

CHAPTER 3

FACILITIES, SUPPLIES AND INFRASTRUCTURE FOR MALE CIRCUMCISION PROGRAMMES



This chapter provides information on the following:

- facility considerations for male circumcision programmes
- procedure room recommendations
- suggested client flow for male circumcision procedures and related services
- equipment and supplies required for male circumcision

3.1. INTRODUCTION*

A male circumcision site's facilities, supplies, equipment and other necessary resources should be prepared and ready for the provision of male circumcision services **before** staff are trained to provide these services. Training is most effective when the learnt skills are put to use immediately after the training is complete. Offering male circumcision services before the site is fully prepared or before training is completed can lead to bottlenecks in the flow of male circumcision services, imbalances in the supply and demand of services, and, most significantly, a reduction in the quality of services—all of which can lower demand for this protective procedure that can have significant beneficial impact on entire populations. Well-prepared male circumcision sites and staff are able to provide safe, quality male circumcision services.

3.2. DIFFERENT TYPES OF FACILITIES

From a programmatic perspective, there are three different types of male circumcision that can be combined in some form to serve the community most effectively within the constraints and requirements of a particular male circumcision programme.

- **Fixed sites** are located 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 health care facilities.
- 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 operate on a long-term basis or be used for outreach during periods of high demand; for example, during male circumcision campaigns.
- **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 raise awareness and generate demand in such populations, and provide temporary short-term support during campaigns.*

Although male circumcision sites may vary in significant ways, all male circumcision sites should have sufficient space and other necessary resources to provide confidential counselling, perform safe circumcision 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 (1)*.

3.3. CLINIC DESIGN TO SUPPORT GOOD CLIENT FLOW

Client flow refers to the number and pattern of clients moving through a facility as they receive services. Well-coordinated client flow is critical to avoid congestion and confusion as clients move from one component of male circumcision services to the next (such as from screening to the undergoing the procedure). It also supports staff in providing services in a consistent and organized manner that contributes to improved health outcomes for clients. Client flow is important for all components of the minimum package of male circumcision services and for expanded services. Good client flow may help to conserve time and other resources for staff and clients, thereby enabling the provision of a broader range of health-enhancing services.

*Adapted from (1)

Some characteristics of service delivery design and function, which support good client flow in 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.
- 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.
- Closely related services are combined 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 client contact with biohazardous material is reduced to as low a level as possible.
- A recovery area is available and is 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 be given, in private, the following:
 - postprocedure counselling, a brochure on postprocedure self-care instructions and a list of warning signs that indicate a need to seek emergency care
 - specific information about the upcoming follow-up appointment
 - analgesics provided for the client to take home

3.4. THE PROCEDURE ROOM

Ideally, the procedure room used in male circumcision services should be used only for circumcisions, but the room may, if necessary, be used for other surgical procedures. A dedicated male circumcision procedure room helps staff achieve a high level of quality and consistency in service delivery and cleanliness (see Box 3.1), and maintain the appropriate equipment and supply setup for circumcision. The procedure room itself must have the following characteristics:

- Be **well ventilated** (for example, with a window, air conditioner or vent).
- Be **adequately furnished** (as described below).
- Be **free of clutter** (containing nothing that is not required for performing the procedure—for example, storage boxes).
- Have surfaces that are easy to clean and disinfect.
- Allow for **visual and audio privacy**.
- Have a **floor made** of seamless nonporous material. Concrete, wooden and tile floors may be acceptable provided they are properly sealed, but this requires regular maintenance or resealing; packed dirt floors should be avoided.

The procedure room should be equipped with a **narrow operating table or examination couch** that is high enough to allow the provider doing the circumcision to perform the procedure without stooping or bending. There should be sufficient space around the bed for client flow and infection prevention measures, and for resuscitation if needed. A small set of steps (or foot-step stool) can be provided to enable the client to climb up onto the table with ease. Blocks can be placed under the table legs at the foot end of the table to create a head-down position when needed. The room should also contain an **instrument trolley or table**, upon which the instrument set can be unpacked.

Box 3.1. Cleaning the procedure room

Between procedures, the instrument trolley and the operating tabletop should be disinfected. Any spillage on the floor should first be contained with an absorbent material, then mopped with clean water and detergent, and, finally, disinfected.

At the end of the operating day, all flat surfaces in the procedure room should be thoroughly cleaned and disinfected, including the floor. A liquid disinfectant should be used; the liquid should be diluted as recommended by the manufacturer. There should be a periodic (weekly or monthly) thorough clean when ceilings and walls are also cleaned; how often this is done will depend on intensity of the room's use and also whether the room is used only for circumcision or for other types of surgery. Standard precautions for infection prevention are covered in more detail in Chapter 5.

The **lighting** in the procedure room should be arranged so that the client's penis is well illuminated and the provider doing the procedure can easily see what he/she is doing. Ideally, the clinic should be equipped with an operating theatre minor procedures lamp or head lamps. Alternatively, fluorescent lighting over the operating table can provide adequate illumination. As part of the permanent setup for circumcision procedures, **emergency medications and equipment** for managing adverse events, such as anaphylaxis, should be available in or near the procedure room (see Chapter 9, Section 9.2). These medications and equipment should be kept in a clearly labelled location that is cool and away from direct sunlight.

3.5. EQUIPMENT AND SUPPLIES

This section describes the equipment and supplies needed for routine male circumcision services and those needed for the management of adverse events. It is important to ensure that there are adequate amounts and quantities of all of these items at all times. Checking items needed for standard services should be a routine part of the male circumcision team's daily preprocedure preparation. Checking emergency medications and supplies should also be done on a regular basis (either at the start of each day or at the start of each week) to ensure that they are stocked and that none of the medications are approaching or beyond the expiry date; this inventory and expiry check should be logged. This routine must be part of the male circumcision site's process for ordering, stocking and monitoring inventory. For more information, see the World Health Organization's *Surgical care at the district hospital* (see the Bibliography section).

3.5.1. Items needed for standard services

Box 3.2 lists equipment and instruments required for routine adolescent and adult male circumcision using any of the conventional or device-based surgical methods described in this *Manual for male circumcision under local anaesthesia and HIV prevention services for adolescent boys and men*. At the start of the day, the provider doing the procedure should make sure that there is an adequate supply of these standard items and that they are easily accessible. Between procedures, there should be a check and replenishment of the supply as needed.

In addition to the supplies needed for the procedure, male circumcision clinics will also need to ensure that there is an adequate supply of condoms, information materials and any other items they plan to distribute to clients.

Box 3.2. Standard equipment and supplies needed for a single conventional or device-based surgical male circumcision procedure

- O drape (80 cm x 80 cm, with ~ 5 cm hole)
- 1% or 2% lidocaine/lignocaine
- Artery forceps, also known as mosquito forceps (three straight, five curved)
- Large artery forceps (straight cross clamp)
- Curved dissection scissors
- Dissecting forceps (finely toothed), also known as tweezers
- Gallipot for antiseptic solution (for example, povidone iodine)
- Gentian violet (no more than 5 mL) or sterile marker pen
- Gloves, masks, caps and aprons
- Injection needles (21-gauge, 23-gauge, 25-gauge or 27-gauge)
- Instrument tray wrapped with sterile drape
- Needle holder
- Gauze impregnated with petroleum jelly (5 cm x 5 cm or 5 cm x 10 cm) and sticking plaster or paper tape
- Plain gauze swabs (10 x 10 cm; 10 for the procedure, five for the dressing)
- Povidone iodine (50 mL 7.5–10% aqueous-based solution)^a
- Scalpel knife handle and blades
- Stitch scissors
- Suture material (chromic catgut or polyglactin 910 [Vicryl Rapide™] 3-0 and 4-0) with 3/8 circle reverse-cutting needle^b
- Syringe, 10 or 20 mL
 - Ideally, if programmatically feasible, stock syringes with these safety features: reuse prevention and sharps injury prevention. The models selected should allow repeated aspiration to permit correct injection technique, and providers may also prefer models with detachable needles, which allow use of different gauges for anaesthetic withdrawal and injection.[†] If reuse prevention syringes are not available, single-use syringes and needles without reuse prevention features are a second choice. If these are also unavailable, use equipment suitable for steam sterilization. Also see the World Health Organization's *Guideline on the use of safety-engineered syringes for intramuscular, intradermal and subcutaneous injections in health care settings* (see Bibliography for citation).

^a It is important to have available alternative solutions for skin disinfection, such as chlorhexidine, for patients allergic to povidone iodine.

^b Extra suture materials and needles should be available for every procedure.

[†] Based on a Zambia pilot, by Jhpiego, that assessed reuse prevention syringes to ensure their usability and appropriateness in male circumcision

3.5.2. Items needed for emergencies

The male circumcision team should be trained and prepared to respond to an emergency if it occurs. As part of this preparation, the male circumcision site should establish standard operating procedures for emergency response and ensure that the emergency equipment and supplies listed in Box 3.3 are available and ready for use at any time.[‡] At the start of the day, the provider doing the procedure should make sure that these items are easily accessible.

Box 3.3. List of emergency equipment and supplies (2)

- Adhesive tape (strapping)
- Alcohol swabs
- Best practice guidelines for emergency care^a
- Blood pressure measuring equipment, including adult and paediatric cuffs
- Stethoscope
- 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)
 - Ideally, if programmatically feasible, stock syringes with these safety features: **reuse prevention** and sharps injury prevention. The models selected should allow repeated aspiration to permit correct injection technique, and providers may also prefer models with detachable needles, which allow use of different gauges for anaesthetic withdrawal and injection.[§] If reuse prevention syringes are not available, single-use syringes and needles without reuse prevention features are a second choice. If these are also unavailable, use equipment suitable for steam sterilization. Also see the World Health Organization's *Guideline on the use of safety-engineered syringes for intramuscular, intradermal and subcutaneous injections in health care settings* (see Bibliography for citation).
- Tourniquet

Make sure that there is an inventory list of emergency equipment and supplies to cross-reference against items in stock. Additional items per national guidance should be included also.

^a Refer to guidelines on this webpage: <http://www.who.int/surgery/publications/en/>

[‡] Adapted from (2)

[§] Based on a Zambia pilot, by Jhpiego, that assessed reuse prevention syringes to ensure their usability and appropriateness in male circumcision

3.5.3. Maintenance and care of instruments

A critical aspect of maintaining surgical instruments for use is to process them appropriately for infection prevention, as described in Chapter 5. It is also important to make sure that instruments are fit for safe use. In addition to the normal checks made during cleaning at regular intervals, the clinic should evaluate all surgical instruments for signs of wear (see Box 3.4).

Box 3.4. Checklist for assessing instruments for signs of wear

For haemostatic artery forceps:

- Do the points (or teeth) meet accurately?
- Are the points worn?
- If serrated, are the ridges worn?
- Does the ratchet lock securely, or is it worn?

For surgical dissection scissors:

- Is the cutting edge of the blade sharp?
- Do the blades meet securely?
- Is the screw loose?

For needle holders:

- Do the points (or teeth) meet accurately?
- Are the points worn?

For dissection forceps (tweezers):

- Do the points (or teeth) meet accurately? (Crossed points are a common problem with old instruments.)
- If serrated, are the ridges worn?

- **Where reusable surgical instruments are used**, providers should be aware that these wear out with use and with repeated disinfection and sterilization. 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 a clinic where both reusable and disposable instruments are available**, care must be taken to prevent mixing the two types because disposable instruments may not have the durability to withstand repeated autoclaving for proper sterilization, which can lead to increased risk of infection.

KEY MESSAGES

- A male circumcision site's facilities, supplies, equipment and other necessary resources should be prepared and ready for the provision of male circumcision services **before** staff are trained to provide these services.
- Three different types of male circumcision sites—fixed (either standalone or situated within a larger facility, such as a district hospital), mobile and outreach—can be combined to serve the community most effectively within the constraints and requirements of a particular male circumcision programme.
- Ideally, the procedure room should be dedicated to circumcision only. This helps staff achieve a high level of quality and consistency in service delivery and cleanliness, and maintain appropriate equipment and supply setup for circumcision.
- Well-coordinated client flow from one component of male circumcision services to the next is critical to avoid congestion and confusion; it also contributes to quality of care, and can save time and resources.
- A routine part of the male circumcision team's daily and preprocedure preparations— and of the male circumcision site's process for ordering, stocking and monitoring inventory—is to ensure that equipment and supplies needed for male circumcision services and adverse events are available, ready for use and in good working order.

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2. Population Services International (PSI)/College of Surgeons of East, Central and Southern Africa (COSECSA)/Centers for Disease Control and Prevention (CDC). Adverse event action guide for voluntary medical male circumcision by surgery or device, 2nd edition, August 2017 revision. PSI, COSECSA and CDC; 2016 (<https://www.malecircumcision.org/resource/adverse-event-action-guide-voluntary-medical-male-circumcision-surgery-or-device-2nd>, accessed 15 September 2017).

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