For the person with a stoma such as a colostomy, ileostomy or urostomy, the invasive nature of the procedure means that there can be complications such as poor stomal output, sore skin around the stoma or malodorous urine. An assessment is necessary to establish the cause of the problem, as this will provide information needed to choose the appropriate treatment. This article will discuss a variety of complications that can occur for the person with a stoma, as well as discussing the presentation, assessment, treatment options and how community nurses can ensure that any treatment continues to be effective into the future.

**STOMAS**

There are three main types of stoma; colostomy, ileostomy and urostomy (Burch, 2008). A colostomy is formed from the large bowel (colon) and will pass formed faeces and flatus into a closed stoma appliance (Figure 1). The appliance will need to be replaced anything from three times per day to three times per week.

An ileostomy is formed from the small bowel (ileum) and will pass loose faeces and flatus into a drainable appliance fastened with a Velcro-type fastening. The faeces need to be emptied from the appliance between 4–6 times daily and the appliance is replaced every 1–3 days on average.

Finally a urostomy, also termed an ileal conduit, is formed from the small bowel to divert urine and a small amount of mucus into a drainable appliance fastened with a ‘tap’ or ‘bung’. Urine is passed continually and needs to be emptied between 4–6 times daily — the appliance itself is generally replaced every couple of days.

**STOMA COMPLICATIONS**

Living with a stoma can be difficult. Danielsen et al (2013) report that people often endure self-imposed isolation as a way of keeping the presence of their stoma secret; this feeling of isolation can be compounded if there is a problem with the stoma.

There are many complications that can occur with a stoma and which the community nurse may encounter — these include sore skin, a prolapsed stoma, infection and constipation (Bartle et al, 2013). Complications can occur immediately after surgery or many years later, however, the most common problems (sore skin and leaking stoma appliances) often develop within the first year post-surgery (Jonkers et al, 2012).

Stoma complications are quite common (Persson et al, 2010) and can have a serious effect on the person’s quality of life (Pittman et al, 2008). Thus, a swift resolution of complications is necessary to reduce issues such as pain or embarrassment that arise when an appliance leaks. Similarly, if an appliance does leak it will need replacing and additional costs will be incurred — effective use of stoma accessories can reduce the cost of leaking appliances (Boyles, 2010).

**ASSESSMENT**

When a patient with a stoma (often referred to as an ostomate or ostomist) presents to the community nurse with a complication, a full assessment needs to be undertaken before any treatment can be recommended (Burch, 2014a). Patients often try to resolve any problems with a stoma themselves before seeking assistance, therefore it is important to find out what preceded the problem; if any treatment has been already instigated; and the effect of this treatment.

![Figure 1. Diagram showing different colostomy sites.](image-url)

Jennie Burch, enhanced recovery nurse facilitator, St Mark’s Hospital, London
There are several assessment tools described in the literature which may help the community nurse formulate an assessment protocol, including Buckle (2013) and Haugen and Ratliff (2013), but none are universally accepted as ‘gold standard’.

When assessing the peristomal skin it is necessary to describe any damage using simple terminology such as ‘broken’, ‘oozing’, ‘ulcerated’, erythematous’ and ‘bleeding’ (Ferrer et al, 2010). In addition, it is important to document the extent of the sore skin, for example does it extend to the stoma itself; is it a small area; does it include the entire area of the stoma flange?

A healthy stoma should be red or pink in appearance and warm to the touch (with gloved fingers). Ideally, a colostomy will only be slightly raised above the skin, while an ileostomy or urostomy will be formed with a small spout of about 25mm. If a patient presents with a problem it is also necessary to establish if they feel the appearance of the stoma is ‘normal’ or whether any changes have occurred.

It is also important to establish if the output from the stoma has changed, particularly with regards to appearance or odour.

After a thorough assessment of the stoma, the skin and the stomal output, it is generally possible to make a diagnosis of the problem, which may include leakage, prolapse, urinary infection, constipation etc (see below for a full explanation of potential problems). Treatment is then based on this assessment and diagnosis.

**TREATMENT**

There are a variety of treatments that can be used and many problems can be resolved with a stoma accessory such as stoma powder and/or seals. This section explores the common issues that can affect the stoma patient and the appropriate treatments.

**Ongoing evaluation**

It is essential to continually evaluate the efficacy of any treatment or advice provided, particularly in the community. Regular follow-up must be part of the ongoing care plan and if the problem does not resolve or worsens, a referral to a stoma specialist nurse is warranted.

**Sore skin**

Sore skin is common, with a quarter of ostomates reporting this problem (Smith, 2002). Ratliff (2014) stated that more people with an ileostomy or urostomy were likely to have sore skin compared with those who have a colostomy; this is caused by corrosive enzymes in the faeces touching the peristomal skin (Burch, 2014b).

Salvadalena (2013) reported that two-thirds of ostomates developed sore skin within the first three months of stoma formation. It is vital to establish the cause to help to plan treatment. When assessing sore skin it is important to establish how often and why the bag is being changed. In general, appliances are replaced every day or two, but if there is a leak this will increase. If there is a change in the stomal output or in the person’s weight, this can also cause problems. If the output is looser than usual, the faeces can be more corrosive on the skin; similarly, if the faeces are looser it is more likely for the appliance to leak. If the person’s weight changes this may alter the shape of the skin around the stoma (peristomal skin).

If the levels of peristomal skin or the shape of the stoma itself change this can cause problems with appliance adhesion, for instance if a crease develops in the skin the appliance may not stay in place correctly. To prevent the appliance from leaking, the peristomal skin should be smooth and without creases. If a crease is noticed, this can be ‘corrected’ using a seal or washer. These are made from a pliable hydrocolloid material and can be used in their entirety or in small sections to smooth out ‘dips’ or creases in the peristomal skin before application.

The stoma will shrink in size for about the first eight weeks after it is formed and during this period the ostomate should reduce the size of the aperture in the appliance flange. Not doing this may result in faeces touching and breaking down the skin with resulting soreness. This can present as a ring of sore skin around the stoma itself and is treated by remeasuring the stoma and resizing the flange aperture. The healing properties of the stoma flange itself will usually be sufficient to heal any slightly sore skin that has formed.

If an underlying skin condition such as eczema develops close to the stoma, this can also cause the appliance to adhere less securely.

If the skin is broken and oozing, the use of stoma powder may be warranted (these are made from hydrocolloid in a powder form, which forms a protective layer on moist broken skin). The peristomal skin should be gently but thoroughly cleaned and dried. Where the skin is oozing it should be dabbed as dry as possible — the use of a cool hairdryer
can also be useful here. The powder should be applied and dusted off so that there is only a fine layer on the wet skin and none on the rest of the peristomal skin. The powder will help dry and heal the skin, but it may need to be applied for a few days at each appliance change to completely resolve the problem (Cronin, 2015).

Prolapse

A prolapsed stoma is where a section of the bowel has ‘telescoped’ out of the body and become larger — this can involve a short section of bowel, but in some cases it can fill the whole stoma appliance.

If a patient has never had a prolapsed stoma before it can be very distressing. It is important for community nurses to reassure patients and advise them of certain key elements that need to be watched out for in future. For example, as the prolapsed stoma will be bigger than before there will be less capacity in the appliance to collect and contain the output. Therefore, patients need to be advised that appliances will need to be emptied more frequently. If an appliance is too small, there are larger ones available.

In addition, as the prolapsed stoma will be larger than before it is at a greater risk of damage, therefore at each change patients need to check their stomas for signs of damage such as bleeding or bruising. Care must be taken not to damage the stoma, but if bleeding is noted it can be stopped by applying pressure to the immediate area — this should quickly stop the bleeding.

In rare but urgent cases there is a very small risk of necrosis. Patients need to be advised that if their stoma changes colour and becomes darker this is potentially dangerous, indicating that the blood supply may be being obstructed. Patients should be advised to go to hospital urgently as they may require emergency surgery.

In addition, the diameter of the stoma may increase, perhaps due to patients gaining weight or a prolapsed stoma. If the diameter of the stoma does increase, the aperture of the flange will need to be similarly increased to accommodate it.

There is the option of attempting to correct the prolapse by manually manipulating the stoma back inside the body, but in the author’s opinion the community nurse should not attempt this unless specifically trained to do so.

If it is not possible to reduce the size of the prolapsed stoma, surgery is an option, although there is a risk of recurrence. When surgery is not an option due to pre-existing comorbidities for example, another technique is to change the appliance when the patient is lying down (with the prolapse still inside the body). A stoma shield can also be used to try and prevent the bowel from ‘telescoping’ out of the body too far after the appliance has been applied — these are held in place by a thin elastic belt.

Urinary infection

In the case of urostomies, a urinary infection is usually characterised by the presence of malodorous cloudy urine with increased amounts of mucus. A urinary infection is identified by taking a urine specimen and sending it to microbiology. The urine specimen should not be taken from the stoma appliance itself — instead, the appliance should be...
removed and a urinary catheter gently inserted into the stoma. The urine should be collected into a specimen pot directly from the catheter.

As for patients without a urostomy, treatment of a urinary infection involves antibiotics. To prevent a urine infection in the first place, the community nurse should advise patients to drink 1500–2000ml of fluids each day (Cronin, 2015).

**Bowel infection**

It is possible to develop a gut infection that requires treatment with antibiotics — this will usually be characterised by looser stool and abdominal pain. If a bowel infection is suspected, a stool specimen should be taken and sent for testing. The treatment is a course of antibiotics.

The presence of looser stool means it is important for patients to take adequate oral fluids to prevent dehydration — about two litres per day. If the faecal output is very high and is accompanied by vomiting it might be necessary for patients to be admitted to hospital for intravenous fluids until the symptoms resolve — this is particularly true of patients with an ileostomy.

Loose stool also means the peristomal skin is more at risk of breaking down and becoming sore. To prevent this, a skin barrier can be used (Black, 2014). These are available in the form of a wipe or spray and are used on the skin after it has been washed and dried and before the appliance adheres to the peristomal skin.

**Constipation**

Patients with a colostomy may experience constipation, particularly if they were susceptible before stoma formation. Methods of prevention include the use of dietary manipulation — increases in fluid intake and fibre may be particularly useful.

Alternatively, oral laxatives can be used. It is also possible to place suppositories into stomas and while these sometimes fall out before they have had a chance to be effective, where they do stay in this is a useful option. A suppository should not be used in a urostomy or ileostomy.

**Ileostomy blockage**

If the output from the ileostomy reduces this may indicate a blockage, often from undigested food. The patient may present complaining of a lack of faecal output into the ileostomy appliance, which may progress to nausea and later to a distended abdomen and vomiting. A patient with an ileostomy will not develop constipation — as they have no colon the faeces will be looser — but if the stoma stops being active this needs to be investigated.

If the stoma is inactive but there is no distention or vomiting, the patient should be advised to drink plenty of fluids with the aim of flushing-out the blockage. If symptoms worsen and it is not possible to drink, the patient needs to go to hospital for intravenous fluids and, in the presence of vomiting, possibly a nasogastric tube. The blockage will usually resolve with these treatments, however, it is important for community nurses to reassure patients that, although uncomfortable, blockages are not life-threatening.

To prevent blockages from recurring patients should be advised to chew well, especially when eating sweetcorn and other high-fibre foods. It is not essential to exclude these from the diet, however, (except in the first few weeks or months) unless they produce unacceptable symptoms.

**CONCLUSION**

This article demonstrates that the community nurse is perfectly positioned to advise and assist patients who may present with a stoma complication. It is essential to undertake a full assessment before providing any advice or instigating treatment. Similarly, if the problem does not resolve it is important to refer the patient to another healthcare professional such as the stoma specialist nurse.

**REFERENCES**


Salvadalen GD (2013) The incidence of stoma and peristomal complications during the first three months after ostomy creation. *J Wound Ostomy Continence Nurs* 40(4): 400-06

Read JCN on the move via your tablet and mobile with our page-turning edition.

All the features and clinical content of the print journal available online in an easy-to-read digital format.

Visit: http://www.jcn.co.uk