

# Chapter 1

## Introduction

This book aims to help teach and empower all nurses to have the ability to provide good, effective nursing care for all patients following surgery for vesicovaginal fistula (VVF), rectovaginal fistula (RVF), and 3<sup>rd</sup>- and 4<sup>th</sup>-degree tears. The care is not difficult or complicated but is specialised and requires knowledge of the specific surgery each woman has had to enable nurses to provide high quality, holistic patient care. Nursing care is required before, during and after surgery to limit postoperative complications and to ensure that women have a safe, uneventful recovery.

As most fistula surgery is currently undertaken in routine fistula care facilities with the addition of surgical camps, this book is a guide to the specific nursing care required in a dedicated fistula hospital/unit or during a fistula camp.

In specialised fistula care centres, patients are cared for by a multidisciplinary holistic care team, which includes ward and theatre nurses, physio and rehabilitation specialists, psychosocial support counsellors, nutritionists as well as the doctors and surgeons. However, not all patients will have access to all these healthcare specialists, this will depend on what is available where they present for surgery.

Surgical repair of VVF is a difficult task owing to the nature of the injury involving the bladder, vagina and often urethra, because of the tissue loss associated with the defect. Associated nerve damage involving the urethral sphincters and filling mechanism of the bladder affects the body's ability to maintain urinary continence. A highly skilled surgeon is needed to successfully repair obstetric fistula (Figure 1).

In fistula-affected countries, there are very few surgeons with the training, skills and experience required to successfully carry out these operations which, combined with a lack of funding for fistula work, makes it difficult for these women to get help. Ideally fistula surgery should be carried out in specialised centres on a regular basis, but unfortunately these are few and far between, in addition to the scarcity of trained fistula surgeons, there is also limited theatre space for elective gynaecological and surgical cases.

However, the International Federation of Gynecology and Obstetrics (FIGO) is currently addressing the training of fistula surgeons with their comprehensive Fistula Surgery Training Initiative. There are now many surgeons and holistic fistula care teams enrolled in the training programme from countries all round the world with a high obstetric fistula burden.



Figure 1 Highly skilled surgeons at work

Although there is a dedicated fistula hospital in Ethiopia, the Addis Ababa Fistula Hospital, and other centres which provide ongoing fistula care, some surgery is also undertaken at surgical camps where teams of surgeons and other health professionals work together to provide care for the fistula patients. Surgical camps are usually funded by aid agencies or charities, generally allowing the women access to surgery and treatment for free.

However, it is estimated that for every one woman who has surgical treatment, there are another 50 women who have not been able to access surgery. Most of these women will have very little knowledge of what caused their fistula or that treatment is available for their condition, with some believing they have been cursed or that witchcraft has been used. Many of the women live in inaccessible rural areas with poor transport links. They may not have the money to travel to the treatment facility or surgical camp. Some also fear attending treatment services or use traditional medicines to try to cure their fistula in place of modern medical practices.

## **Morbidity**

Obstetric fistulas are estimated to affect between 50 000 and 100 000 women worldwide each year. The development of obstetric fistula is directly linked to obstructed labour, one of the major causes of maternal mortality.

Women who suffer from obstetric fistula experience continuous incontinence of urine and/or stool, stigma, social isolation and associated health problems. The World Health Organization estimates that there are currently more than 2 million women living with untreated obstetric fistula mostly in sub-Saharan Africa and Southeast Asia, as well as in various other parts of the world.

Obstetric fistula is preventable and can be avoided with access to safe delivery services and timely emergency obstetric care.

Sadly, obstetric fistula disproportionately affects the poorest women in the world who are likely to be uneducated, with little understanding of what has happened to them, often married at a young age and with the expectation of producing many children. Most of these women live in rural villages with limited access to healthcare (Figure 2). Their villages may be very long distances from hospitals with poorly developed road networks and local transport, making travel difficult (Figure 3).

Poverty is also a major factor that increases the likelihood of suffering from obstetric fistula, as women in these environments often have very little money to pay for transport to hospital or any costs incurred by a hospital stay if they run into problems during childbirth. Women who suffer from obstetric fistula often live in countries in which women's rights and social status are poor, meaning they will have limited power to make decisions for themselves on where they deliver their baby. Many will deliver at home without trained birth attendants such as midwives. These decisions are often made by the men in the household.

Many women in low-income countries, including those in Africa, deliver their babies at home with the local traditional birth attendant supervising the birth. The birth attendants are women in the village who oversee deliveries with no formal obstetric training, whose skill tends to be 'learned' having been passed down through families.

This works well for most straightforward births and the traditional birth attendants deliver hundreds of babies safely.

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However, the traditional birth attendants do not always recognise early enough when labour is obstructed and when a caesarean section is the only option for safe delivery of a live baby. A series of events then unfolds with a delay in recognising obstruction, compounded by further delays in getting to hospital and then in getting to theatre for a caesarean section. By this time, the baby is usually dead and, if the mother survives, she is likely to have developed a fistula from the pressure of the baby's head in the pelvis during obstructed labour.



Figure 2 Rural settings where women deliver



Figure 3 Transport can be difficult due to poor road networks

## Vesicovaginal fistula, rectovaginal fistula and 3<sup>rd</sup>- and 4<sup>th</sup>-degree tears

Most fistulas develop following obstructed labour and are called obstetric fistula, which can be divided into vesicovaginal and rectovaginal. Obstetric fistula can be urinary (VVF) or faecal (RVF) or both. VVF occurs where a 'hole' is formed between the bladder and the vagina causing continuous leakage of urine through the vagina (Figure 4).

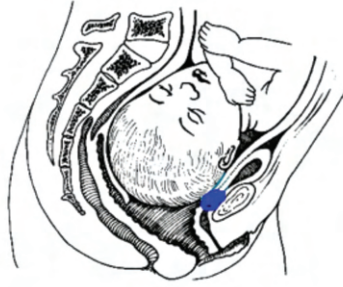


Figure 4 Area in blue shows site of vesicovaginal fistula

In some cases, there may also be a 'hole' or fistula between the bowel and the vagina (RVF), which leaves the patient leaking faeces through the vagina. RVFs (Figure 5) are very rare in isolation and usually occur with a VVF following the woman's first delivery when the labour has been a day longer than for an isolated VVF.

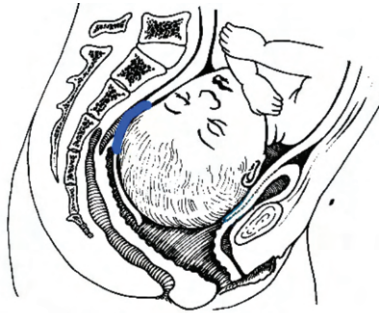


Figure 5 Area in blue shows position of a rectovaginal fistula

These women sometimes also suffer from nerve damage from compression of the lumbosacral plexus, resulting in footdrop often from involvement of the L5 nerve. They may attend with a limp or walk using a stick. In most cases, the footdrop slowly recovers, but can take up to 2 years and, in severe cases, may never recover.

Other factors leading to the development of fistulas requiring surgical intervention to cure are mainly iatrogenic, and caused by damage to the bladder, vagina or ureters during hysterectomy or caesarean section. Iatrogenic fistulas are more likely if the obstructed labour is very prolonged and maternal tissues are in a very fragile state. Good midwifery care and timely referral for caesarean section for obstructed labour are critical to reduce the risk of iatrogenic injury.

Damage occurs accidentally, potentially during a difficult caesarean section operation where the uterus has ruptured. Injury to the bladder or ureter may inadvertently happen during this life-saving procedure. Poor lighting, limited surgical instruments and lack of surgical expertise can all increase the risk of an iatrogenic fistula occurring after a hysterectomy. Problems may not be noticed for several days or weeks after surgery.

Assisted vaginal deliveries such as vacuum extraction, if not carried out correctly, can result in the wall of the bladder, vagina or rectum becoming trapped in the vacuum, potentially resulting in an iatrogenic fistula. A similar situation can occur following instrumental delivery using forceps.

Fistulas can also develop with bladder tuberculosis or advanced cancers; these are often inoperable as they are unlikely to heal or will reform as the cancer advances.

Other causes include radiotherapy, trauma, sexual trauma and congenital defects.

Perineal tears (Figure 6), although not defined as fistulas, are another common cause of incontinence in women following the birth of their baby. In these situations, incontinence is faecal, meaning that women leak stool due to either complete or partial rupture of their anal sphincter muscle. Rupture of the anal muscle can happen following fast delivery of a baby, where there is no protection of the perineum during the birth. This can cause a tear in the perineum that extends into the rectum.

Complete rupture of the anal muscle with involvement of the skin between the vagina and rectum is known as a 4<sup>th</sup>-degree tear. With 3<sup>rd</sup>-degree tears, the anal sphincter is ruptured, but women still have an intact anus and rectal wall.



Figure 6 3rd-degree tear

### Psychosocial effects of obstetric fistula

It is estimated that 97% of women living with a fistula suffer from depression and 40% have had suicidal thoughts or make attempts to end their lives. Many women with a fistula will lead very restricted lives, unable to leave their homes, socialise at the market or attend religious services. They are unable to have paid employment as a result of their incontinence and, consequently, have little money. Some may be living in isolation after their husband or partner has left and are ostracised by their families and community because they smell strongly of urine and/or faeces.

These women have sustained dreadful injuries through no fault of their own. As well as having a fistula and being constantly wet with urine (Figure 7), most will also have endured the trauma of having delivered a dead baby.



Figure 7 Young girl with constant urine leakage from a fistula

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To put yourself in the position of these women is unthinkable for most of us, so we need to treat them with respect and offer them the compassionate care they deserve.

When women, and girls, present for treatment, we must respect their right to privacy and allow them time to tell their story, understanding that they are probably terrified even though they have come for help. This is an intimate injury and showing kindness and being empathetic to their situation will help them to feel safe, valued and potentially even loved again. This is a role at which nurses can excel, in gaining the trust of the patients and making their hospital stay as positive an experience as possible.

The environment of a fistula treatment facility is a good way of introducing patients who have gone through similar experiences to discuss their problems with each other and develop a support network during their hospital stay. Many women attend for help in a very depressed state, but flourish as they are physically repaired, meet others in similar situations and are encouraged with the help of the nursing staff. Social activities during the day such as knitting, sewing lessons, painting nails or plaiting hair help to bring the women together and encourage them to talk (Figures 8-10).



Figure 8 (top) Knitting lessons; Figure 9 (below left) Nail painting;  
Figure 10 (below right) Sewing lessons

## Need for good nursing care for fistula and perineal tear

High-quality nursing care requires a good understanding of the suffering the women have endured from fistula and perineal tears. These women all need to be treated with dignity and respect when they arrive at a hospital for help. Many will have a strong offensive odour from being incontinent of urine or faeces, made worse by the urine being more concentrated as they reduce their fluid intake in an attempt to control the leaking (Figure 11).



Figure 11 The indignity of living with a fistula

All hospital workers who come in to contact with these patients need to be sensitive towards the women and avoid using language that makes the patient feel bad about her condition.

Showing kindness to this very frightened group of patients will help them relax and feel that someone cares for them. During their hospital stay, all staff should aim to treat them as if they were their sister, mother or grandmother. The well-known expression that guides us to 'treat others as you yourself would want to be treated' can be a worthwhile guiding principle. Staff should remember that the situation that these women and girls find themselves in is no fault of their own. Nurses who can show empathy and kindness are role models for their peers and nursing students.

## Basic equipment needed for nursing VVF patients

Fistula nursing care requires little equipment, but there are a few items that are needed before surgical treatment begins. These items are listed here and can be obtained for a small amount of money and are usually included in the costings in a camp setting (Figure 12).

### *Nursing Care for Women with Childbirth Injuries*

- A small bucket into which to drain a urinary catheter is needed for each patient. This allows the patient to mobilise as soon as possible with her urinary catheter on free drainage.
- Strapping or tape to ensure catheters are fixed securely on the patient's abdomen to avoid any pulling on the catheter in the bladder.
- A sterile 60-ml or 100-ml catheter tipped syringe and a bottle of sterile saline for flushing blocked catheters. It is a good idea to have a few sterile packs made up in advance with a receiver (kidney dish) and syringe.
- Savlon® or similar antiseptic for vulval toilet and perineal hygiene postoperatively.
- Sanitary pads made from gauze and cotton wool.
- Water-soluble lubricant (K-Y® jelly).
- Extra urinary catheters in case any need to be replaced and cannot be unblocked.
- Analgesia – ensuring that there is a ready supply of analgesia before camp begins is useful. A supply of opiates, anti-inflammatories and paracetamol is required.



Figure 12 Basic items of equipment required

## Infection prevention

### *Hand hygiene*

Hand hygiene is one of the most important steps in the prevention of healthcare-associated infections by the spread of harmful micro-organisms. Hand hygiene means washing hands or using an alcohol-based hand rub after touching a patient. Alcohol rub can be used after three consecutive patient contacts, then hands should be washed with soap and water. If using gloves, these should be discarded after use on a single patient.

A water dispenser and soap should be available for hand washing. Ideally, the soap should be dispensed from a hand pump container. Hand hygiene should be carried out in accordance with World Health Organization guidelines (Appendix A). Good hand hygiene will help protect patients in your care, colleagues, yourself and your family.

### *Cleaning*

Another source of hospital-acquired infection is from the ward beds and mattresses. Each time a patient is moved off a bed, the mattress should be washed with disinfectant and dried before making the bed for the next patient. The bedframe should also be washed down to prevent cross infection.



Figure 13 Example of a well-kept, clean surgical ward

### *Nursing Care for Women with Childbirth Injuries*

Cleaning of the ward floor should be carried out every day and more often if there are spillages of urine or blood, which is common with open urinary drainage systems (Figure 13). This will help prevent infection and contamination of patients in the postoperative period.

Patient toilets need to be kept clean and disinfected daily. A hospital cleaner should take care of this important job. Any rubbish including used sanitary pads need to be cleared up regularly and the patients advised to dispose of this waste in the correct hospital bin.

Wash areas for patient use need to be cleaned at least daily. Patients are advised to bathe every day, including daily vulval and perineal washing and to pat the skin dry to reduce postoperative infection. They should be encouraged to clean and dry their perineum after passing stool. Patients should also avoid inserting their fingers into the vagina, as they may damage the repair.