Chapter 5

Postoperative Care

Managing the ward

A well-organised and managed ward is essential for optimal postoperative recovery of patients. Having a nurse in charge, managing the patients and delegating tasks to staff, helps to ensure that all patients are well cared for (Figure 39).

Patients returning immediately from theatre after a fistula operation should be nursed in beds near the nurses' station and not at the bottom of the ward, where they are more likely to be neglected. Depending on the difficulty of their operation, they should be looked after within view of the nurses' station until their vital signs are stable (blood pressure, pulse rate and respiratory rate), their pain is controlled and they have no significant bleeding.

Figure 39 Mother Winnie and Sister Pauline in the well-run fistula ward in Kitovu Hospital, Uganda

This can be difficult to manage when there are many patients for theatre during a camp, but it is vitally important to get this right to ensure all patients get the best care possible.

If there is a shortage of beds, patients undergoing an operation for a perineal tear repair can be cared for further down the ward, as they are more likely to be able to mobilise the following day and be discharged within a few days after their operation.

The nurse in charge should know which patient is in theatre during operating times, where their bed is when they return from theatre and should delegate which staff will be responsible for looking after them.

Transferring patients from trolleys to bed

Most patients having had a fistula operation, or repair of a 3rd or 4th-degree tear will be operated on under spinal anaesthetic. They will thus be unable to move their bottom or legs to transfer from a trolley to their bed as the spinal anaesthetic will keep them numb for several hours following surgery.

The best way to transfer patients post-surgery is to have a team of nurses and use a slide sheet, if available, or a piece of polythene sheeting underneath the patient. One nurse needs to support the head, another the feet and legs and two to slide the patient onto the bed. Make sure the catheters are not caught up and end up pulling on the balloon inside the bladder, which may be sitting beside the repair.

The safest way to transfer patients requires a team of nurses with the person at the patient's head taking charge of the transfer (Figures 40a and 40b). Having more people assisting will also help to reduce the likelihood of nurses suffering from back injuries in the longer term.

Figure 40a Transferring a patient from trolley to bed using a slide sheet

Figure 40b Transferring a patient from trolley to bed using a slide sheet

Catheter care

Urinary catheters

The most important part of postoperative care of a VVF patient is looking after the urinary catheter. All patients will return from theatre with an indwelling urinary catheter, which will stay in place for at least 10–14 days after their operation.

As previously discussed, the bladder wall has been repaired as well as the hole in the wall of the vagina in a fistula repair. To allow the wound on the bladder wall to heal, the bladder needs to be kept drained and decompressed. If for any reason the catheter gets blocked, the bladder will fill up with urine, causing the repair site to stretch and possibly rupture, with subsequent failure of the fistula to heal. This is a very poor situation for the patient as well as the nursing team, as it will cause great distress to the patient when she realises that she is still wet, while surrounded by patients who have had successful repairs. It is also time consuming for the nursing staff, as the patient will need a lot of care and counselling to convince her that it is worth returning in the future for further surgery.

The easiest way to look after the catheter, and ensure free drainage at all times, is to cut off the catheter bag when the patient returns from theatre and have the catheter tubing draining into a bucket or basin (Figure 41). In our experience, cutting off the catheter bag and allowing it to drain freely does not pose any increased risk of bladder infection, as

there is a continuous drainage of urine (Figure 42). This also prevents a heavy urine bag potentially pulling on the bladder and repair wound.

The patient and her attendant should be advised to make sure the catheter is always draining and if they think it has stopped dripping, to inform the nurse on duty immediately. Overnight, the night nurse needs to check the catheters are all draining at least every hour, but this can be made more manageable by asking the patient's attendant to keep checking as well. Finding blocked catheters in the morning and failed repairs are common with poor nursing care, yet are entirely preventable.

Figure 41 Catheter draining into a basin under the bed

Figure 42 Catheter on free open drainage

To protect the bladder repair site, the catheter should not pull on the bladder. To avoid any pulling of the catheter, it should be securely strapped to the patient, preferably on the abdomen or thigh (Figure 43). This is when the nurses need a good supply of strapping and should check the patient's catheter is secure every morning before they get out of bed to mobilise. It is helpful to advise the patients to report to the nurses if the strapping comes off or the catheter is not secure.

Figure 43 Catheter secured to the abdomen

Patients may occasionally return from theatre with the catheter secured by a suture to their mons pubis (Figure 44). This is entirely acceptable, although strapping will also be required in addition to the suture. However, the patient may start to complain that the suture is causing pain once they are mobile. If this is the case, then at this stage it is best to remove the stitch for patient comfort, but it is essential to ensure the catheter is adequately secured with strapping.

Figure 44 Catheter secured with a suture to the mons pubis

It is important to prevent the patient from tying the catheter to their bed, as this is likely to pull on their bladder when they move around in bed (Figure 45). Patients need to know that the bucket should be on the floor if they are in bed to allow gravitational drainage of the catheter. They should not have their bucket on the bed beside them.

Figure 45 Bucket tied to bed can cause pulling on the catheter

A long handle can be made from the patient's used IV giving set to allow them to walk around with their bucket and have the catheter draining freely (Figures 46-47).

Figure 46 Making long bucket handles from used IV giving sets

Figure 47 Patients mobilising with catheter on free drainage

Closed drainage systems are available such as the urimeter bag, but these are expensive and rarely available in most hospitals (Figure 48). They also require vigilant nursing care to empty the measuring chamber hourly and record on a fluid balance chart.

Some centres may leave the catheter bag *in situ* as a closed drainage system. However, there is no way of knowing if the catheter has stopped draining and has blocked until the patient complains of abdominal pain as the bladder has filled up, which may cause the repair to fail.

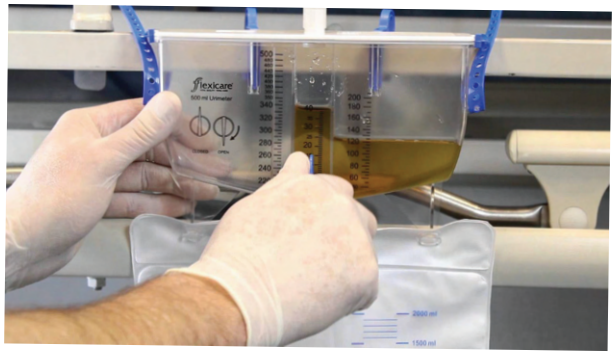

Figure 48 Urimeter in use to measure urine output

Patients who have undergone a perineal tear repair will also return from theatre with a catheter. These patients have had no injury to the bladder but have the catheter in place to prevent urinary retention postoperatively. They can keep their catheter bag attached and empty the bag when it fills up. Most of these patients will have the catheter removed the next day and be encouraged to mobilise.

Ureteric catheters

Following some complex VVF repairs, and ureteric reimplantation operations in which the ureter has been damaged during a caesarean section, ureteric catheters are used as well as an indwelling urinary catheter. These patients will return from theatre with a Foley catheter inserted into the bladder and either one or two ureteric catheters depending on the operation. The ureteric catheters are used to help protect the repair site, where the ureter has been reattached to the bladder, to keep the ureter open and allow healing.

There are two types of ureteric catheters used in fistula surgery:

1. The self-retaining double J- or J-stents used in ureteric reimplantation;
2. Non-self-retaining ureteric stents.

The double J- or J-stents are left in the patient for 2–6 weeks. These need to be removed endoscopically by a surgeon, as they are internal stents.

Non-self-retaining ureteric catheters are usually left in place for 7–10 days, but there will be specific postoperative instructions from the surgeon on when they should be removed. Occasionally ureteric catheters are used to protect the ureters during difficult cases and may need to be left in for only 3–5 days; however, instructions for their removal will always be guided by the surgeon.

Ureteric catheters do not have a balloon keeping them in place and are often stitched to the skin (Figure 49). Care is needed in looking after them and ensuring that they do not accidentally fall out before they are due to be removed. Patients may return from theatre with these exiting through the skin of the abdomen and stitched in place, making it easier to care for them. The ureteric catheter can also exit through the urethra with the Foley catheter and both catheters may

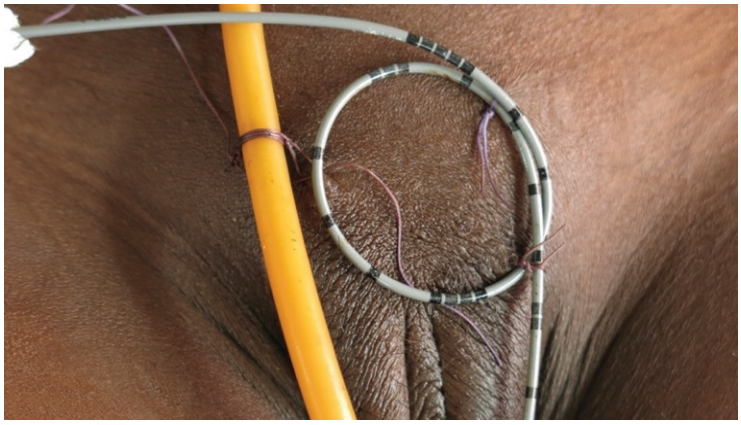

Figure 49 Grey ureteric catheter stitched securely to the skin

be taped together. Care is needed in separating these if the Foley catheter gets blocked.

Draining ureteric catheters without them leaking can be challenging, particularly when the patient starts to mobilise. Most ureteric catheters are inserted into the tubing from an IV giving set or catheter bag without proper connectors (Figure 50). The patient may be disappointed to find their bed is wet, but on careful examination the ureteric catheter has usually become disconnected from the tubing draining it into a bucket or the connection is just poor and so it leaks. The patient needs to be reassured that they have not become wet again and the problem is from the catheter.

Figure 50 Connector for ureteric catheter

Patients who have ureteric catheters as well as a Foley catheter will find that more urine will collect from the ureteric catheter as it is situated nearer the kidneys, causing reduced urine output in the Foley catheter. This is entirely normal and to be expected. The patient will still need to drink plenty but should not be concerned if there is only a small amount of urine draining from the Foley catheter.

Fluids

Most patients will be able to start drinking as soon as they return from theatre (Figure 51). They should be encouraged to drink enough fluid until their urine is clear. A drinking straw can be made from their used IV giving set to allow them to drink while lying in bed.

Many fistula patients will not be used to drinking much liquid, particularly if they have had their fistula for many years. They will have tried to control their incontinence by severely restricting their oral intake. Ensuring that they drink enough postoperatively can be particularly challenging as the patients often fear that they may become wet again. It is vital to stress to patients the importance of drinking to keep the bladder flushed and prevent blood clots blocking the catheter.

Figure 51 Drinking starts as soon as patient returns from theatre

If a patient is reluctant to drink, make sure you check on them regularly and encourage them to keep their fluid intake up. It is a good idea to gain support from the attendant regarding this and make sure they are providing plenty for the patient to drink. You can tell if the patient is drinking enough by the colour of the urine: yellow urine means fluid intake is insufficient (Figure 52); clear urine is good (Figure 53)!

Figure 52 Concentrated urine

Figure 53 Clear urine

All patients will return from theatre receiving IV fluids. These can be stopped when the patient is drinking, and the urine is clear. However, some patients may experience nausea after a spinal or general anaesthetic. These patients will need the IV fluids to continue until they are able to drink, which may take 24–48 hours. Giving anti-emetic medication, if available, may help control their symptoms.

Diet

Most patients will be able to start eating their normal diet the day after surgery for VVF repair, when fully recovered from the anaesthetic. Their normal foodstuffs are recommended and they should not change their diet as this may cause diarrhoea or constipation. However, patients who have undergone RVF, perineal tear repair or ureteric reimplantation should introduce food more slowly. Clear fluids, soups or porridge for the first 2 days, moving onto a light diet for a few days are recommended and constipating foods should be avoided. Laxatives are recommended for these patients to avoid constipation and subsequent strain on the repair site.

Pain relief

Most patients who have had a fistula repair undertaken vaginally will require little analgesia (Figure 54). A few may require diclofenac in the first 24 hours postoperatively, then paracetamol for a few days if they have pain.

Those who have had a flap as part of the surgery or a repair done through the abdomen will require more pain relief, with an opiate for the first 24–48 hours depending on the extent of the surgery and how much pain they experience. This can be reduced to diclofenac and paracetamol as their pain reduces.

Figure 54 Pain-free patient lying comfortably in bed

It is important to always ask the patient if they have any pain rather than assuming that if they are lying in bed not moving, then they have no pain. It is often the opposite in that they may be unable to move due to the pain they are experiencing. Adequate pain relief allows the patient to be up mobilising sooner and will help promote healing.

If a patient complains of pain, particularly lower abdominal pain, always check the catheter is draining before giving analgesia. Ensure the catheter is not blocked from kinks (Figure 55) or clots (Figure 56), or that it has not fallen out. The first sign that the catheter is no longer draining may be that the patient has a full bladder. Always carry out these checks first.

Figure 55 Catheter kinked

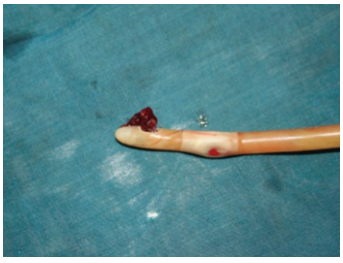

Figure 56 Blood clot blocking a catheter

Bladder spasm

Some patients may experience bladder spasm in the immediate postoperative period causing urine to leak on the outside of the catheter. They will complain of feeling wet and have lower abdominal pain. A thorough examination is needed to determine from where the urine is coming, checking the bladder is not distended and the catheter not blocked. Buscopan® (hyoscine) can be given to treat the spasms. Other drugs such as oxybutynin or solifenacin may also be used.

Antibiotics

Some surgeons will give no antibiotics, but most will give a prophylactic dose of gentamicin in theatre at the start of surgery. It is recognised that infection usually results from contamination during the operation, so a single dose given before the operation starts is common practice.

If there has been accidental faecal contamination during the operation or a rectal or sphincter repair has been undertaken as well, gentamicin 160 mg IV daily for 3 days and metronidazole 500 mg IV 8-hourly for 48 hours is recommended.

Monitoring vital signs and wound checks

All patients who have undergone surgery should have observations taken and recorded when they return from theatre. An observation chart should be kept in the patient's notes or at the end of the bed and the patient's blood pressure and pulse should be recorded every hour for at least the first 4–6 hours after surgery, then reduced to 4-hourly, if stable.

A drop in blood pressure and rise in pulse may be a sign that the patient is bleeding. It is vital that this is detected early to allow the patient to be taken back to theatre for the bleeding to be addressed before problems arise.

The patient's pad and visible parts of the vaginal pack (as well as any external wound) should also be checked hourly after return from theatre for any signs of bleeding. For many this will involve checking that there is no fresh bleeding from the vaginal pack (Figure 57).

Once patients are stable and mobile, daily temperature, blood pressure and pulse should be taken to observe for any sign of infection over the

Figure 57 Postoperative wound check for bleeding

next few days or weeks. Early detection and prompt intervention with antibiotics will hopefully prevent any breakdown of wounds, which can lead to failed repairs.

It is the responsibility of the nurse in charge of the fistula ward to ensure that observations are taken and recorded. This can be delegated to other members of staff, but the nurse in charge must ensure this has been done. As well as the daily observations, the nurses should record on the chart each day whether the patient remains dry, is drinking and her catheter is draining – the three Ds (Appendix B) (Figure 58).

Figure 58 Patients drinking, draining and dry

Wound checks should be carried out daily for all patients who have had a 4th-degree tear repair, particularly once their bowels have started moving. The nurse needs to check that the wound is being kept clean and advise the patient to wash after passing stool.

Wound checks are easiest to do with the patient lying on their side with knees to their chest (Figure 59). These repairs are prone to infection and breakdown if the wound is not kept clean and dry. It is important to stress to patients the importance of keeping the wound clean. This is because some patients may fear and thus resist cleaning the wound as they are worried about touching the stitches.

Figure 59 Daily wound check on perineal tear operations

Removal of vaginal packs/perineal hygiene/pads

After a surgical repair for fistula or 3rd/4th-degree tears, patients will return from theatre with a vaginal pack *in situ* to stop any bleeding by applying pressure in the vagina and to soak up any residual bleeding from the operation. These packs should be removed the day after surgery to prevent infection.

Removal of the vaginal pack is best carried out during perineal cleaning (Figure 60). Perineal washing is necessary postoperatively, to clean any discharge, blood or clots from the perineum and catheter, as well as to reduce the risk of localised infection.

The pack should be soaked with dilute Savlon or saline before it is removed, as this makes the pack slide out more easily, thus reducing discomfort for the patient as much as possible. Vaginal packs made of Vaseline® gauze are easier to remove, as they do not stick to the vagina.

Figure 60 Removal of vaginal pack and perineal washing

These packs can be made in the hospital by adding a small amount of petroleum jelly (Vaseline) to the sterilising drum containing vaginal packs. The heat during sterilisation will melt the Vaseline, which will soak into the vaginal packs.

During removal of the pack, the patient may experience some discomfort, but this will be temporary. Good lighting is needed to inspect the pack after removal for any sign of infection or fresh bleeding. It is important to ensure that there is no gauze left in the vagina, as this can be a source of postoperative infection and lead to breakdown of the repair.

Perineal washing should be carried out daily after a fistula repair. The patient is encouraged to do this herself when bathing. However, if the patient is generally unwell or has had extensive surgery and needs longer to recover in bed, she will need a daily bed bath, which will include careful perineal washing with dilute Savlon or similar by the nursing staff.

As discussed previously, the perineal tear repair wounds need to be cleaned following every bowel motion. A small bucket of water is adequate to enable patients to do this after using the toilet.

Sitz baths may be recommended for perineal washing in some centres. To do this the patient fills a basin with warm water and a teaspoonful of salt and sits in the basin for 5–10 minutes to clean the perineum. However, this is impractical for many women as they may not have ready access to warm water or somewhere private to do this. Current research

suggests that there is no reduction in postoperative infection rates or pain relief from the use of sitz baths.

Pads should be provided to soak up any bleeding after the vaginal pack has been removed. These pads can be made by the nursing staff using gauze and cotton wool (Figure 61). Large amounts of bleeding should be reported to the ward staff and the medical staff informed if the bleeding is significant.

Figure 61 Making pads from gauze and cotton wool

Mobilisation of patients

Following straightforward vaginal fistula repair, most patients can be up mobilising the next day, with their catheter draining into a small bucket that they can carry around with them (Figure 62). Patients with footdrop will need the support of their relative or attendant to help them ambulate and carry their bucket.

Patients who have had abdominal surgery including ureteric re-implantation, flaps or grafts will need to spend more time resting in bed

recovering. If well enough, they can be out of bed and gently mobilising around the ward the day after their surgery. It is best to keep these patients' beds near the nurses' station, as they will require more nursing care. They can be moved further down the ward when they are well and have not developed any postoperative complications.

3rd and 4th-degree tear patients will have their vaginal pack and catheter removed the day after their surgery and be up and walking. If there is a shortage of beds on the fistula ward, these patients can be moved to other wards to be looked after as they will require little care once they are mobile.

Figure 62 Fistula patients mobilising postoperatively