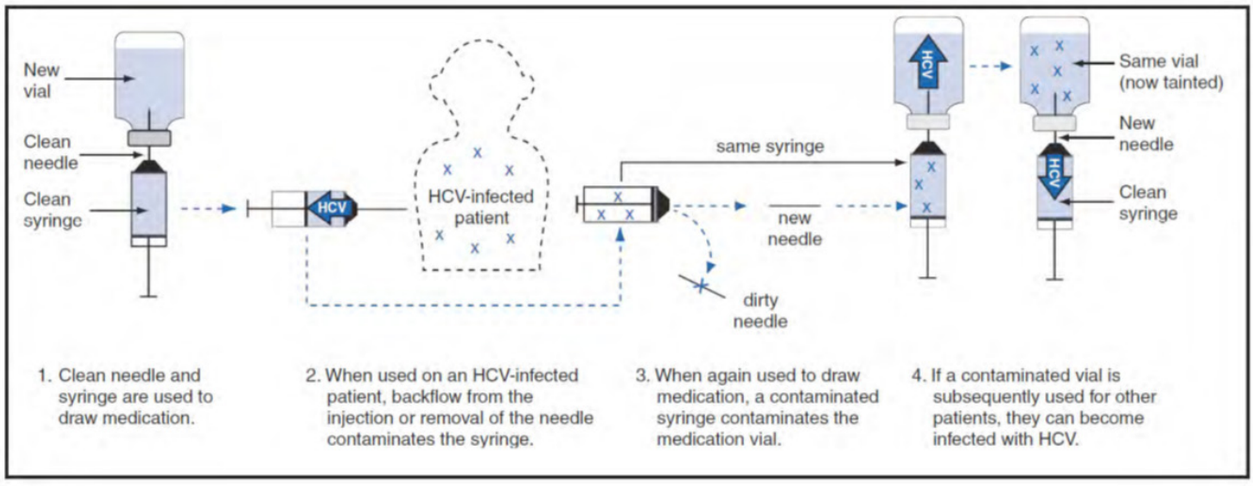
- Use disposable needles and syringes once only.
- Do not disassemble the needle and syringe after use.
- Do not bend or break needles before disposal.
- Dispose of the needle and syringe together in a puncture- resistant container.

Take note of the following:

- To prevent needle-stick (sharps) injuries, use of syringes with a sharps-injury-protection feature is recommended
- Needles and syringes should never be reused
- Hypodermic (hollow-bore) needles are the most common cause of injuries with predisposition to infection
- Do not recap a needle. However, there may be an instance when recapping is advisable. For example, if the provider has finished giving anaesthetic and there is some medication remaining in the syringe, which may or may not be needed later during the procedure, leaving the open needle uncapped is a hazard. If a needle must be recapped, then use the one-handed needle recapping technique (See Annexure D) for the job aid on the one-handed recapping method).

4.5 Preventing contamination of medicine vials

Figure 3: How vials get contaminated through double-dipping



Double-dipping is when the same syringe already used to inject a client is used to access a multidose vial again (the double dip) to draw up more medication. Double-dipping is a dangerous and unsafe practice.

A typical scenario: this can happen after a syringe is used to draw local anaesthetic from a multidose vial and inject that medication into a client, the syringe is then reused, with or without a new needle, to draw more medication from the vial. When the same syringe is used to enter the vial, even for the same client, the entire multidose vial is contaminated. When that contaminated vial is used for the next client(s), even if new syringes and new needles are used, infections can be transmitted.

To avoid this cross-infection, consider using single-use vials where possible or a rubber-stopped vial and avoid using the used needle and syringe to withdraw from the same vial.

Sharps containers:

Clearly labelled, puncture- and tamper-proof sharps safety boxes or containers are a key component to keep injuries from disposable sharps to a minimum.

- Place sharps containers as close to the point of use as possible and practical (ideally within arm's reach), but away from busy areas. Avoid placing containers near light switches, overhead fans, or thermostat controls, where people might accidentally put their hand into them.
- Attach containers to walls or other surfaces, if possible, at a convenient height, so that staff can use and replace them easily.
- Mark the container clearly, so that people will not mistakenly use it as a rubbish bin.
- Mark the fill line (at the three-quarters full level).
- Do not shake the container to settle its contents, to make room for more sharps.
- Never attempt to empty the sharps container.

4.6 Decontamination and processing of instruments

Decontamination is the use of physical or chemical means to remove, inactivate or destroy pathogenic microorganisms from a surface or item so that it is no longer capable of transmitting infectious particles, thereby being rendered safe for handling, use or disposal. The term is used in this document to cover cleaning, disinfection, and sterilisation.

Soiled instruments and other reusable items can transmit infection if they are not properly decontaminated. Effective and safe reprocessing includes removing gross contamination from instruments and equipment immediately after use, cleaning to remove all organic matter and chemicals, and sterilisation for instruments that will be used in normally sterile critical sites, such as within the body, in sterile tissue, cavities or the bloodstream. Decontamination is an important process for safe circumcision. The staff performing the male circumcision procedures should undertake this task, however, it is crucial that all other staff members are aware of the decontamination process.

Table 9: Level 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 sterilised and reducing the risk of soil being fixed to the surface. Removal of soil will also reduce 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.
Disinfection	The destruction or removal of microorganisms at a level that is not harmful to health and is safe to handle. This process does not necessarily include the destruction of bacterial spores.
Sterilisation	The complete destruction or removal of microorganisms, including bacterial spores. **Sterility** State of being free from viable microorganisms. **Sterilisation** Validated process used to render a product free from viable microorganisms.

4.6.1 Processing of instruments

The VMMC programme in South Africa uses disposable sterile surgical kits. Proper handling of soiled instruments and other reusable items is essential to prevent the transmission of infections. Effective and safe reprocessing involves disinfecting instruments and equipment immediately after use and thoroughly cleaning them to remove all organic matter and chemicals. For detailed information on handling reusable surgical instruments, refer to the Practical Manual for Implementation of the National Infection Prevention and Control Strategic Framework 2019.

Cleaning Disposable MMC Instruments

Used instruments must be cleaned with detergent and water before being placed in a container for disposal.

Instructions for manual cleaning

- Wear thick household or utility gloves.
- Wear protective eyewear, a mask, and a plastic apron, if available, to prevent contaminated fluids from splashing into your eyes or onto your body.
- Thoroughly wash items with soap and clean water.
- Use liquid soap if available. Avoid abrasive cleaners or steel wool, especially on metal, as they can cause scratches and increase the risk of rusting.
- Using a soft brush, scrub instruments under the surface of the water to prevent splashing, paying particular attention to any teeth, joints, or screws.
- Rinse the instruments with clean water.
- Dry the instruments with a towel or allow them to air-dry.
- Store the instruments in a container and move them to the waste storage area.

4.6.2 Guidelines for storage of disposable sterile packs

Proper storage of sterile instruments and equipment is essential to ensure that the product maintains its

level of sterilisation or disinfection. The sterile pack storage area has specific requirements:

- Sterile packs should be protected from dust, sun and rain during transportation.
- Sterile instruments should be stored in a clean, dry and protected environment.
- Storage containers should not be made of absorbent material, such as wood.
- The area must have adequate lighting.
- The area should be free from damp, have good air circulation and have a constant temperature (no extremes) of 15–28°C.
- Storage shelves should be located at a minimum distance of 30 cm off the floor, 45 cm from the ceiling and 5 cm away from the wall.
- The shelf walls should be smooth and easy to clean.
- Access to the area should be restricted.
- The packs should be placed on open racks rather than on closed shelves. The packs should be placed as a single layer to prevent moisture accumulating between the packs.
- Labels and expiry dates should be clearly displayed.
- The pack inspection register should be clearly visible.
- The date of sterilisation should be marked on the package, and the oldest packages should be used first (that is, first in, first out). Dates provide information on when the packages were sterilised but do not guarantee the sterility of the packs; therefore, the general condition of the pack should be examined before use, and packages should be inspected to verify they meet the requirements of a sterile product.
- Pack and materials should be stored so that they can be accessed without the need to move or handle other materials because the more an item is handled, the greater the chance of damage to the packaging.
- Once a sterile pack has been opened, its contents should no longer be considered sterile.
- Providers should avoid opening sterile wrapped packs to remove only one instrument. If this has to be done, the whole pack is no longer sterile, and the remaining instruments in the pack must not be used for another client because they may transmit infection.

4.7 Environmental cleaning and management of spills

4.7.1 Environmental cleaning

Routine cleaning is important to ensure a clean and dust-free clinic environment. Visible dirt usually contains many microorganisms, and routine cleaning helps to eliminate such dirt. Clean administrative and office areas with no patient contact regularly in the same way as other offices. Clean most patient care areas by wet mopping; dry sweeping is not recommended. Hot water (80°C) is a useful and effective environmental cleaner. The use of a detergent solution improves the quality of cleaning.

Between each client, thoroughly wipe clean and disinfect flat surfaces, such as the instrument trolley and operating table, all surfaces that healthcare workers can readily touch with their hands and surfaces that may have come in contact with the client's blood or bodily fluids. The floor should be wiped clean after any spills, using a cleaning solution containing suitable disinfectant and dedicated mop and bucket for the operating room. Periodically, there should be a deep cleaning that includes walls and ceilings. Staff must clean first using a detergent solution and then use the appropriate disinfectant (see Box 4.7), per local procedures and protocols, which should be consistent with recommendations and best practice for infection prevention and control. Detergent and/or disinfectant solutions must be discarded after each use (see Table 10).

Box 4.7. Bleach solutions for cleaning—not for high-level disinfection

Many different disinfectant solutions are available, and these solutions have varying degrees of effectiveness. In South Africa, the most widely available solution is sodium hypochlorite solution (commonly known as bleach), which is a particularly effective antiviral solution. Although sodium hypochlorite is appropriate for environmental cleaning and management of spills, it is NOT appropriate for high-level disinfection of instruments and MUST not be used on them.

General principles for environmental cleaning

- Cleaning is an essential first step prior to any disinfection process to remove dirt, debris and other materials.
- The use of a neutral detergent solution is essential for effective cleaning. It removes dirt while improving the quality of cleaning by preventing the build-up of biofilms and thus increasing the effectiveness of chemical disinfectants.
- If disinfectants are used, they must be prepared and diluted according to the manufacturer's instructions. Too high and/or too low concentrations reduce the effectiveness of disinfectants. In addition, high concentrations of disinfectant may damage surfaces.
- Cleaning should always start from the least soiled areas (cleanest) first to the most soiled areas (dirtiest) last and from higher levels to lower levels so that debris may fall on the floor and be cleaned last.
- Detergent and/or disinfectant solutions must be discarded after each use.
- Avoid cleaning methods that produce mists or aerosols or disperse dust, for example, dry sweeping (brooms, etc.), dry mopping, spraying or dusting.
- Routine bacteriological monitoring to assess the effectiveness of environmental cleaning is not

Surface Type	Definition	Cleaning Requirement
High hand-touch surface	Any surface with frequent contact with hands (e.g., handles and bed rails)	Requires special attention and more frequent cleaning. *After* thorough cleaning, consider the use of appropriate disinfectants to decontaminate these surfaces.
Minimal-touch surface (floors, walls, ceilings, window sills, etc.)	Minimal contact with hands. Not in close contact with the patient or his/her immediate surroundings.	Requires cleaning on a regular basis with *detergent only* or when soiling or spills occur. Also required following patient discharge from the healthcare setting.
Administrative and office areas	No patient contacts	Require normal domestic cleaning with *detergent only.*
Toilet area	-	Clean toilet area at least twice daily and as needed.
Medical or other equipment	-	Require cleaning according to written protocols (for example, daily, weekly, after each patient use, etc.). This should include the use of appropriate personal protective equipment, cleaning methods conforming to the type/s of surfaces and cleaning schedules, etc. Schedules and procedures should be consistent and updated on a regular basis, and education and training must be provided to all cleaning staff. Please refer to the manufacturer's instructions for medical equipment to ensure that the item is not damaged by the use of disinfectants.
Surface contaminated with blood and body fluids	Any areas that are visibly contaminated with blood or other potentially infectious materials.	Requires prompt cleaning and disinfection

Table 10: Cleaning requirements for various surface types in operating rooms

4.7.2 Decontamination of surfaces and larger equipment

Before starting to clean, wear appropriate personal protective equipment; then, use appropriate disinfectant solutions to reduce the bioburden and inactivate any infectious agents on surfaces, fixtures and larger equipment. Appropriate items and equipment, such as instrument trolleys, procedure tables, etc., must be cleaned and decontaminated between patients. When cleaning and disinfecting diathermy equipment, manufacturer's instructions for use should be followed. Reusable noncritical items, such as blood pressure cuffs or stethoscopes, should be checked for soiling or blood contamination. If they are contaminated, they should be cleaned and disinfected in accordance with the manufacturer's instructions for use. If there is gross soiling, particularly if there is wear and tear, then the item should be replaced.

4.7.3 Methods to clean blood spills

Splashes and drips

- Wear nonsterile gloves for this procedure.
- Wipe the area immediately with a paper towel or an absorbent cloth.
- Discard paper towels or absorbent cloth immediately as clinical/infectious waste.
- Disinfect the area with 10 000 ppm of sodium hypochlorite (bleach) solution.
- Dry the surface with disposable paper towels.
- Discard gloves and paper towels as clinical/ infectious waste in accordance with local policy.
- Wash hands with soap and water, and dry hands immediately afterward.

Larger spills

- All spills must be removed gently and carefully. Always wear appropriate gloves; use a single-use plastic apron if contamination of the body is likely. The use of gowns, face shields, masks, and goggles is not necessary.
- Cover the area of the spill with sodium dichloroisocyanurate (NaDCC) granules (if available), or cover the spill with disposable paper towels or cloths soaked in 10,000 ppm of sodium hypochlorite solution. Leave paper towels or cloth for three to five minutes. Do not pour the solution directly onto the spill, as it may cause splashing and widen the area of contamination.
- ***Note:*** Blood has a very high level of viscous organic matter poorly penetrated by any disinfectant and will need to be treated as infectious even if disinfection is attempted.
- Lift the soiled paper towels/cloths or scoop up the absorbed granules. Discard all into a clinical waste bag in accordance with the IPC policy.
- Clean the area with water and a detergent solution.
- Wipe the surface area with fresh 1 000 ppm of sodium hypochlorite solution and rinse with water, as the sodium hypochlorite solution may be corrosive.
- Dry the surface with disposable paper towels.
- Remove gloves and plastic apron and discard them as clinical waste in accordance with DoH IPC policy.
- Wash hands with soap and water, and dry hands immediately.

4.8 Safe handling of waste

4.8.1 Waste Management

The purpose of waste management is to do the following:

- Protect healthcare workers who handle waste items from accidental injury.
- Prevent the spread of infection to healthcare workers and the local community.

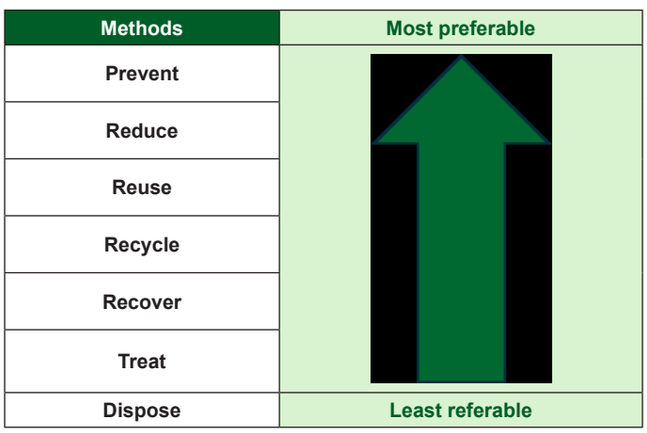
About 15 percent of the waste generated in healthcare facilities is hazardous and requires special methods for its collection, storage, transportation, treatment, and final disposition. The other 85 percent of waste is non-hazardous and can be recycled, treated, or disposed of as regular municipal waste, but only if this waste is properly segregated at the point of care.

The following waste categories are generated in the context of male circumcision:

- Non-hazardous waste (general waste and recyclable waste)
- Hazardous waste includes:
  - Infectious waste (e.g., waste contaminated with blood)
  - Pathological waste (e.g., excised foreskins)
  - Sharps waste (e.g., needles and scalpels)

Protecting public health through waste management can be achieved by a variety of methods and these are represented in the figure below with indication of preference.

Figure 4: The waste management hierarchy



4.8.2 Segregation and collection of waste

The appropriate waste receptacle (bags, bins, sharps boxes) should be available in each medical and other waste-producing area. This allows for the segregation of waste at the point of its generation and reduces the need to carry waste through a health service area. To guide staff and reinforce good habits, posters showing the type of waste that should be disposed of in each container should be placed near the bins (that is, on the walls as appropriate).

Containers for infectious waste should not be placed in public areas because clients and other clinic visitors may use the containers and come into contact with potentially infectious waste. Infectious waste bins should be located as close as possible to where waste is generated (for example, nursing stations, procedure rooms, or points of care). Placing sharps containers and segregation bins on treatment trolleys enables medical staff to segregate waste at the bedside or other treatment sites.

Collection times should be fixed and appropriate to the quantity of waste produced in each area of the healthcare facility. Generally, pathological and infectious waste should be collected at least once per day. General waste should not be collected at the same time or in the same trolley as infectious or other hazardous waste.

Waste bags/bins and sharps containers should be filled to no more than three-quarters full (or to the fill line on sharps bins when marked). Once this level is reached, they should be sealed so they can be collected. Plastic bags should never be stapled but may be tied in a knot or sealed with a plastic tag or tie. Replacement bags or containers should be available at each waste generation area. Education and training must be provided to all healthcare workers who are responsible for segregating and collecting waste.

4.8.2.1 Segregation, packaging and disposing of sharps

Disposable sharp items, such as hypodermic needles, require special handling because these items are most likely to injure healthcare workers who handle them.

The steps for segregation and packaging of sharps in a sharps box are:

- Do not recap needles or disassemble needles or syringes. Activate the sharps-injury-protection feature if it is present.
- Place needles and syringes to be disposed of in a puncture-resistant sharps container.
- Close the sharps container tightly when it is three-quarters full. Be sure that no sharp items are sticking out of the container.
- Wear heavy-duty utility gloves.
- Remove the sharps container from the procedure area and place it in the storage area when it is ready for disposal.
- Dispose of the sharp's container by incinerating, encapsulating or burying it.
- Remove utility gloves, and wash and dry them (wash daily or when visibly soiled).
- Perform hand hygiene.

4.8.3 Storage of waste

Waste storage areas for healthcare facilities should be protected from pests and the public (especially children and scavengers), with access limited to authorised personnel. Waste storage areas should be kept locked.

4.8.3.1 General non-hazardous waste storage

General non-hazardous waste should be stored and collected for disposal in the communal landfill/dumpsite or communal waste incinerator. This waste should be collected at least weekly. The waste storage area should be enclosed, paved and connected to a public road. The gate should be big enough that the collection vehicles can enter.

4.8.3.2 Infectious and sharp waste storage

The storage place must be identifiable as an infectious waste area by using the biohazard symbol. The storage floor and walls should be sealed or tiled to allow easy cleaning and disinfection. Storage times for infectious waste (for example, the gap in time between waste generation and treatment) should not exceed the following:

- In temperate climate, 72 hours in winter and 48 hours in summer
- In warm climate, 48 hours in the cool season and 24 hours in the hot season

If a refrigerated storage room is available, infectious waste can be stored for more than a week if it is kept cool at a temperature no higher than between 3–8°C.

In most facilities in South Africa, medical waste is managed by an external waste management service provider. The waste is collected from the facilities and transported to disposal sites, where it is incinerated, encapsulated, or buried. General waste is typically handled by municipal services. MMC implementers should ensure that waste collection systems are in place and well-maintained, as the programme generates a significant amount of waste.

4.9 Post-Exposure Prophylaxis

Healthcare workers may be accidentally exposed to blood and other body fluids that are potentially infected with HIV, hepatitis virus, or other blood-borne pathogens. Occupational exposure may occur through direct contact of non-intact skin with potentially infected blood or body fluids, from splashes into the eyes or mouth, or through injury with a used needle or sharp instrument. Post-exposure prophylaxis (PEP) can help prevent the transmission of pathogens after such a potential exposure.

Any person possibly exposed to HIV, hepatitis B virus (HBV), or hepatitis C virus (HCV) should be assessed by a trained healthcare worker. Essential components of the clinical pathway include assessing the mechanism of exposure, assessing eligibility for post-exposure prophylaxis, examination of any wound, and initial first-aid treatment.

NB: Ensure availability of National Clinical Guidelines of Post-Exposure Prophylaxis (PEP) and other relevant SOPs.

4.9.1 Post-Exposure Prophylaxis for HIV

If initiated promptly after exposure, post-exposure prophylaxis (PEP) can lower the risk of HIV infection by more than 80%. It is essential to complete a full 28-day course of antiretroviral medications (ARVs) to ensure the effectiveness of this treatment. Eligibility for PEP should be assessed based on the HIV status of the source..

4.9.2 General principles of PEP

- All occupational exposures should be treated as a medical emergency.
- Post-exposure prophylaxis should be offered, and as early as possible, to individuals with suspected or known exposure to HIV, ideally within 24 hours but not later than 72 hours.
- If there is an acute (history of needle stick injury or exposure to potentially infected fluids to broken skin, treat it as a medical emergency.
- Offer PEP as early as the exposed individual presents at the facility. No exposed individual should leave a facility without being offered PEP.
- Wherever possible, investigations for concomitant infections should be requested on both the source and exposed individual. If the source individual is unknown or refuses to test for HIV, the exposed individual must be treated as if the source is positive.
- Occupational exposures must be regarded as preventable, and investigation must be conducted to strengthen prevention policies and practices at healthcare facilities.
- Following the guidelines for occupational exposure (NDoH, 2021), steps 1 to 4 detailed below must be followed.

Figure 5: The care pathway for the exposed individual requiring PEP

4.9.3 Steps in the provision of Post-Exposure Prophylaxis

STEP 1: Provide immediate care to the exposure site

- Wash the exposed skin and any wound with soap and water.
- Flush mucous membranes with water.
- DO NOT use any antiseptic or caustic agents, such as bleach.
- Report the event to the healthcare provider in charge of post-exposure prophylaxis management. The report should include identification of the exposed person, the date and time of exposure, the type of fluid, the nature of the exposure, and details about the source, as recommended by national post-exposure prophylaxis guidelines.

STEP 2: Establish eligibility for Post-Exposure Prophylaxis

- Check for parenteral or mucous membrane exposure (for example, splashes to the eye, nose, or oral cavity).
- Check for exposure to blood (this is the most likely situation, usually because of needle-stick [sharps] injury or, more rarely, blood-stained saliva or genital secretions because of problems with managing the airway or problems with catheterisation).
- Post-exposure prophylaxis is not indicated if the exposed healthcare worker is known to be HIV positive, the source is known to be HIV negative, or exposure is limited to intact skin.
- Testing the source of the exposure and the exposed healthcare worker is helpful.

See the HIV testing algorithm in Annexure G.

4.9.3 Steps in the provision of Post-Exposure Prophylaxis

STEP 1: Provide immediate care to the exposure site

- Wash the exposed skin and any wound with soap and water.
- Flush mucous membranes with water.
- DO NOT use any antiseptic or caustic agents, such as bleach.
- Report the event to the healthcare provider in charge of post-exposure prophylaxis management. The report should include identification of the exposed person, the date and time of exposure, the type of fluid, the nature of the exposure, and details about the source, as recommended by national post-exposure prophylaxis guidelines.

STEP 2: Establish eligibility for Post-Exposure Prophylaxis

- Check for parenteral or mucous membrane exposure (for example, splashes to the eye, nose, or oral cavity).
- Check for exposure to blood (this is the most likely situation, usually because of needle-stick [sharps] injury or, more rarely, blood-stained saliva or genital secretions because of problems with managing the airway or problems with catheterisation).
- Post-exposure prophylaxis is not indicated if the exposed healthcare worker is known to be HIV positive, the source is known to be HIV negative, or exposure is limited to intact skin.
- Testing the source of the exposure and the exposed healthcare worker is helpful.

See the HIV testing algorithm in Annexure G.

STEP 3: Prescribe Post-Exposure Prophylaxis

- Initiate post-exposure prophylaxis as early as possible, ideally within 72 hours of the exposure.
- Continue post-exposure prophylaxis for 28 days.
- Provide enhanced adherence counselling and address any drug interactions.
- Follow the NDOH's recommendations for post-exposure prophylaxis for HIV.

STEP 4: Follow up

- Provide follow-up for adherence and any side effects of antiretroviral treatment and address any other questions that individuals may have.
- Arrange for an HIV test to be undertaken three months after the exposure.
- Link HIV care and treatment, including preventive measures for protecting others, in case HIV test results are positive.
- Provide additional counselling and other preventive interventions as needed and if test results are negative.

Preferred Regimen is TLD
Tenofovir 300mg / Lamivudine 300mg / Dolutegravir 50mg (fixed dose) Once a day for four weeks

Exposures that may warrant post-exposure prophylaxis include:

- Parenteral or mucous membrane exposure (splashes to the eye, nose, or oral cavity)
- Exposure to the following bodily fluids: blood, blood-stained saliva, breast-milk, genital secretions, and cerebrospinal, amniotic, rectal, peritoneal, synovial, pericardial or pleural fluids

Exposures that do not require post-exposure prophylaxis include:

- When the exposed individual is already HIV positive
- When the exposed individual is already on PrEP for more than 21 days
- Exposure to bodily fluids that do not pose a significant risk (tears, non-blood-stained saliva, urine, and sweat)

Management of exposure to Hepatitis B or C:

According to the South African National Guidelines for the Management of Viral Hepatitis (South African National Department of Health, 2020),the medical response to exposure to hepatitis B virus (HBV) and hepatitis C virus (HCV) depends on the immune status of the person exposed, as determined by the history of hepatitis B vaccination and vaccine response, and whether the exposure poses a risk of infection. Transmission of HBV and HCV may occur following percutaneous injury or contamination of mucous membranes or non-intact skin. These viruses do not cross intact skin. HBV post-exposure prophylaxis is safe for pregnant and breastfeeding women. No vaccine is available for HCV, and post-exposure prophylaxis is not typically used; however, early antiviral treatment is recommended if infection is confirmed.

Hepatitis B exposure:

In South Africa, the management of exposure to Hepatitis B follows specific guidelines to ensure effective prevention and treatment.

Here are the key steps:

1. **Immediate Action:**
   - Wound Care: Clean the exposure site immediately with soap and water. For mucous membrane exposure, rinse thoroughly with water.
   - Report and Document: Report the exposure to the appropriate authority and document the incident.

2. **Assessment:**
   - Evaluate the Source: Determine the hepatitis B status of the source individual, if known.
   - Assess the Exposed Person: Check the hepatitis B vaccination status and antibody response of the exposed individual.

3. **Post-Exposure Prophylaxis (PEP):**
   - Vaccination: If the exposed person is not vaccinated, initiate the hepatitis B vaccine series immediately.
   - Hepatitis B Immune Globulin (HBIG): Administer HBIG as soon as possible, ideally within 24 hours, for unvaccinated individuals or those with an unknown vaccination status.

4. **Follow-Up:**
   - Vaccination Series: Complete the hepatitis B vaccination series if it was started.
   - Monitoring: Conduct follow-up testing for hepatitis B surface antigen (HBsAg) and antibodies to hepatitis B surface antigen (anti-HBs) to ensure immunity.

5. **Counselling and support:**
   - Provide counselling to the exposed individual about the risk of hepatitis B and the importance of completing the vaccination series.
   - Offer psychological support if needed.

Hepatitis C exposure

In South Africa, the management of exposure to hepatitis C follows specific guidelines to ensure effective prevention and treatment.

Here are the key steps:

1. **Immediate Action:**
   - Wound Care: Clean the exposure site immediately with soap and water. For mucous membrane exposure, rinse thoroughly with water.
   - Report and Document: Report the exposure to the appropriate authority and document the incident.

2. **Assessment:**
   - Evaluate the Source: Determine the hepatitis C status of the source individual, if known.
   - Assess the Exposed Person: Check the hepatitis C status of the exposed individual, including any previous infections or treatments.

3. **Post-Exposure Prophylaxis (PEP):**
   - There is currently no effective vaccine against hepatitis C.
   - Therefore, PEP is not typically used for hepatitis C. However, antiviral medications, including sofosbuvir and daclatasvir, are used to treat hepatitis C.

4. **Follow-Up:**
   - Monitoring: Conduct follow-up testing for hepatitis C virus (HCV) RNA to confirm infection status. This is usually done at four to six weeks and again at three to six months post-exposure.
   - Counselling: Provide counselling to the exposed individual about the risk of hepatitis C and the importance of follow-up testing and treatment.

5. **Support:**
   - Offer psychological support and counselling to the exposed individual, as needed.

CHAPTER 5: EDUCATING, COUNSELLING CLIENTS, AND OBTAINING INFORMED CONSENT

This Chapter provides information on the following:

1. The role and content of group education and individual counselling in male circumcision services.
2. The skills required to educate and counsel clients on male circumcision services, including HIV testing and prevention.
3. The unique needs of adolescents in education and counselling, including age-appropriate sexual and reproductive health messages.
4. The skills required to encourage, but not mandate, an HIV test before the circumcision procedure.
5. The importance of and conditions for maintaining privacy and confidentiality of male circumcision clients.
6. Group education and individual counselling considerations for facilities or providers offering both conventional and device-based surgical circumcision methods.
7. The principles of and steps involved in obtaining informed consent from clients, including from minors and other special groups.

5.1 Introduction

Health education and counselling are closely linked, but they have distinct roles in the context of supporting clients. In health education, the primary goals are to:

- Provide accurate information and learning experience so that individuals and communities become knowledgeable about issues relevant to their health.
- Make a positive impact on individuals' attitudes by providing current, accurate information.

Health education is delivered in group and individual formats and includes an interactive question-and-answer component to encourage client engagement. Counselling is a two-way interaction (that is, a conversation) between a provider and an individual, couple or family (see Box 2). The goal is to support clients in making healthy, appropriate choices for themselves. This means assisting clients to examine issues that are personally relevant, such as risk behaviours; discuss their options to address any needs or problems identified; guide them to make informed decisions; and develop realistic action plans.

Box 2: What is counselling?

What is counselling?
Counselling is a conversation or process of dialogue characterised by the following:
- Active listening, that is, not forcing ideas or values on clients.
- Being respectful, empathetic, and nonjudgemental, that is, not criticising clients.
- Empowering clients, that is, not telling them what to do.
- Supporting the rights of clients, that is, not taking responsibility for their actions or decisions.

For education and counselling to be most effective, providers must work to establish a trusting relationship with clients by being respectful, empathetic, and nonjudgemental at all times. The communication skills required for effective group education and individual counselling are in Annexure B. Prioritise the information that needs to be delivered at each visit, so clients are not overwhelmed by too much information at one time (see Box 3).

5.2 Education, Counselling, and Client Flow

Plan and prioritise education and counselling so that sufficient opportunity for these critical services is incorporated at appropriate stages into the male circumcision process. In male circumcision, as in other health services, education and counselling are usually integrated rather than being separated from other aspects of care. For example, in some settings, most pre-procedural counselling may occur while the client is being screened for his eligibility to undergo the procedure because both counselling and screening require privacy. Also, asking a client about his sexual and reproductive health history can readily lead to a discussion about risk reduction, the need for HIV testing, and other issues relevant to the decision to undergo male circumcision.

Figure 1 (see Chapter 1) shows the typical order in which clients may progress through male circumcision services, where each block in the figure represents a stage in the male circumcision process. Building on that concept, Table 13 shows examples of education and counselling content to convey at each step throughout the provision of male circumcision services.

Box 3: Do not overwhelm clients by giving them too much information at one time.

Prioritise education and counselling messages that are critical to protect the client's right to informed consent/assent and to ensure that he is safe during and after the procedure. Giving too much information at once can reduce the client's ability to understand it, making it more difficult for the client to make healthy, informed choices. Other health or related services may be mentioned or even recommended. However, unless they are integral to male circumcision, they should not be the focus of education and counselling.

Until the procedure is complete, the client is recovering normally, and a critical discussion about wound care and continued HIV risk reduction has taken place. Other ways to introduce a client to these services, without overwhelming him, are to give him an information sheet about services available, send messages about special health events to his cell phone, or post such information on waiting area walls.

Table 11: Example of education and counselling content throughout male circumcision services

Registration and waiting	Group education	Individual counselling	Clinical screening	Immediate pre-procedure care and the procedure	Immediate post-procedure care	Follow-up care
Services provided at the site Minimum service package and male circumcision methods available at this healthcare facility	Basic information about male circumcision as part of a comprehensive HIV prevention strategy HIV testing Sexually transmitted infections Condoms Male circumcision procedure (including risk and method options if applicable) Follow-up care, including wound care and tetanus risk Other services available locally	Individual risk assessment and risk reduction plan method of male circumcision HIV testing and post-test counselling Reinforce key HIV risk reduction messages that are tailored to the client If required, refer for post-test services (for example, PrEP, HIV treatment, sexually transmitted infection treatment, family planning services, immunisation)	Choice of method, depending on eligibility Re-emphasise messages covered in individual counselling Address questions and fears about the procedure Explanation of contraindications, and referrals if contraindication noted	Informed consent/ assent Choice of method Re-emphasise messages covered in individual counselling Wound care Address questions and fears about procedure	Wound care Abstinence during wound healing Condoms Risk reduction and additional HIV prevention measures Warning signs of complications that require early return to the clinic Follow-up care schedule Information about how to contact the clinic or providers in the event of an emergency or complication	Wound care Abstinence during wound healing Condoms Risk reduction and additional HIV prevention measures Warning signs of complications that require early return to the clinic Continued follow-up care Referral of client to other relevant services
		Tetanus toxoid-containing vaccination				
		Wound care				
		Informed consent/ assent				

5.2.1 Considerations for group education in male circumcision

Group education sessions allow clients to enter into individual counselling with a general understanding of the circumcision procedure (for example, benefits, risks, and partial protection against HIV) and other components of the male circumcision package, such as HIV testing. In turn, individual counselling sessions can be better tailored to each client and may be shorter, which is an advantage in busy clinics. Group education needs to be conducted in a quiet place. It is beneficial to separate education sessions for men from those for adolescent boys (especially if they are not yet sexually active) to address the needs specific to each group. It has been shown that offering only combined sessions, where adolescent boys and men are educated together, may deter the men from actively participating and asking questions.

During group education for male circumcision services, educators should provide basic information about the role of this procedure in a comprehensive HIV prevention strategy. If both conventional and device-based surgical circumcision methods are available, then information should be given about these different methods and the circumstances when some males may not be eligible for circumcision at all. Finally, there should be information about follow-up care, including post-procedure wound care, abstinence during the healing period, and warning signs.

Although the information provided during group education sessions should cover certain core information as described in Table 11, the content may differ slightly from one facility or healthcare provider to another based on local needs. For example, in a setting where traditional male circumcision is prevalent, the educator may spend more time discussing differences between the traditional and the conventional or device-based surgical circumcision methods. National programmes can prioritise topics to cover and emphasise or add to educational sessions. Educators should also consider the local cultural context to determine how best to accommodate different age groups. Likewise, adolescent boys may not understand the relevance of messages designed especially for men, as these messages do not reflect typical adolescent perspectives and life situations.

5.2.2 Considerations for individual counselling in male circumcision

The aim of counselling in male circumcision services is to support the client in his decision to undergo this procedure and receive an HIV test (if he has not already been tested). Counselling should also assist the client in identifying ways to reduce his risk of acquiring HIV or transmitting the virus to others and understanding the importance of accessing post-test support services if needed. Pre-procedure and post-procedure counselling—and follow-up care services—are also critical to reducing the risk of adverse events and encouraging healthy outcomes. Individual counselling needs to be conducted confidentially.

The provider should ensure that the client, his sexual partner(s), and, if the client is a minor, his parent(s)/guardian(s) have the information they need to make an informed decision about undergoing circumcision and receiving HIV testing. Once the client has been fully screened and determined to be eligible for circumcision at the clinic, and depending on his age and methods available at the clinic, counselling can guide him to choose a conventional or device-based surgical circumcision method—provided either he or his parent(s)/guardian(s), if he is a minor, consent and sign a document to record this consent. National guidelines should be followed concerning the legal age at which a client can consent to male circumcision and HIV testing. It is also good practice to encourage minors to sign their assent documents.

The male circumcision counsellor should consider different strategies and approaches for building trust and gaining the confidence of clients who differ by age, cognitive and physical development, HIV status, life situation, and other factors. Tailoring messages to each client may be particularly effective because it shows the client that the provider has been paying attention to him. For example, the provider may emphasise the importance of HIV testing to a client whose HIV status is unknown or may emphasise the importance of regular retesting to a client who is HIV negative and who has behaviours that put him at risk for HIV infection. All clients should know that male circumcision offers no direct protection to their sexual partners against acquiring an HIV infection.

5.3 Confidentiality and privacy

Clients often hesitate to disclose their sexual and reproductive health concerns due to societal pressures and stigma. Establishing a trusting environment is crucial for encouraging open communication about sensitive health matters. Absolute confidentiality and privacy are essential components of quality healthcare, supporting effective education and counselling.

Individual rights and confidentiality

Every individual has the right to decide when and with whom to share personal health information. Client information must be kept confidential, and records should be securely stored. Privacy ensures that interactions with clients are not observed or overheard by unauthorised individuals.

Guidelines for maintaining confidentiality and privacy

- Private Counselling Sessions: Counselling sessions should be conducted in a private setting, preventing clients from being seen or heard by others.
- Aural Privacy: When discussing sensitive information, ensure that no one else can hear the conversation. This is particularly important during male circumcision services, HIV testing, counselling, screening, and procedures.
- Individual Time: Each client should be allowed to discuss issues with the healthcare provider without his sexual partner(s) present (or, if the client is an

adolescent boy, without his parent[s]/guardian[s] present). Providers should not ask the client in front of his sexual partner(s) or parent(s)/guardian(s) if he would like one-on-one time because the client may say no to avoid potential conflict. Instead, healthcare providers should create a few moments of privacy as part of their routine.

- Involving Guardians: Parent(s)/guardian(s) have the legal right to be present at all times, then providers should discuss with the parent(s)/ guardian(s) the reasons for needing to see the adolescent boy in private; providers should obtain the adolescent boy's permission to have this private discussion. Information that the minor is embarrassed to share in front of parent(s)/ guardian(s) may be important to learn to ensure that he receives the best care possible.

Male circumcision services and confidentiality

HIV counselling, pre-procedure, and post-procedure counselling for male circumcision should be conducted in rooms that offer both aural and visual privacy. This ensures that sensitive information, such as HIV test results, sexual history, and other private details, are not disclosed to others. Maintaining privacy helps build trust and confidence in the care provided, which can positively impact the demand for circumcision services.

Shared confidentiality and the National Health Act

The National Health Act, 2003 (Act 61 of 2003) emphasises the right of all patients to confidentiality, aligning with the constitutional right to privacy. Healthcare practitioners have a responsibility to protect patient information and ensure its effective protection against unauthorised disclosure. This includes training staff members to respect confidentiality and implementing measures to prevent accidental disclosure of records.

While healthcare practitioners cannot provide safe and effective care without relevant information, they must obtain the patient's consent to share information with the healthcare team. Additionally, patients should be informed about any necessary disclosures to external organisations or agencies. The Protection of Personal Information Act, 2013 (Act 4 of 2013) further strengthens the obligations of healthcare professionals to safeguard patient information. It requires obtaining patient consent for information obtained from external sources and informing patients about the purpose of such information.

5.4 Content of male circumcision group education, including HIV prevention

The following objectives (see sections 5.4.1–5.4.3) of male circumcision group education are adapted from the US President's Emergency Plan for AIDS Relief's best practices

5.4.1 Group education objective 1: General information on male circumcision as part of an HIV prevention strategy

Male circumcision clients should be provided with information about the following:

- HIV, specifically
- How HIV is transmitted
- Actions to reduce the client's risk of acquiring or transmitting HIV (using condoms and avoiding risky situations and multiple sexual partners)
- HIV testing (options)
- Meaning of an HIV test result
- Timing of the proposed male circumcision procedure, depending on the client's age (that is, 10 years and older), HIV status, and information obtained during screening
- Post-test support services (as appropriate), including, as relevant, antiretroviral treatment or the use of pre-exposure prophylaxis for the prevention of HIV
- Male circumcision and overview of the circumcision procedure, specifically
- The male circumcision service package and its benefits
- What to expect during the circumcision procedure
- Risks before, during, and after the procedure (adverse events)
- The offer of partial protection against HIV, so there is still a need for a comprehensive HIV prevention strategy based on individual risk
- Eligibility criteria for circumcision emphasising exclusion criteria for circumcision at the clinic level, including bleeding disorders or haemophilia, pathologic phimosis, and other conditions
- Post-procedure wound care (giving only a brief introduction but expounding on it after the procedure)

5.4.2 Group education objective 2: Specific information about circumcision screening and the procedure

Providers should convey general messages that help inform discussions during counselling sessions (see Annexure A for details), such as the following:

- Male circumcision involves the removal of the foreskin, primarily to reduce a male's risk of acquiring an HIV infection. The procedure also reduces a male's risk of contracting or developing other conditions, and it may also help him maintain better hygiene.

- Male circumcision provides only partial protection against HIV, as it reduces the risk of acquiring HIV through sexual intercourse by approximately 60–70 percent. Other risk reduction measures should be applied, including correct and consistent condom

- "...Not everyone will adhere to the abstinence recommendation, and for these clients, information about levels of risk should be made available so that those choosing to resume sex early can do so in a way that poses the least risk to them and their partners". Condoms should be provided, as they reduce transmission of HIV and other sexually transmitted infections, and they are also useful to protect the newly healed wound.
- Post-procedure care during the recovery period and until the skin has healed requires hygienic wound care, including the use of clean water. If the water supply is likely to be contaminated, water should be boiled and then cooled before use.
- Traditional medicines and home remedies with substances such as soil, ash, or animal dung should NOT be applied to the wound or healing skin.

Box 4: Talking to your client about sexual activity during the first six weeks post-procedure

Abstaining from masturbation and sexual activity for six weeks after circumcision is important for normal wound healing. Although this issue will be discussed in detail after the procedure, clients should understand some basic facts before undergoing circumcision. Tell your client:

- The safest approach to protect your health and the health of others is to completely abstain from sexual activity for six weeks.
- If you are unable to abstain from sexual activity, masturbation poses less risk than sexual intercourse, though it may mean that your wound takes longer to heal (longer than six weeks).
- If you are wearing a device, you should abstain from all sexual activity, including masturbation, to avoid the device displacing, detaching, or tearing off - and to avoid injuring your sexual partner(s). After the device is removed, you should make every effort to abstain from sexual activity for another six weeks.
- Until the wound heals completely, use a condom if you have sex with anyone, including your regular partner. Clinics should supply condoms and provide information on other places to obtain them. Even after the skin has healed, the tissue of the circumcision wound does not have full strength for some months after the operation; condoms help protect the wound.

5.4.3 Group education objective 3: Questions, answers, and demonstration

- Address common concerns or fears, such as fear of the procedure, pain, and injectable anaesthesia.
- Demonstrate correct male condom use.
- Prepare clients for having a more detailed discussion on male circumcision and HIV/ AIDS during individual pre-procedure counselling and the HIV test.

As discussed in Chapter 1, because male circumcision is a platform for reaching adolescent boys and men about HIV prevention, this service provides an opportunity to facilitate discussions on:

- Gender norms (healthy versus unhealthy),
- Sexual and reproductive health and rights, and
- Harmful use of alcohol or other substances.

On the day of the procedure, it is important to keep to a minimum any discussion of issues that are not directly related to circumcision, HIV testing, and condom use. Follow-up visits provide an excellent opportunity to continue education and counselling initiated before the circumcision, as well as to facilitate appropriate referrals.

5.5 Male circumcision pre-procedure counselling for adolescent boys and men

The following are the objectives of male circumcision counselling:

- Respond to the client's questions and concerns about the procedure.
- Reinforce key HIV risk reduction messages tailored to the client's individual needs, age, and other relevant circumstances.
- Assess the client's ability to follow post-procedure guidance for the sexually active client.
- Identify factors that can support or hamper his ability to comply with the prescribed abstinence period, such as relationship status, ease of communication with sexual partner(s), and previous condom use.
- Discuss risk reduction strategies, such as masturbation and condom use, to use if abstinence is not possible.
- Assess the client's understanding of wound care instructions. This is best done by giving instructions and then asking questions to check the client's understanding.
- Ensure that clients are making an informed decision without coercion or pressure. Allow clients and/ or their parent(s)/ guardian(s) to make their own informed decision on whether or not to choose male circumcision. (Details on obtaining informed consent/assent follow this section.)
- Respect the client's decision if he declines to undergo circumcision. Explore the reason(s) for the refusal, reinforce the benefits of circumcision, and invite the client to return for male circumcision services at a later date.
- Obtain informed consent/assent for HIV testing, tetanus toxoid-containing vaccination (as applicable per country protocol), and male circumcision at the clinic (once screening is complete and the client is found eligible for the procedure).
- Offer HIV testing services before circumcision. For those who decline HIV testing, repeat the offer of the test during follow-up visits.
- Conduct appropriate post-test HIV counselling based on the client's HIV status and individual risk factors. Refer the client for other HIV-related post-test services as applicable.
- Adolescent boys who learn they are HIV positive may need additional counselling and support. Their parent(s)/ guardian(s) will also need to be included in at least part of their counselling session.

Annexure H has additional guidance on how to provide HIV testing and counselling services.

5.6 Informed consent/assent for circumcision and HIV testing

Male circumcision is an elective invasive procedure with potential adverse events and complications. It is the provider's ethical and human rights obligation to give accurate and appropriate information to a client and to obtain his informed consent/assent. Informed consent/assent is more than having a client sign a document to record his agreement to undergo circumcision. It is the process of ensuring that clients or their parent(s)/guardian(s) understand the procedure and its associated benefits and risks, and voluntarily—freely and without coercion or pressure—make an informed decision to undergo the circumcision procedure.

5.0.1 Legal age of consent

1. Legal Age of Consent: The Children's Act, 2005 (Act 38 of 2005) considers individuals under the age of 18 as legal minors who generally cannot act independently without assistance from parents or legal guardians. However, the Act does recognise the evolving capacity of children and allows them to act independently under certain circumstances. In accordance with the Convention on the Rights of the Child, General Comment No. 4 (2003), adolescents must be provided the opportunity to freely express their views prior to the provision of parental consent. These views must be given due weight, consistent with Article 12 of the Convention.

2. Male Circumcision:

- Boys aged 18 and older can independently provide written informed consent for circumcision and can undergo the procedure for any reason.
- Boys aged 16 to 18 can also undergo circumcision for any reason, provided they consent after receiving information and are assisted by a parent or legal guardian. The decision must be made in the best interests of the child, and proper counselling must be provided.
- Boys under 16 require written informed consent from their parents or legal guardians to undergo circumcision, and a parent must be present on the day of the procedure.
- Male circumcision for boys under 16 is only permitted if it conforms to religious practices or is for medical reasons, such as Voluntary Medical Male Circumcision (VMMC) due to its benefits in HIV prevention. Written consent is required. Circumcision for social or cultural reasons is only allowed for boys aged 16 or older, with their written consent and the signed assent of a parent or guardian.
- All boys, regardless of age, have the right to refuse circumcision. Providers must explain the risks and benefits in an age-appropriate manner, and if the child has sufficient capacity, he should be allowed to give or withhold assent to the procedure.
- Written consent and assent (for minors) are required for all ages in the South African MMC programme.

3. HIV Testing: According to the 2023 ART Clinical Guidelines, Children aged 12 or older, or younger children with sufficient maturity to understand the implications, can give consent for HIV testing. Proper pre-and post-test counselling must be provided, and the clinical and social implications must be explained.'

5.6.2 Essential elements and documentation of informed consent/assent

The following elements should be included in the process to obtain the client's informed consent/assent.

- Assess the capacity of the client to understand and make his decision about circumcision based on the information provided.
- Provide relevant information. Clients and their parent(s)/guardian(s), as applicable, should be given information in everyday, local language.
- Ask checking questions or ask the client to summarise what he has learned to assess his understanding of the information provided.
- Assure the client that he is free to choose whether to become circumcised.
- Obtain consent/assent at the appropriate time. Once clients have been educated and counselled, found eligible for circumcision through a clinical screening, received answers to any questions, and decided to undergo the circumcision procedure, ask them to sign a consent/assent document. If the client is a minor, ask the parent(s)/guardian(s) to sign a consent document and ask the minor to sign an assent document.

- Acquire an eligible copy of an Identity Document (ID) or birth certificate of a minor client, which must be accompanied by proof of guardianship (an official affidavit).

Identification documents comprise:

a) SA ID (green barcoded or smart Card)
b) Driver's license
c) Birth Certificate (clients younger than 18 years old)
d) Passport
e) Refugee papers
f) Foreign national identification document issued by the government of the foreign national.

Process

In the absence of any of these identifying documentation, an affidavit is permitted only as follows:

1. **The affidavit details the following of the client**:
   a. Name
   b. Surname
   c. Date of Birth
   d. Contact number (for follow-up and verification purposes)
   e. Address (for follow-up purposes)

2. **The affidavit is signed by a Commissioner of Oaths as recognised by the relevant legislation**

3. **The affidavit is signed by the client and/or the parent/guardian**

4. **Use of an affidavit requires that staff of the VMMC programme must undertake the following:**

   a. Ensure that the client's signature on the affidavit matches to the signature on the MMC consent form
   b. Ensure that the affidavit is not a copy of another existing or previously used affidavit
   c. Assess the client's age through reasonable deduction based on physical maturity and adequate development of the male organs commensurate with the client's declared age on the affidavit. In addition, the following information is required in the affidavit or equivalent:

CLIENT NAME(S):

CLIENT SURNAME:

IDENTITY NUMBER:

PASSPORT NUMBER:

AGE:

RESIDENTIAL ADDRESS:

GENDER:
I, …… with Identity Number
……,
[deponent]
do hereby state under oath that I:
Am over the age of 18 years

OR

Am the biological mother/father of the above-mentioned child with different surnames;

Am the biological mother/father of the above-mentioned child;

Am the caregiver of the above-mentioned child;

o Status/Relation: _____

with ID/Passport Number/Date of Birth ……

Am the legal guardian of the above-mentioned child;

o Status/Relation: _____

with ID/Passport Number/Date of Birth ……

I certify that the deponent knows and understands the contents of the declaration above.

This statement was sworn before me and the deponent's signature was placed thereon in my presence.

Date: _____Signed at:_____ Signature of commissioner of oath: _____

5.6.3 Approach to counselling for HIV testing services

5.6.3.1 Consent/assent

Clients who receive HIV testing must give informed consent/assent to be tested and counselled (see Box 5). Verbal consent/assent is sufficient; written consent/assent is not required. Clients should be informed of the process for HIV testing and counselling and of their right to decline testing.

Box 5: Essential information needed to obtain informed consent/assent

- Describe obtaining consent from a parent, and that am adolescents need to have a chance to express their views freely and their views should be given due weight, in accordance with article 12 of the Convention.
- Describe the purpose of the male circumcision procedure.
- Describe the procedure and its duration.
- Explain that male circumcision is permanent.
- Explain the potential risks and benefits of male circumcision.
- Explain that it is a voluntary procedure.
- Evaluate the client's understanding of the key information provided.
- Allow time for the client to ask questions and receive answers.

5.6.3.2 Confidentiality

The HIV testing process must be confidential. The discussion between the provider conducting the HIV test and the client cannot be disclosed to anyone else without expressed consent/assent from the client to do so. Confidentiality should be respected, but it should not be allowed to reinforce secrecy, stigma, or shame. Counsellors should discuss, among other issues, whom the client may wish to inform about the test result and how he would like this communication done. The client should be counselled that sharing his test result with a sexual partner(s), family member, another trusted person, and healthcare provider is often highly beneficial to the client's mental health (that is, it enables social support) and will help identify others who need HIV testing.

5.6.3.3 Counselling

HIV pre-testing information can be provided in a group setting, but all clients should have the opportunity to ask questions in a private setting if they request it. All HIV testing must be accompanied by appropriate and high-quality post-test counselling based on the specific HIV test result. Quality assurance mechanisms, as well as supportive supervision and mentoring systems, should be in place to ensure that the provision of high-quality counselling is achieved.

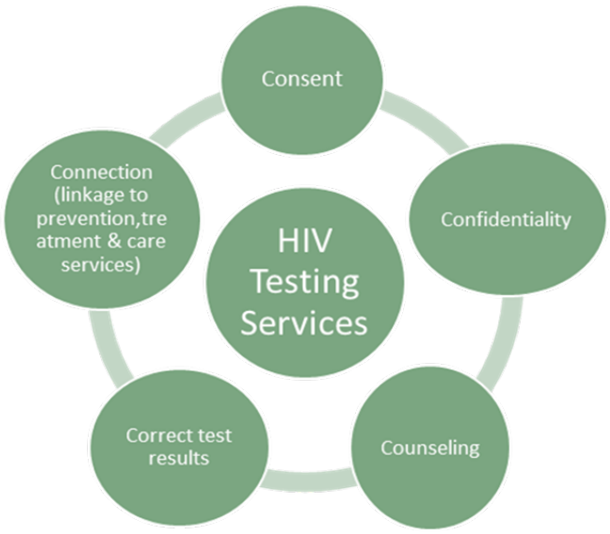
5.6.3.4 Correct test results

HIV testing providers should strive to achieve high-quality testing services, and quality assurance mechanisms should ensure that people receive correct diagnoses. Quality assurance may include both internal and external measures that should be supported by the national reference laboratory. All clients who receive HIV-positive diagnoses should be retested to verify their diagnoses before the initiation of HIV care or treatment.

5.6.3.5 Connection

Linkage to prevention, treatment, and care services should include effective and appropriate follow-up, including long-term prevention and treatment support. Providing HIV testing in an area where there is no access to care or poor linkage to care, including antiretroviral therapy, has limited benefits for those who have to live with HIV.

Figure 6: HIV testing services



5.6.4 Key considerations on HIV testing Services in the MMC programme

HIV Testing Services (HTS) are essential to Voluntary Medical Male Circumcision (VMMC) programmes in South Africa. These services should be integrated into VMMC sites to ensure comprehensive HIV prevention and care, following the National HIV Testing Services Policy for Children and Adults 2024.

Key aspects include:

1. Routine HIV Testing: All clients undergoing VMMC are offered HIV testing as part of the service. This facilitates early detection and linkage to care for those who test positive.
2. Counselling and Support: Pre- and post-test counselling is provided to help clients understand their HIV status and its implications. This includes education on HIV prevention, treatment options, and support services.
3. Referral Systems: Clients who test positive for HIV are referred to appropriate care and treatment services, including antiretroviral therapy (ART) and other support services.
4. Quality Assurance: VMMC sites adhere to strict quality assurance protocols to ensure the accuracy and reliability of HIV testing. This includes regular training and assessments for healthcare providers.
5. Community Engagement: VMMC programmes often involve community outreach and education to raise awareness about the benefits of circumcision and the importance of HIV testing.
6. PrEP and PEP: Pre-exposure prophylaxis (PrEP) and post-exposure prophylaxis (PEP) are offered to clients at risk of HIV infection to prevent transmission.
7. HIV Self-Testing (HIVSS): Clients are provided with HIV self-testing kits to encourage testing privately and conveniently.
8. Index Testing: Clients who test positive are encouraged to refer their sexual partners and family members for HIV testing to identify and support others who may be at risk.

5.7 Male circumcision post-procedure counselling for adolescent boys and men

The counsellor should ask questions to ensure that the client - and, if he is a minor, his parent(s)/guardian(s) - understands the post-procedure instructions and follow-up appointment schedule. Detailed information on post-procedure counselling for each follow-up visit is in Chapter 6, but the primary objectives and key messages for post-procedure counselling are as follows:

- Confirm that the client understands wound care instructions and the need for clean clothing and has the means to contact clinical staff with any questions.
- Counselling the client to keep the wound dry for the first 24-48 hours while the dressing is in place.
- Counselling the client to use clean water (bottled or boiled and cooled) to wash the wound until the skin heals.
- Ensuring that the client understands that he must not apply any substance to the wound that was not prescribed by his circumcision provider because the use of traditional medicines, ashes, dung, and home remedies can result in a dangerous infection, including tetanus.
- Describe to the client the signs and symptoms of adverse events, recommendations for contacting clinic staff, and when to return to the clinic when an adverse event is suspected (see Chapter 6).
- Determining the client's ability to comply with the prescribed follow-up schedule, including transport to the male circumcision clinic or a clinic near the client's residence, given his work or school schedule and family commitments.
- Counselling clients and their sexual partners on the necessity for abstinence from sexual intercourse, including masturbation; if abstinence is not possible, counselling on the need for condom use during the healing period and offering recommendations to improve compliance with abstinence or mitigate an elevated risk of acquiring or transmitting HIV infection.
- Reinforcing to clients the partially protective benefit of male circumcision against HIV infection and the need to reduce risk behaviours that increase exposure to HIV and other sexually transmitted infections.
- Discussing effective prevention options, such as using condoms correctly and consistently, having sexual partners tested, reducing sexual partners, taking pre-exposure prophylaxis, and engaging in other HIV prevention measures.
- Providing clients with written wound care instructions
- Repeating to clients the wound care instructions at each follow-up visit, especially at the 48-hour visit, as this may be the time when the dressing is removed, thereby presenting the first opportunity for potential application of traditional remedy to the wound.

5.8 Demand creation and expanding VMMC Reach: Overcoming barriers and promoting uptake

5.8.1 Enhancing uptake of VMMC among adult men and male adolescents in high HIV prevalence settings

To reach the 2030 HIV prevention targets, HIV prevention programmes must be focused on, accessible to, and taken up by the people most at risk of acquiring infection. The Uptake of VMMC among adolescent boys and adult men has been impressive, with over 37,5 million circumcised in the VMMC programmes of 15 priority countries between 2008 and 2023. However, there is now a need to increase uptake among adult men, especially those who may be at higher risk of HIV infection, such as partners of sex workers, men in serodiscordant relationships, and men attending STI clinics. Early programme efforts focused on generating demand for VMMC, primarily through communication strategies and raising awareness, which may have tapped into latent demand for the service. Experience has revealed the need for a more strategic and holistic approach, tailored to the different ways that potential VMMC clients make decisions and address both demand and supply factors. Reaching more men for VMMC can support achieving universal health coverage by 2030.

5.8.2 Target population for MMC

The target population for MMC is HIV-negative males aged 15 to 49 years. Evaluations to date have shown that VMMC is cost-effective and even cost-saving in various settings, including South Africa. The findings indicate that targeting age groups with the highest risk of future exposure enhances efficiency. VMMC was found to be cost-effective in 62 percent of settings with an HIV incidence of less than 0.1 per 100 person-years among men aged 15-49 years, increasing to 95 percent in settings with an HIV incidence greater than 1.0 per 100 person-years. Males aged 10 and older may receive circumcision at MMC services if they meet the eligibility criteria.

5.8.3 Creating demand

Advocacy, community awareness, and formal community mobilisation are essential components of demand creation and coordination with service delivery for Voluntary Medical Male Circumcision (VMMC). One of the initial priorities in the VMMC programme should be to engage local leaders to facilitate meaningful community engagement. Evidence from successful programmes indicates that dedicating at least six months to securing key stakeholder support (stakeholder sensitisation) significantly enhances the uptake and sustainability of VMMC services.

Key stakeholders—including Department of Health (DoH) officials, facility administrators, businesses, traditional leaders, and other public opinion leaders—must be sensitised to the goals, benefits, and processes of VMMC. Once these stakeholders are informed and supportive, community sensitisation can be effectively rolled out to the broader population.

Sensitisation activities aim to educate communities about the health benefits of VMMC, including its role in HIV prevention. Effective approaches may include radio interviews, newspaper articles, community dialogues, educational sessions by counsellors and health promoters, and other public forums. Messaging should ensure accurate understanding of VMMC and its partial protection against HIV, while also promoting safer sexual behaviours. Additionally, these activities should address gender norms, including perceptions of masculinity, women's perspectives, and the role of societal norms in sexual health decision-making.

Informed demand creation activities that encourage community interaction—such as small group discussions, debates, panel forums, or local radio programmes—should be tailored to the specific context of each province or community. Sensitisation must commence before the introduction of VMMC services and should continue periodically to sustain community engagement.

Crucially, VMMC demand creation provides an opportunity to integrate broader health services, including HIV testing and counselling (HTC), sexual and reproductive health education, STI screening and treatment, and referrals for other preventive services. Integration ensures a more holistic approach to men's health and maximises the use of health system resources.

Local stakeholders, who possess contextual knowledge and influence, should be involved throughout the planning and implementation phases to ensure that sensitisation and integration strategies are appropriately targeted. The continuous involvement of the DoH and other key stakeholders in all stages—from strategic planning to implementation and monitoring—is vital to ensure sustainability and alignment with national health priorities.

Despite potential challenges, a comprehensive implementation and budget plan must be developed prior to initiating activities. All aspects of service delivery, including integrated health services, must be prepared to meet the demand generated by mobilisation efforts, ensuring quality and continuity of care.

Objective(s):

- To provide the community with accurate and complete information about VMMC, including its potential for reducing the risk of HIV infections and other benefits
- To identify and correct any myths and misconceptions about VMMC
- To build demand for VMMC and provide all information necessary for informed consent among eligible men and ensure that the supply of services (e.g., sufficient equipment, consumables, and human resources) is appropriate to meet the demand for services. https://hivpreventioncoalition.unaids.org/sites/default/files/attachments/op_guide_5creating_demand.pdf

CHAPTER 6: PRE-PROCEDURE SCREENING AND PREPARATIONS

This chapter outlines essential steps in screening and preparing clients for Voluntary Medical Male Circumcision (VMMC), ensuring safety and quality of care. The objectives are to assess client eligibility, identify potential contraindications, and conduct all necessary preparations before the procedure.

This chapter includes:

- Focused history taking and physical examination for male circumcision eligibility.
- Understanding the surface and internal anatomy of the penis.
- Identifying contraindications to circumcision at the clinic level.
- Selection of appropriate circumcision method (surgical or device-based) considering client age, contraindications, and client preference.
- Conducting safe and standardised pre-procedure preparations.
- Use of the World Health Organization (WHO) Surgical Safety Checklist, adapted for VMMC, to enhance client safety.

6.1 Screening of Adult Males

A critical function of the VMMC team is to determine a client's eligibility for circumcision using either conventional surgical or device-based methods. This involves:

6.1.1 Focused Medical History

Providers must collect a detailed medical history, focusing on:

- Current and past medical conditions (e.g., bleeding disorders, diabetes, hypertension, HIV status).
- Use of medications, especially anticoagulants.
- Allergies to medications or latex.
- History of genital infections or abnormalities.
- Recent febrile illness or systemic infections.

6.1.2 Focused Physical Examination

A focused general examination should be conducted, followed by a thorough genital examination to:

- Assess for signs of infection, inflammation, or injury.
- Identify penile or scrotal abnormalities (e.g., phimosis, hypospadias, paraphimosis).
- Detect inguinal hernias or other anatomical issues.
- Evaluate overall fitness for minor surgery.

6.2 Identifying Contraindications and Managing Risk

Certain conditions require deferral or referral:

Absolute Contraindications	Management
Active genital infection (e.g., herpes, balanitis)	Defer procedure; treat and reassess
Anatomical abnormalities (e.g., hypospadias, buried penis)	Refer to a specialist or hospital
Bleeding disorders (e.g., haemophilia)	Refer to higher-level care
Uncontrolled comorbidities (e.g., diabetes, hypertension)	Stabilise condition before circumcision

Note: If the client presents with temporary contraindications (e.g., febrile illness), circumcision should be postponed until the condition is resolved.

6.3 Informed Consent and Client Communication

Following eligibility confirmation, clients must be provided with:

- Information on the risks, benefits, and alternatives to VMMC.
- Explanation of the chosen circumcision method.
- Opportunity to ask questions.
- Assurance of voluntary participation.

Informed consent (or assent for minors) must be obtained in writing before proceeding.

6.4 Selection of Circumcision Method: Dorsal Slit

Selection should consider:

- Client's age and anatomy.
- Contraindications to surgical devices (e.g., phimosis).
- Client preference and informed decision-making.
- Provider skill and availability of tools.

6.5 Pre-Procedure Preparations and Safety Protocols

Key preparations include:

- Ensuring sterile surgical equipment and consumables.
- Conducting a time-out using the WHO Surgical Safety Checklist (adapted for VMMC), which includes:
  - Confirming client identity and consent.
  - Reviewing the procedure and method.
  - Verifying sterility of equipment and availability of emergency supplies.

  Ensuring the team is aware of any client-specific risks.

Safety Considerations:

- Infection Prevention and Control (IPC): Adhere strictly to hand hygiene, glove use, and environmental cleanliness.
- Emergency Preparedness: Have resuscitation equipment and protocols in place for rare but

possible complications (e.g., allergic reactions, bleeding).
- Documentation: Record all findings, consent, checklist completion, and planned method of circumcision.

6.6 Integration with Other Health Services

VMMC presents a valuable opportunity for integration with other health services to enhance client care and health outcomes, including:

- HIV testing and counselling (HTC).
- STI screening and treatment.
- Health education on safer sex and condom use.
- Referrals for chronic disease management (e.g., hypertension, diabetes).

6.7 Management of clients with chronic conditions

1. HIV

a. HIV Men who test HIV positive at VMMC facilities for the first time
- Clients who test positive for HIV at VMMC facilities for the first time will need follow-up counselling and linkage to HIV care and treatment, including screening for tuberculosis.
- They should be prioritized for ART initiation through active referral/linkage to HIV care and treatment.
- Review their VL after 3 treatment cycles and adherent on ART. Only consider them if virally suppressed and with no other contraindications.

b) Males Living with HIV and on ART
- Males living with HIV and suppressed on ART can access VMMC services.
- They should be assessed for adherence to ART treatment and may be circumcised only if on ART and virally suppressed (SA Adult ART Guidelines 2023). The VL results should not be older than 12 months. VL suppression is <50 copies/ml.
- Assess for OIs and other HIV-defining illnesses.

c) Males who decline to test for HIV
- HIV testing is not a prerequisite for the medical male circumcision procedure
- For males who decline to test for HIV, intensify HIV counselling with an emphasis on the importance of knowing their status.
- If they insist on a male circumcision procedure, review their total health, and only circumcise if they are in good general health condition with no contraindications to the VMMC procedure.
- Refer them to a care and treatment clinic or site for continued counselling to know their HIV status.

2. Diabetes Mellitus

Men on chronic diabetes mellitus treatment seeking VMMC services
- Review the client's history of treatment adherence.
- Review the client's full health and perform a general exam to rule out any contraindica¬tions to the VMMC procedure.
- Only circumcise if the client's HbA1C results are not older than 30 days and should be < 6.5%.

Men with high blood glucose for the first time tested at the VMMC facility

- The diagnosis of diabetes mellitus should be based on formal laboratory tests (not on point-of-care tests).
- Circumcise if Random Blood Glucose is <11.1 mmol/L and has no risk factors listed above.

Men on chronic diabetes mellitus treatment seeking VMMC services

- Review the client's history of treatment adherence.
- Review the client's full health and perform a general exam to rule out any contraindications to the VMMC procedure.
- Only circumcise if the client's HbA1C results are not older than 30 days and should be < 6.5%.
- South African Society for Anaesthesiologists (SASA). Guidelines for the Management of Diabetes Mellitus in Surgical Patients. Available from: https://www.sasaweb.com/diabetes-management-guidelines
- Society for Endocrinology, Metabolism and Diabetes of South Africa (SEMDSA). Guidelines for the Management of Type 2 Diabetes. Available from: https://www.kznhealth.gov.za/family/SEMDS-2017-Guidelines.pdf

3. Hypertension

- For adults, BP should be: Systolic BP ≤140 mmHg and/or Diastolic BP ≤ 90 mmHg

Table 12: BP categories

BP category*	Systolic BP mm Hg		Diastolic BP mm HG
Normal	<120	and	<80
Optimal	120-129	and	<80
High normal	130-139	or	80-89
Hypertension			
Mild (Grade 1)	140-159	or	90-99
Moderate (Grade 2)	160-179	or	100-109
Severe (Grade 3)	≥180	or	≥110
Isolated Systolic	≥140	and	<90
*Individuals with SBP and DBP in two categories should be designated to higher BP based on two or more careful readings obtained on two or more occasions.			

4. Mental illness

- Whether circumcision can be done at the clinic level will depend on whether the client can understand male circumcision and give valid consent/assent and whether his condition will allow him to comply with postoperative wound care instructions. This will depend on the severity of his problem and whether there is family support. If there are doubts about whether he can give consent/ assent or comply with instructions, this should be documented, and clinic circumcision should not be done. It is also likely that hospital or specialist circumcision should not be done.

5. Epilepsy

- Clients with epilepsy are at risk of breakthrough seizures during the MMC process that may be triggered by flashing lights, diathermy beeps, anxiety, etc. Ensure that the client has been on treatment and seizure free for at least 12 months and assess mental status and rule out mental retardation. Limited studies have reported that bupivacaine is associated with seizures when used as a local anaesthetic. Safe to use lignocaine alone in these patients.

Table 13: Male sexual maturity scale, also known as tanner stages of adolescent development

Stage	Age range (years)	Testes growth	Penis growth	Pubic hair growth	Other changes
I	0-15	Pre-adolescent testes (≤2.5 cm)	Pre-adolescent	None	Pre-adolescent
II	10-15	Enlargement of testes; pigmentation of scrotal sac	Minimal or no enlargement	Long downy hair, often appearing several months after testicular growth; variable pattern noted with pubarche	Not applicable
III	10.5-16.5	Further Enlargement	Significant enlargement, especially in diameter	Increase in amount; curling	Not applicable
IV	12-17	Further Enlargement	Further enlargement, especially in diameter	Adult in type but not in distribution	Development of axillary hair and some facial hair
V	13-18	Adult in size	Adult in size	Adult in distribution (medial aspects of thighs; linea alba)	Body hair continues to grow and the muscles continue to increase in size for several months to years; 20% of boys reach peak growth velocity during this period.

Source: Adapted from: Antiretroviral therapy for HIV infection in infants and children: towards universal access. Recommendations for a public health approach: 2010 Revision. Annex H. Sexual maturity rating (Tanner staging) in adolescents. Geneva: World Health Organization; 2010 (203).

Management of clients on other chronic medications

Clients on chronic anticoagulant medication including aspirin are generally at risk of bleeding during surgical procedures. For VMMC, any client on chronic anticoagulation should be referred to a specialist. The perioperative management of these patients can be more complex than what VMMC staff at the primary healthcare (PHC) level are equipped to handle.

6.1.2 Screening of adolescent boys

Adolescent boys seeking male circumcision services may be at very different stages of intellectual, physical, psychological, and social development, even among those who are of the same age. They may also differ in terms of their sexual behaviour, roles and responsibilities within the family and community, and in their transitions into adulthood. Providers need to be aware of and responsive to these differences in development.

6.1.2.1 Key considerations for screening adolescent boys

- For all underage adolescent boys, as they may know less about their personal and family medical history, providers should attempt to obtain the medical history both from the client and his parent(s)/ guardian(s).
- The physical and developmental maturity of the adolescent client should be considered by the provider when taking a medical history and performing a physical examination.
- If there is a conflict between the adolescent's wish for privacy and the presence of his parent(s)/ guardian(s), this may be managed by using a curtain to screen the examination area. However, sometimes, more complete privacy is required, for example, when asking questions about sexual activity.
- Assessment of the adolescent boy's foreskin and penile development is essential to determine whether to defer the procedure or refer the patient to a specialist.

The forceps-guided surgical method should not be used at all in this programme.

6.1.2.2 Management of adolescents with chronic conditions

1. **Diabetes Mellitus**
   - For clients known to have DM, ONLY circumcise IF recent HbA1C of < 6.5% (taken within 30 days)
2. **Hypertension**
   - Children (10-12 years old): Hypertension is defined as blood pressure at or above the 95th percentile for age, sex, and height.

Table 14: Children (10-12 years old): Hypertension

Age (Years)	BP value (mmHg)/ ≤95th percentile
10	≤119/80
11	≤121/80
12	≤123/81

Adolescents (13-17 years old): Hypertension is defined as blood pressure of 130/80mm Hg or higher.

For adolescents aged 13-17 years, the normal blood pressure values are generally:

- **Systolic Blood Pressure (SBP): 110 to 131mm Hg**
- **Diastolic Blood Pressure (DBP): 64 to 83mm Hg**

Routine measurement of pulse and blood pressure may be difficult to interpret because of client anxiety due to the upcoming procedure, and what is measured may not be reflective of a true baseline. Chronically elevated blood pressure - defined by the WHO as systolic blood pressure > 140mmHg and diastolic blood pressure > 90mmHg -has long-term health concerns, but elevated blood pressure at this level is not a contraindication to male circumcision. Chronic hypertension is rare in young, fit adolescent boys and men seeking male circumcision, whereas anxiety due to the upcoming procedure is common. When an elevated blood pressure is noted, the client should be reassured. Recheck the blood pressure after a period of time (30 minutes), which may give a lower reading.

6.2 History taking

A focused medical history should be taken to determine any:

- Contraindications to circumcision done at the clinic level
- Indication to defer circumcision
- Specific client needs that require further evaluation - either at the clinic or through referral to an appropriate specialist service or higher level of care
- The medical history should assess general health and reproductive and sexual health
- When taking the medical history, ask about:
  - Current general health
  - Whether the client is taking any medicines
  - Vaccination history
  - Whether the client has any known allergies to medicines
  - History of haemophilia, bleeding disorders, or anaemia (see box 6)
  - Any current genital infection, ulcer, or penile discharge
  - Whether the client has problems with penile erection or any other concerns about sexual function
  - Determine whether a client is infected with HIV and if he is, enquire about clinic visits to establish adherence and retention in care
- If the client has any big or raised scars after a previous surgery or a cut (if so, ask him to show you during the examination).

Box 6: Questions to help identify bleeding disorders or increased risk of bleeding

Assessing for haemophilia, other bleeding disorders or increased risk of bleeding helps to ensure that the male circumcision procedure is safe for clients who may have a bleeding disorder. In a clinic staffed by midlevel providers, the questions in bold type below are the most important and should be asked of all clients. The other questions may be asked of the client, depending on what the client has already reported about his general health.

1. Do you have or have you ever had any of the following?
    - Nosebleeds or bleeding gums
    - Minor cuts bleeding longer for you than for other people
    - Joint swelling or bruising after falls (more than usual bruising with injury)
    - Bruises with lumps (more than usual bruising with injury)
    - Liver or kidney disease
    - A blood or bone marrow disorder
    - A high or low platelet count
2. Have you or a blood relative (anyone you are directly related to in your family) ever needed medical attention for a bleeding problem or were told you have a bleeding disorder or problem?
    - During or after surgery
    - With dental procedures such as tooth extractions
    - With trauma
3. Do you have a female blood relative who has heavy menses or has had severe bleeding after childbirth?

If any of the responses to questions one to three suggest that the client has haemophilia or another bleeding disorder, or if there is a family history of bleeding disorders, the client should be referred to the district hospital or a higher level of care.

TB screening

Clients are screened for TB symptoms (cough, sweating at night, fever, and loss of weight), and if any of the symptoms are present, they should be referred to a PHC clinic for investigations. The person should be assessed for the risk factors for the development of TB disease (e.g., HIV positive, diabetes, malnutrition). HIV testing must be offered, and diabetic screening must be conducted.

The following questions are used for screening TB:

- Cough of two weeks or more, or of any duration if HIV positive
- Persistent fever of more than two weeks
- Unexplained weight loss of >1.5kg in a month
- Drenching night sweats

STI screening

Ask the man if he has the following symptoms or signs, do a physical examination of the genitalia, and refer for appropriate treatment.

Table 15: Signs/symptoms and conditions

Signs / Symptoms	Conditions
Urethral discharge or dysuria	Male urethritis syndrome (MUS)
Scrotal swelling	Scrotal swelling (SSW)
Genital sore / ulcer with or without pain	Genital ulcer syndrome (GUS)
Tender inguinal swelling with surrounding erythema and/or oedema	BUBO
Soreness/itching of glans, inability to retract the foreskin, malodour	Balanitis/Balanoposthitis (BAL)

6.3 Clinical examination

The objective of the physical examination is to discover contraindications to circumcision in the clinic, indications to defer circumcision, and the male circumcision method(s) most appropriate for the client. Physical examination should be performed in privacy and before the client is in the procedure room. For adolescent boys accompanied by parent(s)/guardian(s), the wishes of the adolescent should be respected unless there is a legal requirement to defer to the wishes of the parent(s)/guardian(s). Special consideration for adolescents, especially those who are younger, should be taken to ensure that they understand what happens during circumcision.

- If the client is not in good general health or has a condition that requires further evaluation or treatment, circumcision should be delayed until the problem has been treated and/or the client's condition has improved.
- If the client shows signs of immunodeficiency (for example, severe unexplained weight loss, unexplained recurrent opportunistic infections, or needing bed rest for at least half the day), the procedure should not be done, and the client should be referred to the district hospital.

General examination

It is important to emphasise that although a head-to-toe examination is indicated, patients should not be unnecessarily exposed, and patient integrity should always be always maintained.

Vital signs: Blood pressure, Temperature, Respiration rate, pulse rate, weight

Investigations: if indicated, blood glucose (see 6.1.1), haemoglobin (known anaemic, pallor on physical examination, etc.), and urinalysis (client complains of STI or UTI-related symptoms)

Physical examination

JACCOLD: (Jaundice, Anaemia, Clubbing, Cyanosis, Oedema, Lymphadenopathy and Dehydration), wasting.

Examine existing current scars for signs of keloid formation.

Genital examination

When examining the penis, retract the foreskin and inspect the glans. The urinary opening (urethral meatus) should be near the tip of the glans and should not be scarred or diseased. The foreskin should be easily retractable and not inflamed or narrowed. If the penis, glans, meatus, and foreskin are healthy, the client is suitable for circumcision in the clinic.

6.4 Contraindications to male circumcision and management at the facility

6.4.1 Illnesses and Infections

Table 16: Conditions and Management/Advise to male circumcision

Condition	Management / Advice
Acute illness	Defer circumcision until the illness has been treated by an appropriate provider.
Uncontrolled diabetes	Defer circumcision until the diabetes has been treated by an appropriate provider and follow that provider's advice about when it is safe to do the circumcision.
Uncontrolled hypertension	Defer circumcision until hypertension has been treated by an appropriate provider and follow that provider's advice about when it is safe to do the circumcision.
Active infection	Defer circumcision until the infection has been treated by an appropriate provider. List of some acute infections that are generally contraindicated for surgical procedures: 1. **Respiratory Infections**, such as pneumonia or acute bronchitis. 2. **Skin Infections**, including cellulitis or abscesses near the surgical site. 3. **Urinary Tract Infections (UTIs)**: Especially if the surgery involves the urinary tract or nearby areas. 4. **Gastrointestinal Infections**, such as gastroenteritis or severe diarrhoea. 5. **Sexually Transmitted Infections (STIs)**: Including active herpes or syphilis lesions. 6. **Systemic Infections**, such as sepsis or bacteraemia. 7. **Ear, Nose, and Throat Infections**: Including acute otitis media or sinusitis. 8. **Dental Infections**, Such as abscessed teeth or severe gingivitis. 9. **Wound Infections**: Any active infection at or near the surgical site.
Keloid	If a client has a history of significant scarring (e.g., hypertrophic scars or keloids), the VMMC should not be performed, and the client should be referred to a facility with multiple specialists (urology, plastic surgery, dermatology) for further evaluation and counselling.
Uncontrolled HIV or untreated tuberculosis	Defer circumcision until the HIV or tuberculosis treatment has been started by an appropriate provider. The time it takes to achieve control after starting treatment for HIV or tuberculosis can vary depending on several factors, including the individual's overall health, the stage of the disease, and adherence to the treatment regimen. HIV: • **Antiretroviral Therapy (ART):** Most people see a significant reduction in viral load within **one to six months** of starting ART. Achieving an undetectable viral load, which indicates the virus is well-controlled, can take a few months to a year. Tuberculosis (TB): • **TB Treatment:** For drug-sensitive TB, the standard treatment duration is **six months**. Patients often start feeling better within a few weeks, but it's crucial to complete the full course of treatment to ensure the infection is fully controlled. • **Drug-resistant TB:** Treatment can be more complex and prolonged, often lasting **18 to 24 month**s or longer.
Urethral discharge	Defer circumcision until the discharge has been treated by an appropriate provider and has been resolved.
Penile warts involving the foreskin and glans	Do not undertake circumcision in the clinic; instead, refer to a specialist Centre.
Known, untreated sexually transmitted infections (for example, syphilis, gonorrhoea, chancroid)	Defer circumcision until the infection has been treated by an appropriate provider and follow that provider's advice about when it is safe to do the circumcision. Once treatment has been completed, actively follow up with the clients and prioritise the circumcision because the presence of an acute sexually transmitted infection (genital ulcer disease or urethral discharge) is objective evidence of high-risk behaviour.
Penile warts confined to the foreskin	If the warts are confined to the foreskin so that they will be removed with the foreskin during circumcision, male circumcision can be done in the clinic if the provider is experienced. Device-based surgical circumcision should not be done.
Balanitis associated with phimosis	Refer to a Specialist Centre. Circumcision should not be done in the clinic. (It is often necessary to do circumcision in the presence of active balanitis, even before it resolves, because pus gathers under the tight foreskin; the infection will not resolve until it is incised, and the pus can freely drain.)
Yeast infection (*Candida albicans*)	Defer circumcision until the infection has been treated by an appropriate provider.
Dermatitis involving the penile shaft or foreskin	Defer circumcision until the condition has been diagnosed by an appropriate provider and follow that provider's advice about when it is safe to do the circumcision.

6.4.2 Penile anatomical abnormalities – congenital or acquired

Table 17: Penile anatomical abnormalities

Condition	Management / Advice
Epispadias (rare)	Refer to a specialist Centre. Circumcision should not be done in the clinic. (The foreskin is needed for plastic surgery repair.)
Hypospadias (with or without chordee, with or without bifid foreskin)	Refer to a specialist Centre. Circumcision should not be done in the clinic. (The foreskin is needed for plastic surgery repair.)
Opening of urethral meatus near but not at the tip of the glans (glanular hypospadias), with no chordee and with normal foreskin	Where there is doubt, there should be a referral to a specialist Centre. However, glanular hypospadias has been reported more frequently from some clinics, and, depending on the experience of the provider, circumcision may be undertaken at the clinic level. (Also, depending on the frequency of this problem, the management protocol should be discussed with the specialist or referral Centre to avoid clients being sent back and forth between facilities.)
Phimosis is caused by scar tissue at the apex of the meatus	Refer to a specialist Centre, generally. However, if the scar tissue is confined to the tip of the foreskin (and is seen nowhere else), circumcision using **only** the dorsal slit method may be undertaken at the clinic level, depending on the experience of the provider.
Chronic paraphimosis	Refer to a specialist centre.
Scar tissue involving the foreskin and glans (*balanitis xerotica obliterans*)	Refer to a specialist centre. Scar tissue often produces a poor cosmetic appearance (before circumcision); unfortunately, this appearance will not improve after circumcision. Circumcision may be done by a specialist.
Scar tissue involving the frenulum	Refer to a specialist centre, generally. The forceps-guided method of surgery and device-based circumcision methods should not be used. Circumcision may be undertaken at the clinic level, depending on the experience of the provider
Penile cancer	Refer to a specialist centre. This finding is rare in young men seeking male circumcision services.
Other penile abnormalities (for example, micropenis, bifid penis)	Refer to a specialist centre, generally. These findings are rare, but if the penis looks abnormal or if the provider has any doubt about whether to circumcise or about how to do so safely and correctly, the client should be referred.
Scrotal swelling	Refer to a specialist centre for diagnosis and management. Note that a rare cause of scrotal swelling is testicular cancer; this condition typically occurs in men aged 15-45 years.
Conditions seen in younger adolescents with less developed genitalia	
Physiological phimosis in younger adolescents	Physiological phimosis is often associated with fine adhesions between the glans and the foreskin and is normal in younger adolescents. Circumcision can be undertaken at the clinic level, but the forceps-guided surgical method should **not** be used. Also, some device-based methods of circumcision should **not** be used (see manufacturer's instructions for users).
Less developed penis in younger adolescents, making it difficult to palpate the glans (this will include most under the age of 15 years)	

6.5 Pre-procedure preparations

6.5.1 Timing of consent or assent for the procedure

Consent should be acquired after the screening, history taking, general and physical exam, and most certainly after counselling and education, hence "Informed Consent". If the client is a minor, and a parent is signing the consent form, the parent must also be fully counselled on the risks and benefits of the procedure to allow them to make an informed decision to consent or not.

Consent for HIV testing must be taken by a counsellor after the full counselling session. Consent for the MMC procedure must be taken by a clinician doing the preoperative screening after confirming eligibility for the procedure. Informed consent for the procedure must be confirmed by the cutting clinician before the intended procedure in the surgical room.

Refer to the section of Educating and Counselling Clients and Obtaining Informed Consent

6.5.2 Client preparations

Ideally, on the day of the circumcision, the client should thoroughly wash his genital area and penis with clean water and soap, retract the foreskin and wash under it. If the skin of the operative area is not clean, it cannot later be properly prepared with an iodine solution. If the pubic hair is long and likely to get in the way of surgery or interfere with the dressing, scissors should be used to cut the hair slightly shorter but not close to the skin. Shaving is not recommended because it can increase the risk of surgical site infection.

6.5.3 Provider preparations

Refer to Annexure C - Hand hygiene, surgical hand preparation, and protective clothing.

CHAPTER 7: BASIC SURGICAL SKILLS AND TECHNIQUES

7.1 Basic safety measures

7.1.1 Preparing and maintaining the sterile operating field

The circumcision provider and anyone assisting them must always be aware of the sterile operating field and should adhere to the following infection prevention precautions and principles:

- A good aseptic technique should be used because it helps prevent wound infection.
- Face the sterile operating field and be aware that everything to the side and back of those involved is not sterile.
- Keep their hands in view, holding them upward and to the front of their bodies (that is, towards the sterile field).
- Take care not to drop their hands to their sides.
- Take care not to touch anything that is not in the sterile field.

7.1.2 Safe handling of tissue

In circumcision, the safe handling of tissue is critical to achieving a good outcome. The following are guidelines for correct practice in handling tissue:

- Handle tissue gently. Handling it too firmly may crush the tissue and delay healing, which increases the risk of infection and worsens scarring.
- Use dissecting forceps (tweezers or pickup forceps) to hold the skin edges when suturing the circumcision wound; do not use artery forceps.
- Take the minimum piece of tissue needed.
- Hold the tissue firmly enough to prevent slippage, but do not apply excessive force.
- Place haemostatic sutures accurately, taking care to avoid inserting the needle too deeply into the surrounding tissue. Avoid pulling skin sutures too tight because this damages the tissue and can cause necrosis. This is particularly important for haemostatic stitches in the region of the frenulum and the 06:00 o'clock frenular skin closure stitch - necrosis in this region can cause urethral fistula (necrosis of tissue between the urinary passage and skin, causing leakage of urine in the frenular area). The tension should be sufficient to bring the skin edges together so that they are just touching; there should be no gap between the edges, and the skin should not blanch or pucker.
- When suturing, ensure that the skin edges do not overlap because overlapping delays healing and gives a poor cosmetic result.

7.1.3 Safe injection of local anaesthetic agents

- Always check the vial. - The provider doing the procedure has the responsibility to personally check the vial of anaesthesia, ensure that the correct agent at the correct concentration has been selected, and check the expiry date.
- Always aspirate before injecting. - Once the needle is in place in the base of the penis, the provider should aspirate the syringe to make sure that no blood has entered the syringe. This ensures that the anaesthetic agent(s) is not injected into a blood vessel, corpora cavernosa, or corpus spongiosum. Repeat aspiration each time the needle is moved and before any additional anaesthetic agent(s) is injected.
- Proper injection safety technique is vital to prevent potential transmission of HIV, hepatitis B, and hepatitis C and to help minimise the risk of an injection site or surgical site infection. Please refer to the IPC section (chapter 4.9) for further information

7.1.4 Safe handling of needles and other sharps

Handle sharps in a way that helps avoid injury. Sharps include needles, scalpel blades, disposable diathermy points, and any other sharp instruments. The following are guidelines for correct practice in handling sharps:

- Sharps should always be taken or picked up using instruments; they should never be handled using fingers.
- It is often necessary to reposition a needle while it is in the needle-holding forceps. Surgical providers should learn how to use dissecting forceps to reposition the needle.
- Suture needles should not be picked up or mounted on the needle driver using fingers.

At the end of the procedure, all sharps should be safely disposed of in a safety box.

7.2 The anaesthetic blocking techniques

In the national MMC programme, it is recommended that both a dorsal penile nerve block and a subcutaneous ring block are used simultaneously for effective anaesthesia using correct weight-based dosing.

7.2.1 The dorsal nerve block

In this technique, the anaesthetic agent(s) is deposited close to the dorsal nerve. This gives quick and safe pain control. A fine-gauge needle (21–27 gauge) should be used.

STEP 1. Give two injections at the 11:00 o'clock and 01:00 o'clock positions on the dorsum of the penis in the subpubic angle.

STEP 2. Direct the needle at a 45° angle to the shaft. This improves the success rate of the block and reduces the risk of injury to the underlying penile structures.

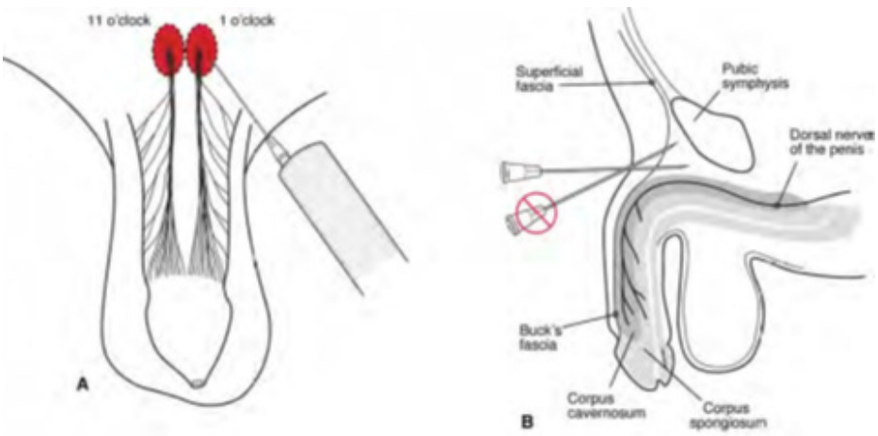
STEP 3. Advance the needle in each of these positions (11:00 o'clock and 01:00 o'clock) to a depth of about 3 cm so that the anaesthesia is adjacent to the nerve before it branches.

STEP 4. Aspirate the syringe to ensure that the needle is not in a blood vessel.

STEP 5. Deposit the anaesthetic agent(s) close to the dorsal nerve of the penis.

STEP 6. Wait five minutes after giving the injection - timed by the clock - for the anaesthesia to take effect. A common mistake is to start the procedure before the anaesthesia has had time to work.

Figure 7: Dorsal Nerve Block: (A) Injections are made at the 11:00 o'clock and 01:00 o'clock positions. (B) The needle is angled to inject under the symphysis pubis



7.2.2 The subcutaneous ring block

The subcutaneous ring block technique involves administering local anaesthesia around the base of the shaft of the penis, thereby creating a subcutaneous ring of anaesthetic agent. This technique helps prevent any injury to the underlying penile tissue while achieving adequate control of pain on the skin of the shaft.

STEP 1. Using a fine-gauge needle (23–27 gauge), first inject approximately 0.1mL of anaesthetic agent(s) subcutaneously at 12:00 o'clock.

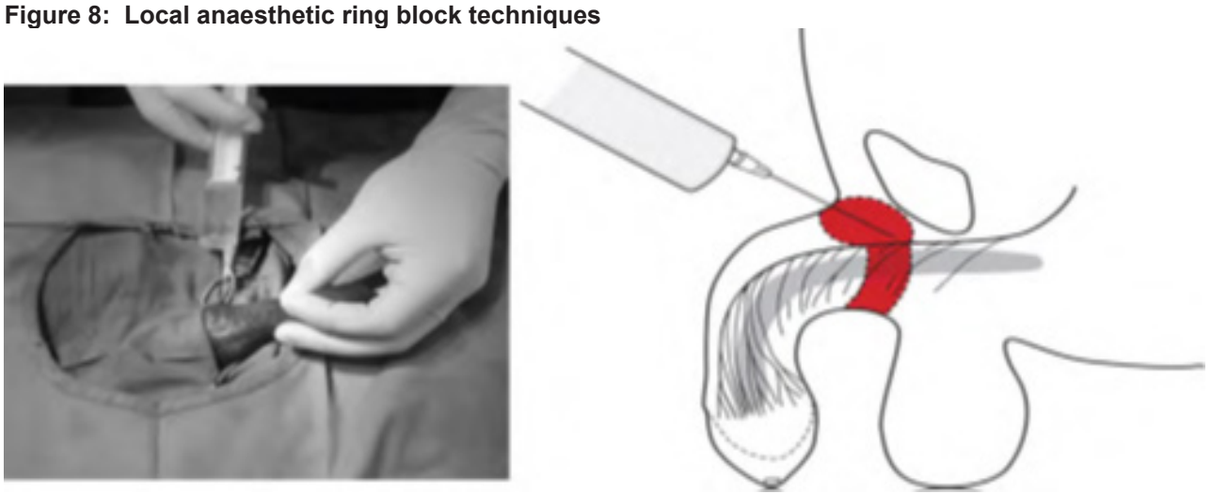
STEP 2. Next, without withdrawing the needle, advance the needle into the subdermal space, making sure that the needle is freely mobile. At this point, aspirate the syringe and, if there is no blood, inject 2-3mL of anaesthetic agent(s) to block the dorsal penile nerves.

STEP 3. Then, advance the needle subcutaneously around each side of the penis, aspirate the syringe and, if there is no blood, inject small additional amounts of anaesthetic agent(s) to complete a half-ring of anaesthesia around the dorsal half of the shaft.

STEP 4. To complete the block, make additional punctures at the 03:00 o'clock and 09:00 o'clock positions to continue the ring of anaesthesia around the ventral half of the shaft. If a puncture is made at the 06:00 o'clock position, there is a risk of urethral injury and injecting into a vessel.

Once the anaesthesia has been injected, wait for a minimum of five minutes (timed by a clock) before beginning the circumcision. A common mistake is to start the procedure before the anaesthesia has had time to work. Test sensation before starting the procedure by gently pinching the foreskin with an artery forceps. If there is any residual sensation, wait for an additional two to three minutes and test again. If there is still sensation, give more local anaesthesia, taking care not to exceed the maximum safe dose.

Figure 8: Local anaesthetic ring block techniques



Haemostasis

Minimising blood loss is part of good surgical technique and safe medical practice - it reduces the risk of complications and the need for interventions that bring additional risks. Also, remember that it is crucial to screen for increased bleeding risk and avoid circumcising individuals at higher risk until a proper bleeding workup is completed.

The following surgical techniques are used to reduce blood loss:

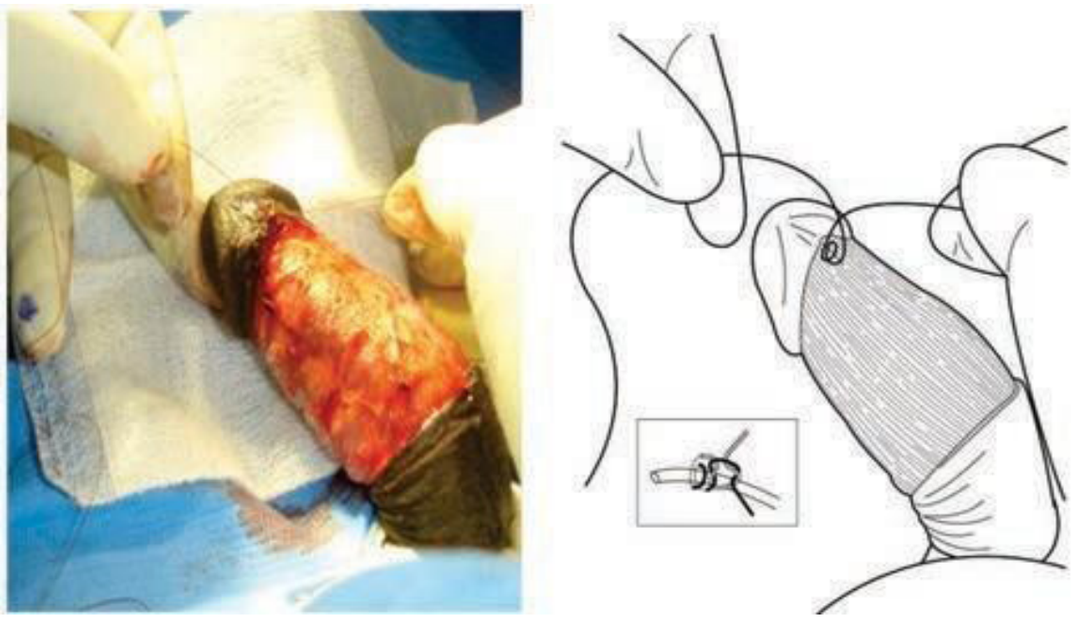
- Compression: Control oozing of blood by applying pressure over the surface with a gauze swab for five minutes. This will usually stop the bleeding and help identify blood vessels that have been cut and are bleeding profusely (referred to as bleeders), thereby requiring ligation or diathermy.
- Temporary occlusion of blood vessels: Control the bleeding from individual vessels by applying an artery forceps, taking care not to grasp too much tissue. An alternative technique is to pick up the vessel using dissecting forceps and then apply artery forceps.
- Tying and underrunning: The simplest procedure is to tie the vessel below the artery forceps. Ensure that the tie is securely in place and not liable to slip off (for example, during a penile erection in the first few days after the operation). If there is any doubt about the security of the tie, it is better to use the underrunning technique. The steps for underrunning and tying are as follows:
    - Secure the bleeding vessel with artery forceps.
    - Pass the suture needle beneath the blood vessel (but not too deep) and pull it through, leaving enough suture material for the tie.
    - Pass the suture beneath the vessel a second time, pull gently to occlude it, and tie a knot as described in Annexure C.6

7.2.3 Haemostatic Technique

Post-circumcision bleeding can lead to significant complications if not properly managed. According to the *Manual for Male Circumcision under Local Anaesthesia and HIV Prevention Services for Adolescent Boys and Men* by the World Health Organization (WHO), the following practices are recommended to prevent and control bleeding:

- **Immediate Haemostasis:** After removing the foreskin, apply direct circumferential pressure to the surgical site for at least two minutes. This initial compression helps control bleeding from superficial vessels.
- **Inspection for Bleeding Vessels:** Retract the remaining skin toward the base of the penis to fully expose the penile shaft. Use a small, clean, and dry swab to inspect for any bleeding vessels that may have retracted under the skin. Identified bleeders should be promptly clamped with artery forceps and then cauterized or ligated to achieve haemostasis.
- **Persistent Bleeding Management:** If bleeding persists, apply sustained compression to the penile shaft for at least five minutes. This technique is effective in controlling most bleeding and facilitates the identification of any major bleeding sources.
- **Final Inspection Before Closure:** Prior to suturing the skin, conduct a thorough examination of the penile shaft and skin edges to ensure there is no ongoing bleeding. Address any active bleeding points appropriately before proceeding with wound closure.
- **Management of Frenular Bleeding:** Bleeding from the frenulum, located at the 6 o'clock position between the penile shaft and foreskin, is common and can be challenging to control. Performing a frenuloplasty can help manage this issue. If there is significant bleeding from the frenular artery, an under-running haemostatic stitch should be placed to occlude the vessel. Care must be taken to avoid deep suturing, as the urethra lies close to the surface in this area and is susceptible to injury.

Figure 9: Haemostatic Technique



Suture under running the frenular artery

- A troublesome minor adverse event is the formation of subcutaneous nodules under the skin of the shaft of the penis, which is caused by an excess of suture material or by the inclusion of too much tissue in the ligature during haemostasis.
- The risk of developing subcutaneous nodules can be reduced by:
    - Picking up bleeding vessels accurately and precisely. Do not take large pieces of tissue.
    - Use 3/0 or 4/0 sutures and tie surgical or square knots correctly without using an excessive number of throws but enough to keep the knot from unravelling (at least 3).
    - Tying knots correctly and avoiding too many throws; this is especially important if polyglactin (Vicryl RapideTM) is used. This material becomes very slippery when wet, and if knots are not tied correctly or the tails of the knot are cut too close to the knot (they should be 3-5mm in length), they come undone.
    - Tyler M. Muffly, Christopher Cook, Jennifer Distasio, Aaron J. Bonham, Roberta E. Blandon,
    - Suture End Length as a Function of Knot Integrity, Journal of Surgical Education, Volume 66, Issue 5, 2009, Pages 276-280,
    - https://doi.org/10.1016/j.jsurg.2009.10.003

7.2.4 Using diathermy safely

Bleeding can be stopped by using diathermy to cause coagulation. However, diathermy requires a secure electricity supply and may not be available in some facilities; hence, providers who undertake conventional surgical circumcision should be skilled at performing the procedure and stopping the bleeding without diathermy. All techniques described in these guidelines can be undertaken safely without using diathermy.

There are two types of diathermies: monopolar and bipolar. Monopolar diathermy involves a single electrode that delivers the current to the tissue, with the return electrode placed elsewhere on the body. This method is effective for cutting and coagulating large areas but carries a higher risk of unintended burns if the return electrode is not properly placed. Bipolar diathermy, on the other hand, uses two electrodes that are part of the same instrument, allowing the current to pass between them. This method is generally safer as it limits the current to the tissue between the electrodes, reducing the risk of burns and other complications. However, it can be less effective for larger areas and may require more precision.

In the VMMC programme, we recommend using bipolar diathermy set at 15-25 watts due to its enhanced safety compared to monopolar diathermy. Use low settings for boys 10 – 14 years. Safe diathermy requires the provider doing the procedure to understand diathermy, the machine connections, the power settings, and the surgical technique and to apply that knowledge.

Appropriate intraoperative techniques are critical for minimizing this risk, especially when working with younger adolescents aged 10 years and older, who present unique anatomical and physiological considerations that increase the risk of thermal injury to surrounding tissues.

7.2.5 Errors in the diathermy technique

Errors in diathermy surgical technique can lead to serious complications. Therefore, it is important to be aware of common errors and understand how to avoid them; it is also important not to use diathermy in situations where it is contraindicated.

- Do not use diathermy when the penis size is small because there is a risk of a burn at the base of the penis, which can lead to a loss of the entire penis.
- Diathermy is best used on small (or narrow) vessels. If the vessel lumen is large enough to be seen, then the vessel should be picked up accurately and

ligated because diathermy on such large vessels results in less secure haemostasis.

- Apply the diathermy accurately and with precision, taking the minimum amount of tissue in the forceps.
- Avoid prolonged application of the current.
- Avoid creating large burns and avoid diathermy at the skin edges because extensive damage and burnt skin predispose the client to infection and delayed healing.
- Avoid diathermy at the frenulum because of the risk of a deep burn into the urethra, which can cause urethral fistula.
- Always use diathermy at the lowest effective recommended setting and only increase as necessary.
- Use diathermy only after receiving special training in its technique through the practical VMMC surgical training.
- All staff should take care not to trip on any cables on the floor; if this happens, then the cable connections and plug should be checked.
- All equipment, including cables and plugs, should be periodically inspected for fraying or insulation damage.
- All diathermy equipment should be serviced and tested according to the manufacturer's instructions for use.
- Single-use diathermy pencils, tips, and single-use dispersive plates should not be reused.
- Do not ignore, lower the volume of, or mute the audible beeps or alarm on the diathermy equipment—these sounds alert staff to equipment malfunction.
- Ensure that the machine is set up properly in terms of connections and settings to prevent adverse events resulting from a faulty machine connection.

7.3 Tying of knots

Surgical knots are used to tie vessel ligatures and make sutures. The basic knot used in most VMMC surgical situations is a square knot with at least three throws. See illustrations in Annexure C.

7.4 Placing sutures

The goal of suturing is to achieve apposition without tension and with correct skin orientation. Too much tension in any type of skin suture increases the likelihood that the suture will cut through and disrupt the wound.

7.4.1 Different types of suturing techniques

A simple interrupted suture is the simplest type of stitch and yields good apposition results. The nearer to the skin edges the needle goes in, the better the apposition of the skin edges, but the higher the risk of the stitch cutting out. Mattress sutures give a more precise apposition of the wound edges and reduce the risk of burying the skin edges. They are more complex than simple interrupted sutures; therefore, they require more time to put in. The two types are:

- Vertical mattress suture
- Horizontal mattress suture

7.4.2 Closing the sutured wound and avoiding common problems with surgical technique

- Mark the line of the incision carefully so the skin can be accurately realigned when the sutures are placed.
- Take care with haemostasis.
- Do not use too many sutures.
- Make vertical mattress sutures at the 12:00, 03:00, and 09:00 o'clock positions for aligning and everting the skin.
- Make a horizontal mattress suture at the 06:00 o'clock position for haemostasis at the frenulum.
- Tie the knots properly - use either a square knot or surgeon's knot with a minimum of three throws total per knot.
- When using diathermy, use only the coagulation functions (i.e., do not use the "cut" setting). See illustrations in Annexure C.

CHAPTER 8: CIRCUMCISION METHODS AND PROCEDURES

There are several different methods for conventional or device-based surgical circumcision. The most appropriate method for a particular client depends on many factors:

- Capacity of the clinic or facility to provide the method, that is, the skill level of the provider who will be doing the procedure and the availability of supplies and equipment required;
- Medical eligibility of the client for the method, based on a focused history and physical examination, including a detailed examination of the penis and assessment of penile development; and
- Client's preferred method (depending on medical eligibility), as feasible.

8.1 Key safe principles

Providers doing male circumcision procedures should keep the following in mind:

- Male circumcision is an elective procedure performed on a healthy adolescent boy or man for partial protection from HIV.
- Male circumcision presents a different situation from performing a medically necessary procedure on someone who is ill when the risk of possible adverse events is balanced against the harm caused by the illness (or resulting from not doing the procedure).
- Client safety is a top priority in the context of male circumcision as part of a comprehensive HIV prevention strategy.

To ensure that client safety is a top priority, the provider doing the male circumcision and the provider's managers or supervisors should apply the following principles:

- Competence in basic surgical skills is key.
- Necessary supplies, equipment, and other resources are available and ready for use.
- Allowing enough time is critical.
- Proper sterile technique and infection prevention save lives.
- Providers should know the limits of their expertise.
- It is safer to have a trained assistant.
- Use the WHO's safe surgery checklist to improve client safety.

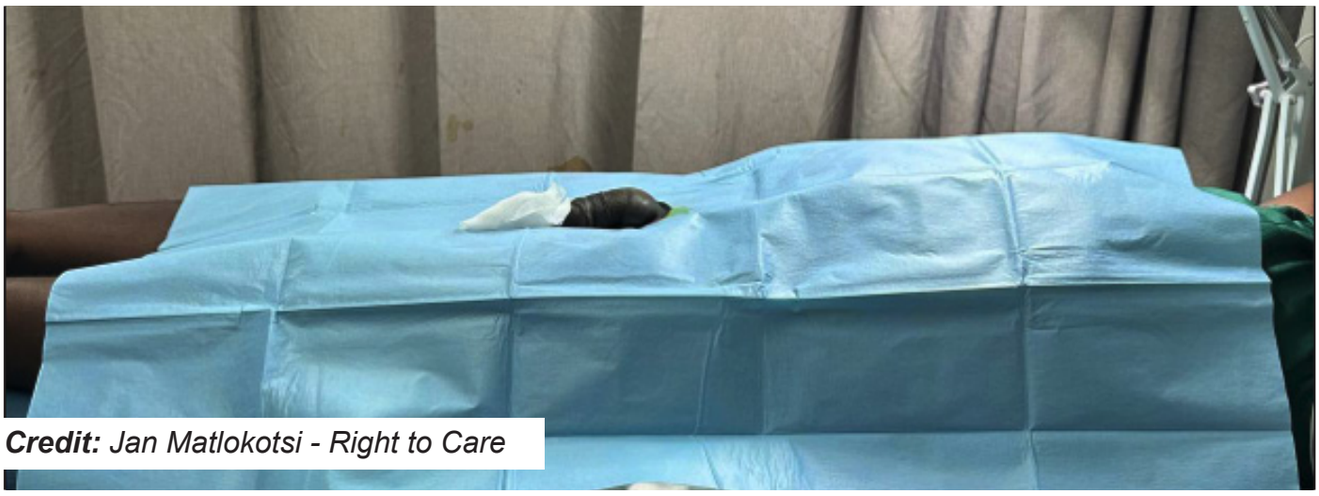
Figure 10: Skin Preparation and Draping

Credit: *Jan Matlokotsi - Right to Care*

Before the client's skin is prepared, his genital area should be washed with soap and clean water to remove all visible dirt and debris and then allowed to dry. Cleaning is an essential step, as antiseptics will not be effective without thorough cleaning.

Prepare the skin with povidone-iodine aqueous solution (or chlorhexidine gluconate), starting with the glans and the shaft of the penis, and then moving out to the periphery. Cleaning should be gentle. Holding the penis with a gauze swab, retract the foreskin to clean the glans. The skin prep should be allowed to dry completely (this usually takes about two to three minutes) before draping.

Figure 11: Preparation before circumcision



Credit: *Jan Matlokotsi - Right to Care*

Draping provides a sterile operative field and helps prevent wound contamination. Before covering the client with sterile drapes, the provider doing the procedure (and any trained assistant) should carry out hand preparation, put on a sterile apron, and put on sterile gloves. A single drape with a hole for the penis (O-drape) is preferred. The drape should cover the entire knee-to-chest area to provide an adequately large sterile field.

8.2 Local anaesthesia

There are two possible techniques for injecting penile local anaesthesia: subcutaneous ring block or dorsal nerve block. These techniques may be supplemented by local infiltration at the frenulum.

8.2.1 Dose of injectable local anaesthetic agent(s)

Both lidocaine/lignocaine and bupivacaine are amide local anaesthetic agents and have similar central nervous system toxicity and cardiac toxicity - although bupivacaine has higher cardiac toxicity than lidocaine/lignocaine.

Lidocaine/lignocaine

- The maximum dose that can safely be given alone is 3mg/kg of body (not exceeding 200mg)
- Has fast onset
- Can be used alone

Bupivacaine

- The maximum dose that can be given when combined with Lidocaine is 1.5mg/kg of body weight (not exceeding 150mg)
- Use of bupivacaine alone is not recommended
- More potent
- Slow onset and lasts longer
- When lidocaine and bupivacaine are used together, the maximum dose per body weight is decreased due to combined potential toxicity

Table 18: Maximum doses of lidocaine/lignocaine (2%) local anaesthetic agent

Safe local anaesthetic dosing – Starting [a] and Maximum [b] volumes 2% Lidocaine/Lognocaine		
Weight in kg	**Staring volume**	**Maximum safe volume**
20-29kg[c]	2mL	Additional 1mL to TOTAL of 3mL
30-39kg[c]	3mL	Additional 1mL to TOTAL of 4mL
40-50kg	4mL	Additional 2mL to TOTAL of 6mL
More than 50kg	5mL	Additional 2mL to TOTAL of 7mL
[a] Starting doses of lidocaine/lignocaine is 2mg/kg. [b] Maximum safe doses of lidocaine/lignocaine is 3mg/kg. [c] Use a 5mL syringe so that volumes can be measured accurately. The starting volume is usually adequate; increase to maximum volume (dose) only if required for pain control up to the maximum.		
WARNING: Lidocaine/lignocaine with adrenaline (lidocaine/lignocaine with epinephrine) or bupivacaine with adrenaline (bupivacaine with epinephrine) **should never be use** for male circumcision surgery because of the risk of ischaemia (vessel constriction) of the whole penis, particularly if the penis is small. Also, the use of lidocaine/lignocaine with adrenaline (lidocaine/lignocaine with epinephrine) or bupivacaine with adrenaline (bupivacaine with epinephrine) may delay the onset of bleeding from blood vessels that require ligation or diathermy.		

Administering lidocaine and bupivacaine together is a common local anaesthetic combination at VMMC sites. If this is done, the maximum safe dose for each agent is decreased. The maximum safe dose for lidocaine is 2mg/kg, and for bupivacaine, it becomes 0.5mg/kg.

Table 19: Maximum doses of lidocaine/lignocaine (2%) and bupivacaine (0.5%) local anaesthetic agents

Safe local anaesthetic dosing – Starting[a] and maximum[b] volumes Mixture of 2% Lidocaine/Lignocaine and 0.5% Bupivacaine 1:1 Mixture (Equal volumes of each)		
Weight in kg	Starting volume (1:1 mixture)	Maximum safe volume (1:1 mixture)
20-29kg [c]	1mL of each (2mL total)	An additional 1mL of each drug to TOTAL of 4mL (maximum 2mL of each)
30-39kg [c]	2mL of each (4mL total)	Additional 1mL of each drug to TOTAL of 6mL (maximum 3mL of each)
40-50kg	3mL of each (6mL total)	Additional 1mL of each drug to TOTAL of 8mL (maximum of 4ml of each)
More than 50kg	4ml of each (8mL total)	Additional 1mL of each drug to TOTAL of 10mL (maximum 5mL of each)
[a] Starting doses of lidocaine/lignocaine are: Lidocaine/lignocaine 1.5mg/kg / bupivacaine 0.3 mg/kg. [b] Maximum safe doses of lidocaine/lignocaine is 2mg/kg and bupivacaine is 0.5 mg/kg. [c] Use 5mL or a small syringe so that volumes can be measured accurately. The starting volume is usually adequate; increase to maximum volume (dose) only if required for pain control up to the maximum.		
WARNING: Lidocaine/lignocaine with adrenaline (lidocaine/lignocaine with epinephrine) or bupivacaine with adrenaline (bupivacaine with epinephrine) **should never be use** for male circumcision surgery because of the risk of ischaemia (vessel constriction) of the whole penis, particularly if the penis is small. Also, the use of lidocaine/lignocaine with adrenaline (lidocaine/lignocaine with epinephrine) or bupivacaine with adrenaline (bupivacaine with epinephrine) may delay the onset of bleeding from blood vessels that require ligation or diathermy.		

Note:

The provider doing the procedure has the responsibility to personally check the vial of anaesthesia, ensure that the correct agent at the correct concentration has been selected, and check the expiry date. It is important to verify that the anaesthesia is clear, has no visible particles in it (which may suggest that the vial is contaminated), and does not contain epinephrine (adrenaline).

Always check the vial.

8.2.2 Modified approach used in clients with severe adhesions

- Administer the local anaesthetic before skin preparation and draping the operative area.
- The base of the penis (the injection site for the local anaesthesia) is disinfected with an alcohol swab or solution.
- The anaesthetic is then administered as described in the previous chapter (Basic surgical skills).

The advantage of this modified approach is that during the time taken to conduct the skin preparation and drape the client, the local anaesthesia is beginning to work. The procedure can start almost immediately once the client is cleaned and draped.

8.2.3 Additional analgesia

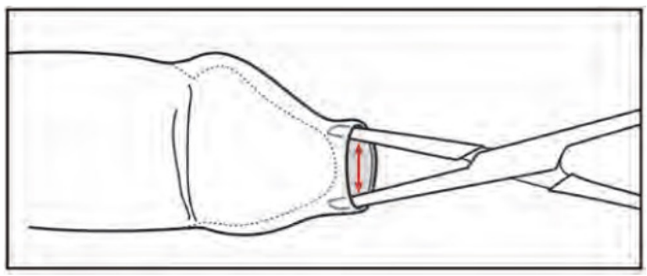
The best practice is to give the client oral analgesia (for example, 500 mg tablet of paracetamol) 30 minutes before the procedure so that the oral agent is absorbed and effective as the anaesthesia wears off. Another dose of oral analgesia can be given for the client to take before he goes home, ensuring that the recommended dosing is not exceeded.

8.3 Preparing the penis for surgery

8.3.1 Retraction of the foreskin and managing adhesions

Retracting the foreskin is a step that is common to all methods of male circumcision described in this Manual. After effective local anaesthesia has been achieved, fully retract the foreskin. If the opening (or aperture) of the foreskin is tight, it may be necessary to dilate it with a pair of artery forceps (Figure 12), but this is not usually necessary in adults and older adolescents. Take care to just stretch the opening of the foreskin and not to push in the forceps too far. Pushing in the forceps too far increases the risk that the tip of the forceps enters the urethral meatus and causes injury to the urethra and glans. If the dilatation causes minor tears in the foreskin near the aperture, this is not a problem, as the foreskin is going to be removed; however, tears in the urethral meatus can be the start of a lifelong problem because subsequent scarring can cause urethral stricture and urinary obstruction.

Figure 12: Retraction of the foreskin and managing adhesions



Note: *Tips of the forceps are positioned within the aperture of the foreskin, and care has been taken not to allow the tip of the forceps to accidentally enter the urethral meatus.*

In younger adolescents, adhesions are common and they are nearly always physiological and not pathological. Physiological adhesions can usually be separated easily by applying gentle pressure on them using a moist gauze swab or a blunt probe (Figure 13). If the adhesions are hard or if trying to separate them causes bleeding, then they are more likely to be pathological than physiological. In the case of pathological adhesions, the provider should refer the client to an experienced surgeon or specialist. Hard scar tissue adhesions with phimosis, which prevent retraction of the foreskin and chronic balanitis, are more likely to be seen in older men but can occur (rarely) in children following balanitis in infancy.

Figure 13: Divide adhesion by traction or with blunt probe

8.4 Methods of male circumcision

Table 20: Comparison of conventional and device-based surgical circumcision methods:

Method	Advantages	Disadvantages
Dorsal slit	• Reduced risk of glans and urethra opening injuries. • Glans visualised during surgery. • Safe procedure when conducted by a trained service provider.	• Needs specific training • Cannot be performed by lower cadres.
Surgical aids	Can be task-shifted to lower cadres of clinical staff.	Surgical aid is a medical device designed to assist in performing circumcisions. It helps ensure precision and safety during the procedure by providing a controlled and consistent method for making incisions. This device is used during the conventional surgical procedure and does not stay on the patient; the patient does not go home with it.
Surgical devices **(currently not implemented in the VMMC programme South Africa)**	• Simple and quick to apply compared with surgical methods. • Can be used by lower cadres of clinical staff. • Reduced risk of bleeding compared with surgical methods. • Some were applied with a topical anaesthetic agent(s).	• Completion of the procedure requires a second visit. • Necrosis if foreskin is retained for one week while the device is in place. • Necrosis of the foreskin may cause an unpleasant odour and an increase in anaerobes, which increases the risk of infection, including tetanus in clients who are insufficiently vaccinated. • An anti-tetanus vaccination is required for devices where the foreskin is left intact. • Need clinics or facilities to manage device-specific complications. • For example, for some devices, there is a need for immediate, onsite surgical backup if the device slips off during application. If a device displaces in the days after the application, there is a need for surgical backup within six to 12 hours.

ILLUSTRATIONS

8.4.1 Forceps-guided method of male circumcision

NOT BE USED	

NOT ALLOWED UNDER ANY CIRCUMSTANCES – NDOH CIRCULAR OF 14 JUNE 14 2021

8.4.2 Modified Dorsal slit method of male circumcision

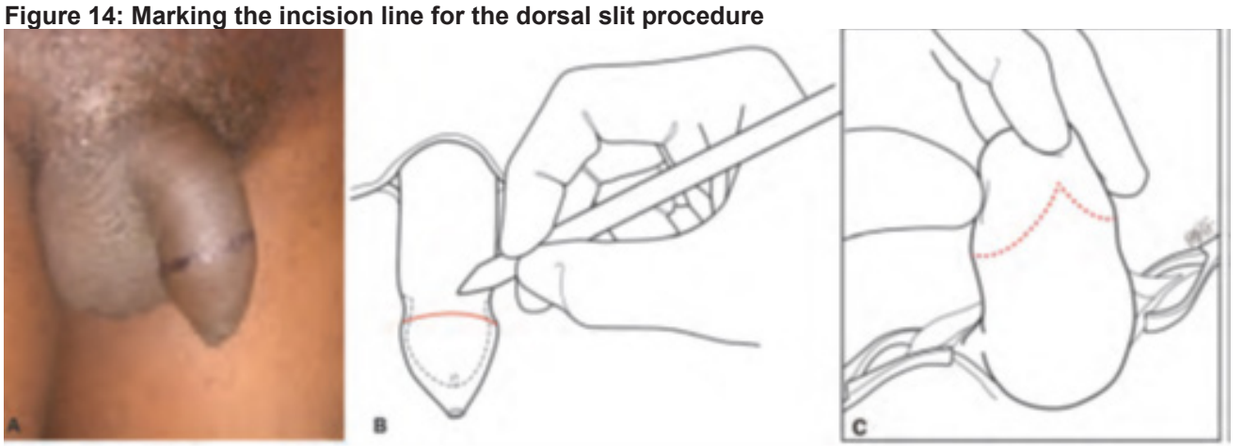
STEP 1. Prepare skin, drape the skin, and administer anaesthesia, as described earlier in this Chapter.

STEP 2. Retract the foreskin and remove any adhesions, as described earlier in this Chapter.

STEP 3. Marking the incision line

Mark the intended line of incision. Make the skin mark just distal to the prominence of the corona (further towards the tip of the penis). The mark should have a V shape on the ventral side (frenular side), with the point of the V facing the glans. Note the line of the ventral midline raphe, and if there is any deviation from the midline, make additional orientation marks at the 03:00, 12:00, and 09:00 o'clock positions.

Figure 14: Marking the incision line for the dorsal slit procedure

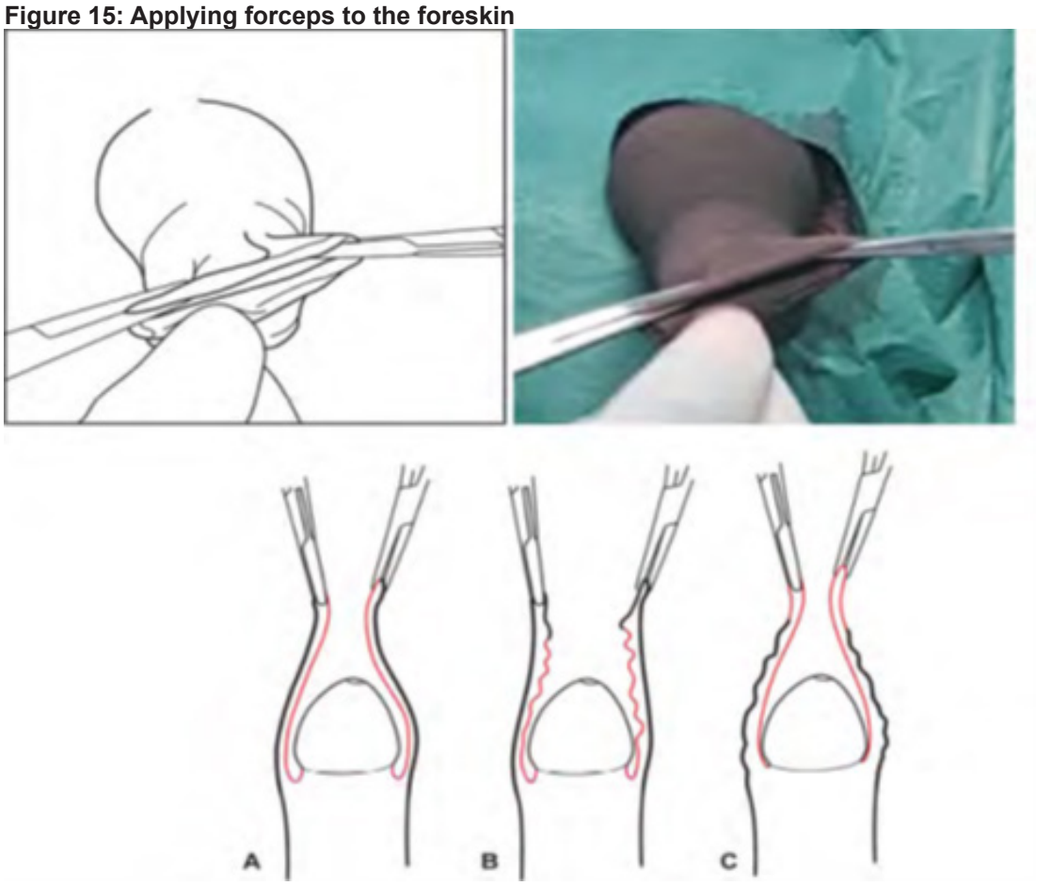


STEPS 1-3 Marking the incision line for the dorsal slit procedure

STEP 4. Applying forceps to the foreskin

Apply artery forceps at the 03:00 o'clock and 09:00 o'clock positions to the apex of the foreskin meatus. Take care to apply the artery forceps to the foreskin so that there is equal tension on the inner and outer aspects of the foreskin. The purpose of this step is to ensure that there is correct tension on the inner and outer parts of the foreskin.

Figure 15: Applying forceps to the foreskin



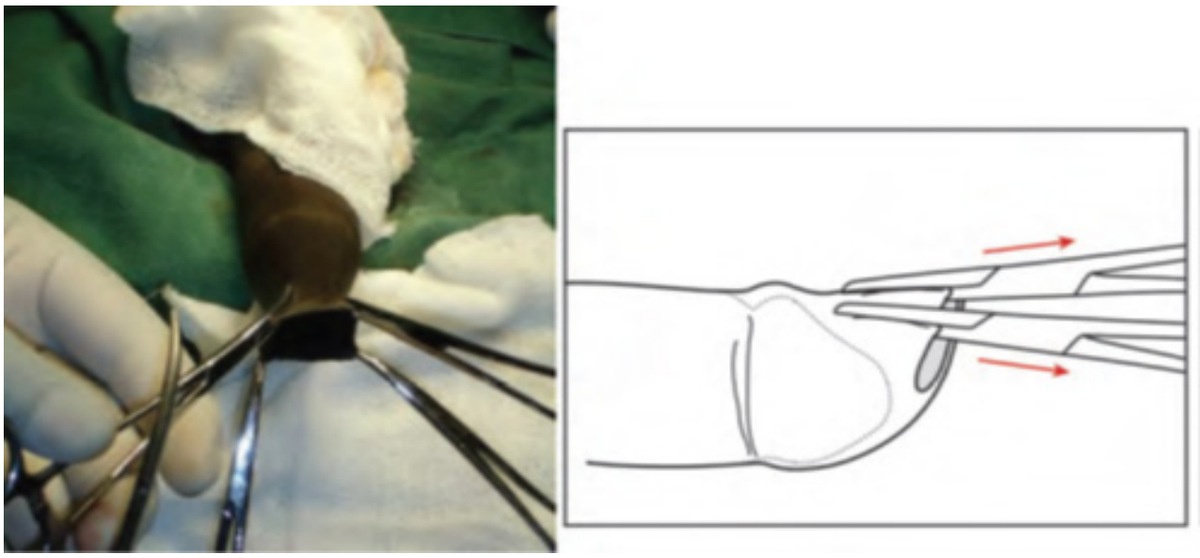
STEP 5. Applying forceps to the foreskin

Apply the forceps to the tip of the foreskin with equal tension on the outer skin and the inner (mucosal) skin. (A) Forceps correctly applied to the tip of the foreskin; (B) forceps incorrectly applied, taking too much outer skin; and (C) forceps incorrectly applied, taking too much inner (mucosal) skin.

STEP 6. Placing artery forceps

Keeping tension on the previously applied 03:00 o'clock and 09:00 o'clock forceps, place two artery forceps on the foreskin at the 11:00 o'clock and 01:00 o'clock positions by taking 1-2cm of foreskin between the forceps' blades. Check that the inside blades of the two-artery forceps are lying between the glans and foreskin and that the blades have not been inadvertently passed up the urethral meatus.

Figure 16: Placing artery forceps



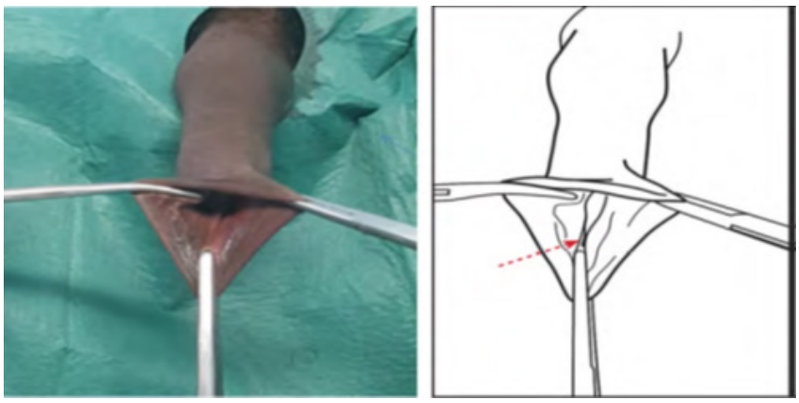
STEP 7. Placing artery forceps at the 11:00 o'clock and 01:00 o'clock positions

The drawing shows forceps applied at the 11:00 o'clock and 01:00 o'clock positions. In the photo, forceps at the 11:00 o'clock and 01:00 o'clock positions forceps are held apart to display the area where the dorsal slit is going to be made (between these forceps). Note the 03:00 o'clock and 09:00

STEP 8. Forceps at the 06:00 o'clock position

Keeping the 11:00, 01:00, 03:00, and 09:00 o'clock forceps in position, apply forceps at the 6:00 o'clock position to take a 1cm bite of the foreskin (typically); however, exactly how much bite to take depends on the length of the foreskin. The tip of the inside blade of the forceps at the 06:00 o'clock position should nearly reach the fold of the frenulum, and the tip of the outside blade of the forceps should nearly reach the apex of the marked V on the marked line of incision. It is important that the 06:00 o'clock forceps be placed accurately and not too far in because the cut to remove the foreskin should be made between the inner layer of the foreskin and the frenulum - NOT between the base of the frenulum and the shaft of the penis. Provided the 06:00 o'clock forceps are placed correctly, the cut will be in the right place. If the cut is made too close to the base of the frenulum, then there is an increased risk of bleeding from the frenular artery, which is difficult to control, thereby leading to the risk of urethral damage during attempts to control this bleeding. Once the 06:00 o'clock forceps are in position, the 03:00 o'clock and 09:00 o'clock tensioning forceps can be removed, thereby leaving three forceps in position: 11:00, 01:00, and 06:00 o'clock. The forceps at the 11:00 o'clock and 01:00 o'clock positions are under tension to display the interior of the foreskin meatus.

Figure 17: Forceps at the 06:00 o'clock position



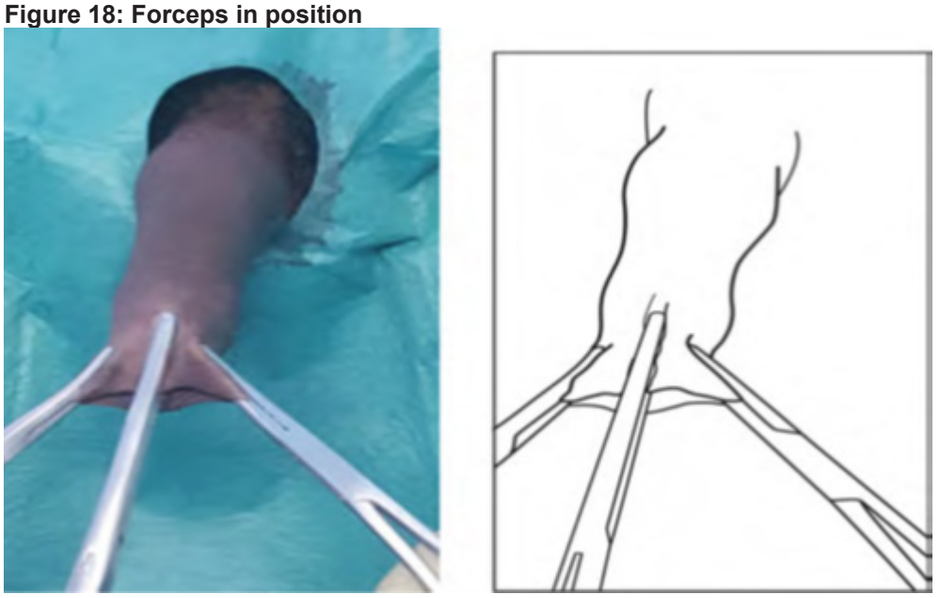
STEP 9. Forceps at the 06:00 o'clock position, with the inner blade nearly reaching the fold of the frenulum (see arrow)

STEP 10. Applying forceps at 12:00 o'clock position

Between the two top artery forceps (11:00 o'clock and 01:00 o'clock), apply forceps at the 12:00 o'clock position and close it tightly to crush the line of the dorsal slit. This crushing helps to reduce bleeding when the dorsal slit is made.

Note that the forceps at the 06:00 o'clock position are not shown.

Figure 18: Forceps in position

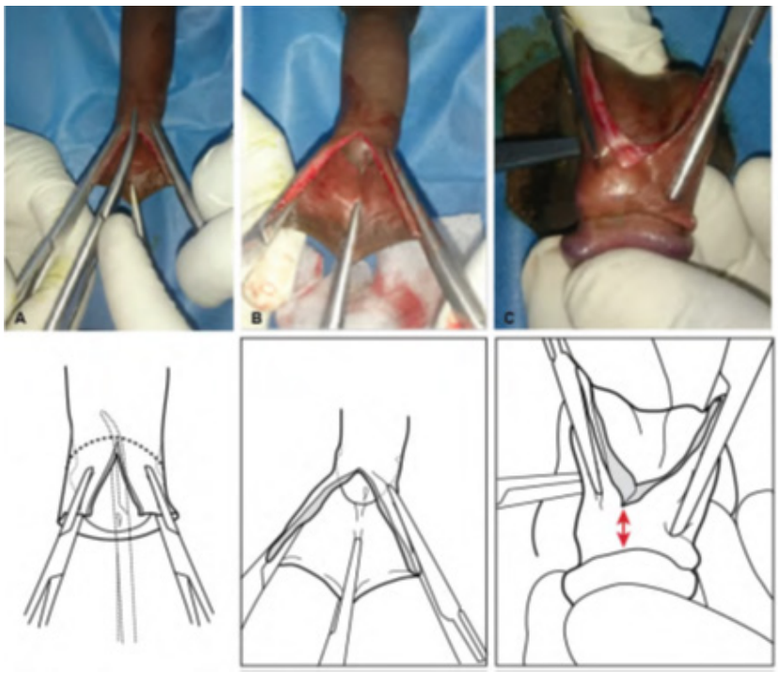


STEP 11. Applying forceps at 12:00 o'clock position to crush the foreskin before making the dorsal slit

STEP 12. Cutting the dorsal slit

Remove the 12:00 o'clock crushing forceps and, using dissection scissors, make a cut along the middle of the crushed foreskin (the dorsal slit) up to the previously marked incision line. This is best done in two stages: 1) make part of the dorsal slit cut; 2) check inside and outside to note the position of the dorsal cut, in relation to the outer marked male circumcision line and with respect to the width of the mucosa, proximal to the coronal sulcus - and then cut further as necessary. The ideal cuff of mucosal skin left behind is approximately 0.5-0.6cm. Do not cut the mucosal side too near the coronal sulcus and glans; take care to leave sufficient mucosa to take the sutures.

Figure 19: Cutting the dorsal slit



STEP 13. Cutting the dorsal slit

(A) Cutting the dorsal slit; (B) dorsal view of completed dorsal slit; and (C) inside view showing dorsal slit reaching and leaving approximately 0.5-0.6cm cuff of inner layer (mucosal).

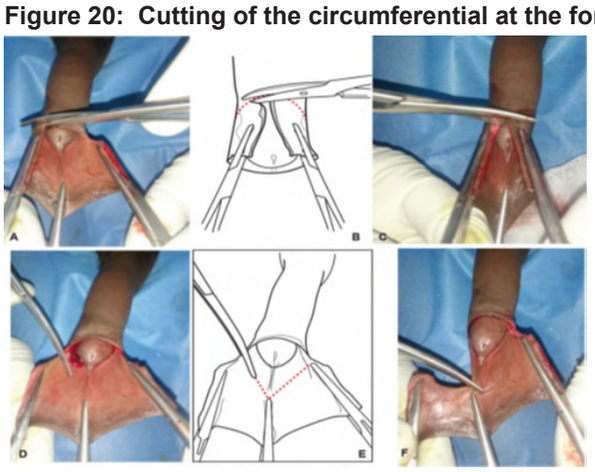
STEP 14. Cutting of the circumferential at the foreskin

Follow the instructions in this step, which is a modification of the one in the 2009 edition of this Manual, to make the circumferential cut to remove the foreskin.

Starting at the 12:00 o'clock position, the circumferential cut is made using scissors, first in one direction and then the other, so just over half of the foreskin is cut free.

- Take care to follow the marked skin incision line and to leave approximately 0.5–0.6cm cuff of mucosa adjacent to the coronal sulcus.
- Once the dorsal half of the foreskin is cut free, the cut then continues towards the frenular ridge (see Fig. 9.25). The direction of the cut changes to make a V shape that corresponds to the line drawn previously, reaching the apex of the V shape at the frenular ridge and the tip of the forceps at the 06:00 o'clock position.
- Note that the foreskin is kept on traction by the assistant. Again, care must be taken to leave approximately 0.5–0.6cm cuff of mucosa and to not get too close to the coronal sulcus. The change of direction at the frenular ridge at 06:00 o'clock is important as it helps to ensure that the cut is away from the base of the frenulum. If this is not done, then there is an increased chance of difficulty in controlling bleeding from the frenular artery and the risk of urethral injury when attempts are made to control bleeding.

Figure 20: Cutting of the circumferential at the foreskin



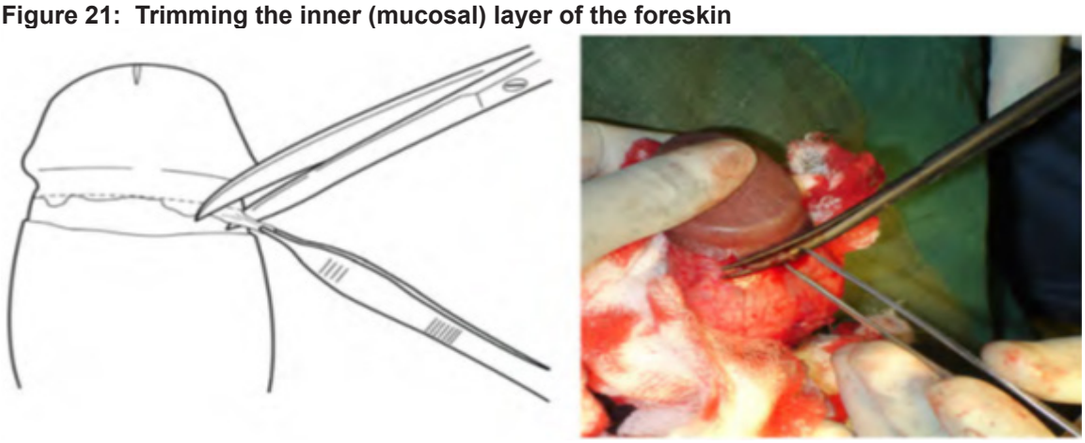
STEP 15. Cutting of the circumferential at the foreskin

Starting at the 12:00 o'clock position, the circumferential cut is made using scissors, first in one direction (A, B) and then the other (C), so just over half of the foreskin is cut free. Once the dorsal half of the foreskin is cut free, the cut then continues towards the frenular ridge (D). The direction of this cut changes to make a V shape, corresponding to the red dotted lines (and the V shape of the outer skin mark [D, E]). Photograph D shows the start of the V-shaped cut. Photograph F shows the cut reaching the apex of the V shape at the frenular ridge (note that the cut is well away from the base of the frenulum, thus reducing the chance of bleeding from the frenular artery).

STEP 16. Trimming the inner (mucosal) layer of the foreskin

If necessary, trim the mucosal edge if it is uneven. However, if care was taken to display and visualize the mucosa and outer aspects of the foreskin when making the circumcision cut, then the edge of the cut would usually be straight. If any ragged edges remain, they can be trimmed; however, always take care to leave approximately 0.5–0.6cm of skin proximal to the corona for suturing. Also, take care to not trim or cut into the deeper tissue of the shaft of the penis, particularly around the frenulum.

Figure 21: Trimming the inner (mucosal) layer of the foreskin



STEP 17. Trimming the inner (mucosal) layer of the foreskin.

STEP 18. Stop any bleeding and proceed with suturing, as described in Annexure D.

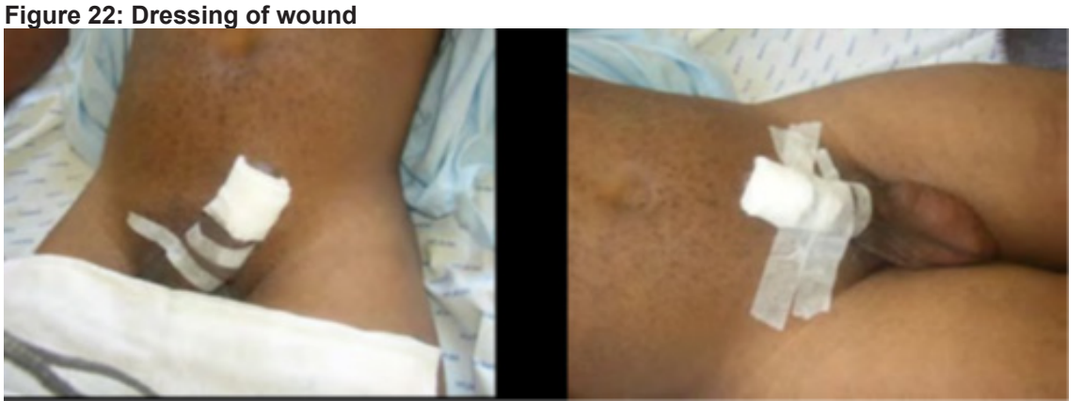
STEP 19. Check again for bleeding and manage as needed, as described in the haemostasis section(7). Once there is no bleeding, apply a dressing.

8.5 Dressing

Once all bleeding has stopped, place a piece of petroleum jelly-impregnated gauze swab around the wound. Place a dry, sterile gauze swab over the one already placed and secure both gauzes in position with adhesive tape. Strap the penis to the lower abdomen using adhesive tape or other means (for example, close-fitting underwear); this helps to minimise oedema (tissue swelling) in the first 24-48 hours post-procedure.

The dressing should be left on for 24-48 hours. The use of adhesive tape has the advantage of applying mild, constant pressure while allowing the penis to stay in place. From this point, the client will undergo post-procedure assessment and counselling before going home.

Figure 22: Dressing of wound



Remember:

- Use a clean, simple dressing.
- Avoid making the dressing too tight.
- Elevate the penile shaft with tight underwear or strapping (for example, an adhesive tape).
- Counsel the client to keep the dressing on for 48 hours and return to the clinic for removal.

8.6 Devices for male circumcision

In situ devices function by compressing the foreskin between two surfaces, which stops bleeding and allows for the removal of the foreskin either at the time of device placement or after necrosis occurs (typically around one week). Currently, all approved circumcision devices in South Africa are of the clamp variety. Please refer to the manufacturer's manual for proper usage instructions. It is important to note that the MMC programme is not currently using any devices.

SEE THE MANUFACTURER'S MANUAL FOR THE CORRECT USE OF DEVICES.

CHAPTER 9: POSTOPERATIVE CARE AND MANAGEMENT OF ADVERSE EVENTS

9.1 Definition, Classification, Identification, Management, and Reporting of Adverse Events

Definition for Adverse Events: Any injury, harm, or undesired outcome that occurred during or following the male circumcision procedure that would not have occurred if the client had not undergone the procedure. This includes not only events related to any error in screening, performance, or follow-up of the procedure but also those in which no error occurred. AEs classification has three common components: Severity, Timing, and Type. Types of AEs are explained in detail in the management section, and AE relatedness to MC is a fourth component that is primarily important in AE investigation and monitoring.

9.1.1 Adverse Events Severity

AEs have been classified into three categories of severity: mild, moderate, and severe.

- Mild classification indicates minimal or no intervention is required.
- Moderate classification relates to those AEs that are neither mild nor severe, require intervention, and are usually managed on-site.
- Severe classification requires extensive intervention with referral or specialist input.

9.1.2 Adverse Event Timing

For MCs performed surgically, AEs are classified by their timing concerning surgery as follows:

A = intraoperative (AE occurs during surgery or before discharge from the clinic on the day of surgery)
B = early post-operative (AE occurs after discharge from the clinic on the day of surgery through post-operative day 6).
C = late post-operative (AE occurs ≥7 days after surgery).

Table 21: Adverse Event Timing

Adverse Event (AE) Timing				
Surgery	**A**	**B**	**C**	
Device	**A**	**B**	**C**	**D**
Surgery A = Procedure: Period from VMMC until discharged from the clinic B = Early post-op: From clinic discharge on day of procedure through post-op day six C = Late post-op: ≥ post-op day seven				
Device A = Placement: Period from VMMC until discharged from the clinic B = In-situ: Period from discharge on the day of procedure through device removal (typical through post-op day six) C = Removal: typical day seven but is designated any time device is removed **by a provider** D = Post-removal: any time after the device has been removed				

AE timing is classified by when the first AE occurs. For example, if a client presents eight days after surgery with an AE but gives a history of onset at day six, the timing would be classified as B, not C. The exception is an injury to the penis, where the AE should be classified by when it was noted since management can depend on how much time has passed since circumcision.

By the nature of their natural history, not all AEs can occur at all time points. For example, scarring can only be classified as C since it cannot occur at the time of the procedure and cannot be identified in the first week after surgery; seven days is insufficient time for scar formation.

AEs sometimes occur together and can be related (for example, wound disruption may result from wound infection). Each AE noted should be recorded as a separate diagnosis (wound infection with disruption would be recorded as two AEs), and the presence of one AE may affect treatment for another (e.g., wound disruption should not be closed while untreated infection is present).

With many AEs, documentation by photographs is very helpful in classification and monitoring progress and treatment. When photographs are obtained, client/guardian permission should or must be obtained, depending on the policy or preferences of national programmes. Permission may be written or verbal, depending on the policy or preferences of national programmes. In this guide, chapters on specific AEs indicate where repeated photographs may be particularly helpful.

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9.1.3 Adverse Event Relatedness

AEs can also be categorised concerning relatedness to the procedure. This is most often done during an investigation process for a serious AE, rather than in routine diagnosis of common AEs.

During this process, the assessed degree of relatedness to the procedure may change as new information is obtained. Relatedness does not impact the management of an AE. Regardless of being determined to be related to MC or not, all AEs should be recorded and reported, even when the AE seems to be completely unrelated (e.g., a client involved in a road traffic accident three days after operation).

Relatedness can be classified as:

- Definitely related: Direct association with the procedure, i.e., follows a reasonable temporal sequence from the procedure and is a recognised AE of the procedure.
- Likely/Possibly related: More likely explained by the procedure, i.e., follows a reasonable temporal sequence from the procedure and is a plausible AE of the procedure, but could have another cause.
- Likely unrelated: More likely explained by other causes.
- Definitely unrelated: It was Clearly explained by another cause.

In general, the identification and management of an AE follows the time course depicted below.

Figure 23: Identification and management of an AE follows the time course

Identification

The client may report the adverse event, or the provider may discover it during surgery, the post-operative observation period, or a subsequent visit. The provider should first identify and classify the adverse event. Identification and treatment must be conducted through direct observation by a clinician.

Treatment

Once the adverse event is identified and classified, the provider should follow the treatment guidelines for basic standard care.

Referral

If necessary, the provider may refer the client to another health facility or provider, such as a specialist doctor. Providers should refer clients or request help with any adverse event that they do not feel comfortable with or capable of managing.

Reporting

Proper reporting is important so that providers can follow up with the client as necessary, and managers and providers can monitor the quality and safety of a programme and take actions to improve client care. Reporting should follow nationally prescribed reporting pathways and protocols.

Follow-up

Routine follow-up ensures that clients receive sufficient care after circumcision. Providers and site managers should ensure that clients are well-informed about the importance of routine follow-up visits when they are expected, as well as the importance of specific and additional follow-up visits when an adverse event has occurred.

Types of adverse events and treatment guidelines.

A. **Adverse events occurring during surgery**

I. Excessive adhesions

If the client has phimosis, so that the foreskin cannot be retracted before surgery, there is uncertainty about what will be found once the dorsal slit has been made and the foreskin retracted. If there are excessive adhesions, it may be 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 refer the client to a hospital. In this situation, the dorsal slit will have to be repaired, using stitches to stop bleeding. It will not be possible to put on a dressing because the client will need to urinate. Nevertheless, the area should be kept as clean as possible. The wound should be covered with a gauze swab, which the man can keep in place by wearing tight underpants. Arrangements should be made for the man to attend the local referral hospital as soon as convenient and in any case within 24 to 48 hours.

II. Excessive bleeding during surgery

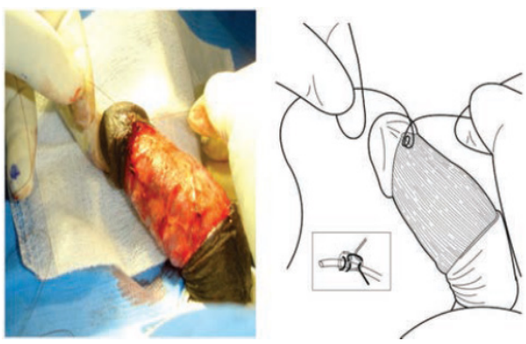
If there is excessive bleeding during the surgery, the first rule for the circumcision provider is not to panic. More damage is caused by panic attempts to stop bleeding than by the original injury. Place a swab under the penis and a second swab over the bleeding point, apply firm pressure, and wait five minutes (timed by the clock). After five minutes, slowly lift off the swab. Often, the bleeding will have stopped. Do not be tempted to look under the swab before five minutes have elapsed. If the bleeding has not stopped after five minutes, the site of the bleeding will be obvious. Apply haemostatic artery forceps to the bleeding point. If this does not control the bleeding, apply pressure over a swab for a further five minutes (timed). At the end of this time, gently lift the swab again, and under-run the bleeding area with a suture. Remember that the larger blood vessels generally run along the length of the penis and place the suture proximal to the bleeding (that is, on the side towards the base rather than the tip of the penis).

These measures will likely control bleeding. If, exceptionally, the bleeding continues, the client should be transferred to a referral Centre as an emergency, or a more experienced circumcision provider should be called to help. Diffuse oozing or bleeding from multiple different locations that is not controlled with these surgical manoeuvres may indicate a bleeding disorder such as haemophilia that cannot truly be controlled with further surgery. In this case, applying direct pressure and rapidly transferring the client to a facility capable of diagnosing and treating bleeding disorders is indicated.

III. Bleeding from the frenular artery

If there is excessive bleeding from the frenular artery, an under-running haemostatic stitch should be used to occlude the artery (Figure 24). Take great care not to bite too deeply because the urethra is near the surface of the skin and can easily be damaged.

Figure 24: Suture under-running the frenular artery



IV. Accidental injury

Accidental injury can include injury to the glans (for example, partial severing of the glans) or too deep an incision, resulting in bleeding that is difficult to control. Any bleeding should be controlled by applying pressure over a piece of gauze, and the client should be transferred as an emergency to a referral Centre. If the transfer time is likely to be long, insert a urinary catheter, wrap the penis in sterile gauze, and tape the gauze in place. If any portion of the glans is completely amputated, the amputated portion should be wrapped in sterile gauze, placed in a sterile container, put on ice if available, and transferred with the client. The more rapidly it can be reattached, the more likely a successful outcome. During the transfer, the client should lie flat. At all times, keep the client and his relatives informed about what has happened and what is going to be done. The risk of such accidents is reduced if the circumcision provider has proper training and certification.

B. Adverse events occurring within the first 48 hours after surgery

Bleeding is the most likely complication during the first 24 to 48 hours. A small amount of bleeding onto the gauze dressings is usual but may alarm the client. If he comes back to the clinic with blood-soaked dressings, remove these and inspect the circumcision wound for an obvious bleeding point. If there is fresh blood from the skin edge, insert a further suture. This will require a full sterile procedure, as for the original circumcision, including local anaesthesia and sterile draping. Usually, placing one or two additional mattress sutures over the area will stop the bleeding. Remember to ask the client again about any history of increased bleeding (for example, do his gums bleed when he brushes his teeth or has dental work, does he have frequent nosebleeds, does he bleed more or for longer than most people if he gets a cut) that could indicate a bleeding disorder that will not be controlled with surgery. If a wound exploration is undertaken, and the bleeding is more diffuse oozing without an obvious point source, this could also indicate a higher risk of undiagnosed bleeding disorder requiring transfer to a facility with advanced diagnostic capabilities such as coagulation studies and clotting factor assays and the necessary transfusion resources to correct the bleeding.

Hematoma may form and may be associated with considerable bruising and skin discoloration. In general, hematomas are best left alone unless they are very large or there is continued bleeding. The choice is between applying a further clean dressing and reviewing the situation in 24 hours or applying a clean dressing and sending the client to a referral Centre. If the circumcision team is relatively inexperienced, it is safer to send the client to the referral Centre.

Wound disruption is unusual in the first few days but is sometimes seen in association with subcutaneous bleeding and hematoma formation when the stitches are cut out. In this situation, send the client to a referral Centre. The specialist at the referral Centre may decide either to suture the wound or to leave it to heal by secondary intention, depending on the state of the skin edges. If the disruption occurs within 48 hours of the operation, it is usually better for the clinic circumcision provider to explore and re-suture the wound.

A fistula is a significant adverse event that can occur following male circumcision, characterized by an abnormal connection between the urethra and the skin. This complication is particularly concerning in younger adolescents (aged 10 years and above) due to their distinct anatomical and physiological characteristics. The WHO emphasizes the importance of meticulous surgical

techniques to prevent such occurrences. Specifically, excessive use of diathermy (electrocautery) near the frenulum—the area at the underside of the penis where the foreskin attaches—should be avoided, as it can increase the risk of fistula formation. WHO guidelines recommend that healthcare providers performing circumcisions in this age group receive specialized training to ensure they are adept at techniques that minimize the risk of fistula and other complications. Adherence to these guidelines is crucial to safeguard the health and well-being of younger adolescents undergoing circumcision.

C. Adverse events occurring within the first two weeks after surgery

I. Infection

After two to three days, the most likely problem is wound infection. An infection often causes increasing pain, and there may be visible signs, such as redness or purulent discharge. If the client has an abscess (a pocket of pus that has not drained), surgical drainage is indicated. Give the patient an appropriate antibiotic, advise him to take frequent showers, and put a clean dressing on the wound between showers. If the infection is severe, advise the man to lie on his back, so that his penis is the highest point of his body. This promotes drainage of lymphatic fluid and speeds up the healing process. Sitting in a chair is a bad position. Alternatively, the wound can be left without a dressing but should be protected from flies. Follow-up patients with infections regularly until the infection resolves and wound healing begins. Remember to assess the client's ability to understand wound care instructions (e.g., have him repeat them back to you) and ensure that the prescribed resources (e.g., clean water, soap, and dressings) are available.

II. Wound disruption and cutting out of stitches

When stitches are cut out, this may indicate that there is an infection, so give the patient antibiotics (see above). If more than 48 hours have passed since the operation, do not try to re-suture the wound, as the new stitches are likely to become infected and cut out, making the situation worse. Leave the wound to heal by secondary intention. See the man at the clinic as often as necessary until the wound has healed. In general, the healing process after infection leaves an untidy result, at least for the first few months. Reassure the man that his appearance will usually become normal after about a year.

III. Worsening wound infection with signs of gangrene

A rare risk of genital surgery is infection with multiple bacteria, causing progressive skin loss. In this situation, the blood supply is cut off, and the skin becomes necrotic and turns completely black. This condition is known as Fournier's gangrene (synergistic gangrene or necrotising fasciitis) and is more common in men who have diabetes. Any man with signs of spreading infection or black gangrenous skin should be urgently transferred to a referral Centre. At the referral Centre, it is usually necessary to give a general anaesthetic and remove all the dead skin.

V. Late complications / Adverse events

In the long term, the client may complain of:

- Decreased sensitivity of the glans.
- Oversensitivity of the glans.
- Unsightly circumcision wounds, ragged scars, or other cosmetic concerns, including hypertrophic scarring and keloids. In the case of keloids, do not attempt to resect the keloid but instead refer the client to a facility with urology and plastic surgery capabilities to optimise the therapeutic approach.
- Persistent adhesions at the corona and inclusion cysts. These problems can be avoided if the fore-skin is fully retracted during the operation and all adhesions are carefully divided.
- Discomfort during erection from the scrotal skin being pulled up the shaft of the penis and a tight scrotal sac. This can result from the removal of too much skin during circumcision. These problems can be avoided by preoperative marking of the incision lines; and
- Torsion (misalignment) of the skin of the penile shaft. This can be avoided by taking care during the operation to align the midline raphe with the frenulum.

9.2 Immediate post-procedure care

After the circumcision is complete, the client should move to another area for observation. The client should remain at the clinic for at least 30 minutes after the procedure because it is during this period that continued bleeding is most likely to become apparent. During the operation, small blood vessels spasm when cut, and this temporarily stops bleeding. Shortly after the operation, when the spasm has stopped, the bleeding becomes apparent again, often when the client is in postoperative recovery and has started to move around.

The essential components of immediate post-procedure care are the following:

- Monitoring the client closely (minimum of 30 min-utes) for the following:
- Observing the general condition of the client
- Monitor his breathing, pulse, and blood pressure immediately after the procedure and again after 15 minutes
- Checking the wound dressing for oozing or bleeding
- Ask the client if he has pain or any other concerns
- Giving post-procedure analgesia (for example, paracetamol)
- Giving the client wound care instructions and other essential advice
- Scheduling follow-up visits
- Completing the client's medical record

9.3 Considerations for post-procedure instructions and advice

Post-procedure messages should be given through an education and counselling approach. This means that the client is given information and assisted in applying the messages to his circumstances. Instructions to the client should be given verbally; it is helpful if these instructions are also given to anyone who is with him (for example, a family member). In addition to verbal instructions, written instructions should also be given, ensuring both are delivered in the language the client prefers.

Instructions must be given to the adolescent as well as his parent(s)/guardian(s). Providers need to be sensitive to the age and development of adolescents, as well as their inhibitions and understanding, when discussing penis hygiene, care of penis dressings, penile erections, and adolescent sexuality. Therefore, providers must advise about penile erections and sexual abstinence to all adolescent clients. Arrangements should be made so that adolescent boys are in an environment where they feel at ease and can take in information and ask questions.

Table 22: Post-procedure messages

Messages	Instructions
Wound care and dressings	• Do not apply any home remedies (including traditional practices and medicines) to the wound at any time. • Keep the dressing in place until the first clinic visit at 48 hours. • Keep the wound and dressing dry. • Do not wet the dressing when bathing. • Once the dressing is off, allow only clean (or boiled then cooled) water to touch the wound. • Do not pick or scratch the wound. • If the dressing comes off at home or gets wet, the client should follow the clinic's specific protocols. • Do not remove the wound dressing to urinate. (Note: If there is any abdominal strapping to elevate the penis, the strapping tape will need to be removed before urination, and the client will need to be shown how to do this.) • Wear clean and well-fitting underwear to help keep the dressing in place.
Activity and lifestyle changes during the recovery period	• The client should also be advised to avoid any activities likely to disrupt the wound, such as riding a bicycle or playing sports (including school sports).
Penile erection	• Adolescent boys and men have several erections during their sleep, and most wake with an erection. • Erections might cause pain for a few days or nights after the circumcision. • This pain usually goes away as the erection does. • Erections will not harm. • In fact, they help the penis to heal properly by straightening out any folds in the skin that may be present when the penis is soft.
Sexual activity	• Sexual activity should be avoided until the wound is healed (usually about six weeks). Masturbation and sexual intercourse can cause damage to the wound or exposed skin. • In addition to injuring the wound or skin, sexual intercourse during the six weeks following the circumcision increases the risk of acquiring HIV because the virus may get into the body through any parts of the wound that have not healed. If the client engages in sexual intercourse before the six weeks are over, he must wear a condom to protect the wound and skin and to avoid acquiring HIV. • After the six weeks, clients should be encouraged to continue to use condoms correctly and consistently. • Male circumcision does not give complete protection against HIV. Even after full recovery from circumcision, clients should always use condoms when having sex with someone new or when engaging in any risky sexual situation.
Warning signs – client to report to the clinic immediately	• Fever • Feeling ill • Hardness or stiffness of the abdomen • Stiffness of the jaw or fits (that is, convulsions), or both • Continued bleeding from the wound that does not stop or gets worse • Swelling and tenderness on or around the wound • Onset or worsening of pain or throbbing pain in what was a relatively pain-free, healing wound • Skin discoloration • Bad smell coming from the dressing or wound • Swelling or tenderness in the groin (painful inguinal glands) • Pus from the wound • Difficulty passing urine • Client worries about the wound

Information on sexual activity should be reinforced at every post-procedure visit.

9.4 Emergency and scheduled follow-up visits

The steps below should be followed at an emergency follow-up visit:

- Examine the client immediately. Check all areas related to his complaint.
- Read the medical record, if available.
- Measure and record vital signs, including temperature, especially if infection is present or suspected.
- Ask the client again about any potential contributing factors, even if he denied them on the initial examination. For example, clients who have a history of bleeding problems may not disclose this during the initial examination, but this would be valuable information if they return with severe postoperative bleeding, or a client may initially deny applying traditional substances but admit to this on follow-up.
- Ask the client about the sequence of events since the operation. Ask about any problems during the surgery or in the recovery period, how problems developed, any increase in discomfort, and any medication or other treatments obtained.
- Consulted with clinic team members to decide the best management for the client.
- Arrange for treatment of any problems that can be handled on an outpatient basis.
- Refer the client to a higher level of care for treatment of potentially serious complications. All facilities should have a pre-established emergency referral protocol, and this should be followed if there is a need to send the client to a referral Centre.
- Note on the client record all problems and actions taken, including the specific adverse event(s) diagnosed and their severity. Follow South African national protocols on severe adverse event reporting.
- Inform the facility where the male circumcision was performed about the client's emergency follow-up visit (if applicable).

9.5 Routine follow-up visits at 48 hours, seven days, 14 days, and six weeks

It is important to advise and encourage clients to come in for physical follow-up visits at 48-72 hours, seven days, and six weeks, and a self-reporting follow-up at day 14. Failure to attend follow-up visits results in late identification of adverse events, poorer management of adverse events, and poorer outcomes. During the follow-up visits.

- Providers should treat any adverse events (complications) or wound healing problems found during the examination.
- Ask the client if he has any concerns or questions and respond appropriately.
- Reinforce key messages.
- Make sure the client knows where to go for review if complications arise.
- Document the follow-up visit in the client's medical record. Include any complaints, diagnoses, treatment, or referrals, and include any comments.

First routine follow-up visits at 48 hours

At the first clinic visit, which occurs 48 hours after the circumcision procedure, the dressing should be removed, the wound inspected, and a new dressing put in place as needed. If the client has questions, these should be addressed. If any problems or adverse events are identified, these should be managed.

I. Ask the client if there have been any problems:
   - Active bleeding
   - Excessive swelling
   - Severe pain in the penis or genital area
   - Inability to pass urine or severe pain when passing urine
   - Fever
   - Tightness of chest
   - Rigid muscles or neck stiffness (lockjaw)
   - Any unusual skin colour, such as very dark or black, or unusual odour

If the client complains of pain at this time, it may indicate the onset of infection. Normally, there is little pain during the first two to three days after circumcision; the exception is the brief episodes of pulling pain during penile erections. Wound pain or increasing or throbbing pain at 48 hours is a red flag that indicates a potential problem.

If the client complains of feeling ill, consider rare serious adverse events, such as sepsis or tetanus. Reinforce to clients (and caregivers) not to use home remedies to aid in healing. Remind clients to follow self-care instructions and use medications only as provided or prescribed at the clinic.

II. Gently remove the wound dressing. If the dressing has dried, it should be gently dabbed with an antiseptic solution, such as aqueous chlorohexidine, until it softens. It can then be removed gently. It is important not to disrupt the wound by pulling at a dressing that adheres to it.

III. Examine the client and look for signs of potential problems. Examples include the following:

   - Active bleeding
   - Excessive swelling (note if any swelling is localised to one part of the wound or shaft of the penis, or generalised)
   - Gaping of the wound
   - Blisters or sloughing of skin (note if blisters or loss of skin are immediately adjacent to the wound or on the shaft of the penis, and note if there is skin discolouration, redness extending beyond the wound edges, dark or black areas adjacent to the wound, or any other abnormality of skin colour)
   - Discharge of pus from the wound
   - Redness or warmth of the skin, particularly spreading distant from the incision and involving the scrotum
   - Fever
   - Rigid muscles or neck stiffness (lockjaw)
   - Burns or blisters at the site of application of the diathermy plate (if diathermy was used, particularly if the man has pain in that area)

IV. Provide any new care or treatment instructions. Give (or prescribe) medicines if applicable.

Generally, it is not necessary to give any further supply of analgesic tablets. If the client asks for further analgesics, this may indicate pain caused, for example, by the onset of wound infection and the need for an earlier follow-up appointment.

Routine follow-up visits

The following should be done at all routine follow-up visits:

- Reinforce the need for safe and responsible sexual behaviour. Abstinence during wound healing should be encouraged. If a client is unable to abstain, encourage less risky forms of sexual activity (for example, masturbation).
- Remind the client that male circumcision provides partial protection.
- Remind the client that condoms should be used consistently and correctly for HIV prevention.
- Give the client condoms (and lubricant if available) and reinforce instructions about correct condom use. In the case of adolescent boys or men who may not be familiar with condoms, it may be helpful to demonstrate condom application using a model.
- If risky sexual behaviour has been identified during counselling, then reinforce advice about safer behaviour and consider what additional prevention options are appropriate to offer (e.g., PrEP).
- Assess and discuss with the client whether and when repeat HIV testing is appropriate based on the client's risk behaviours. If the client refuses HIV testing pre-circumcision, offer him HIV testing (including HIVSS) at all follow-up visits.

Table 23: Routine follow-up visit

Follow-up visit	To-do
1) 48 hours	• Ask the client if there have been any problems. • Gently remove the wound dressing. • Examine the client and look for signs of potential problems. • Provide any new care or treatment instructions. • Repeat and emphasise instructions and key messages about wound care and healing, ensuring the client understands the instructions and has access to the necessary resources • Provide further HIV prevention and risk reduction information • Make sure the client knows where to go for follow-up if complications arise. Review with the client signs that he should look out for that may indicate a problem. • Schedule the next follow-up visit. • Document the follow-up visit in the client's medical record. Include wound healing progress, any problems (complaints, diagnoses), any treatments prescribed, or referrals made. • Report any adverse events according to the national or programme requirements.
Day 7	• Ask the client if there have been any problems. • Examine the client and look for signs of potential problems. • Provide any new care or treatment instructions. • Repeat and emphasise instructions and key messages about wound care and healing, ensuring the client understands the instructions and has access to the necessary resources. • Provide further HIV prevention and risk reduction information. • Make sure the client knows where to go for follow-up if complications arise. Review with the client signs that he should look out for that may indicate a problem. • Schedule the next follow-up visit. • Document the follow-up visit in the client's medical record. Include wound healing progress, any problems (complaints, diagnoses), any treatments prescribed, or referrals made. • Report any adverse events according to the national or programme requirements.

2) Day 14 post-procedure self-reporting/ telephonic/ Virtual follow-up	• Ask the client if there have been any problems
	• **The client will no longer have a dressing to remove**
	• Examine the client and look for signs of potential problems (if physically present)
	• Re-emphasise bathing and wound care instructions and provide any new care or treatment instructions.
	• Repeat and emphasise instructions and key messages about wound care, healing, and HIV prevention
	  ○ A new focus may be advising the client on when it is safe to return to work or resume sports activities.
	  ○ The client should be reminded to abstain from sexual activity for six weeks after the surgery.
	  ○ Provide further HIV risk reduction care as feasible and applicable.
	  ○ Clients who have previously refused HIV testing should be offered the opportunity for HIV testing at this and all follow-up visits.
	• Make sure the client knows where to go for follow-up if complications arise.
	• Schedule the next follow-up visits if necessary.
	• Document the follow-up visit in the client's medical record. Include wound healing progress, any problems, and treatment.
	• Report any adverse events according to national or programme requirements.
	• If there are no problems with wound healing and recovery, this visit may be used as an opportunity for additional health information or referrals for relevant services.

3) Week 6 post-procedure self-reporting (Virtual)	• Ask the client if there have been any problems. • Examine the client and look for signs of potential problems (if physically present). • Provide any new care or treatment instructions. • Repeat and emphasise instructions and key messages about wound care, healing, and HIV prevention. • Assess the client's knowledge of how to use a condom consistently and correctly. • Document the follow-up visit in the client's medical record. • Report any adverse events according to national or programme requirements. • Providers may use this time as an opportunity for additional health information or referrals for relevant services. • Discharge patient and document.

9.1 General Guidance on Management of Adverse Events

Prevention of Adverse Events

Table 24: Prevention of adverse events

Provider's role in preventing adverse events	Programme manager's or clinic supervisor's role in preventing adverse events
• The provider should carefully screen and note indicators of bleeding disorders or any other relevant medical history that might deem the client ineligible for male circumcision. • If men/boys are taking any medication or receiving any injections, clinic staff should take particular care to find out what medications or injections are being taken or given and why. • Check local anaesthetic supplies. Only give the starting dose appropriate for the client's weight. • Carefully select the circumcision procedure, particularly for a younger adolescent boy who is likely to be less developed physically. • Practice good antiseptic techniques and wound care. • Practice good surgical technique, handling tissue gently and with precision. • The provider should know what actions can reduce or increase the risk of complications. • Take the time to make sure that clients understood wound care instructions. • Reinforce the importance of abstinence from sexual activity for six weeks after the surgery to help the wound heal properly and avoid complications. • Have the client repeat wound care and healing instructions or ask him questions to check his knowledge and understanding of instructions.	• Ensuring that providers have good training in infection prevention and control, including antiseptic technique, injection safety, and wound care. • Ensuring that providers have good training in surgical technique, with particular emphasis on marking the circumcision suture line and handling tissue gently and with precision and ensuring adherence to all recommended infection prevention and control activities to minimise the risk of procedure-associated infections. • Not imposing unrealistic targets for performing a certain number of circumcisions in a day—a hurried surgery increases the risk of adverse events. • Make sure sufficient time is allowed for the circumcision team to provide complete post-procedure care, including wound care and healing instructions. • Make sure that clients are not hurried home before being given appropriate care and instruction. • Monitoring for adverse events and learning from review and discussion to improve performance. • Make sure providers performing circumcisions are up to date with basic life support skills, including the management of cardiac arrests, hemodynamic imbalances, reactions to medications, and hypoglycaemia. • Make sure the site is equipped with the necessary emergency equipment, pharmaceuticals, and emergency standard operating procedures.

ANNEXURES

ANNEXURE A: TOOLS

Annexure A1: Medical Male Circumcision: Group education checklist

No	Task/Activity	Task/Activity Completed	
		Yes	No
	Introduction		
1	Greet the group and introduce yourself		
2	Explain what you wish to talk about		
3	Use easy-to-understand language and check for understanding		
4	Encourage participants to ask questions, voice concerns and listen to what they have to say		
5	Explain that confidentiality will be maintained		
6	Describe the male reproductive health services, including MMC, that are available in the clinic		
	Medical Male Circumcision		
7	Ask a volunteer to share what he already knows about MMC		
8	Give positive feedback to the volunteer on any correct information provided and fill in the gaps on: · What is MMC? · Benefits and risks of MMC · Link between MMC and HIV infection · MMC procedure · Pain relief options · Recovery period · Post-operative care and follow-up · Process for contacting healthcare workers, if necessary		
9	Check for questions and address concerns that participants may have		
	HIV Test		
10	Ask a volunteer what they already know abut HIV		
11	Give positive feedback to the volunteer on any correct information provided and fill in the gaps		
	Other sexually transmitted infections		
12	Ask the group if they know of any other sexually transmitted infections		
13	Give positive feedback to the volunteer on any correct information provided and fill in the gaps on: · Common STIs in South Africa · Signs and symptoms of common STIs · How STIs can be prevented		

Annexure A2: Medical Male Circumcision: Individual Counselling Checklist

No	Task/Activity	Task/Activity Completed	
		Yes	No
	Introduction		
1	Ensure privacy for client or parent/guardian		
2	Explain to client or parent/guardian the process and get permission before starting		
3	Explain to client or parent/guardian that confidentiality will be maintained		
4	Encourage client or parent/guardian to ask questions and voice concerns. Listen to what he has to say		
	Medical Male Circumcision		
5	Ask client or parent/guardian to share what he already knows about MMC		
6	Give positive feedback to the client or parent/guardian on any correct information provided and fill in the gaps on: · What is MMC? · Benefits and risks of MMC · Link between MMC and HIV infection · MMC procedure · Pain relief options · Recovery period · Post-operative care and follow-up · Process for contacting healthcare workers, if necessary		
7	Check for questions and address concerns that client or parent/guardian may have		
	HIV Test		
8	Ask client or parent/guardian what they already know about HIV		
9	Ask if client has ever been tested for HIV		
10	Explain the link between MMC and HIV		
11	Explain how risky behaviour can remove the benefits of MMC		
12	Explain the need for and importance of condom use after MMC		
13	Offer client HIV test		
	HIV Consent		
14	Ask client or parent/guardian to sign the Consent Form		

Completed by: .....Date: .....

Signature: .....

Annexure A3: Medical Male Circumcision: Client Record Form

health
Department:
Health
REPUBLIC OF SOUTH AFRICA

MMC CLIENT INTAKE FORM

Client File Number:_____

F1. INFORMED CONSENT FOR HIV TESTING SERVICES (HTS) Page 4

Client First Name(s)		Surname	

- I, the above-mentioned, hereby declare that I was informed and freely offered HIV Testing Services. I understand that HIV test results are kept confidential and that only healthcare providers and the individual tested have access to the test results. I give consent that my information will be shared with authorised healthcare providers in the best interest of my health and with the Department of Health for monitoring and evaluation purposes.
- Be contacted telephonically on my mobile number supplied for follow-up.

Please check the relevant box below:

☐ I consent to be tested for HIV, to have my HIV status shared with me and my healthcare providers; and to be contacted for follow up
☐ I choose to decline HIV testing

Signature of Client		Date of consent	DD/MM/YYYY

F2. PARENT/LEGAL GUARDIAN CONSENT FOR HIV TESTING (CLIENT YOUNGER THAN 12 YEARS)

Name & Surname of Parent/Guardian		Signature of Parent/Guardian	
Date of consent	DD/MM/YYYY	Identity Number of Parent/Guardian	

G1. INFORMED CONSENT FOR MEDICAL MALE CIRCUMCISION (MMC) – *OR ASSENT FOR CLIENT 10-17 YEARS*

First Name(s)		Surname	

- I, the above-mentioned, hereby declare that I was informed and voluntarily accepts to undergo medical male circumcision. I understand that VMMC is a surgical procedure that offers partial protection against HIV infection. With any medical or surgical procedure there are risks involved. The circumcision procedure and its possible outcomes including complications have been fully explained and discussed with me.
- I was informed that I might be contacted telephonically on my mobile number supplied for follow-up. Please check the relevant box below:

☐ I consent for medical male circumcision
☐ I choose to decline medical male circumcision

Signature of Client		Date of consent	DD/MM/YYYY

G2. PARENT/LEGAL GUARDIAN CONSENT FOR MEDICAL MALE CIRCUMCISION (CLIENT 10-17 YEARS)

Name & Surname of Parent/Guardian		Signature of Parent/Guardian	
Date of consent	DD/MM/YYYY	Relationship to Client	

G3. COUNSELLOR (& surgeon/clinical associate & nurse) PROVIDING CLIENT WITH HTS AND VMMC INFORMATION

First Name(s) of Counsellor		Surname of Counsellor	

I am the counsellor who has provided the above-mentioned client and/or his parent/legal guardian with information related to HTS and VMMC. I have given the client and/or his parent/legal guardian an opportunity to ask me questions and have ensured that they understand the information provided. To the best of my assessment, the client and/or his parent/legal guardian are capable of giving consent and have sufficient information to make a decision about whether to proceed with HIV counselling and testing, and voluntary medical male circumcision procedure.

Signature of Counsellor		Date	DD/MM/YYYY
Signature of Surgeon/Nurse		Date	DD/MM/YYYY

health
Department:
Health
REPUBLIC OF SOUTH AFRICA

MMC CLIENT INTAKE FORM

Client File Number:_____

A. FACILITY AND CLIENT INFORMATION Page 1

A1. VMMC SETTING – *To be completed by data clerk*

Province		District	
		Sub-district	
Facility Name		Facility Type	☐ Static ☐ Mobile ☐ Outreach ☐ Other, specify:
Date of Visit	DD/MM/YYYY	Name of Data Clerk	Data Clerk signature

A2. CLIENT INFORMATION – *To be completed by data clerk*

First Name(s)		Surname		Age (Years)	
ID Number				Date of Birth	DD/MM/YYYY
Mobile Telephone Number		Physical Address		Employment Status	☐ Full-time ☐ Part-time ☐ Contract ☐ Student ☐ Unemployed
Relationship Status	☐ Married, 1 Spouse ☐ Married, Polygamous ☐ Single, No Regular Partner ☐ Single, Regular Partner ☐ Divorced/Separated ☐ Widowed, Other, specify:				
Can next of kin be contacted?	☐ Yes ☐ No	Names of next of kin		Telephone of next of kin	

A3. HIV TESTING INFORMATION – *To be completed by nurse/counsellor*

Have you ever tested for HIV?	☐ Yes	If yes, when was the most recent HIV test?	☐ ≤1 month ☐ ≤3 months ☐ ≤6 months ☐ ≤1 year ☐ >1 year
		If yes, what was the most recent test result?	☐ Negative (NR) ☐ Positive (R) ☐ Never collected result
	☐ No	If HIV positive, have you attended an HIV care facility for care and treatment in the past 3 months?	☐ Yes, name of facility:_____ ☐ No, referred to facility:_____ Name of staff referring to ART:_____

On ART? ☐ Yes ☐ No

A4. HIV TESTING SERVICES (HTS) – *To be completed by nurse/counsellor*

Declined testing?	☐ Yes ☐ No	Consented?	☐ Yes ☐ No	Result 1 Result 2	☐ Negative (NR) ☐ Positive (R) ☐ Discordant ☐ Negative (NR) ☐ Positive (R) ☐ Discordant ☐ ELISA test	Results given?	☐ Yes ☐ No
Final Result	☐ Negative (Neg) ☐ Positive (Pos)	Risk Reduction	☐ Condom usage ☐ Partner reduction ☐ Follow-up counselling (negative and high-risk factors)				

A5. SEXUALLY TRANSMITTED INFECTION (STI) SCREENING – *To be completed by nurse/counsellor*

Have you ever been tested/treated for STIs?	☐ Yes ☐ No	Have you had genital sores or ulcers?	☐ Yes ☐ No	Do you have burning when passing urine?	☐ Yes ☐ No
Do you always use condoms when having sex?	☐ Yes ☐ No	Have you had discharge from your penis?	☐ Yes ☐ No	How many sexual partners have you had in the last 6 months?	

A6. TUBERCULOSIS (TB) SCREENING – *To be completed by nurse/counsellor*

Have you had a cough for ≥2 weeks OR any duration if HIV positive?	☐ Yes ☐ No	Have you had a persistent fever for more than 2 weeks?	☐ Yes ☐ No	Have you had unexplained weight loss >1.5kg per month?	☐ Yes ☐ No
Do you have night sweats?	☐ Yes ☐ No	Have you ever had contact with a person with TB?	☐ Yes ☐ No	Have you ever been previously diagnosed with TB?	☐ Yes ☐ No
A Yes to any of these questions may indicate possible active TB. If client screens positive for possible TB infection, refer them to TB clinic for further evaluation. Patient may continue to receive MMC				If you have been diagnosed with TB, have you completed your TB treatment?	☐ Yes ☐ No

A7. REFERRALS – *To be completed by nurse/counsellor*

Referred for: ☐ ART/wellness ☐ STI treatment ☐ TB evaluation ☐ General health facility Other, specify:_____

health
Department:
Health
REPUBLIC OF SOUTH AFRICA

MMC CLIENT INTAKE FORM

Client File Number:_____

B. SOCIO-MEDICAL HISTORY Page 2

B1. REFERRAL MECHANISMS – *To be completed by nurse/counsellor*

How did you learn of VMMC? ☐ Friends/Family ☐ Partner/Spouse ☐ Other Client ☐ Health Worker ☐ Community Mobilizer ☐ Community Event ☐ Church Event ☐ Branded Taxis ☐ Billboard ☐ TV/Radio ☐ Social Media (e.g. Facebook) ☐ Poster/Newspaper/Leaflet ☐ Phone/SMS ☐ Other, specify:_____

B2. REASONS FOR CIRCUMCISION – *To be completed by nurse/counsellor*

What are your primary reasons for VMMC? ☐ Partial HIV Protection ☐ STI Protection ☐ Hygiene ☐ Medical ☐ Social/Religious ☐ Appearance ☐ Genital Pleasure ☐ I was ready today ☐ I just decided to come ☐ Other, specify:_____

B3. PAST MEDICAL HISTORY – *To be completed by nurse*

Do you have any of the following conditions?	Anaemia	☐ Yes	☐ No	If yes, are you currently receiving treatment?	☐ Yes	☐ No
	Haemophilia/bleeding disorders in yourself or family	☐ Yes	☐ No	If yes, are you currently receiving treatment?	☐ Yes	☐ No
	Nose bleeds that last long time?	☐ Yes	☐ No	If yes, are you currently receiving treatment?	☐ Yes	☐ No
	Diabetes	☐ Yes	☐ No	If yes, are you currently receiving treatment?	☐ Yes	☐ No

B4. COMPLAINTS – *To be completed by nurse*

Do you have any of the following complaints?	Urethral discharge	☐ Yes	☐ No	Difficulty retracting foreskin	☐ Yes	☐ No
	Genital sore/ulcer/warts	☐ Yes	☐ No	Swelling/redness of foreskin/penis	☐ Yes	☐ No
	Swelling of the scrotum	☐ Yes	☐ No	Discharge or thick liquid under foreskin	☐ Yes	☐ No
	Frequent urination	☐ Yes	☐ No	Pain on erection	☐ Yes	☐ No
	Difficulty passing urine	☐ Yes	☐ No	Concerns about erection/sexual function	☐ Yes	☐ No
	Pain on urination	☐ Yes	☐ No	Other, specify		

B5. PREVIOUS SURGERY – *To be completed by nurse*

Have you ever had a dental or surgical operation?	☐ Yes	☐ No	Name:	Name:
If yes, specify nature, date, and any complications				Signature:

B6. CURRENT MEDICATIONS AND ALLERGIES – *To be completed by nurse*

Taking Any Medications?	☐ Yes	☐ No	Allergies to Medications?	☐ Yes	☐ No
Specify			Provide details (e.g. iodine => rash)		

C. PHYSICAL EXAMINATION AND TRIAGE

C1. PHYSICAL EXAMINATION – *To be completed by nurse*

Phimosis	☐ Yes ☐ No	Paraphimosis	☐ Yes ☐ No	Epispadias	☐ Yes ☐ No	Hypospadias	☐ Yes ☐ No	Genital Ulcers/Warts	☐ Yes ☐ No
Balanitis	☐ Yes ☐ No	Torsion	☐ Yes ☐ No	Adhesions	☐ Yes ☐ No	Urethral discharge	☐ Yes ☐ No	Other, specify	

C2. WELLNESS ASSESSMENT – *To be completed by nurse*

Weight	kg	Blood pressure		Pulse		Temperature	°C	Urinalysis	
Pallor	☐ Yes ☐ No	Lymph-adenopathy	☐ Yes ☐ No	Wasting	☐ Yes ☐ No	Hemo Glucose test (HGT)		Respiration Rate	
								Haemoglobin (Hb)	

C4. VMMC ELIGIBILITY – *To be completed by nurse*

Is client eligible for VMMC?	☐ Yes	☐ No	If no, specify	

MMC CLIENT INTAKE FORM

Client File Number:_____

D. VMMC PROCEDURE Page 3

D1. VMMC OPERATION – *To be completed by surgeon/clinical associate & nurse*

Date of VMMC	DD/MM/YYYY	Start Time	HH:MM	End Time	HH:MM	Consent for MMC Verified?	☐ Yes	☐ No
Anesthetic (plus according to weight of client)	☐ Lidocaine 0.5%	ml	Skin Prep	☐ Povidone Iodine		MMC Provider	Name:	
	☐ Lignocaine 1%	ml		☐ Other, specify:			Designation:	
	☐ Lignocaine 2%	ml	Anesthesia	☐ DPNB			Signature:	
	☐ EMLA cream	ml		☐ DPNB + Ring Block		1st Assistant	Name:	
Method	☐ Dorsal Slit (all clients <15 years)		Sutura	☐ Plain Gut			Designation:	
	☐ Forceps Guided			☐ Vicryl Rapide			Signature:	
	☐ Sleeve Resection			☐ Chromic		2nd Assistant	Name:	
	☐ Device/Surgical aid, specify (type/size): _____ / _____						Designation:	
Diathermy Used?	☐ Yes ☐ No	Diathermy Setting	☐ 18-35 ☐ 36-20				Signature:	

D2. POST-SURGERY OBSERVATION (IMMEDIATELY AFTER PROCEDURE) – *To be completed by surgeon/clinical associate & nurse*

BP	/	Temp.	°C	Pulse		Respiration rate	

D3. POST-SURGERY OBSERVATION (15 MINUTES AFTER PROCEDURE) – *To be completed by surgeon/clinical associate & nurse*

BP	/	Temp.	°C	Pulse		Respiration rate	

Complications/Intra-Operative AEs? ☐ Yes ☐ No If Yes? Mark all AE codes that apply below:

☐ Anaesthetic Reaction (AR)	☐ Mild (1) ☐ Moderate (2) ☐ Severe (3)	☐ Insufficient Skin Removal (IS)	☐ Mild (1) ☐ Moderate (2) ☐ Severe (3)
☐ Bleeding (BL)	☐ Mild (1) ☐ Moderate (2) ☐ Severe (3)	☐ Occupational Exposure (OT)	☐ Mild (1) ☐ Moderate (2) ☐ Severe (3)
☐ Damage to Penis (DP)	☐ Mild (1) ☐ Moderate (2) ☐ Severe (3)	☐ Pain (PA)	☐ Mild (1) ☐ Moderate (2) ☐ Severe (3)
☐ Excess Skin Removal (ES)	☐ Mild (1) ☐ Moderate (2) ☐ Severe (3)	☐ Other, Specify:	

CLINICAL NOTES

E. POST-OPERATIVE REVIEW VISITS – *To be completed by surgeon/clinical associate & nurse*

E1. 48 Hours Post-Operative/First Visit

Date of Visit	DD/MM/YYYY	Reviewed By	
AE Present?	☐ Yes ☐ No	Notes	

AE Code	Severity Code	Diagnosis Date at this Severity
		DD/MM/YYYY
		DD/MM/YYYY

Signature:

E2. 7 Days Post-Operative/Second Visit

Date of Visit	DD/MM/YYYY	Reviewed By	
AE Present?	☐ Yes ☐ No	Notes	

AE Code	Severity Code	Diagnosis Date at this Severity
		DD/MM/YYYY
		DD/MM/YYYY

Signature:

Post-Operative AEs? Yes ☐ No ☐ If Yes – Mark all AE codes that apply below:

☐ Bleeding (BL)	☐ Mild (1) ☐ Moderate (2) ☐ Severe (3)	☐ Insufficient Skin Removal (IS)	☐ Mild (1) ☐ Moderate (2) ☐ Severe (3)
☐ Damage to Penis (DP)	☐ Mild (1) ☐ Moderate (2) ☐ Severe (3)	☐ Pain (PA)	☐ Mild (1) ☐ Moderate (2) ☐ Severe (3)
☐ Excess Skin Removal (ES)	☐ Mild (1) ☐ Moderate (2) ☐ Severe (3)	☐ Wound Disruption (WD)	☐ Mild (1) ☐ Moderate (2) ☐ Severe (3)
☐ Infection (IN)	☐ Mild (1) ☐ Moderate (2) ☐ Severe (3)	☐ Other, Specify:	

E3. LOST TO FOLLOW UP – *To be completed by surgeon/clinical associate & nurse*

Lost-to-Follow-Up?	☐ Yes ☐ No	Attempted to Call?	☐ Yes ☐ No	Follow-Up at Another Site	☐ Yes ☐ No	Specify	

Annexure A4: Medical male circumcision: Follow-up visit checklist

Facility: _____

Client's Name	
Client's ID No	
Client's File No	
Date of MMC procedure	
Date of Follow-up visit	

Note to Doctor: Inspect the patient's penis before completing the grid

1. Is the patient experiencing any of the following adverse events? (Tick all that apply)
   Definitions:
   - Moderate: Notable symptoms requiring modification of activity, but not resulting in loss of work or cancellation of social activities
   - Severe: Incapacitating symptoms, requiring bed rest and loss of work
   - P = Probably related to the circumcision procedure
   - D = Definitely related to the circumcision procedure

Adverse Event	**Adverse Event status** (Tick No, New or Existing)			**Severity** (Tick P or D in the correct column)			
	No	**New**	**Existing**	**Moderate**		**Severe**	
				P	D	P	D
Abnormal pain							
Excessive swelling							
Haematoma							
Bleeding							
Infection							
Difficulty urinating							
Wound disruption/Delayed Healing							
Problems with appearance							
Injury to glans							
Other (Specify):							

1. Has the patient performed normal activities or work since the circumcision?
   Yes ☐ No ☐

2. How many days after the circumcision did the patient resume normal activities or work?
   ..... days

Name of Doctor: .....

Signature ..... Date: .....

Annexure A5: Medical Male Circumcision: Adverse Event Reporting Tool

ADVERSE EVENT (AE) REGISTER													
NO.	DATE	CLIENT NAME & SURNAME	AGE	FILE NUMBER	DATE OF VMMC	DATE AE WAS FIRST OBSERVED	TYPE OF AE (e.g. BLEEDING, INFECTION)	SEVERITY OF AE (√)			TREATMENT/PLAN	OUTCOME/COMMENT	STAFF NAME & SIGNATURE
								MILD	MODERATE	SEVERE			
1	YYYY/MM/DD				YYYY/MM/DD	YYYY/MM/DD							
2													
3													
4													
5													
6													
7													
8													
9													
10													
							TOTALS:						

SEVERE ADVERSE CLINIC REPORT

Clinic:

Nearest Hospital:

Sub-district: Month: MM / YYYY

District:

Province:

Totals of Severe Adverse Events per type

	Abcess formation		Scarring / disfigurement
	Bleeding		Sexual complications
	Damage to Penis		Swelling / haematoma
	Excessive skin removal		Torsion
	Insufficient skin		Voiding problems
	Infection		wound dehiscence
	Pain		

Total of All Severe Adverse Events:

Comments:

Name of Facility Manager:

Signature of FM..... Date: DD / MM / YYYY

SEVERE ADVERSE EVENT DISTRICT REPORT

District: Month

Province:

Totals of Severe Adverse Events per type

	Abcess formation		Scarring / disfigurement
	Bleeding		Sexual complications
	Damage to Penis		Swelling / haematoma
	Excessive skin removal		Torsion
	Insufficient skin		Voiding problems
	Infection		wound dehiscence
	Pain		

Total of All Severe Adverse Events:

Comments:

Name of District Manager:

Signature of DM:..... Date: D D / M M / Y Y Y Y

To be completed for a patient presenting with an adverse event related to male circumcision.

Clinic name: _____

Form completed by: _____ Date:__ __ / __ __/ 20___(dd/mm/20yy)

I. Client Information

Name: _____

ID No:_____

Client File No: _____

Date of visit: ___ ___/__ __/20___ (dd/mm/20yy)

Date of Circumcision: __ __/__ __/20__(dd/mm/20yy)

Clinic where Surgery took place: _____

From exisiting clinical records, when patient presents at same facility where circumcision performed:

Doctor/Operator (who removed foreskin): _____

Nurse:_____

II. Adverse Event (first time patient presents with the condition)

Date of AE(s) Diagnosis: __ __ /__ __ / 20__ (dd/mm/20yy)

	A	Intra-operative or prior to leaving clinic
	B	Up to 30 days post-operative
	C	More than 30 days post-operative

Clinician Name: _____

Signature: _____

ANNEXURE B: COMMUNICATION SKILLS AND TECHNIQUES

Communication techniques

To assure a supportive environment that meets the needs of an individual and results in a positive client experience, the provider must use various communication techniques, including verbal and non-verbal language. Examples include:

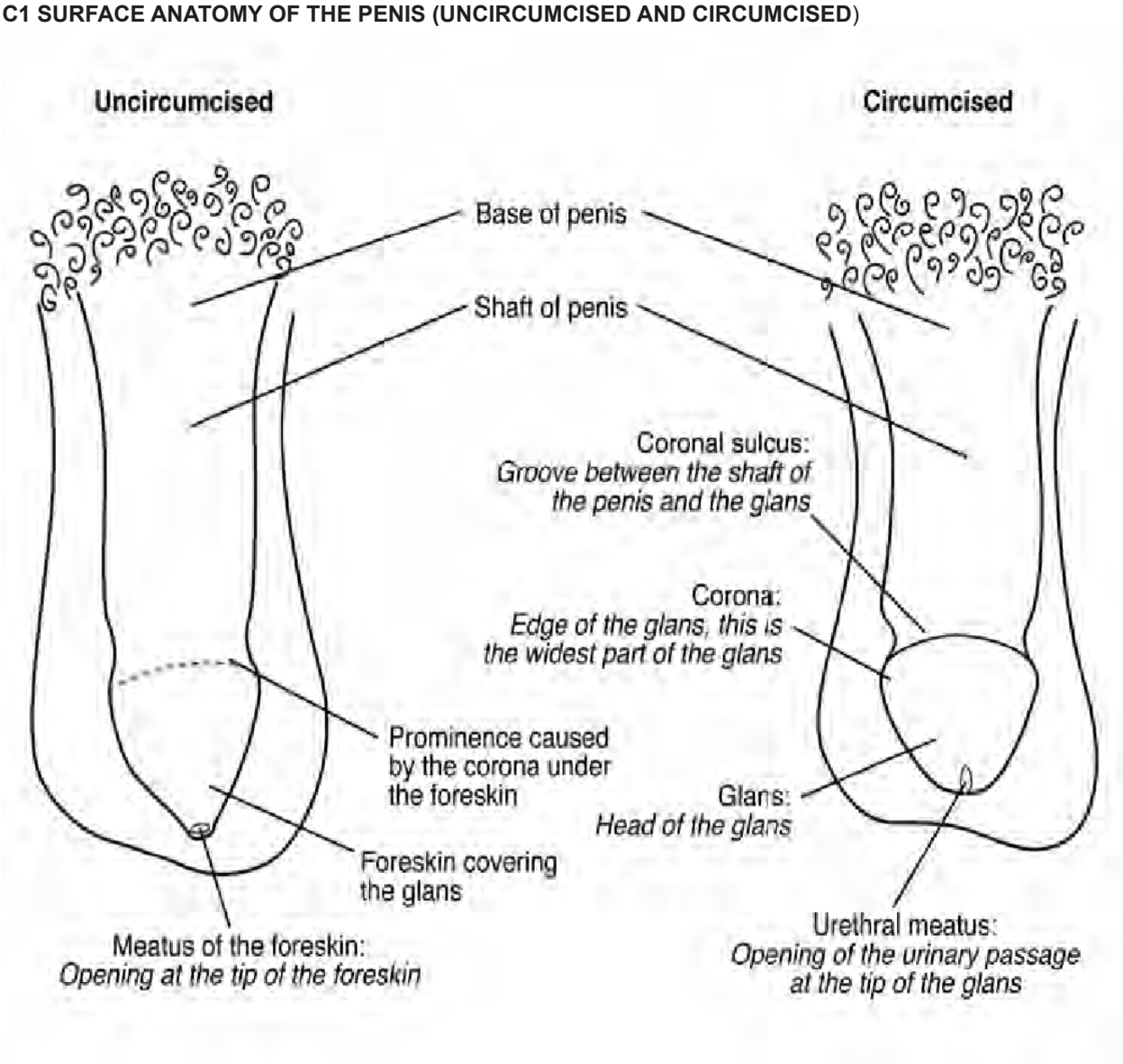
- Greeting the client by name
- Introducing themselves by name to the client
- Making eye contact with the client
- Shaking hands with the client, if appropriate
- Being friendly and welcoming to the client
- Having empathy for and being nonjudgmental with the client
- Engaging in nonverbal communication with the client

Basic communication skills

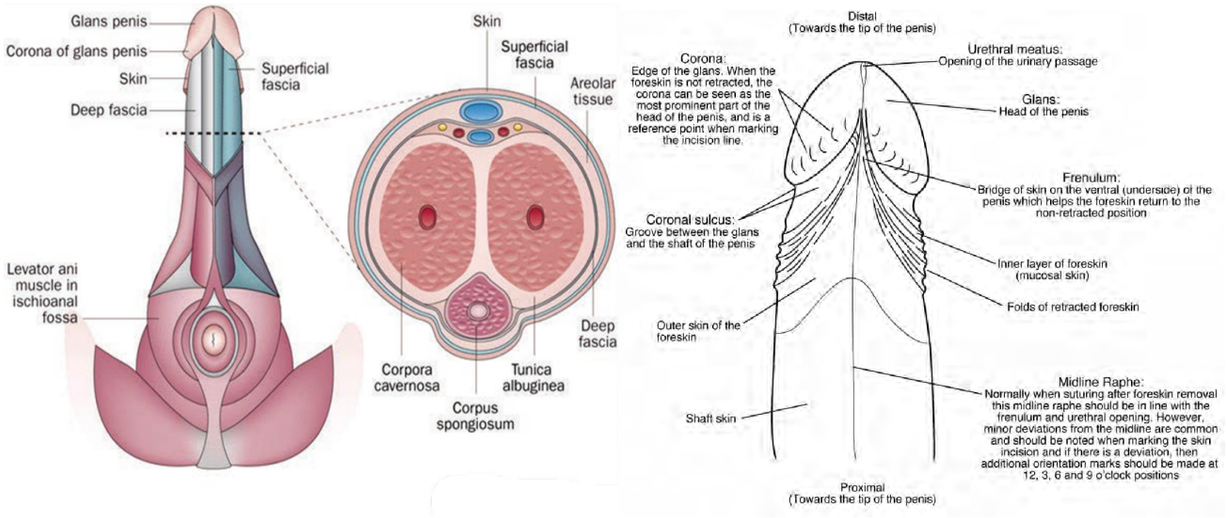
- Active listening – paying attention to a client in a way that shows respect, interest, and empathy
- Acknowledging feelings – has to do with the emotional layer of a conversation.
- Asking questions – Open-ended questions can enrich a conversation,
- Summarising – This helps to ensure that the client and provider understand each other correctly.
- Encouraging – Can affirm a client's decision to undergo male circumcision.
- Maintaining confidentiality – Every provider is ethically bound to keep all personal information about clients under their care.
- Showing empathy – the act of seeing the world through another person's eyes and understanding how that person feels from their point of view.

ANNEXURE C: ANATOMY OF PENIS

C1 SURFACE ANATOMY OF THE PENIS (UNCIRCUMCISED AND CIRCUMCISED)



C2 DETAILED ANATOMY OF THE PENIS



C3 PENILE NERVE SUPPLY

The nerve supply of the penis is the twin dorsal penile nerves. These nerves are at the top and sides of the penis, at the 11 o'clock and 1 o'clock positions near the base of the penis. They fan out towards the glans.

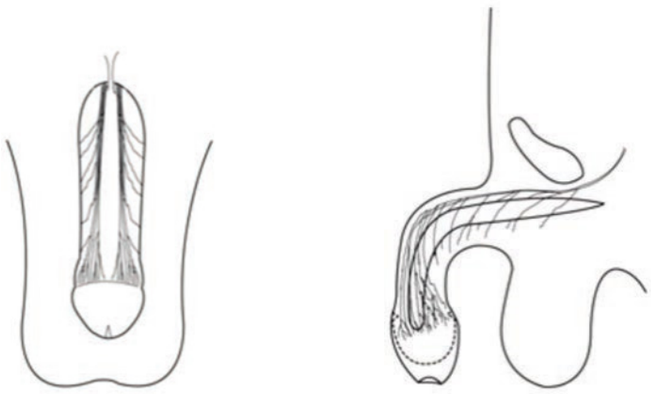
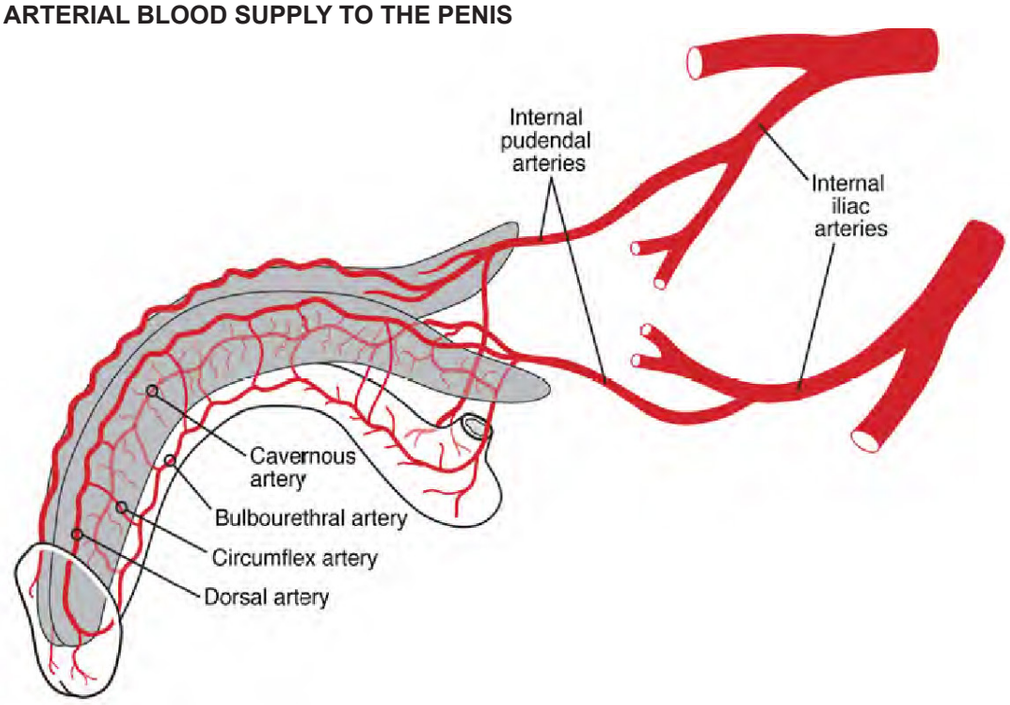
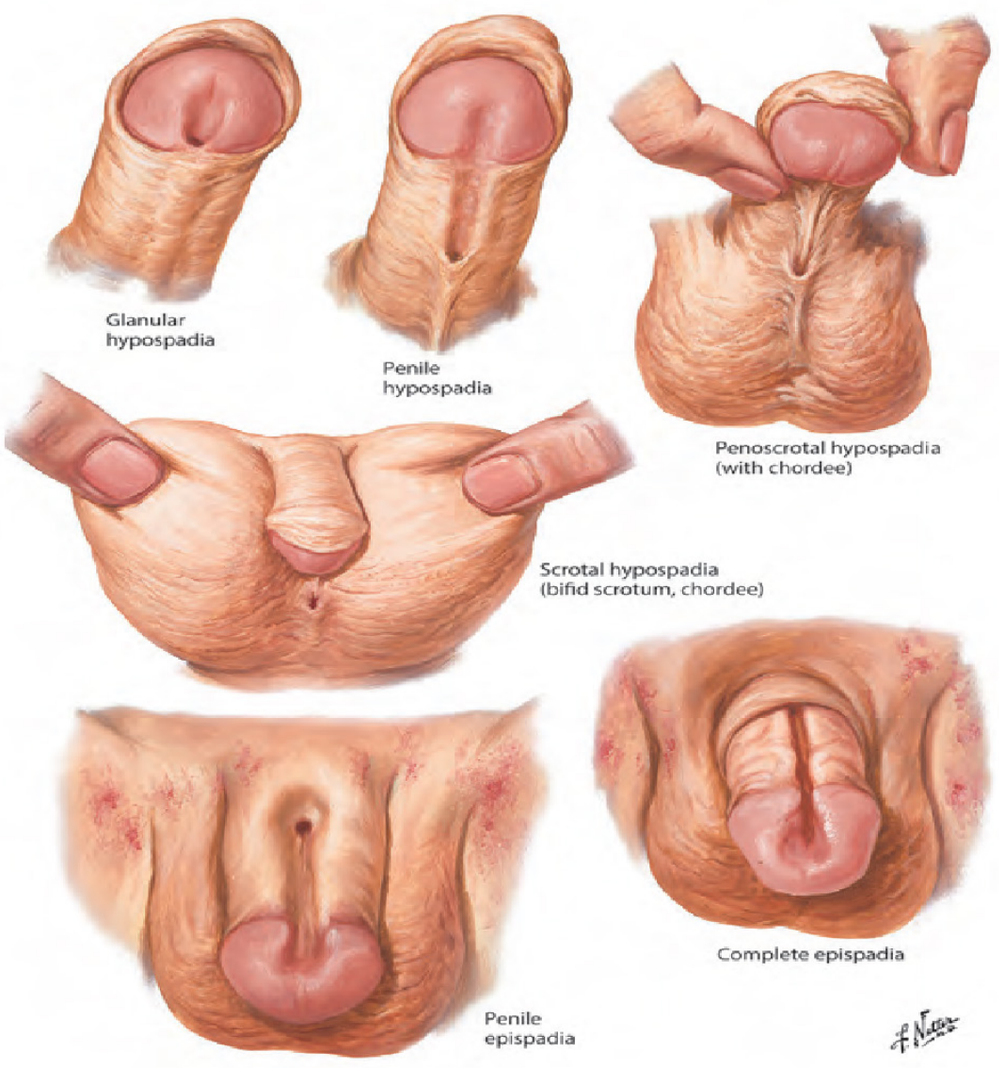


Figure: Nerve supply to the penis The twin dorsal penile nerves emerge from under the pubic bone at the 11 o'clock and 1 o'clock positions and fan out towards the glans.

C4 ARTERIAL BLOOD SUPPLY TO THE PENIS



C5 SELECTED ANATOMICAL ABNORMALITIES OF THE PENIS



Glanular hypospadias, shaft hypospadias, and shaft epispadias,

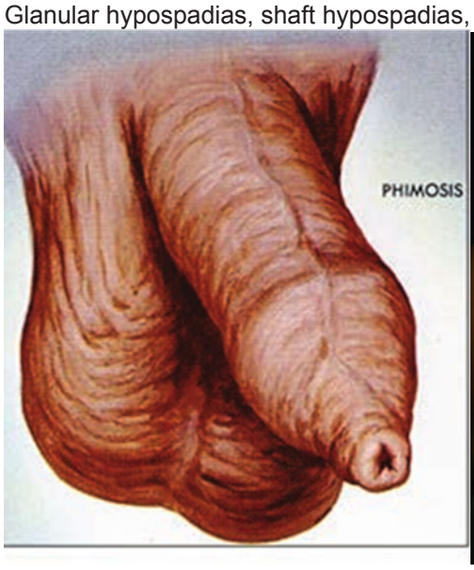


Figure: Phimosis

ANNEXURE D: BASIC SURGICAL SKILLS

Surgical Handrubbing Technique

- Handwash with soap and water on arrival to OR, after having donned theatre clothing (cap/hat/bonnet and mask).
- Use an alcohol-based handrub (ABHR) product for surgical hand preparation, by carefully following the technique illustrated in Images 1 to 17, before every surgical procedure.
- If any residual talc or biological fluids are present when gloves are removed following the operation, handwash with soap and water.

Put approximately 5ml (3 doses) of ABHR in the palm of your left hand, using the elbow of your other arm to operate the dispenser.

Dip the fingertips of your right hand in the handrub to decontaminate under the nails (5 seconds).

Images 3-7: Smear the handrub on the right forearm up to the elbow. Ensure that the whole skin area is covered by using circular movements around the forearm until the handrub has fully evaporated (10-15 seconds).

Images 8-10: Now repeat steps 1-7 for the left hand and forearm.

Put approximately 5ml (3 doses) of ABHR in the palm of your left hand as illustrated, to rub both hands at the same time up to the wrists, following all steps in Images 12-17 (20-30 seconds).

Cover the whole surface of the hands up to the wrist with ABHR, rubbing palm against palm with a rotating movement.

Rub the back of the left hand, including the wrist, moving the right palm back and forth, and vice-versa.

Rub palm against palm back and forth with fingers interlinked.

Rub the back of the fingers by holding them in the palm of the other hand with a sideways back and forth movement.

Rub the thumb of the left hand by rotating it in the clasped palm of the right hand and vice versa.

When the hands are dry, sterile surgical clothing and gloves can be donned.

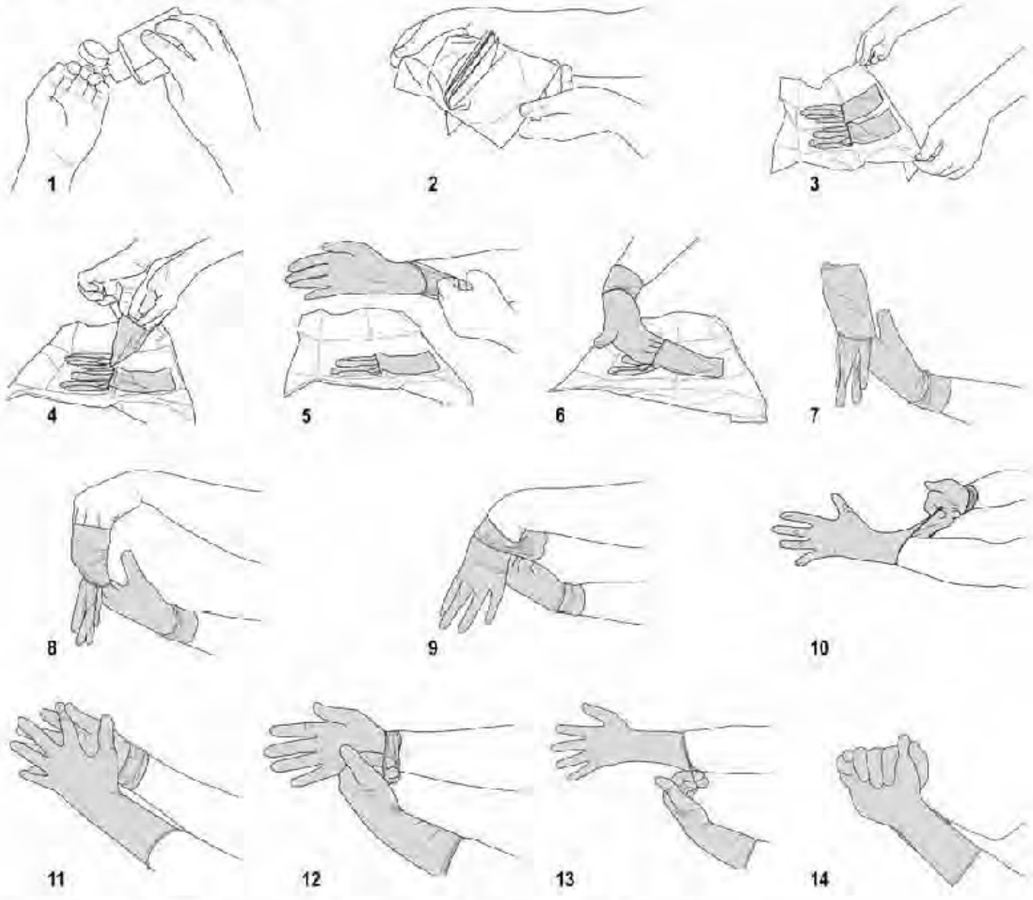
Repeat this sequence (average 60 sec) the number of times that adds up to the total duration recommended by the ABHR manufacturer's instructions. This could be two or even three times.

World Health Organization

Putting on surgical gloves

The purpose of this technique is to ensure maximum asepsis for the patient and to protect the health-care worker from the patient's body fluid(s). To achieve this goal, the skin of the health-care worker remains exclusively in contact with the inner surface of the glove and has no contact with the outer surface. Any error in the performance of this technique leads to a lack of asepsis requiring a change of gloves.

I. HOW TO DON STERILE GLOVES



1. Perform hand hygiene before an "aseptic procedure" by handrubbing or hand washing.
2. Check the package for integrity. Open the first non-sterile packaging by peeling it completely off the heat seal to expose the second sterile wrapper, but without touching it.
3. Place the second sterile package on a clean, dry surface without touching the surface. Open the package and fold it towards the bottom so as to unfold the paper and keep it open.
4. Using the thumb and index finger of one hand, carefully grasp the folded cuff edge of the glove.
5. Slip the other hand into the glove in a single movement, keeping the folded cuff at the wrist level.

6-7. Pick up the second glove by sliding the fingers of the gloved hand underneath the cuff of the glove.

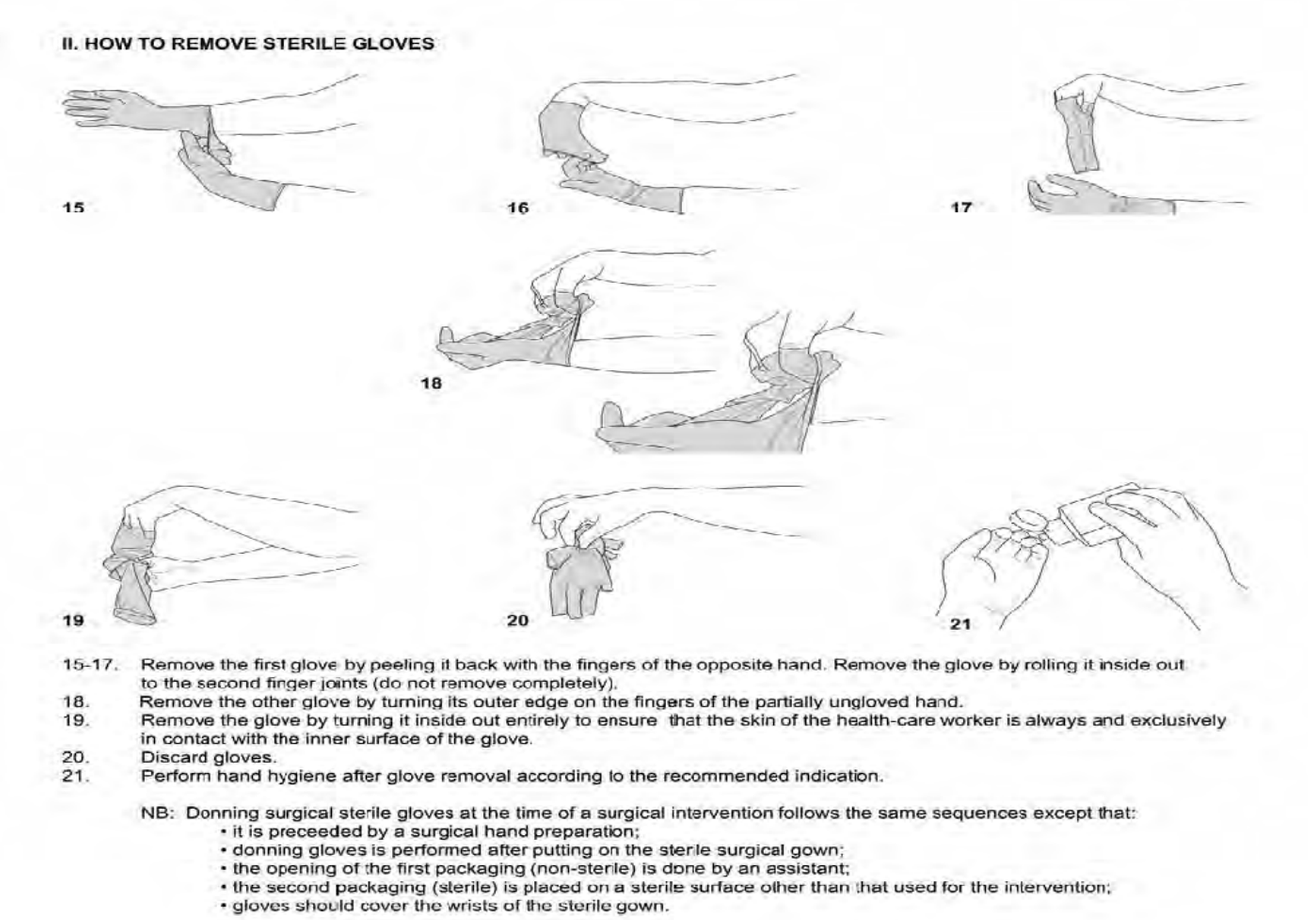
8-10. In a single movement, slip the second glove on to the ungloved hand while avoiding any contact/resting of the gloved hand on surfaces other than the glove to be donned (contact/resting constitutes a lack of asepsis and requires a change of glove).

11. If necessary, after donning both gloves, adjust the fingers and interdigital spaces until the gloves fit comfortably.

12-13. Unfold the cuff of the first gloved hand by gently slipping the fingers of the other hand inside the fold, making sure to avoid any contact with a surface other than the outer surface of the glove (lack of asepsis requiring a change of gloves).

14. The hands are gloved and must touch exclusively sterile devices or the previously-disinfected patient's body area.

Taking off surgical gloves



15-17. Remove the first glove by peeling it back with the fingers of the opposite hand. Remove the glove by rolling it inside out to the second finger joints (do not remove completely).
18. Remove the other glove by turning its outer edge on the fingers of the partially ungloved hand.
19. Remove the glove by turning it inside out entirely to ensure that the skin of the health-care worker is always and exclusively in contact with the inner surface of the glove.
20. Discard gloves.
21. Perform hand hygiene after glove removal according to the recommended indication.

NB: Donning surgical sterile gloves at the time of a surgical intervention follows the same sequences except that:

- it is preceeded by a surgical hand preparation;
- donning gloves is performed after putting on the sterile surgical gown;
- the opening of the first packaging (non-sterile) is done by an assistant;
- the second packaging (sterile) is placed on a sterile surface other than that used for the intervention;
- gloves should cover the wrists of the sterile gown.

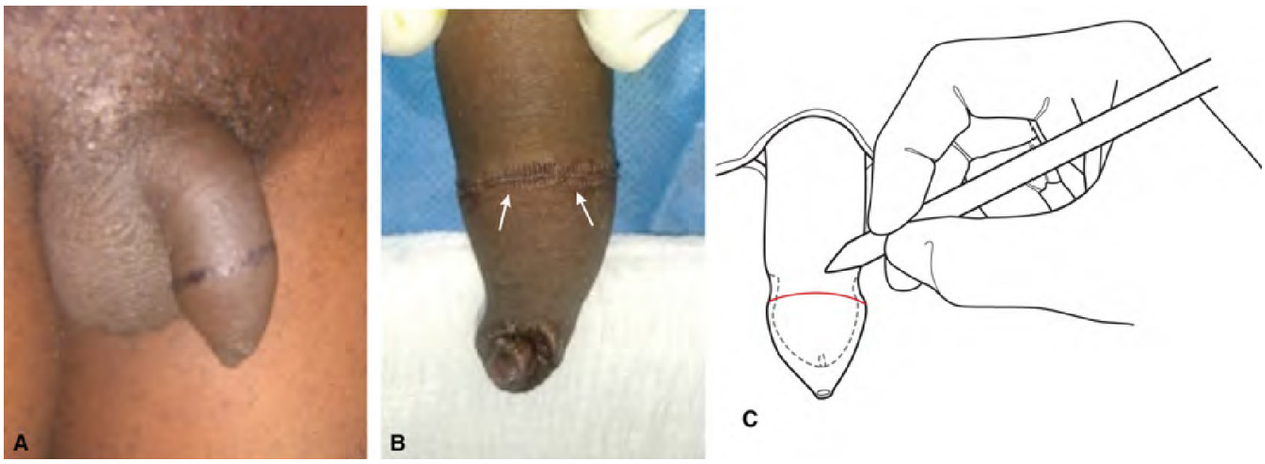
Recapping of needles technique

Step 1: Place the cap on a flat surface like the table or counter with something firm to 'push' the needle cap against.

Step 2: Holding the syringe with the needle attached in one hand, slip the needle into the cap without using the other hand.

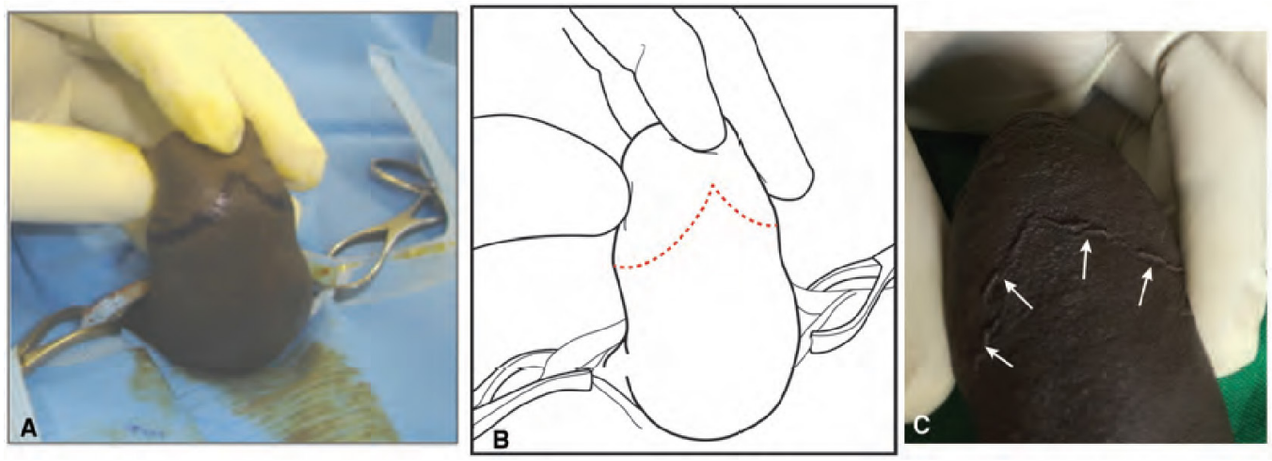
Step 3: Push the capped needle against a firm object using only one hand to firmly seat the cap onto the needle.

Marking the male circumcision line



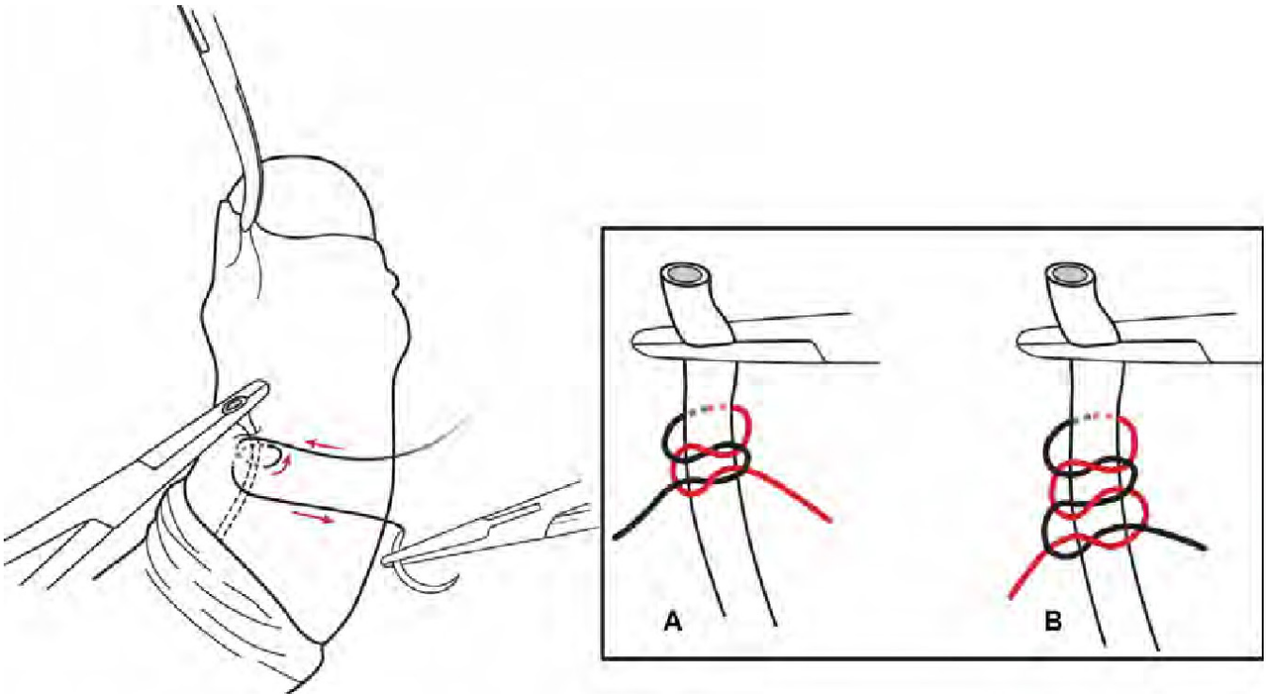
(A and C) The mark is made just distal (further towards the tip of the penis) to the prominence of the coronal ridge. (B) If a marking pen is not available, small pinch marks can be made with forceps.

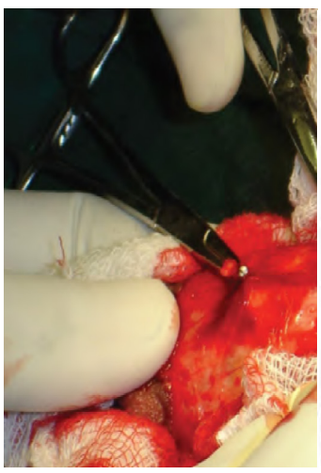
Marking the V-shaped line

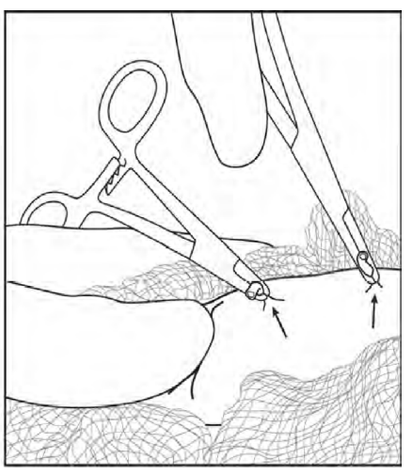


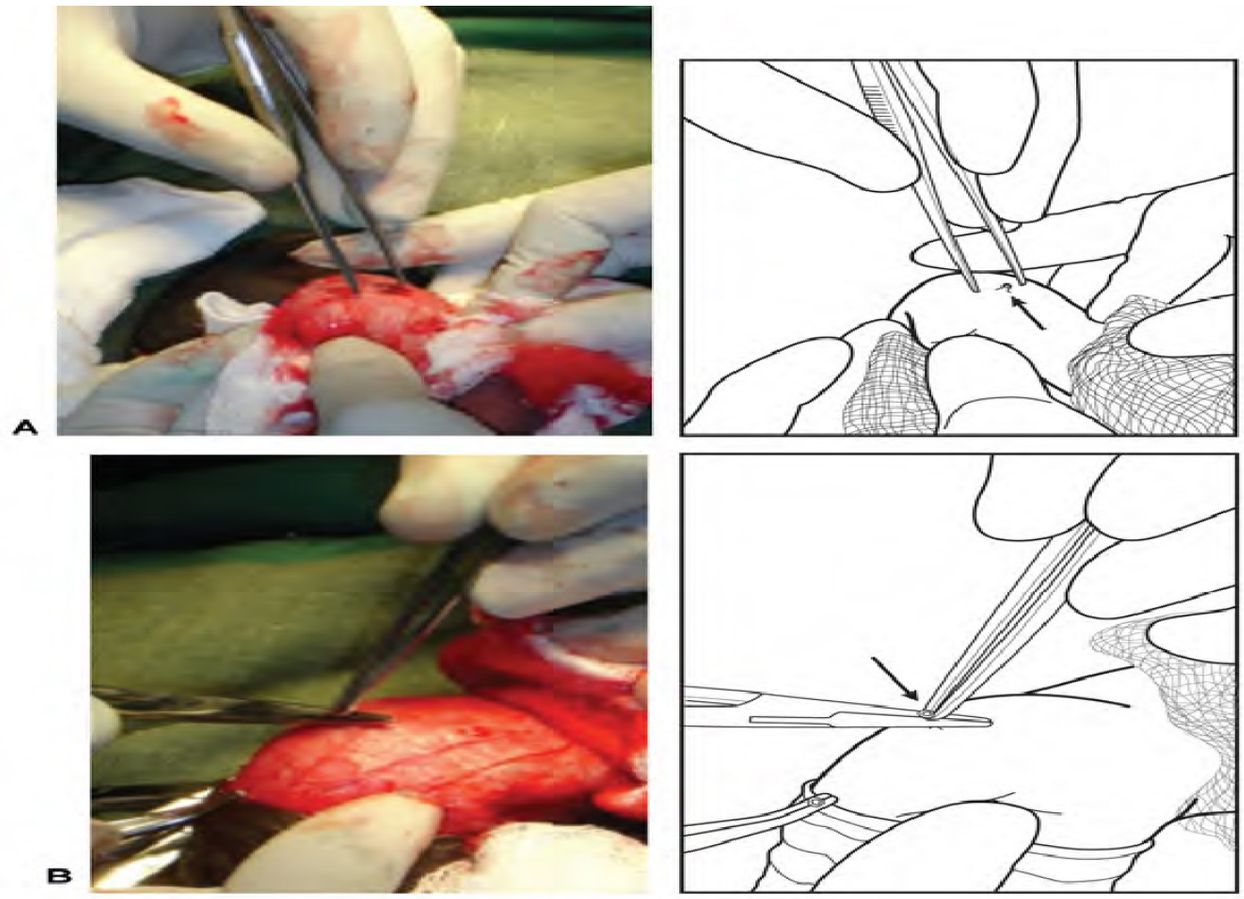
When marking before the sleeve and dorsal slit procedures, mark a V-shaped line with the apex of the V pointing towards the glans and frenulum. This V-shaped mark is not needed for the forceps-guided method, because the forceps guide the line of the incision.

Stopping the bleeding





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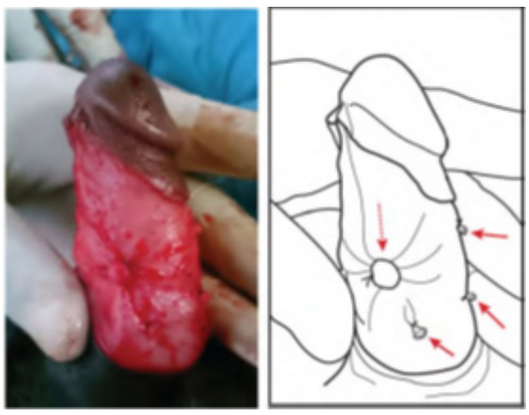
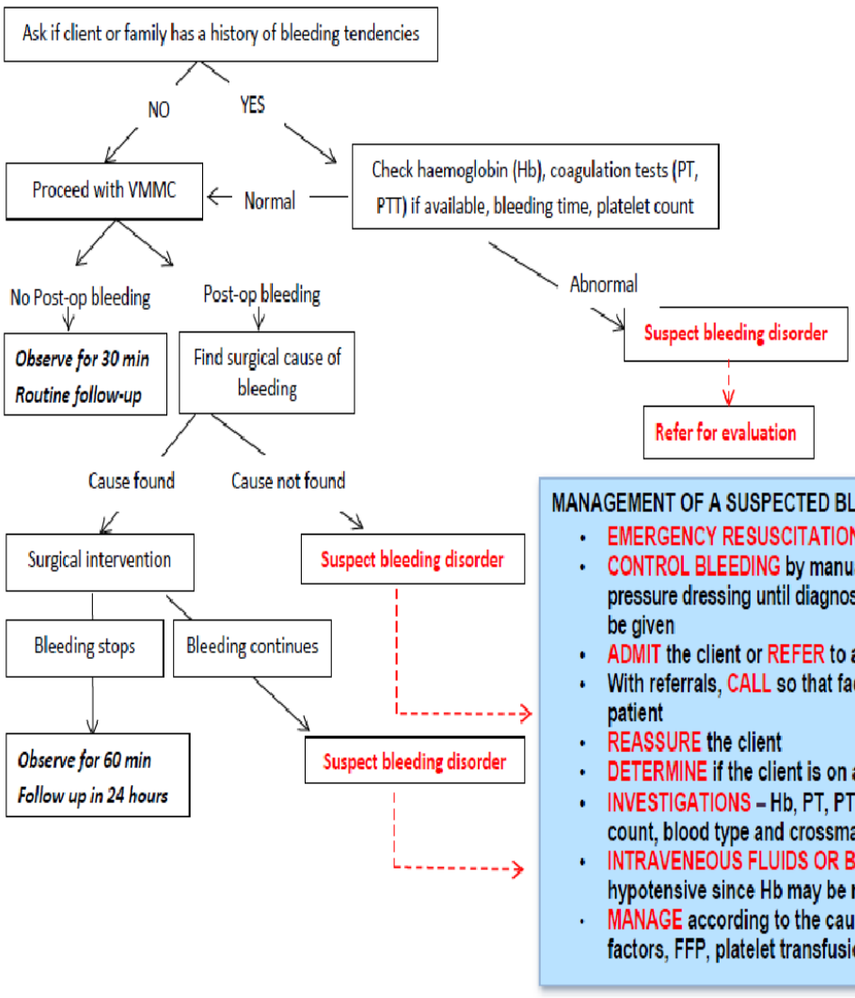


ALGORITHM FOR PREVENTION AND MANAGEMENT OF ACUTE BLEEDING DURING AND AFTER MC



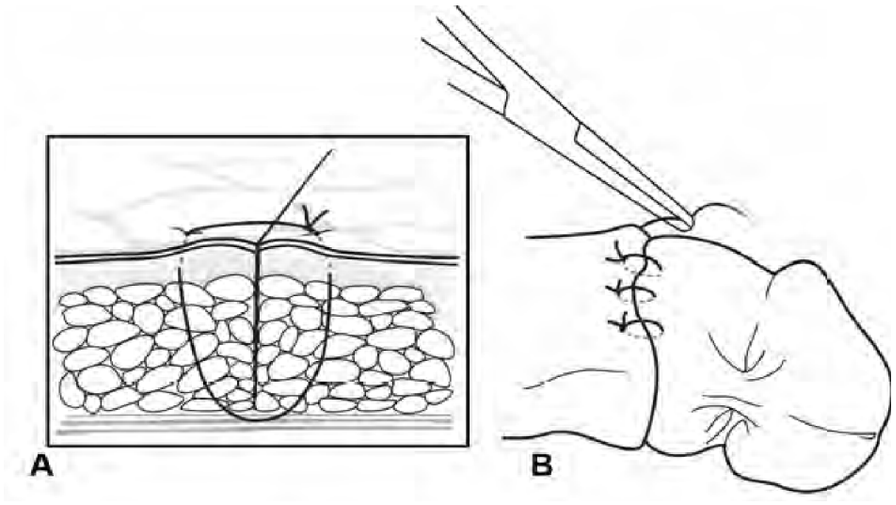
MANAGEMENT OF A SUSPECTED BLEEDING DISORDER:

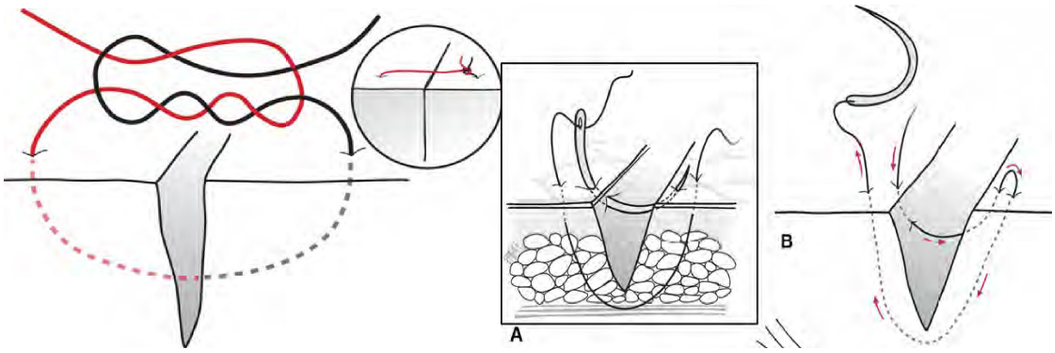
- EMERGENCY RESUSCITATION if in hypovolemic shock
- CONTROL BLEEDING by manual compression and/or pressure dressing until diagnosis and definitive treatment can be given
- ADMIT the client or REFER to a higher facility
- With referrals, CALL so that facility can get ready for the patient
- REASSURE the client
- DETERMINE if the client is on anticoagulant therapy
- INVESTIGATIONS – Hb, PT, PTT, bleeding time, platelet count, blood type and crossmatch
- INTRAVENEOUS FLUIDS OR BLOOD TRANSFUSION if hypotensive since Hb may be normal after acute bleeding
- MANAGE according to the cause—e.g., Vitamin K, clotting factors, FFP, platelet transfusion etc.

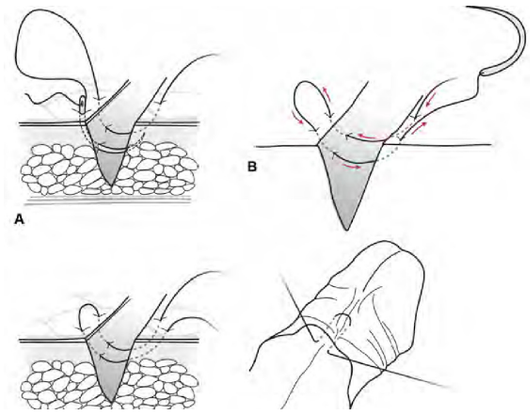
Adapted from JHPIEGO

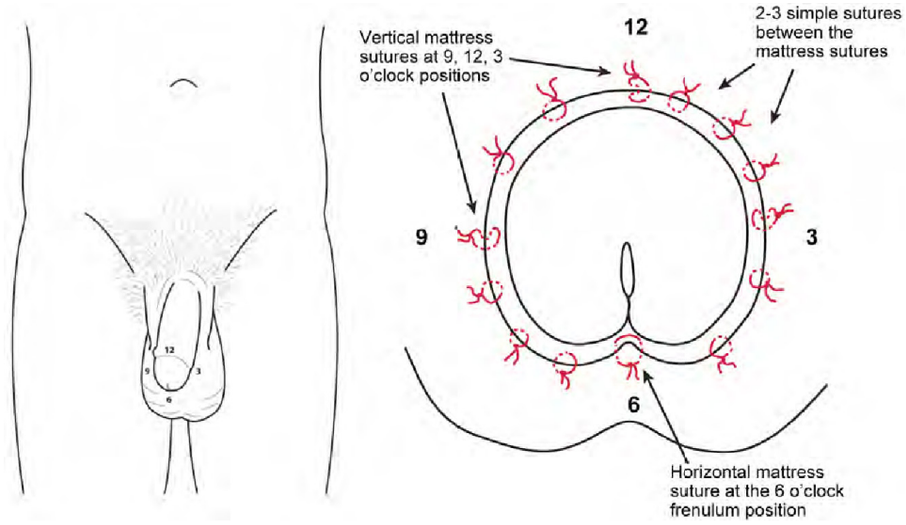
Placing the sutures

Different types of suturing techniques



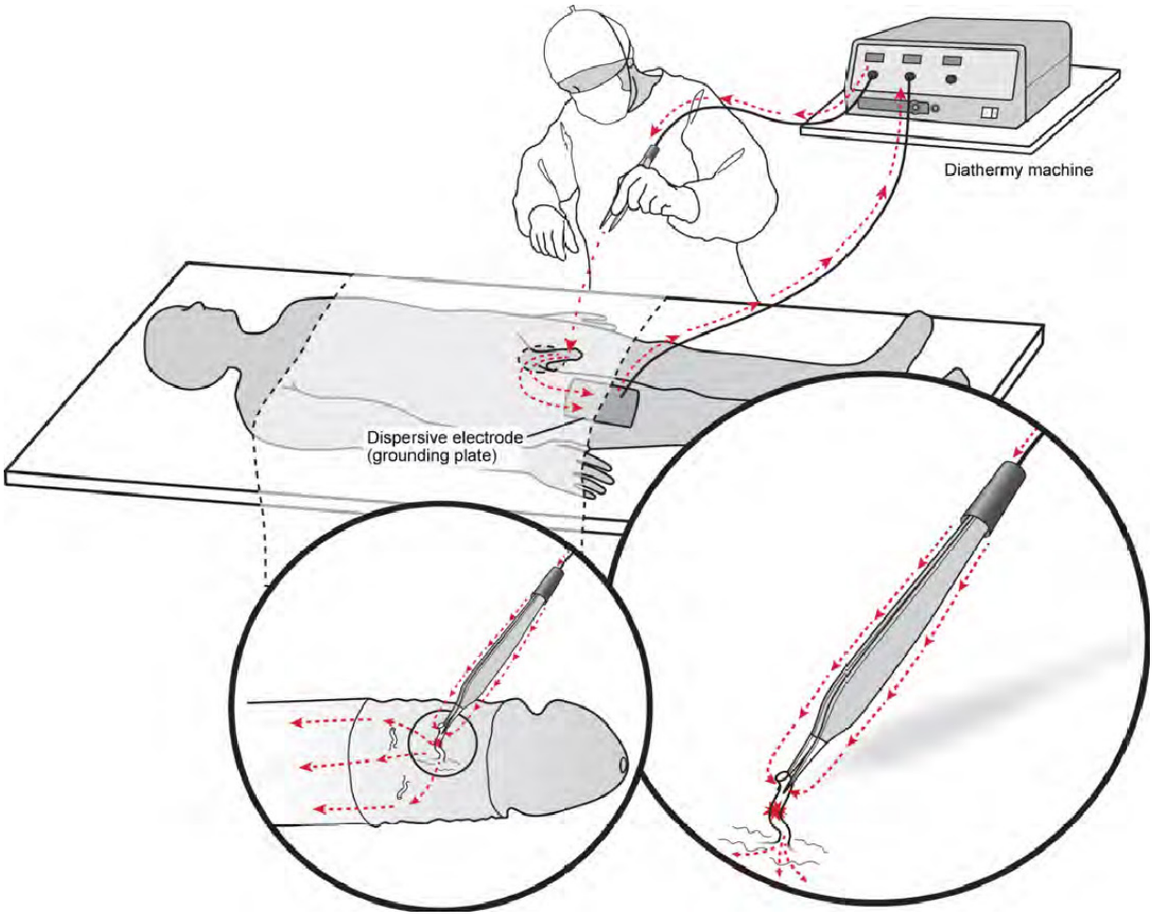






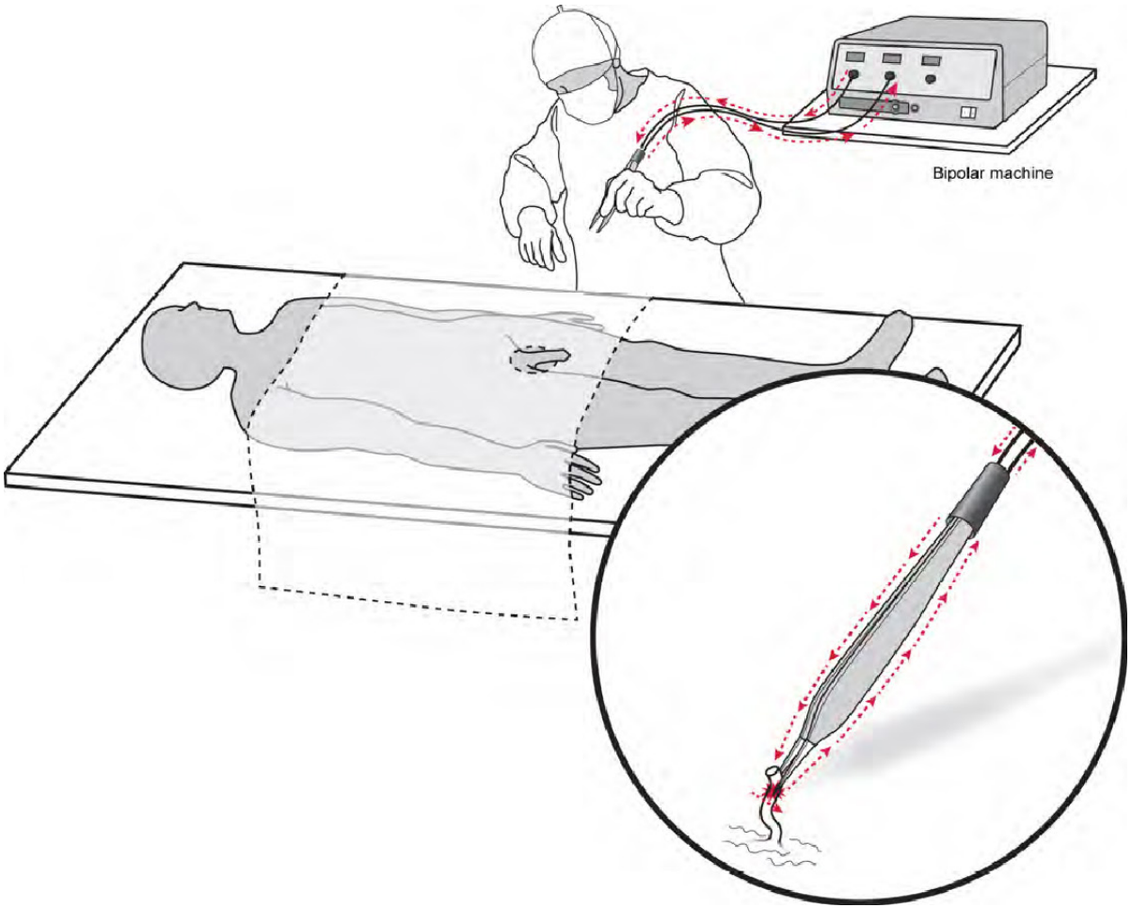
Bipolar diathermy

Monopolar Diathermy Circuit



The client's skin should be dry at the site of the plate application. Also, the plate should not be applied to an area that is too hairy because this may prevent proper contact between the plate and the skin.

Bipolar diathermy circuit



ANNEXURE E: ADVERSE EVENTS

E1 EXCESSIVE BLEEDING

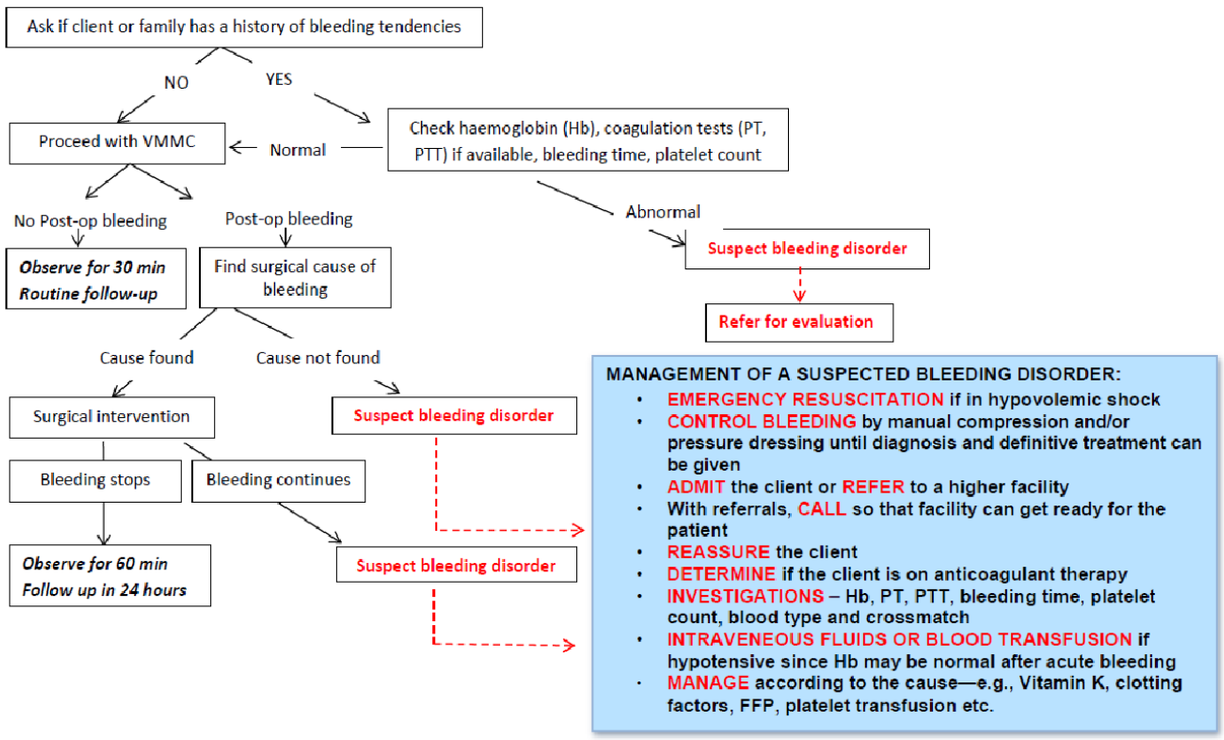


Figure: E.1 Algorithm for prevention and management of acute bleeding during and after mc

Adapted from JHPIEGO

MC-related bleeding AEs typically occur in the first 72 hours after the procedure. Bleeding-related AEs occurring after 72 hours are often associated with new trauma to the genital area, such as early commencement of masturbation or sexual intercourse, a previously unidentified bleeding vessel, or a bleeding disorder.

Bleeding related to MC is classified according to when the excessive bleeding occurs and by the extent and persistence of bleeding:

- Ongoing intra-operative or immediate post-operative bleeding (classified as A for surgery and A1 for devices).
- Post-operative bleeding (classified as B or C for surgery or A2, B or C for devices), though significant bleeding is unlikely after 72 hours of Bleeding related to device circumcision for PrePex and ShangRing may occur at the time of removal of the device and would be classified accordingly (i.e., as category B)

Adverse event	Mild	Moderate	Severe
Description: Excessive Bleeding Intra-operative or prior to discharge from the clinic Surgery	A-BL: Intra-operative bleeding that is more significant than usual or post-operative spotting of the bandage with blood; both are easily controlled.	A-BL: Intra-operative bleeding or bleeding that occurs prior to discharge that requires a pressure dressing to control or that requires additional skin sutures without surgical re-exploration of the wound.	A-BL: Intra-operative bleeding requiring blood transfusion, transfer to another facility, or hospitalisation; or post-operative bleeding that requires surgical re-exploration, hospitalisation, or transfer to another facility.
Treatment	**FOR SURGERY** • Apply pressure manually with gauze swab and maintain for 5 minutes. Use a clock to measure the time, and do not lift the gauze to check until the time is done. • Gently remove the swab. If the bleeding has stopped, reapply the wound dressing. • If bleeding continues, this is a moderate AE. **FOR DEVICE** • Apply pressure manually while taking care not to move or displace the device and maintain it for 5 minutes. • If bleeding continues, this is a moderate AE.	**FOR SURGERY** • Apply pressure manually with gauze swab and maintain for 5 minutes. Use a clock to measure the time, and do not lift the gauze to check until the time is done. • Gently remove the swab and attempt to identify the origin of the bleeding vessel. • If the wound is closed or partially closed, remove sutures since it is easy to miss a bleeding vessel under a fold of skin. • Re-administer local anaesthesia if necessary. • If the bleeding vessel is identifiable, place a suture at that point and tie it securely or use electrocautery for haemostasis if the bleeding area is not in the vicinity of the frenulum. • If the bleeding vessel is not identifiable, under-run the bleeding area by starting at a dry point and insert continuous sutures that cross the bleeding area, ending with a knot at a dry part of the surface. • For difficult frenular bleeds, place an additional vertical mattress suture. Great care is needed not to place the suture too deeply because the urethra is near the surface of the skin and can easily be damaged. • Be prepared to call for a more experienced provider and/or refer (see severe AE management). **FOR DEVICE** • When applying any pressure or pressure dressing to the wound, take care not to displace or move the device. • Unless the source of bleeding can be identified and controlled with pressure, it is likely that the device will need to be removed and a surgical circumcision performed; this will be classified as a severe event.	**FOR SURGERY** • Refer to the higher-level facility. • Apply manual pressure to control bleeding during transfer of the client. • Establish intravenous access and administer crystalloid replacement fluids (e.g., sodium chloride) of 1–2 litres. • Re-exploration of the wound should be performed with good lighting and removal of all sutures so that there can be a thorough inspection of the wound. • If there is excessive bleeding from the frenular artery, an underrunning haemostatic stitch should be used to occlude the artery. Avoid biting too deeply, which can damage the urethra. • If one or two re-explorations of the wound have failed to identify a distinct bleeding vessel, but the bleeding continues, suspicion for a bleeding disorder should be high. In this case, further re-exploration is unlikely to benefit the patient and may worsen bleeding. The focus should be on correcting clotting deficiencies. **ADVANCED MANAGEMENT IN BLEEDING DISORDERS** • For clients with likely bleeding disorders treated in high-level facilities: • In those who respond well to factor VIII, continue infusions for 7 days to allow healing and prevent rebleeding. • Re-exploration should be avoided if possible, but if necessary (e.g., to remove clots), pretreatment with appropriate clotting factors can help prevent bleeding. Consult haematology. • Haematology consultation by phone may be sufficient and helpful if not available on-site. **FOR DEVICE** • As above for surgery. • The management is the same as for severe bleeding after surgery, except that it will probably be necessary to remove the device and convert to a surgical circumcision.

E2 INFECTION

Defined as: The condition resulting from the invasion of the body by pathogenic microorganisms.

Infection-related AEs may present as soon as the second day post-operatively or post-device placement, and typically present in the first two weeks following foreskin removal (timing classification B or C for surgery, C for devices). However, problems related to the effects of severe wound infections can present months or even years later.

Wound infection severity can fall anywhere on a broad spectrum, ranging from mild/moderate manifestations of wound infections to serous wound discharge and suture margin infections to severe wound disruption secondary to infection, abscess formation, areas of wound or skin necrosis, disfigurement, and sepsis. Mild infections can be treated conservatively with local wound cleaning and dressing changes. Moderate or severe infections should be treated with systemic antibiotics. Topical antibiotics usually should not be used.

Adverse event	Mild	Moderate	Severe
Description: Infection Surgery	B/C-IN: Erythema or traces of serous discharge or infective process noted at the wound margin. No intervention other than improved wound hygiene.	B/C-IN: Discharge from the wound, painful swelling with erythema, or elevated temperature that requires the use of oral antibiotics.	B/C-IN: Cellulitis or abscess of the wound or infection severe enough to require surgical intervention, hospitalisation, or intravenous or intramuscular antibiotics.
Description: Infection Device	A2/C-IN: Erythema or traces of serous discharge or infective process noted at the wound margin. No intervention	A2/C-IN: Discharge from the wound, painful swelling with erythema, or elevated temperature that requires the use of oral antibiotics.	A2/C-IN: Cellulitis or abscess of the wound or infection severe enough to require surgical intervention, hospitalisation, or intravenous or intramuscular antibiotics.
TREATMENT	**For Surgery** • Explain and emphasize the importance of keeping the wound clean for favourable outcomes in the recovery/ healing period. • Consider daily dressing changes for improved wound hygiene. • Consider treating localised areas of suture margin infection with local care including frequent dressing changes and cleaning. • Topical antibiotics should not be used. • Consider providing a tetanus booster if available and per national policy. **For Device** • Management is as above for surgery. • Any client with symptoms suggestive of tetanus should be immediately transferred to a high-level facility for support, and tetanus immune globulin should be administered as soon as possible.	**For Surgery** • Explain and emphasize the importance of keeping the wound clean for favourable outcomes in the recovery/ healing period. • If significant discharge and pus from the suture margin/wound, marked erythema of surrounding tissue, or elevated temperature, add oral, locally appropriate broad-spectrum antibiotics such as amoxicillin/ clavulanic acid, or following national guidance or locally available drugs. • **Follow-up** initially daily and once improvement is noted at 2–3-day intervals until healing is complete. • Advise any client with infection to contact the provider if pain or discharge worsens or he develops other symptoms such as fever. • Consider providing a tetanus booster if available and per national policy. **For Device** • Management is as above for surgery. • Determine if there is a need to remove the device early as part of the management of the infection, keeping in mind the risk of bleeding when a device is removed early. Depending on the stage of wound healing or foreskin necrosis (in the case of PrePex), the provider will need to decide if surgery is needed. • Any client with any signs of a necrotising infection, such as rapidly advancing erythema or infection, should be suspected of having a necrotising infection and considered for referral and evaluation for aggressive surgical debridement. • Any client with symptoms suggestive of tetanus should be immediately transferred to a high-level facility for support, and tetanus immune globulin should be administered as soon as possible.	**For Surgery** • Infections accompanied by systemic signs such as fever, chills, and constitutional symptoms should be treated with locally appropriate, broad-spectrum intravenous or intramuscular antibiotics according to national guidelines. • Elevate the penis by strapping it up against the abdominal wall. • For infections that do not improve with treatment, swab the infected area and send for microbiological identification and drug sensitivity testing where laboratory services are available. • Refer for treatment and monitoring. If debridement or abscess drainage are needed, intravenous or intramuscular antibiotics and referral to a surgical provider will be needed. • In the case of an abscess, if a delay of more than 6 hours is expected before the client can reach a referral location, it may be useful to release 1–2 sutures in the hope that the pus will drain. If no pus drains, do not further manipulate. The use of non-absorbable sutures to tie or suture blood vessels can cause an abscess to persist. • Consider providing a tetanus booster if available and per national policy. **For Device** • Management is as above for surgery. • Determine if there is a need to remove the device early as part of the management of the infection, keeping in mind the risk of bleeding when a device is removed early. Depending on the stage of wound healing or foreskin necrosis (in the case of PrePex), the provider will need to decide if surgery or wound closure is needed. • Any client with rapidly advancing erythema or infection should be suspected of having a necrotising infection and considered for referral and evaluation for aggressive surgical debridement. • Any client with symptoms suggestive of tetanus should be immediately transferred to a high-level facility for support, and tetanus immune globulin should be administered as soon as possible.

E3 WOUND DISRUPTION

Defined as: The opening of a wound along surgical suture of the wound margin, also known as wound dehiscence

Wound disruption associated with surgery is classified as B or C only.

Adverse Event	Mild	Moderate	Severe
Consider obtaining serial photographs to document adverse events and progress.			
Description: **Wound Disruption** **Surgery**	B/C-WD: Wound disruption but not extensive enough to require suturing for wound closure (<1.0 cm in length)	B/C-WD: Wound disruption extension enough to require suturing or other clinical intervention but not surgery (≥1.0 cm in length)	B/C-WD: Surgical re-exploration or repair is required, or referral/ transfer to another facility or hospitalisation is required
Description: **Wound Disruption** ***After removal*** **Device**	C/WD: Wound disruption but not extensive enough to require suturing for wound closure	C-WD: Muco-cutaneous gap ≥ 1.0 cm in width, but no exposure of deeper tissue	C-WD: Wound disruption exposing tissue or requiring surgical intervention such as suturing or debridement
Treatment	**For Surgery** • Generally, dehiscence measuring less than 1.0 cm in length (not width) does not require additional sutures • Reassure client that the penis heals well and no further treatment is needed. Advise on adequate wound hygiene and follow-up	**For Surgery** • If circumcision was <48 hours ago and there is no sign of infection, apply additional sutures • If circumcision was over 48 hours ago but would appear clean or any infection has been successfully treated, experienced providers can consider resuturing. Leaving would open may be preferable • If wound disruption and infection present, clean the wound, apply daily dressing, and treat with oral antibiotics such as amoxicillin/ clavulanic acid or by national guidance or locally available drugs	**For Surgery** Refer for further treatment in a surgical unit.
	For Device • A gap between wound skin edges that increases in size from the time of device removal and where there is no exposure of underlying tissue does not constitute an adverse event • Management as above for surgery	**For Device** • Gap is measured as the distance between wound edges for devices, not along the length of the wound as with surgery • Management as above for surgery	**For Device** Management as above for surgery

E4 PAIN

Defined as: An unpleasant sensation related to the circumcision surgery, during either the surgery itself or recovery from the surgery.

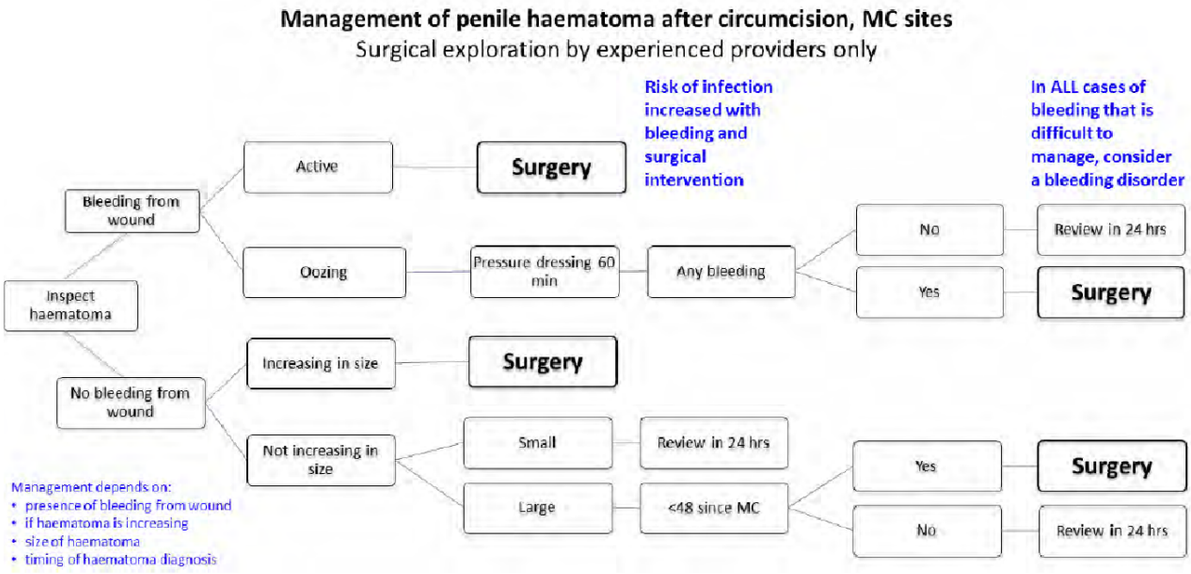
INTRA-OPERATIVE PAIN

Adverse Event	Mild	Moderate	Severe
Description: Pain Intra-operative or prior to discharge from clinic Surgery	A-PA: The Client expresses discomfort but is still able to remain still and cooperate for the procedure. No additional local anaesthetic is required.	A-PA: Pain requiring additional local anaesthesia	A-PA: Pain not responsive to additional local anaesthesia
Description: Pain Intra-operative or prior to discharge from clinic Device	A1-PA: The Client expresses discomfort; however can remain still and cooperate for the procedure	A1-PA: The Client expresses discomfort and is not able to cooperate well with the procedure	A1-PA: Client rates pain as very severe
Treatment	For Surgery Mild pain and/or discomfort is expected when one gets an injection and is, therefore, not medically significant; reassure the client.	For Surgery • Check the local anaesthetic vial with use of injectable anaesthesia (correct substance, expiration date) • Give additional local anaesthetic while remaining within maximum safe dose	For Surgery • Check the local anaesthetic vial with use of injectable anaesthesia (correct substance, expiration date) • If there is severe pain during anaesthetic injection or after administration, postpone the procedure to another day and investigate the cause of the pain
	For Device: Mild pain and/or discomfort is expected and, therefore, not medically significant; reassure the client	For Device: • Check for misplacement of device • In the case of ShangRing, give additional local injectable anaesthetic while remaining within maximum safe dose	For Device: • Check for misplacement of device • Explore reasons for pain/pain perception. • Postpone procedure to another day and investigate the cause of pain

POST-OPERATIVE PAIN

Adverse Event	Mild	Moderate	Severe
Description: **Pain** ***Post-operative*** **Surgery**	B/CA-PA: The Client complains of pain, not requiring more than standard post-operative analgesics and considered within normal thresholds associated with surgery	B/CA: Pain serious enough to result in disability (as evidenced by loss of work or cancellation of normal activities) that lasts for at least one day after surgery	B/CA: Pain serious enough to result in disability (as evidenced by loss of work or cancellation of normal activities) that lasts for at least two days after surgery
Description: **Pain** **During wearing, at removal, and after removal** **Device**	A2/B/C-PA: The Client complains of pain, not requiring more than standard post-operative analgesics and considered within normal thresholds associated with surgery	A2/B/C-PA: Pain serious enough to result in disability (as evidenced by inability to work or perform activities or daily living) lasting for at least one day after device placement or removal. For programmes that utilise a visual analogue scale (VAS) for rating severity, a VAS score of 5-7 (on a 1-10 scale)	A2/B/C-PA: Pain serious enough to result in disability (as evidenced by inability to work or perform activities or daily living) lasting two or more days after device placement or removal. For programmes that utilise a visual analogue scale (VAS) for rating severity, a VAS score of 8-7 (on a 1-10 scale)
Treatment	**For Surgery:** Reassure client and administer oral analgesic agents such as Paracetamol (Acetaminophen) or Ibuprofen	**For Surgery:** • Look for the possible cause of pain (e.g., another AE) and treat that AE • Review the analgesia being used (dosage, frequency, drug expiration) • Reduce ambulation	**For Surgery:** • Look for the possible cause of pain (e.g., another AE) and treat that AE • Review the analgesia being used (dosage, frequency, drug expiration) • Refer to specialist
	For Device: Management of as above	**For Device:** • Management as above for surgery • In some instances, the management of device-related pain may include the early removal of the device. Depending on the stage of wound healing or foreskin necrosis (in the case of PrePex) at the time of removal, the provider will need to decide if surgery or wound closure is needed	**For Device:** Management as above for surgery In some instances, the management of device-related pain may include the early removal of the device. Depending on the stage of wound healing or foreskin necrosis (in the case of PrePex) at the time of removal, the provider will need to decide if surgery or wound closure is needed.

E5 EXCESS SWELLING OF THE PENIS/SCROTUM INCLUDING HAEMATOMA



E6 ANAESTHESIA-RELATED EVENTS

Table 1: Recommended Starting and Maximum Doses for Anaesthetic Agents

Agent	Starting dose	Maximum dose
Lignocaine	2.0 mg/kg	3.0 mg/kg
Lignocaine-bupivacaine combined	1.5 mg/kg-0.3 mg/kg	2.0 mg/kg-0.5 mg/kg

Table 2: Milligrams per Millilitre of Local Anaesthetic

Agent	Mg/ml
Lignocaine 1.0%	10 mg/ml
Lignocaine 2.0%	20 mg/ml
Bupivacaine 0.25%	2.5 mg/ml
Bupivacaine 0.5%	5.0 mg/ml

ANNEXURE F: ADOLESCENT CHANGE CHARACTERISTICS

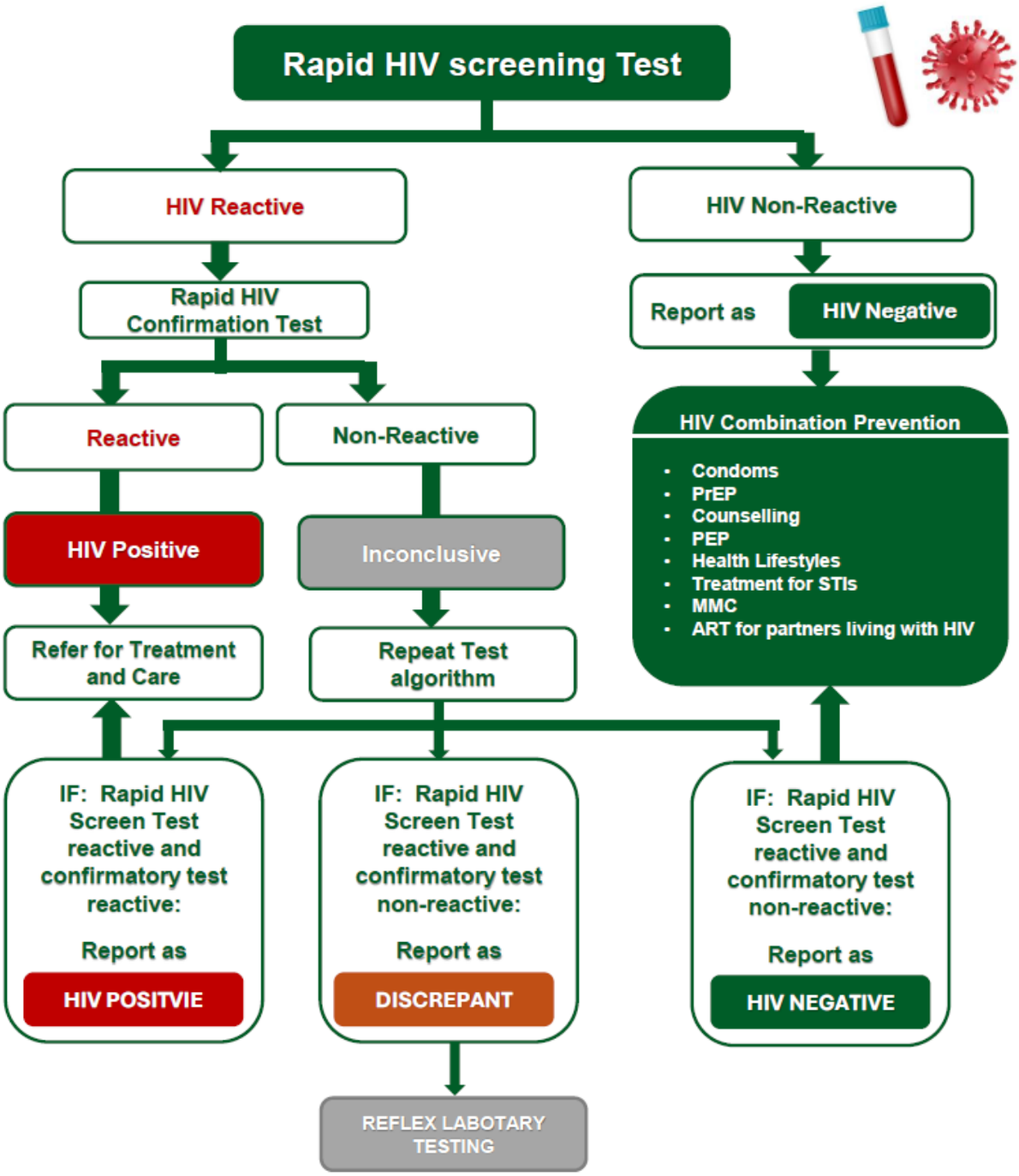
Early 10-12 Years	Middle 13-15 Years	Late 16-19 Years
• Secondary sexual characteristics appear • Testicular growth • Growth spurt • Growth accelerates and reaches a peak	• Secondary sexual characteristics advanced • Growth slows down, and about 95% of adult stature is attained	• Physically mature • Growth spurt usually ends
• Concrete thinking • Existential orientation • Long-range implications of actions not perceived	• Thinking is more abstract • Capable of long-range thinking • Reverts to concrete thinking when stressed	• Established abstract thinking • Future-oriented • Perceives long-range options
• Preoccupied with rapid physical growth and body image	• Re-establishes body image • Preoccupied with fantasy and idealism • Sense of invincibility	• Intellectual and functional identity established
• Defining boundaries of independence and dependence	• Conflicts over control	• Transposition of child-parent(s)/ guardian(s) relationship to adult-adult relationships
• Seeks affiliation to counter instability	• Needs identification to affirm self-image • Peer group defines behavioural code	• Peer group recedes in favour of individual friendship
• First ejaculation • Self-exploration and evaluation	• Preoccupied with romance • Ability to attract the opposite sex	• Plans for the future

ANNEXURE G: POST-EXPOSURE PROPHYLAXIS

Type of PEP based on mechanism of exposure

Type of prophylaxis	Mechanism of exposure (see Box 2)			Timeframe within which PEP is most likely to be effective	Prophylaxis is not indicated if
	Exposure to blood or other infectious bodily fluids (occupational or inadvertent exposures)	**Sexual exposure**	**Wounds** Cuts, abrasions, punctures, bites, and other open wounds		
HIV prophylaxis	✓	✓		Within **72 hours**	The following exposures do not require HIV PEP: • If the exposed individual is already HIV-positive. • If the source is confirmed HIV-negative by laboratory ELISA test and the window period has been excluded. • Exposure to bodily fluids that do not pose a significant risk of HIV transmission: tears, non-bloodstained saliva, sweat and urine.
HBV prophylaxis	✓	✓	**Human bites** require prophylaxis for HBV	Within **7 days** after perinatal and needle stick exposures Within **14 days** after sexual exposure	There is NO need for investigation and therapeutic intervention if the exposed person: • Has HBV infection at the time of exposure • Was vaccinated with known good response • If the source is HBsAg-negative, even if the exposed individual is not vaccinated or does not know their vaccination status. Refer these clients for testing and vaccination.
Emergency contraception		✓		As soon as possible, but within 5 days of unprotected intercourse	The following women do not require emergency contraception: • Women who are already pregnant • Women who are covered by other means of contraception, • Prepubescent girls who have not started menstruating and who have NO signs of breast development.
STI prophylaxis		✓		Within **72 hours**	
Tetanus prophylaxis			✓	Within **48 hours**	History of > 3 doses of adsorbed tetanus toxoid-containing vaccine

ANNEXURE H: South African National HIV testing algorithm



The guideline further emphasises that medical male circumcision must be set within the context of other strategies for reducing the risk of HIV infection.

Other relevant documents are:

Document	Description
Surgical care at the district hospital (WHO, 2003)[1]	Provides guidance for non-specialist healthcare providers who practice surgery and anaesthesia. It provides a comprehensive guide to surgical procedures that are commonly performed at the district hospital. It is intentionally limited to emergency and very common problems and is not designed as a major textbook of surgery.
Operational guidance for scaling up male circumcision services for HIV prevention (WHO/UNAIDS, 2009)	Provides operational and programmatic guidance to decision-makers, programme managers, and technical support agencies on scaling up programmes in the public and private sectors.
Male circumcision quality assurance: A guide to enhancing the safety and quality of services (WHO, 2008)	Outlines the roles and responsibilities of national and district programme managers for implementing safe, quality male circumcision services. It also provides guidance for the planning of a national quality assurance programme. It defines ten quality standards against which the quality of services can be measured and used as part of a continuous process of service improvement.
Male circumcision services quality assessment toolkit (WHO, 2009)	This is used by facility managers and providers to assess their performance. It can also be used by national and district managers to conduct external assessments of facilities. The toolkit includes a scoring tool, where users can enter assessment findings and monitor progress towards meeting the standards.
Considerations for implementing models for optimising the volume and efficiency (MOVE) of male circumcision services for HIV prevention (PEPFAR) 2009	Provides guidance on the MOVE model, developed in South Africa, to help programmes improve the efficiency of clinical and surgical activities so that they can strengthen their capacity to meet the demand for male circumcision services. It addresses clinical techniques, staffing, facility space, client scheduling and flow, commodities management, cost efficiencies, and quality assurance. It also includes detailed model lists of equipment and supplies required to support a male circumcision programme.
A guide to indicators for male circumcision programmes in the formal healthcare system (WHO, 2009)	Lists indicators that programmes can use to monitor and evaluate progress towards their programme objectives. Adaptable to different country situations, the guide includes indicators of demand for and supply of male circumcision services, as well as measures to assess secondary effects of the programme, such as changes in sexual behaviours at the individual and community levels.
District Health Management Information System. (NDoH, 2011)	Provides a legal framework for Health Information Systems. It provides in detail what NDOH expects from users at all levels of the health system (National, Provincial, District, Sub-district, and Health establishments).
National Testing Services Policy (NdoH, 2024)	Provides guidance to healthcare workers that will ensure high-quality HTS, appropriate use of HTS modalities to reach different populations, as well as strengthened linkages to prevention.
VMMC Standard Operating Procedures (SOPs) for Management and Reporting of Adverse Events (NDoH, 2020)	Provides a framework for reporting on adverse events along with the classifications of adverse events as described by the department.
Case studies on enhancing uptake of Voluntary medical male circumcision services (WHO, 2020)	Provides cases highlighting challenges and solutions experienced by different implementers in enhancing the uptake of VMMC. This will assist in demand-generation strategies.
Enhancing uptake of VMMC among adolescent boys and men at higher risk for HIV - evidence and case studies. Technical Brief (WHO, 2021)	Provide a more focused evidence review in 2021 to support programmes in their efforts to reach more men at higher risk and to document some of the approaches that may be valuable for programmes restarting or rescaling their operations.
South African National Medical Male Circumcision Demand Generation Strategy (NDOH, 2018)	This is a resource that will guide those who strive to generate demand for MMC to do so in the most effective manner. This strategy emphasises the integration of MMC as a part of a comprehensive sexual reproductive health package of services for men and understanding how to bridge the gap between men intending to get medically circumcised and ultimately going for the procedure.
National Strategic IPC Framework 2020	Outlines the strategic approach to prevent, reduce, and control healthcare-associated infections (HAIs) and antimicrobial resistance (AMR). The framework aims to improve patient safety and health outcomes across public and private health sectors. It provides guidance for provincial and district managers, health facility staff, and healthcare workers on implementing effective infection prevention and control (IPC) programmes. The document emphasises the importance of compliance with IPC standards, education and training, surveillance, and continuous quality improvement to combat HAIs and AMR.
Working Practice Guideline 2019	The guideline covers various aspects, including site selection, staff training, infection prevention and control, patient counselling, and post-operative care. It also emphasises the importance of monitoring and evaluation to improve service delivery and patient outcomes. The document serves as a critical resource for healthcare providers, programme managers, and policymakers involved in VMMC programmes.
WHO AE Action Guide 2020	Provides comprehensive guidelines for managing and reporting adverse events associated with voluntary medical male circumcision (VMMC). It includes detailed protocols for identifying, classifying, and treating adverse events to ensure patient safety and improve the quality of VMMC services. The guide also emphasises the importance of monitoring and evaluation to enhance the overall effectiveness of VMMC programmes. It serves as a critical resource for healthcare providers and programme managers involved in VMMC services.

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(Footnotes)

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