

## 5. Postoperative Care

### 5.1. Postoperative Management

Meticulous postoperative care is critical for fistula patients' well-being and surgical outcomes.<sup>97</sup> It is therefore vitally important that the team members responsible for this phase are skilled and knowledgeable about monitoring fistula patients and their specific needs. Particular attention should be given to catheterisation and hygiene, diet and continence testing.

#### 5.1.1. Immediate Postoperative Management

- Take the patient's vital signs and monitor general condition.
- Ensure that appropriate antiemetic and analgesic drugs are provided postoperatively, as required. Usually nonsteroidal anti-inflammatory drugs (NSAIDs) and paracetamol are sufficient. However, sometimes narcotics can be added, especially if a large episiotomy or abdominal surgery has been performed.

Note that narcotics cause constipation, which should be avoided in rectovaginal fistula patients.

- Observe the patient for excessive postoperative bleeding.
- Ensure correct drainage through the bladder catheter and that connecting tubes are not twisted, kinked or compressed.
- Provide the patient with sufficient hydration through intravenous fluids to ensure that the urine is completely clear at all times.
- Monitor and record fluid input and output.
- Monitor and record any signs of urinary or faecal incontinence, e.g. on the patient's bed sheets.
- Vulval toilet (lightly splash with clean water and pat dry) 8-hourly, and as required.

#### 5.1.2. Subsequent Postoperative Management

- Continue to monitor the patient's vital signs and condition as indicated and as per local protocols.
- Intravenous fluids can be discontinued when the patient is tolerating mixed fluids orally, usually within the first 12–24 hours postoperatively.
- Ambulate the patient from the first postoperative day.
- If present, remove the vaginal pack 24–72 hours postoperatively, according to surgeon preference.
- Perform daily vulval toilet (lightly splash with clean water and pat dry) after pack removal.

#### 5.1.3. Specific Postoperative Management for Vesicovaginal Fistula

**Catheterisation and hygiene:** Postoperatively, the ureteric catheter(s) can be left in situ for 3–10 days depending on the proximity of the ureteric orifice to the margin of the fistula. The Foley catheter should remain in place, on free drainage for 10–14 days. Check daily that the patient is 'dry,

<sup>97</sup> Campbell and Asimwe. *Nursing Care For Women With Childbirth Injuries*.

drinking and draining', i.e. the bed is dry, the patient is drinking enough water to ensure a flow of clear urine and the Foley catheter is draining and not blocked. Once the patient is mobile, bucket baths or showers, if available, are recommended to keep the vulval area clean and dry.

**Diet:** The patient can take a normal diet the day after the operation, providing she is clinically well to do so. In addition, she should be encouraged to continue taking sufficient oral fluids to ensure that her urine is clear at all times.

#### 5.1.4. Specific Postoperative Management for Rectovaginal Fistula

**Catheterisation and hygiene:** Postoperatively the Foley catheter should remain in place on free drainage. If the patient has had a concurrent vesicovaginal fistula repair, the catheter should be left in place for 10–14 days, as per the vesicovaginal fistula protocol. If the patient has a rectovaginal fistula in isolation, then the catheter can be removed when the patient is mobile, usually the next day; remove the vaginal pack at the same time. Once mobile, bucket baths or showers are recommended to keep the vulvoanal area clean and dry.

**Diet:** It is important to reduce the risk of the patient developing constipation and straining to push hard stool past the repair, risking damage to the healing tissues and a potential breakdown. After the operation, the patient should have intravenous rehydration until tolerating mixed fluids orally. A light diet can be started the next day and continued for 6–7 days before reintroducing a normal diet. To ensure that the patient does not become constipated, a laxative (e.g. bisacodyl) should be prescribed on the commencement of the light diet and should be continued for about 1 week. If the stool becomes too fluid, the laxative should be stopped.

#### 5.1.5. Specific Postoperative Management for Abdominal Fistula Repair

- If a laparotomy was done or an operation was performed under general anaesthesia, observe the patient's vital signs every 30 minutes until she is fully awake. Subsequently, these observations should be done every 4 hours.
- Oral fluids can be introduced the day after surgery, according to the patient's condition.
- For further routine care, see 5.1.1. *Immediate Postoperative Management* (page 226).
- On the first and subsequent days in the immediate postoperative period, check the abdomen for possible distension and pain. Listen for bowel sounds and enquire if the woman has passed flatus. If so and if bowel sounds are present, she can start taking oral fluids. Continue intravenous fluids for 1 more day.
- Mobilise the patient as soon as possible, normally the day after the procedure.
- On the second postoperative day, if the patient's condition is stable, the intravenous fluids can be discontinued and a light diet can be started, according to the hospital's protocol.
- Continue to monitor the patient's vital signs and condition as indicated and as per local protocols.

## 5.2. Assessment of Surgical Outcomes

Following surgery, it is critically important to meticulously assess repair outcomes using a standardised protocol based on evidence and best practices of expert fistula surgeons, as presented in

this section. Accurately assessing outcomes is a vital component of postoperative care to ensure that after surgery cases with ongoing challenges, including those with continuing incontinence or repair breakdown, receive a correct, timely diagnosis and appropriate, high-quality treatment.

Careful documentation plays a key part in this process, as does a trusting patient–doctor relationship in which the patient feels able to express any concerns or unresolved issues that might otherwise be difficult to observe. It is essential to be cautious when assessing surgical outcomes, as patients may not give an accurate response when asked about incontinence. This may occur because they wish to please medical staff with a positive reply, especially if the treatment was free. It is therefore crucial to clinically and objectively assess each patient, rather than relying purely on their answers.

Determining the results of surgery should include an assessment of whether the fistula has been closed successfully and whether the patient is continent. Outcomes can be broadly classified as:

- Fistula closed and patient continent.
- Fistula closed and patient incontinent.
- Fistula not closed and patient incontinent.

### 5.2.1. Assessing Outcomes Following Vesicovaginal Fistula Repair

To standardise best practice in assessing surgical outcomes following a vesicovaginal fistula repair, FIGO's Expert Advisory Group of fistula surgeons and the FIGO Fistula Surgery Training Initiative team have developed the protocol below, as well as the accompanying flow chart on page 230.<sup>98</sup>

A vesicovaginal fistula repair can be confirmed as successful, i.e. fistula closed and patient continent, if:

- ✓ The **dye test is negative** prior to removal of the Foley catheter (normally, between 10–14 days postoperatively).
- ✓ After the Foley catheter has been removed, the **postvoid residual volume of urine is less than 100 mL and less than 50% of the voided amount.**
- ✓ The **pad is dry** the day after the Foley catheter has been removed.

#### Carry Out Dye Test

**Perform** a dye test (see Dye Test for Vesicovaginal Fistula; page 16) 10–14 days postoperatively, before removing the Foley catheter.

- If the dye test is positive, **leave** the Foley catheter in place for **7 more days**. During this time, **observe** if the patient is leaking any urine while walking, sitting and/or lying in bed. **Consider** nursing the patient in a prone position when in bed.
  - If wetness is absent, **leave** the Foley catheter in place until the patient has been dry for **7 days**. If wetness is decreasing, **consider leaving** the Foley catheter in place for up to 4 weeks until the patient is dry, then **keep** in situ for **7 additional days**. After the patient has been dry for 7 days with the Foley catheter in place, repeat the dye test.

<sup>98</sup> The flow chart is available to download in various formats on the FIGO Resource Hub ([www.figo.org/fistula-resources](http://www.figo.org/fistula-resources)), so that it can be displayed and consulted in the clinical settings of fistula units.

- If wetness is increasing or staying the same and the amount of urine in the drainage bag/bucket is decreasing or staying the same, then the fistula is unlikely to close with further bladder catheterisation. **Remove** the Foley catheter.
  - ❖ **Outcome: Conclude that the fistula is not closed/repair broken and the patient is incontinent of urine.** As the repair has not been successful, a repeat operation should be **scheduled**, usually in 3 months' time. An unsuccessful repair can be very disappointing for the patient. Patients should therefore be **carefully counselled**, with appropriate hygiene and ongoing emotional support.
- If the dye test is negative, **remove** the Foley catheter and **measure** postvoid residual volume.

### Measure Postvoid Residual Volume

**Ask** the patient to drink sufficient fluids to ensure that her urine is clear. Throughout the next 24–48 hours, **measure** and **record** the patient's voided volume and postvoid residual volume of urine 3 times (even if the patient is wet). If the residual volume is borderline and does not fit into the categories below, the patient should continue measuring residual volume a few more times.

- If postvoid residual volume is greater than 100 mL or greater than 50% of voided amount:
  - ❖ **Outcome: Conclude that the fistula is closed but that the patient has urinary retention.** **Teach** clean intermittent self-catheterisation 3 times a day until the patient is emptying her bladder completely or the residual volume is less than 100 mL and less than 50% of the voided amount. At this point, **carry out** a pad test.
- If postvoid residual volume is less than 100 mL and less than 50% of the voided amount:
  - The day after the Foley catheter has been removed, **carry out** a pad test.

### Carry Out a Pad Test

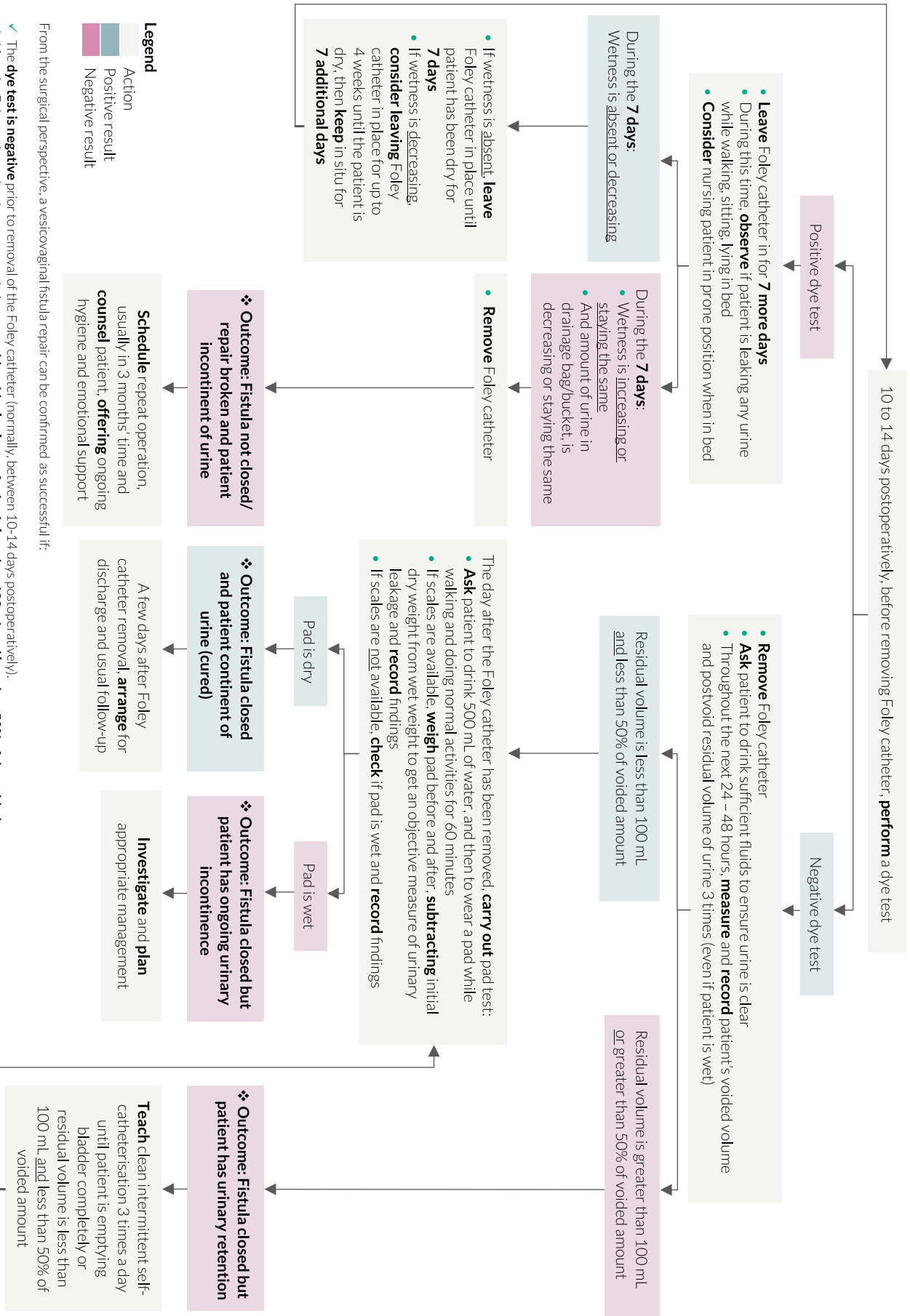
This is a useful standardised technique to obtain an objective assessment and measurement of urinary leakage.

**Ask** the patient to drink 500 mL of water, and then to wear a pad while walking and doing normal activities for 60 minutes. If a simple kitchen scale is available, **weigh** the pad before and after, **subtracting** the initial dry weight from the wet weight. If a scale is not available, **check** if the pad is wet. **Ensure** that all findings are recorded.

- If the pad is wet:
  - ❖ **Outcome: Conclude that the fistula is closed but the patient has ongoing urinary incontinence. Investigate** and **plan** appropriate management.
- If the pad is dry:
  - ❖ **Outcome: Conclude that the fistula is closed and the patient is continent of urine (cured).** A few days after removal of the Foley catheter, **arrange** for discharge and usual follow-up, as long as there are no medical contraindications.

5. Postoperative Care  
5.2. Assessment of Surgical Outcomes

Assessing Outcomes Following Vesicovaginal Fistula Repair



From the surgical perspective, a vesicovaginal fistula repair can be confirmed as successful if:

- ✓ The dye test is negative prior to removal of the Foley catheter (normally, between 10-14 days postoperatively).
- ✓ After the Foley catheter has been removed, the postvoid residual volume of urine is less than 100 mL and less than 50% of the voided amount.
- ✓ The pad is dry the day after the Foley catheter has been removed.

### 5.2.2. Assessing Outcomes Following Rectovaginal Fistula Repair

If the patient had a concurrent vesicovaginal fistula then outcomes should be assessed after Foley catheter removal, 10–14 days after surgery. If the patient had a rectovaginal fistula in isolation, repair outcomes should be assessed once she is passing stool normally, 4–5 days after surgery. Following surgery for a rectovaginal fistula, the patient should be asked about and examined for any bowel incontinence. The presence of faeces in the vagina is usually enough to confirm a rectovaginal fistula. If in doubt, a rectal dye test should be performed (see Dye Test for Rectovaginal Fistula; page 16). As most rectovaginal fistula patients have a concurrent vesicovaginal fistula, this assessment is usually delayed until the Foley catheter has been removed, so that the rectovaginal fistula and vesicovaginal fistula can be assessed together. However, if the patient complains of passage of stool through the vagina prior to the removal of the Foley catheter, a gentle examination can be undertaken earlier.

### 5.3. Physiotherapy for Ongoing Incontinence

#### Ongoing Urinary Incontinence

Despite a successful fistula closure, depending on the nature and extent of the original injury, postoperatively it is estimated that 15%–33% of women will continue to experience varying degrees of urinary incontinence.<sup>99</sup> Physiotherapy can reduce or even cure this.<sup>100</sup> Identifying the cause of the ongoing incontinence will inform the most appropriate course of treatment. The most common types are:<sup>101</sup>

- Stress incontinence caused by increased pressure on the bladder (e.g. coughing, laughing, exercise or lifting).
- Urge (or urgency) and urge incontinence caused by an overactive bladder, which is usually accompanied by urinary frequency.
- A combination of both stress and urge incontinence.
- Overflow incontinence caused by retention of urine.

Physiotherapy for ongoing incontinence is likely to include regular pelvic floor exercises<sup>102</sup> and/or a bladder re-education programme. The latter, ‘bladder training’, is used to gradually increase the volume of a small and/or scarred bladder so that the patient is able to hold urine in greater quantities and for longer periods of time, without discomfort or leaking, before needing to pass urine. It is also the first line of conservative management for urge and urge incontinence.

<sup>99</sup> Keyser and McKinney. *Implementing Physical Rehabilitation Services into Comprehensive Fistula and Maternity Care: A Training Guide for Health Care Workers*. 45.

<sup>100</sup> L. Keyser, J. McKinney, C. Salmon, C. Furaha, R. Kinsindja, N. Benfield. Analysis of a Pilot Program to Implement Physical Therapy for Women with Gynecologic Fistula in the Democratic Republic of Congo. *Int J Gynecol Obstet* (2014); Y.J. Castille, C. Avocetien, D. Zaongo, J.M. Colas, J.O. Peabody, C.H. Rochat CH. Impact of a Program of Physiotherapy and Health Education on the Outcome of Obstetric Fistula Surgery. *Int J Gynecol Obstet* (2014).

<sup>101</sup> Lewis and de Bernis. *Obstetric Fistula: Guiding Principles for Clinical Management and Programme Development Documents*.

<sup>102</sup> Keyser and McKinney. *Implementing Physical Rehabilitation Services into Comprehensive Fistula and Maternity Care: A Training Guide for Health Care Workers*. 106–19.

Keyser and McKinney<sup>103</sup> recommend that all patients are placed on a bladder and fluid schedule after catheter removal, although it is important to tailor this to the needs of each patient.

### Bladder and Fluid Schedule

Table 1. *Implementing Physical Rehabilitation Services into Comprehensive Fistula and Maternity Care: A Training Guide for Health Care Workers.*<sup>104</sup>

<b>Timed or planned voids (timed urination)</b>
<p>A voiding schedule might be beneficial for patients with urgency, increased/decreased urinary frequency and those who do not have a regular urge to urinate.</p> <ul style="list-style-type: none"> <li>• Immediately after the catheter is removed, the patient should use the toilet every hour, even if there is no urge to do so. This does not need to be continued at night, unless she has an urge to urinate.</li> <li>• After 5–7 days, voiding times should be increased by 15 minutes each week, i.e. week 1 = 60 minutes, week 2 = 75 minutes, week 3 = 90 minutes.</li> <li>• By doing this, the patient may train to void every 2–4 hours.</li> </ul>
<b>Fluid schedule</b>
<ul style="list-style-type: none"> <li>• It is important that patients stay hydrated by drinking enough water or fluids regularly throughout the day. Patients should track their water intake and are often advised to drink 2–3 litres of water per day or 250 mL each hour.<sup>105</sup></li> <li>• The fluid schedule can be timed with the voiding schedule, by encouraging patients to drink a cup of water after going to the toilet.</li> <li>• Patients should decrease water intake 2 hours before going to sleep to prevent nocturia or nocturnal enuresis.</li> </ul>
<b>Triple voiding</b>
<p>This technique may help patients with incomplete voiding or residual urine remaining in the bladder after urination.</p> <ul style="list-style-type: none"> <li>• When patients have the urge to urinate, they are advised to try to empty their bladder three times within 10–15 minutes. After initially emptying the bladder as much as possible, the patient should move around and then try voiding again after 3–5 minutes. This should then be repeated for a third time.</li> </ul>

### Ongoing Faecal Incontinence

Ongoing faecal incontinence after surgery may be due to a deficient internal anal sphincter, which can be difficult to treat, and patients therefore benefit from a multidisciplinary approach, including physiotherapists, dietitians and gynaecologists. However, if such a team is not available, task shifting

<sup>103</sup> Keyser and McKinney. *Implementing Physical Rehabilitation Services into Comprehensive Fistula and Maternity Care: A Training Guide for Health Care Workers.* 102–3.

<sup>104</sup> Keyser and McKinney. *Implementing Physical Rehabilitation Services into Comprehensive Fistula and Maternity Care: A Training Guide for Health Care Workers.* 102–3.

<sup>105</sup> FIGO recommends that the patient should drink sufficient fluid to ensure her urine is clear at all times.

amongst existing staff can be very beneficial, for example training nurses in pelvic floor rehabilitation. Generally, treatment should include pelvic floor exercises<sup>106</sup> and pain management. Dietary manipulation to bulk up stools can also contribute to reducing ongoing faecal incontinence, but this should only be done once the tissues have healed, ideally 3 months post repair.

## 5.4. Predischarge Advice

The period around discharge is a crucial phase in the recovery journey of a fistula patient. As well as carrying out all of the necessary postoperative health checks to ensure that the patient is ready for discharge, comprehensive advice should be offered to ensure a successful transition, including self-management on leaving the hospital, family planning and follow-up.

Information and advice should be carefully communicated to all patients and to their accompanying companions (as appropriate), and is particularly important for those who have had an obstetric fistula. This time should also be used to plan follow-up visits. The topics below should be thoroughly covered in predischarge discussions with the patient and should be tailored according to the injury, type and aetiology of fistula or other reconstructive surgeries described in this manual.

### Self-management

- For patients who had a vesicovaginal fistula, to ensure adequate fluid intake to make certain that urine continues to be clear at all times and to void frequently, or as recommended if following a bladder training regime.
- For patients who had a rectovaginal fistula or perineal tear, to ensure a suitable diet to avoid constipation and straining to push hard stool past the repair, particularly in the first 3 months while the tissues heal. If necessary, to take a laxative (bisacodyl) as prescribed. Note that this advice may need to be adjusted for patients with ongoing faecal incontinence.
- To continue recommended physiotherapy activities, including motor rehabilitation, ambulation, bladder training and pelvic floor exercises, as instructed.
- To avoid heavy lifting and heavy work for 3 months.
- To abstain from sexual intercourse for 3–6 months to prevent repair breakdown, and ideally to avoid a pregnancy for 1 year (if the patient has not had a hysterectomy and is not postmenopausal).
- Occurrence and management of sexual problems, for example vaginal stenosis.
- How to prevent the development of a subsequent obstetric fistula.

**Family planning, future pregnancies and fertility** (for patients who have not had a hysterectomy and are not postmenopausal)

- Information on family planning and a suitable method of contraception offered.
- Information about possible infertility as a result of the fistula.

<sup>106</sup> Keyser and McKinney. *Implementing Physical Rehabilitation Services into Comprehensive Fistula and Maternity Care: A Training Guide for Health Care Workers*. 106–19.



For all women who still have or have had an obstetric fistula (whether the repair was successful, partially successful, unsuccessful or if no repair was done), to ensure delivery by elective caesarean section in all subsequent pregnancies.

### **Communication and Support**

- Contact details of the repair facility (and/or key staff members) should be routinely given to patients in case of any further incontinence, postoperative problems or for future pregnancies.
- Contact details for further support and counselling should always be given in case additional emotional and social support is needed.
- Some facilities may discuss whether the patient is interested in raising awareness about obstetric fistula within her community to prevent and/or help other women with the condition by referring them to appropriate treatment centres.

### **Follow-up Appointments and Journey Home**

- Follow-up appointments should be arranged at 3, 6 and 12 months postoperatively and clearly explained to the patient before discharge.
- The importance of keeping follow-up appointments should be emphasised and any potential barriers that could affect follow-up addressed, e.g. by providing financial support for travel to and from hospital.

After surgery, many facilities also arrange transport for patients to return home at no additional cost. It is critically important that the patient is advised to request regular toilet stops on the way home to avoid overdistension of the bladder and potential breakdown of a vesicovaginal fistula repair.

- All operative and postoperative details should be recorded on a discharge card, which the patient should be advised to keep safe and to present to health teams in all future pregnancies.