

CHAPTER 10

POSTOPERATIVE CARE AND MANAGEMENT OF ADVERSE EVENTS DURING AND AFTER CIRCUMCISION



This chapter provides information on postoperative (postprocedure)^a care, including the following:

- immediate postprocedure monitoring
- emergency and unscheduled follow-up
- routine follow-up at 48–72 hours, seven days and six weeks
- follow-up education and counselling, to be reinforced at every visit
- special considerations for younger adolescent boys
- special considerations for clients who have device-based procedures
- general information and guidance about dealing with adverse events

^a Postprocedure and postoperative are used interchangeably throughout this Chapter.

10.1. IMMEDIATE POSTPROCEDURE CARE

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. If the client has had a device applied (or removed), then he may be observed in a clinic area while seated. If he has had surgical circumcision and is in pain or has other symptoms (for example, fainting or low blood pressure), then he should remain lying down. During this time period, other components of immediate postprocedure care may or may not be provided. Postprocedure protocols for circumcision clients may vary among clinics. However, the essential components of immediate postprocedure care are the following:

- monitoring the client closely (minimum of 30 minutes)
- giving postprocedure analgesia (for example, paracetamol)
- giving the client wound care instructions and other essential advice
- scheduling follow-up visits
- completing the client's medical record
- arranging for the transfer of the client's records, as applicable

10.1.1. Close monitoring for 30 minutes after the procedure

10.1.1.1. All clients

After the circumcision is complete, the client should move to another area for observation. He may need gentle assistance. If he is feeling faint, then he should be kept in the procedure room or kept lying down on a trolley. The facilities for recovery areas will vary between clinics. In the recovery area, the client should be kept comfortable (according to the climate) and have his concerns addressed. Monitoring should be documented, and the client's clinical record should be completed.

For the first 30 minutes after the circumcision, the client should be assessed and closely monitored. This includes the following:

- observing the general condition of the client
- monitoring his breathing, pulse and blood pressure twice before he goes home
- checking the wound dressing for oozing or bleeding
- asking the client if he has pain or any other concerns (see Box 10.1)

Box 10.1. Postprocedure pain and other concerns

An abnormal amount of pain may indicate possible complications, even if nothing is apparent on clinical examination. If there are any concerns about the client's postprocedure recovery, then he should remain at the clinic for a longer period of observation.

10.1.1.2. Clients who have had device application or device removal

Follow-up procedures on a client depend on what device was used and should occur according to the manufacturer's instructions for use.

When using a device where the foreskin is removed at the time of device application, if device displacement happens soon after placement, there could be severe bleeding. The client may require immediate surgical treatment to stop the bleeding.

In situ devices for male circumcision generally remain in place for about seven days after their application. Limited information on two such devices is provided in Chapter 9. However, **providers should consult the device's manufacturer's instructions for use for step-by-step instructions on how to apply and remove the device; instructions are device specific and may be updated periodically by the manufacturer.**

After device removal, follow-up care for the wound is similar to that given to clients who have had conventional surgical circumcision. For clients who have had device-based surgical circumcision, the first follow-up event is at seven days, and further follow-up occurs at **seven days and again at six weeks after device removal.**

The device can become displaced after its application but before the scheduled removal. There have been instances when a client has removed a device by himself.

- If displacement happens, this can be an urgent situation depending on **when it happens** and **the type of device** used. Men who undergo device circumcision should be warned not to try to remove the device. They should be advised that if the device does become displaced, they must return immediately to the clinic.

10.1.2. Providing immediate postprocedure instructions and advice

10.1.2.1. Content overview

The client should receive postprocedure instructions before the client goes home after circumcision. After conventional surgery and after device removal, provide the client instructions for wound care. After conventional surgery, device placement and device removal, there is a need to provide advice about activities that are permitted and activities that must be avoided, including special messages about penile erections and sexual activity, importance of follow-up care and warning signs that indicate the need to seek immediate medical attention. All of these instructions should be reinforced at each subsequent follow-up visit. Follow-up visits are an opportunity to offer HIV testing to any client who previously did not want to be tested.

10.1.2.2. How to give instructions and advice

Postprocedure messages should be given through an education and counselling approach. This means that the client is given information and also assisted in applying the messages to his own 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 (Annex 10.1).

It is important to ensure that these messages are relevant to the client—that they fit his individual needs and circumstances. Ensure that verbal and written language used to deliver instructions is simple, concise, specific and nonmedical. Use common, understandable and everyday words and terms, such as red, painful, swollen and medicine to stop pain—not words like signs of infection, oedema or analgesia, etc. Information sheets should be pilot-tested on the target client group and amended as necessary to improve clients' understanding. This is to ensure that information is meaningful to clients and in the context of the local culture. Information may need to be translated into the local language or dialect. Separate information sheets may be needed for adolescent clients. These sheets should contain information appropriate to the client's age, maturity or literacy level—as well as to the parent(s)/guardian(s) if the client is a minor.

10.1.2.3. Ensuring client understanding, encouraging compliance

For all clients (adults and adolescents), the following practices are effective to ensure that clients understand the critical messages about wound care and other aspects of recovery:

- Ask the client to repeat the wound care instructions. Ask the client questions to check his knowledge and understanding, for example, *What will you do if the bandage [dressing] falls off?*
- Correct any mistakes in the client's understanding, as this helps in both understanding and reinforcing this critical information. When correcting mistakes, do so in a nonjudgemental way, for example, *I am sorry. I do not seem to have explained that clearly enough. What I am trying to tell you is that you should **not** use any other type of medicines or put anything else on your wound.*

Here, the provider has not blamed the client for his lack of understanding about home remedies (including traditional practices and medicines). This approach is more supportive and may encourage client compliance.

- When giving information to a younger adolescent, be mindful of his overall maturity and be sensitive to his privacy and possible embarrassment with the information received.

10.1.2.4. Considerations for adolescent clients

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 (see Box 10.2). All adolescent boys, even those who look young and immature, will have nocturnal penile erections and may experience pulling pain—and some may be sexually active. Therefore, providers must give advice 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 (see Annex 10.2).

Box 10.2. Be sensitive when giving postprocedure instructions to adolescents

Adolescents are often reluctant and embarrassed to discuss penile wound dressings, penile erections and sexual activity. Depending on their maturity, some adolescents may not understand some of the issues. It is important for both the adolescent and his parent(s)/guardian(s) to receive wound care instructions. Use of picture books and peer educators may be helpful in communicating with adolescents.

10.1.3. Immediate postprocedure instructions and advice—messages

10.1.3.1. Wound care and dressings

Messages about taking care of the wound are critical, especially in the early part of recovery, when the wound is most vulnerable to infection and potential problems are most likely to occur. Good care and early recognition of any possible problem can improve an outcome.

Messages should include the following:

- **Do not apply any home remedies (including traditional practices and medicines) to the wound at any time following any male circumcision procedure or following device placement or removal.** This is a very important instruction and should be emphasized at each visit. Some clients and/or his parent(s)/guardian(s) may be tempted to apply home remedies later on in the healing process because of perceived delay in healing. Clients should know that **all home remedies** are potentially dangerous because they risk introducing tetanus and other potentially deadly infections (see Box 10.3).
- Keep the dressing in place until the first clinic visit at 48–72 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. (Clinic protocol may vary for instructing clients to come back to the clinic or for providing clients with sterile dressing to take home. What is done will depend on where the clinic is located in relation to where the client lives, the facilities available in the client's home and the provider's assessment of the client's ability to comply with instructions.)
- 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.

Box 10.3. Warning against home remedies

Customs and traditions are powerful and should be addressed with sensitivity. It is worth taking the time to explain to clients, as well as parent(s)/guardian(s) of clients who are minors, why it is critical to avoid using any home remedies, traditional practices and medicines. In discussing such remedies:

- Explain to the client that many men (or adolescent boys) like him have had circumcision in the past and that some of them have used home remedies.
- Explain that we now know that these home remedies:
 - do not help in wound healing;
 - often make healing take longer;
 - may cause infections; and
 - may result in tetanus, which can result in death if the client has not received tetanus toxoid-containing vaccine.
- Ensure that the client understands the circumcision wound will heal best and quickest if he carefully follows the clinic's instructions.

10.1.3.2. Other key messages

As outlined below, aside from wound care and dressing, postprocedure education and counselling includes instructions and advice about activity and lifestyle changes, penile erections, sexual activity, pain management (analgesics) and warning signs that require immediate medical attention.

- **Activity and lifestyle changes during the recovery period**

Because the client will be able to return home a short time after the procedure is done, it is important to discuss protecting his wound and overall well-being in the context of his lifestyle and the activities in which he is normally engaged. Advice should be given both about what to do and what not to do. For example, depending on the client's occupation, he may have to stay home from work. 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). Generally, contact sports and activities such as swimming should be avoided until the skin has completely healed and the underlying wound has had time to strengthen—this normally takes between two to three months. The client should be given clear information about when it is likely that he will be able to resume sports activities or return to work.

- **Penile erections and sexual activity**

Advice should be given about penile erections and the need to abstain from sexual activity (see Box 10.4).

- *Penile erections*

After the onset of puberty, all males have nocturnal penile erections typically four to five times per night while sleeping, and these usually do not cause the man to wake up. These erections are normal and have nothing to do with sexual stimulation; they happen because of periodic high flow of blood into the penis to keep the erectile tissue healthy. Most men wake in the morning with an erection, which quickly subsides once the client gets up, walks around and passes urine.

After circumcision, nighttime and morning erections often cause pain because they pull on the skin stitches and cause the man to wake up. The pain usually causes the erection to subside; this relaxes the tension on skin stitches, and the pain goes away. If an erection persists, it helps to get up and walk about because this diverts blood from the penis into the leg muscles and helps the erection subside more quickly. It is also helpful to empty the bladder frequently. When clients are given these explanations, most choose not to take an analgesic for these brief episodes of pain.

Messages should include the following:

- Having **nighttime and morning erections will not harm the wound**. 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.
- **Having an erection does not mean that he can safely engage in sexual activity before the wound has healed**. Engaging in sexual activity (masturbation and sexual activity with another person) causes more pull on the wound and may result in damage and delayed healing.
- *Special considerations for adolescents*

Providers need to be sensitive to the maturity level of the adolescent boy, whatever his actual age. It is important to remember that, despite the appearance of physical immaturity, penile erections start early in puberty; therefore, younger adolescents also need to be given advice about pain they may feel during nocturnal penile erections.

- *Sexual activity (see Box 10.4)*

Although most adolescent boys or men do not attempt sexual activity soon after circumcision, studies show that between 5% and 30% do attempt to have sex. Advice should be given on the day of the circumcision and then reinforced at each subsequent clinic visit.

Messages should include:

- Sexual activity should be avoided until the wound has healed. Sexual activity before the wound has healed increases the risk of acquiring HIV or infecting his partner if he is HIV positive because the virus may pass through the open wound. Penile erections in response to sexual stimulation or sexual activity, such as masturbation, will cause pain because of the pull created on skin stitches; therefore, the client should avoid any sexual stimulation.
- If a client does have sexual activity at any time during the six-week period after circumcision, he **MUST** always use a condom because of the increased **risk of acquiring HIV during wound healing**—and especially if the skin has not fully healed. After this six-week period, clients should be encouraged to continue using condoms **for another few months** so that the wounded tissue has time to strengthen; even once the skin has healed, the wounded tissue is still not fully healed for months.
- Masturbation may also damage the wound and delay healing; the client should try to abstain from masturbation until the skin and wound are healed.
- **Male circumcision does not give complete protection against HIV, and the client should always use condoms when having sex with someone new or when engaging in any risky sexual situation.**

This advice about sexual activity should be repeated when the client comes for follow-up at 48–72 hours and at any subsequent visit.

- *Special considerations for adolescents when discussing sexual activity*

Younger adolescents may be engaging in sexual activity and usually do not wish to share this information with their parent(s)/guardian(s). Providers need to be sensitive to confidentiality issues because it is usually necessary to have privacy. This may be difficult in some clinic settings because parent(s)/guardian(s) may want to be present. Clinic providers should make necessary arrangements to ensure that there is privacy and, if necessary, exclude parent(s)/guardian(s) because it is more essential to provide the information and advice.

- *Special considerations for clients who have had a device procedure*

- All clients should be advised to abstain from sexual activity, especially during the week the device is worn and during recovery after device removal; all clients should be encouraged to share this information with their partners. Noncompliance can lead to complications. Clients who have had a device placed should be counselled that having sexual intercourse, especially during the week after placement, can cause the device to be torn off or displaced, which could result in serious injury that **may require urgent surgery**.
- The circumcision team needs to be sensitive to the possibility that a client has not told his partner that he is having device-based surgical circumcision. The team should encourage the client to find ways to keep his partner informed or can offer to meet with the client's partner to explain the importance of abstaining from sexual intercourse, especially during the week after device placement.
- Clients who have had circumcision with any device that remains in place should take care not to catch the device in his clothing and accidentally pull it. Over the course of wearing the device for one week, sometimes there are areas of partial detachment, proximal to the ring. Adolescent boys and men should be counselled that this may happen and that snagging the ring could cause tearing, bleeding or device displacement. They should also be counselled that if this happens, they must return to the clinic.

Box 10.4. Advice about penile erections and sexual activity—summary

- 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 the wound and may aid in healing, but the client should avoid sexual stimulation during this time.
- If the client has a regular partner, it helps the client to comply if the partner knows that the client has been advised to avoid sexually stimulating situations until the wound has completely healed.
- 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-week period, clients should be encouraged to continue to correctly and consistently use condoms.
- 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.
- Information on sexual activity should be reinforced at every postprocedure visit.

- **Pain management during the recovery period**

Pain during recovery should be mild and easily controlled by a supply of analgesics that can be routinely given on the day of the circumcision for the client to take home. Brief pain during nighttime erections is common and does not usually require analgesic medication. The onset of more severe pain at any time during the follow-up period may indicate infection or bleeding, and the client should be seen in the clinic. If the client needs more analgesics than those given on the day of the circumcision, this may signal complications; the client should be seen and assessed. Note that the onset of pain during the first 48 hours is more likely to be an indication of bleeding or haematoma, whereas the onset of pain after 48 hours is more likely to indicate the onset of infection.

- **Warning signs**

The client should be urged to seek immediate medical attention if he experiences any of the following:

- 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 discolouration
- 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

The provider should specify exactly where the client should go (and provide contact information, such as telephone number and address, particularly if referring the client to a place other than the clinic where he was circumcised).

10.1.4. Additional postprocedure care

In addition to close monitoring and instructions, the following should be done before the client leaves the clinic:

- The client should be given a supply of analgesics and any other medication according to clinic protocols. It should be ensured that a responsible adult is available to accompany the client home (this is of particular importance for clients who are below the age of consent/assent).
- Arrangements should be made for a follow-up appointment 48–72 hours later. The client should be told exactly when and where to go for follow-up.
 - ***Special considerations for clients who have had a device procedure***

Clients who go home wearing a device should also be given a written card or information sheet with specific information about the type of device they have. They can show this to other health care providers in case they have to attend another health care facility. This handout should include contact details of the clinic where the device procedure took place so that other health care providers know how to find out more if needed. This is important because male circumcision devices are new, and most health care providers will not know what they are or how to manage them.
- For any circumcision method, document the visit in the client's medical record. Include any complaints, diagnoses, treatment or referral, and include any comments.
- Finally, the client should be told to contact the clinic or return to the clinic if there is any unexpected or adverse event(s). He should be given clinic contact details including a telephone number. If the follow-up visit will take place at another facility, the client should be given a card to give to the follow-up provider (see Box 10.5).

Box 10.5. Transfer of client records

All of the client's records should be kept at the facility associated with provision of circumcision services. If the follow-up visit will take place at another facility, the client should be given a card to give to the follow-up provider. The card should indicate the following:

- date of the procedure
- type of procedure
- medicine(s) given
- name of referring provider
- any special instructions

If it is necessary to transfer the client's records, a copy should be made and the original records kept at the facility where the surgery took place. For a sample referral form, see Chapter 4.

10.2. EMERGENCY AND UNSCHEDULED FOLLOW-UP VISITS

Normal triaging principles should apply, with priority given to emergency follow-up visits.

- Providers should assess carefully for adverse events in clients who come to the clinic for an unscheduled follow-up visit, and these clients should be seen immediately.
- Staff should be alert to the possibility of excessive bleeding or infection.
- If the client is feeling unwell, even if nothing obvious is found on clinical examination, a problem may become apparent if the client is observed in the clinic or given another follow-up appointment the next day.
- 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.

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 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. Note tetanus toxoid-containing vaccine status.
- Consult 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 (see adverse events below).
- Note on the client record all problems and actions taken, including the specific adverse event(s) diagnosed and their severity. Follow 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).

10.2.1. Routine follow-up visits at 48–72 hours, seven days and six weeks

Clients should be advised to attend follow-up visits to further encourage good wound care, assess for any complications and promptly treat adverse events (see Box 10.6). This is also an opportunity to provide HIV testing, information on other health conditions or referrals.

It is a good idea if the provider who does the procedure also sees the client at follow-up. This is because there may have been minor variations in technique particular to that client. Also, if there are any adverse events, this is an opportunity for the actual provider to consider any improvements to their practice, clinic protocols or both.

Quality care at follow-up visits prevents and reduces harm from adverse events; therefore, the client should be seen by an experienced clinician, and less-experienced providers should be mentored. It is impossible to predict everything that might be encountered at follow-up, and even experienced providers may have questions. Clinic culture should encourage staff to ask a colleague, more experienced provider or even a specialist at a referral centre when necessary. If the client goes to a different health care facility for follow-up, it is important for staff at that facility to be trained to do a careful follow-up examination and to report any complications to the facility where the circumcision took place. In outreach or campaign settings where providers come to a site and leave when the campaign is over, it should be the responsibility of the outreach or campaign providers to train the local providers on the basics of adverse event management in male circumcision, including common complications and how to classify and manage them, when to refer the complications, and how to record and report the complications. The outreach or campaign providers should leave the local providers with the

necessary tools and arrangements for diagnosing and treating minor complications, and for reporting and referring more serious complications.

Box 10.6. Need for follow-up visits

Data from public health male circumcision programmes in East and Southern Africa show the importance of follow-up visits (1). Failure to attend follow-up visits results in late identification of adverse events, poorer management of adverse events and poorer outcomes. Programmatic strategies to improve a client's attendance at follow-up visits include:

- reinforcing the importance of follow-up visits with clients during counselling, as a way to empower the client to take charge of his health;
- highlighting issues that may arise if follow-up visits are not attended;
- identifying and helping to mitigate client barriers to attend follow-up visits, including providing transport, reimbursing transport costs, writing a letter to the employer on behalf of the client or a provider visiting the client (for example, a provider visiting a school where there has been circumcision outreach);
- sending text message reminders or making phone calls; and
- using community health workers or community members to remind patients of follow-up visits.

The recommended follow-up schedule after surgical male circumcision is first follow-up visit at 48–72 hours, second visit at seven days and final visit at six weeks. Device circumcision follow-up visits have the same schedule as surgical circumcision; in this case, the second follow-up visit at seven days is for device removal.

At all routine follow-up visits (Box 10.7), providers should treat any adverse events (complications) or wound healing problems found during the examination, or refer the client to a higher level of care if needed.

- Additional follow-up visits (more frequent than the routine follow-up schedule) may be required so that adverse events or wound healing problems can be more closely monitored and managed. Reinforce the importance of these visits.
- 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 referral, and include any comments.

Box 10.7. 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 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.
- Assess and discuss with the client whether and when repeat HIV testing is appropriate based on the client's risk behaviours. If the client refused HIV testing precircumcision, offer him HIV testing at all follow-up visits.

10.2.1.1. First routine follow-up visit at 48–72 hours (after surgery or after device removal)

At the first clinic visit, which occurs 48–72 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 as described later in this chapter. Instructions about wound care—that sutures are absorbable and do not need to be removed—abstinence from sexual activity and condom use should be reinforced.

1. 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 (discussed above). Wound pain or increasing or throbbing pain at 48–72 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.

2. Gently remove the wound dressing. If the dressing has dried, it should be gently dabbed with 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 (see Fig. 10.1).

Fig. 10.1. Circumcision dressings



3. Examine the client, and look for signs of potential problems. Examples include the following:
 - active bleeding
 - excessive swelling (note if any swelling is localized to one part of the wound or shaft of the penis, or generalized)
 - 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
 - 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)
4. 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, the onset of wound infection, and the need for an earlier follow-up appointment.
5. Repeat and emphasize instructions and key messages about wound care and healing:
 - The client is encouraged to bathe using clean water. Every day, the client should gently wash the genital area with clean water.
 - The client should use medications only as provided or prescribed by the clinic.
 - The client should not use home remedies to aid in healing.
 - The client should wear clean clothing and avoid getting the wound dirty. The client should avoid touching the wound and putting anything on the wound.
 - After this six-week period, the client should be encouraged to continue to use condoms for another few months so that the wound tissue has time to strengthen.

6. Provide further HIV prevention and risk reduction information:
 - Male circumcision provides partial protection against HIV, and condoms should be used consistently and correctly for HIV prevention. Give the client condoms (and lubricant if available), and reinforce that condoms should be used consistently and correctly.
 - Review individual risk plans during postprocedure visits. Ask clients how they are doing in implementing behaviour changes and handling challenges identified during individual counselling sessions.
 - If necessary, discuss with the client whether to repeat HIV testing (or be tested for HIV, if not already done) based on the client's history and risk behaviours. Clients who have previously refused HIV testing should be offered the opportunity to test for HIV at this and all subsequent follow-up visits.
 - The client should abstain from sexual activity for six weeks after the surgery (or device removal) to help the wound heal properly and avoid complications. If the client chooses to have sexual activity during the first six weeks postsurgery or six weeks after device removal, masturbation poses the least risk. If he cannot abstain from sexual intercourse with a partner, he **must** use a condom because there may be a heightened risk of HIV transmission during the wound healing period; the condom also protects the wound.
7. 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.
8. Schedule the next follow-up visit (for seven days postsurgery or device removal, or sooner if needed).
9. 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. Include any additional notes or comments.
10. Report any adverse events according to the national or programme requirements—see (2) (*note that this guide may change, so refer to the online version for current information*).

10.2.1.2. Second routine follow-up visit at seven days (after surgery or after device removal)

At the second routine follow-up visit (seven days), care provision will include the same steps as described for the first visit but with some differences (**bolded below**).

1. Ask the client if there have been any problems, with particular attention to pain, as this may indicate infection.
2. Gently remove the wound dressing. (**Normally, the client will no longer have a dressing to remove.**)
3. Examine the client and look for signs of potential problems.
4. **Re-emphasize bathing and wound care instructions for the 48-hour visit**, and provide any new care or treatment instructions. Give (or prescribe) medicines if applicable.
5. Repeat and emphasize 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 (or device removal) to help the wound heal properly and avoid complications. If the client chooses to have sexual activity during the first six weeks postsurgery or six weeks after device removal, masturbation poses the least risk. If he cannot abstain from sexual intercourse with a partner, he **must** use a condom, as there may be a heightened risk of HIV transmission during the wound healing period; the condom also protects the wound.
 - Provide further HIV risk reduction care as feasible and applicable.

- If necessary, discuss with the client whether to repeat HIV testing (or be tested for HIV, if not already done) based on the client's history and risk behaviours. Clients who have previously refused HIV testing should be offered the opportunity for HIV testing at this and all follow-up visits.
6. Make sure the client knows where to go for follow-up if complications arise. Review with the client the signs that he should look out for that may indicate a problem.
 7. Schedule the next follow-up visit (**for six weeks postsurgery or six weeks after device removal, or sooner if needed**).
 8. 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. Include any additional notes or comments.
 9. Report any adverse events according to national or programme requirements—see (2) (*note that this guide may change, so refer to the online version for current information*).
 10. 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.

10.2.1.3. Third routine follow-up visit at six weeks (postsurgery or after device removal)

At the third routine follow-up visit (six weeks), care provision will include the same steps as described for the first and second visits but with some differences (**bolded below**).

1. Ask the client if there have been any problems.
2. Examine the client and look for signs of potential problems.
3. Provide any new care or treatment instructions. Give (or prescribe) medicines if applicable.
4. Repeat and emphasize instructions and key messages about wound care, healing and HIV prevention.
 - **A new focus at this time may be advising the client on when it is safe to resume sexual activity. Although it is usually safe to resume sexual activity at this time, the new skin and wound on the penis will still be delicate and easy to tear. Clients should be encouraged to continue to use condoms for another few months so that the new tissue has time to strengthen.**
 - **Also, as is always advised, clients should always use condoms when having sex with someone new or when engaging in any risky sexual situation. Using a condom prevents HIV because the circumcision offers only partial protection.**
5. Assess the client's knowledge of how to use a condom consistently and correctly (ideally, have the client demonstrate on a model).
 - Provide further HIV risk reduction care as feasible and applicable (for example, if the client is known to engage in risky behaviour, offer opportunities for further HIV testing and re-emphasize advice about reducing multiple and concurrent partnerships). Clients who have previously refused HIV testing should be offered the opportunity to test for HIV at this and all subsequent follow-up visits.
 - Make sure the client knows where to go for follow-up if complications arise.
 - Discuss with the client signs that may indicate a problem.
6. Provide tetanus toxoid-containing vaccine as indicated per national protocol.
7. Schedule additional visit(s) only as needed.

8. Document the follow-up visit in the client's medical record. Include wound healing progress, any problems (complaints, diagnoses), or any treatments prescribed or referrals made. Include any additional notes or comments.
9. Report any adverse events according to national or programme requirements—see (2) (*note that this guide may change, so refer to the online version for current information*).
10. 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.

10.3. MANAGEMENT OF ADVERSE EVENTS: GENERAL GUIDANCE

This section describes clinic management of adverse events and when referral should be made to a higher level of care. See also *Adverse event action guide for voluntary medical male circumcision by surgery or device* for compiled information on adverse events and the clinic-level response.

10.3.1. Keeping the client informed

If a complication occurs during or after the circumcision, the circumcision team must keep the client—and, in the case of a minor, his parent(s)/guardian(s)—informed. For adult clients who give permission, it helps to keep his family informed. Anxiety and fear of the unknown add to the client's distress caused by an adverse event. The client (and others, as described) should be given a clear explanation about the problem (exactly what is happening) and about the plan for managing it.

For example, a complaint of increasing penile pain and fever four to five days after surgery is indicative of wound infection. If there are signs of infection on examination, the client should be given antibiotics and the situation reviewed after 24–48 hours, depending on the severity of the condition. In these circumstances, the client (and his family) should be told the following:

- **what** the problem is: *There is an infection.*
- **how** it will be managed: *Antibiotics are needed to treat it.*
- **when** the situation will be reviewed: *You (or he) should return to the clinic on [date].*

The client may also want to know why the problem happened. Providers should do their best to answer questions in a way that satisfies the client but does not make the situation worse. Describing the potential cause in general terms is better than trying to explain what might have happened when the exact cause is not known. For example, saying, "*Infection can happen when germs come into contact with the wound*" is more helpful than saying, "*This happened because you got the dressing wet*" or providing any other explanation not based on fact. It is important for providers to maintain trust and to enlist clients and their families as partners in ensuring the best outcome.

Sometimes, fear of blame inhibits providers from giving clear, accurate information. Experience with postsurgical adverse events from all over the world suggests that prompt disclosure of accurate information makes adverse events easier to manage because it helps to improve client cooperation and reduce stress for everyone involved.

10.3.2. Advance arrangements with a referral centre

Many adverse events can be managed in the clinic setting, but occasionally emergency transfer or specialist advice is needed. There should be standing arrangements with the nearest referral centre so that there are no bureaucratic obstacles when urgent or nonurgent referral is required. This also applies when the circumcision clinic is located within a district hospital. The contact details of the referral centre should be readily available. When strengthening or establishing national or local circumcision services, adequate funding for referrals should be included as part of the cost of the circumcision service.

10.3.3. Emergency transfer to a higher facility

When there is a need for emergency transfer, the following general rules apply:

- The client and his family should be given a full explanation of what the problem is and what is being done to address it.
- A clear note should be sent with the client to the referral centre in order to ensure that the provider who receives the client has the information he or she needs to respond quickly and appropriately. Do not rely on someone remembering a telephone conversation because that person may not be on duty when the client gets to the referral centre.
- The client should be told not to eat and, depending on the duration of transport, not to drink because a general anaesthetic may need to be given at the referral centre. Any accompanying family member should also be given this information.
- The clinic staff should follow up with the referral centre to make sure the client arrives at the centre and to answer any questions the referral team may have.
- Depending on the reason for transfer, the following additional measures need to be observed:
 - **If the transfer is because of low blood pressure in association with local anaesthetic toxicity or some other undefined cause**, the client should be transferred by ambulance while he is lying flat on his back on a stretcher. An intravenous fluid infusion should be set up in the clinic and maintained during the transfer. If the client is unconscious but breathing—and depending on facilities and expertise—maintain the breathing with an airway; if there is no spontaneous breathing, use an Ambu bag.
 - **If the transfer is because of uncontrolled bleeding**, the client should be transferred by ambulance while he is lying flat on his back on a stretcher. Uncontrolled bleeding should be managed during the transfer by manual compression with gauze. The provider will need to go with the client. An intravenous infusion should be set up in the clinic and maintained during the transfer.
 - **If the transfer is going to take several hours**, then the client should have a urinary catheter inserted. In facilities that are a long distance from a referral centre, providers should be taught how to catheterize, and catheters should be available.

10.3.4. Management of adverse events

In parallel with the first edition of this *Manual* being in use, an *Adverse event action guide for voluntary medical male circumcision by surgery or device* has been developed jointly by Population Services International; the College of Surgeons of East, Central and Southern Africa; and the US Centers for Disease Control and Prevention, with inputs from the World Health Organization (2). This second edition has been updated to reflect experiences from 10 million circumcisions.

In simple terms, an adverse event is something that has gone wrong. An adverse event is: “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 at that time. This includes not only events related to any error in screening or medical practice, but those in which no error occurred” (2). An adverse event may happen because someone made a mistake or because of reasons not known or well understood.

10.3.4.1. Provider’s role in preventing adverse events

The provider’s role in preventing adverse events involves the following:

- 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 (or the client may need to be referred to a specialist to consider his circumcision options).
- Normally, young men are not taking any medications or receiving any injections. If they are, clinic staff should take particular care to find out what medications or injections are being taken or given, and why.

- Ensure that the client has had tetanus toxoid-containing vaccination, per national protocols and dependent on method. This may mean advising the client to return for circumcision at a later time.
- Check local anaesthetic supplies. Only give the starting dose appropriate for the client's weight, thereby avoiding local anaesthetic toxicity by not exceeding the maximum dose. Aspirate the syringe before injecting the antibiotic to avoid injecting the agent directly into a blood vessel. Use a new syringe and a new needle if there is a need to draw up further anaesthetic from a multidose vial.
- Carefully select the circumcision procedure, particularly for a younger adolescent boy who is likely to be less developed physically. The forceps-guided surgical circumcision method is **NOT** indicated for those adolescents who have not yet matured physically. Use of devices should follow manufacturer's instructions for use.
- Practice good antiseptic technique and wound care.
- Practice good surgical technique, with particular emphases on marking the circumcision suture line and handling tissue gently and with precision.
- The provider should know what actions can reduce or increase the risk of complications. For example, damage to the urethra may occur from stitches that are placed too deeply, or a deep diathermy burn may leave a hole in the urethral wall, with urine coming out through the wound (urethral fistula).
- Take the time to make sure that clients understand wound care instructions, especially the need to avoid home remedies (including traditional practices and medicines).
- Reinforce the importance of abstinence from sexual activity for six weeks after the surgery (or device removal) to help the wound heal properly and to avoid complications. If the client chooses to have sexual activity during the first six weeks after surgery or removal of the device, counsel the client that masturbation poses the least risk. If he cannot abstain from sexual intercourse with a partner, he **must** use a condom because of a heightened risk of HIV transmission during the wound healing period; the condom also protects the wound.
- Have the client repeat wound care and healing instructions, or ask him questions to check his knowledge and understanding of instructions. If the client complies, this will help to reduce the risk of the most frequent adverse event, which is wound infection.

10.3.4.2. Programme manager's or clinic supervisor's role in preventing adverse events

The programme manager's or clinic supervisor's role in preventing adverse events includes the following:

- 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 also handling tissue gently and with precision;
- not imposing unrealistic targets for performing a certain number of circumcisions in a day—a hurried surgery increases the risk of adverse events, such as infection or bleeding, because of rough tissue handling or insufficient attention to accurate haemostasis;
- making sure sufficient time is allowed for the circumcision team to provide complete postprocedure care, including wound care and healing instructions;
- making sure that clients are not hurried home before being given appropriate care and instruction; and
- monitoring for adverse events and learning from review and discussion to improve performance.

10.3.4.3. Photographs

In the case of adverse events or other unexpected findings or developments, it is often helpful to take photographs. Photographs taken at intervals and after the event can help determine whether the problem is getting better or worse. This can be particularly helpful with suspected wound infections, any skin discolouration or other suspected problems,

such as the start of Fournier's gangrene. Also, photographs of abnormalities detected at screening—for example, before circumcision, there were equivocal variations in the position of the urethral meatus—can be helpful when discussing with a specialist whether the client needs to be referred to a higher level of care. Photographs of wound problems can also help in discussions with specialists at the referral centre.

If clinic staff wish to take photographs, they should explain to the client the reason for the photograph. They will also need the consent/assent of the client before taking photographs (or, for minors, the consent of their parent[s]/guardian[s]). Care should be taken to ensure that the use of and access to these photographs are strictly limited to purposes for which and individuals to whom the client has consented. The photographs should be destroyed once they are no longer needed.

10.3.4.4. Emergencies and basic life support

Providers performing circumcision should be up to date with basic life support skills, including the management of cardiac arrests, haemodynamic imbalances, reactions to medications and hypoglycaemia. Sites performing circumcision should be equipped with the necessary emergency equipment, pharmaceuticals and emergency standard operating procedures (see (2) for a list of essential commodities for managing emergencies).

10.4. DIAGNOSIS AND MANAGEMENT OF SPECIFIC ADVERSE EVENTS

To diagnose and manage adverse events—occurring during the circumcision procedure, postprocedure and during the wound healing period—refer to:

- 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).

This guide is provided in Annex 10.3; it is the version revised in August 2017.

Note that this guide may change over time; therefore, it is best to refer to the online version (see link above) for the most current guideline.

KEY MESSAGES

- Postprocedure care after male circumcision includes clinical assessment and provision of instructions to the client immediately after the procedure and at 48–72 hours, seven days and six weeks after the surgery or after device removal. The client must be educated on how to care for and protect the wound, what to expect, and signs of potential problems to look for and what to do if they arise. The postprocedure care period should also be used to reinforce the importance of having safer sex and engaging in risk reduction practices, as discussed with the client during preprocedure counselling and education. Additional follow-up care after the six-week period must be available as needed. Possible complications (adverse events) of male circumcision include excessive bleeding, formation of haematoma, infection, an unsatisfactory cosmetic effect, lacerations of the penile or scrotal skin and injury to the glans.
- Rarely, tetanus and gangrene can occur. Because they are potentially life-threatening, all clinic staff should be trained to recognize these problems.
- Certain complications can be managed in the clinic. For others, the client may need to be referred to a higher level of care.
- Complications related to the use of circumcision devices are mainly related to device displacement. The risk for displacement depends on the device but can be reduced by properly placing the device and counselling the client not to snag or pull on the device. Infection is another possible complication and can be avoided by ensuring good training for providers in infection prevention and control, and by encouraging the client to adhere to wound care instructions.

ANNEX 10.1. SAMPLE INSTRUCTIONS AFTER CONVENTIONAL OR DEVICE-BASED SURGICAL CIRCUMCISION OR AFTER DEVICE REMOVAL

- After the procedure, rest at home for one to two days. This will help the wound to heal.
- Return to the clinic to have the dressing removed 48–72 hours after surgery (see the specific time and place below.)
- For best results, come back to the clinic again one week and six weeks after the operation.
- Be sure to follow the instructions on this sheet!
- **What to expect and warning signs:**
 - You may have some minor pain or discomfort, but you should not feel ill.
 - If you feel unwell or develop fever, then you should come back to the clinic (see details below).
 - You may have a little pain or swelling around the wound. This is normal.
 - Pain or discomfort should decrease. If pain becomes worse, if there is pus, if the wound starts to smell or if you are worried about your wound, then you should return to the clinic to have your wound checked (see details below).
- **How to take care of your wound at home:**
 - Keep the wound dry. You may bathe, but do not let the dressing get wet. Once the dressing is off, allow only clean (or boiled then cooled) water to touch the wound.
 - **Do not put any home remedies on the wound.**
 - The swelling may settle down better if you lie down for part of the day.
 - Keep your penis elevated to prevent swelling for at least 24 hours.
 - Do not pull or scratch the wound while it is healing.
- **Activities to delay or avoid:**
 - Do not go back to work (or school) until clinic staff say you can.
 - Do not do any sports, swimming or vigorous activities until clinic staff say you can. If you play a particular sport, ask the clinic staff when it is safe to resume.
 - **Do not have sexual intercourse or masturbate for six weeks.**
 - If you are unable to abstain from sexual activity during the first six weeks of healing, masturbation (although not recommended) is safer than having sexual intercourse.
 - If sexual intercourse cannot be avoided during the six-week healing period, you must wear a condom because the wound is not fully healed, thereby placing you at higher risk for acquiring HIV (and potentially transmitting HIV if you are HIV positive). (Clinic staff will advise you about where to get condoms.)
 - It is best to use condoms to protect the wound for every act of sexual intercourse for at least six months; even after the skin has healed, the wound tissue is not fully strong underneath the skin.
- **Return to the clinic or call the clinic immediately if:**
 - You notice increased bleeding from the surgical wound.
 - The pain or swelling at the surgical wound gets progressively worse.
 - You develop a fever within one week of surgery.
 - You have difficulty passing urine.

- You have pain in the lower abdomen.
- You have stiffness in your abdomen or jaw.
- The wound is discharging pus.
- Wound edges are coming apart.

Remember, you will also be asked to come back to the clinic 48–72 hours, one week and six weeks after your circumcision, and a health care provider will check to see how your wound is healing. If you have problems between these visits, then contact the clinic for advice.

Clinic information:

Clinic address: _____

Hours of operation: _____

Clinic phone number: _____

After-hours phone number: _____

Your next appointment is:

Day: _____

Date: _____

Time: _____

Place: _____

Once again, please follow these instructions to help your wound heal and to keep yourself healthy and safe. Your health, safety and satisfaction are our goal!

ANNEX 10.2. SPECIAL CONSIDERATIONS FOR PROVIDING FOLLOW-UP SERVICES TO YOUNGER ADOLESCENT BOYS

Tips for follow-up care of younger adolescent boys:

- Encourage the adolescent client to enlist a trusted individual to support his healing process and attendance at follow-up visits.
- When it comes to wound care, adolescents may not understand or follow instructions. While this guidance should be directed to adolescents, when possible, parent(s)/guardian(s) should also be educated about wound care.
- The young client and his parent(s)/guardian(s) should be advised to carefully follow clinic instructions about wound care and to not use any home remedies. It should be explained that experience from a large number of circumcisions in his country has shown that the best chance of achieving quick healing is to follow the clinic's instructions. Using any home remedy has been shown to delay healing and is sometimes dangerous.
- In providing information about penile erections and sexual activity, keep in mind that younger adolescents may be engaging in sexual activity and may not wish to share this information with their parent(s)/guardian(s). Providers must respect the client's confidentiality and privacy. It may be necessary to give advice about sexual activity in private, and this may be difficult in some clinic settings; nevertheless, clinics should make arrangements for this to occur.

Additional information on special considerations for communicating and caring for adolescents is provided in Chapters 2 and 6.

ANNEX 10.3. ADVERSE EVENT ACTION GUIDE FOR VOLUNTARY MEDICAL MALE CIRCUMCISION BY SURGERY OR DEVICE, 2ND EDITION, AUGUST 2017 REVISION

The entire guide follows the references section on the next page.

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