The importance of peristomal skin care in the community setting

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With government reforms increasingly bringing care into patients’ homes, community nurses will inevitably encounter more and more people who have a stoma. Stomas essentially involve the maintenance of a permanently open breach of the skin, therefore, the site requires expert skin care as it is vulnerable to stripping and break down. This article looks at the use of silicone-based adhesive removers, which improve quality of life and can also reduce healthcare costs as they prevent the escalation of peristomal skin dysfunction. These products also help to prevent costly ongoing treatment for the effects of stripping on sensitive peristomal skin.

KEYWORDS:
Skin care ▪ Ostomy ▪ Skin stripping ▪ Cost-effectiveness

As the government encourages community nurses to provide care closer to home (Department of Health [DH, 2013]), more and more community nurses are likely to encounter people who have a stoma, both those that have been created recently as a result of surgery, as well as those people who have ongoing management needs. Because stomas essentially involve maintaining a permanent breach of the skin, nurses must work hard to ensure the integrity of the peristomal skin, a task made harder by the wide range of stoma products available (Brewster, 2004).

The crucial skills in managing people with a stoma come mainly at the point of cleansing and changing. It is at this point that skin integrity is at risk, both from stripping due to the adhesives used to apply stoma products, and the leakage of urine and faeces onto the skin, which has well-documented corrosive effects (colonic stomas produce less aggressive effluent, but spillage can still cause excoriation [Brewster, 2004]).

Good stoma and skin management can have a dramatic effect on the life of the individual, who may feel a tremendous sense of shame around his or her stoma due to the stigma attached to the procedure (Swan, 2010). These negative feelings can result in a marked decrease in the individual’s quality of life (Swan, 2010).

This article takes an in-depth look at the issue of stoma management, with particular reference to community nurses’ responsibility to maintain patients’ peristomal skin integrity.

STOMA

There are three main types of stoma — a colostomy, which is the most common and is formed from the colon (large bowel), an ileostomy and a urostomy, which are both formed from the ileum (small bowel). A urostomy is often used to treat bladder cancer and mainly deals with the removal of urine into the attached stomal pouch whereas colostomies and ileostomies generally carry faeces and flatus.

Black (2009) reported that 102,000 people had a stoma in the UK and a large proportion of those will have experienced some sort of stoma complication or peristomal skin problem. Medical conditions that require stoma surgery include (Swan, 2010):
- Colon/rectal cancer
- Bladder cancer
- Ulcerative colitis
- Crohn’s disease
- Diverticulitis
- Faecal and urinary incontinence
- Trauma.

STOMAL COMPLICATIONS AND PERISTOMAL SKIN CARE

Stomal complications, such as leakage, maceration and skin-stripping on removal, are common and will often occur soon after the stoma has been fitted (Lynch et al, 2008). There may be problems with the initial fit of the stoma and flange, which creates the opportunity for leakage, damaging the surrounding skin.

The tissue surrounding the newly created stoma may become inflamed or oedematos shortly after surgery, and the fit of the flange may need adjustment as the surrounding tissue returns to normal. Problems with skin creasing around the stoma may also cause leakage (Burch, 2013).

Skin stripping

Many factors contribute to the susceptibility of the peristomal...
region to skin stripping, including the patient’s age (Konya et al, 2010) and disease-specific conditions, such as epidermolysis bullosa, infantile eczema, atopic dermatitis and dermatological changes associated with diabetes (Hollinworth, 2009).

Patients can also experience allergic reactions to a stoma appliance (although this is rare) (Lawson, 2003), and there can also be granulation on the edge of the stoma and the adjoining skin, an area termed the mucocutaneous junction (Burch, 2010).

This granulation is mainly thought to be caused by faeces coming into contact with the skin (Lawson, 2003), or because of a poorly fitted appliance, which irritates the area (Smith et al, 2002). All of these factors can weaken the skin, making it sore (Burch, 2010) and more vulnerable to further damage from the removal and application of stoma appliances.

Adhesives work by knitting into the skin’s top layer and when adhesive tape or substances are removed from the skin they inevitably strip a certain amount of the stratum corneum (Cutting, 2008). While it is essential that the stoma pouch is properly sealed around the stoma, repeated removal and application during pouch changes can weaken and begin to strip the skin. Similarly, if the flange is pulled out without due care, the top layers of the skin can be removed with it.

Repeated stripping of the skin damages the peristomal area and delays healing. It also interferes with the skin’s barrier function, which increases transepidermal water loss (TEWL), a recognised and validated method of measuring damage to the skin’s barrier properties (Elkeeb et al, 2005). Skin stripping causes pain and can also widen the wound edges, delay healing, cause an inflammatory response and increase infection risk (Cooper, 2010).

Excess moisture around the stoma can also impact on the effectiveness of the replacement pouch’s adhesion (Cutting, 2006).

Hydrocolloid adhesive is now considered the optimum material for adherence of the stomal pouch and its use has certainly improved on previous substances, particularly with regards to moisture absorption (Berry et al, 2007).

However, the necessary frequency of stoma changes and the continual removal of the dressing around the stoma will inevitably take their toll on the skin — and because changes are usually made daily, this damage is continually compounded (Berry et al, 2007).

Leakage

Containment of effluent substances are a consistent problem for the patient with a stoma, with up to 50% experiencing leakage (Raitliiff et al, 2005). Peristomal skin damage from effluent substances actually increases the risk of leakage (Rudoni, 2011), rendering the skin more vulnerable to further damage and creating a cycle of harm, where effluent substances damage the skin, making application more difficult.

The nature of the effluent contained within the stoma means that the peristomal skin is particularly vulnerable to damage. When the raised pH levels and increased moisture of urine and faeces come into contact with the skin, the result is maceration, which can begin to erode the epidermis (Williams et al, 2010). These effects are exacerbated in ageing skin due to structural changes including (Butcher and White, 2005; Stephen-Haynes, 2008):

- Decreased sweat glands
- Reduced vascular function
- Thinning of the epidermal layer
- Reduced skin elasticity
- Slower healing.

Leakage can also affect the confidence and quality of life of the patient, as what is often a hidden function is now at risk of being exposed due to odour (Swan, 2010).

QUALITY OF LIFE

It is also important to consider the psychological impact of having a stoma, which can impair the patient’s body image and general wellbeing, as well as his or her confidence (Swan, 2010). A study of 140 stoma patients by Richbourg et al (2007) found that 53% had depression or anxiety and 54% were not as socially active as they were before the procedure.

There is evidence that peristomal complications and skin irritations substantially reduce patients’ quality of life (Prieto et al, 2005; Williams, 2007), and it is certainly true that some people react negatively when informed that they may require a stoma (Swan, 2010). The procedure not only affects the person’s body image, but also their feelings of ‘cleanliness’ and good health, and the way they perceive society views them.
Fragile and sensitive skin needs to be treated with care. That’s why we’ve developed Appeel® – a medical adhesive remover clinically proven to remove adhesives gently, even from the most sensitive skin. Appeel leaves skin feeling clean and residue free, ready for the next appliance or dressing application.

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breaks the bond between the flange adhesive and the skin without inflicting skin damage or leaving oily residue. This makes reaplication of subsequent stoma pouches easier.

In preparation for a service review of a silicone-based adhesive remover at St George’s Healthcare NHS Trust, London (Rudoni, 2008), stoma care clinicians attached a stoma pouch to their own skin for a few hours. Some removed the pouch without adhesive remover, while others used a silicone-based adhesive remover. Those that did not use the adhesive remover experienced reddened and irritated skin after removal, illustrating the pain and discomfort of repeated changes for people with functioning stomas.

‘Appeel is available as a no sting spray as well as a wipe, which is specifically designed to remove stomal adhesives.’

The same review also supplied stoma patients with a silicone-based adhesive remover, before asking them about their experiences of removing their pouches. Of the 54 people who replied, 91% found it easier to remove their pouch using the silicone-based adhesive remover and 93% thought it should be offered to all patients with a stoma (Rudoni, 2008).

In a study by Berry et al (2007), a similar percentage of stoma care nurses (96%; n=648) recommended the use of a silicone-based adhesive remover to change a stoma pouch.

These studies demonstrate that skin stripping from pouch removal can be uncomfortable or even painful (Dykes et al, 2001), but by using adhesive removers correctly, complications can be avoided, helping to maintain quality of life and saving on healthcare costs.

APPEEL

Appeel (CliniMed, Buckinghamshire) is a silicone-based adhesive remover, which helps to remove stoma pouches, alleviating the distressing effects of skin stripping that can be associated with this procedure (Stephen-Haynes, 2008). Alcohol-based adhesive removers can sting the skin, but because Appeel is silicone-based it is pain-free (Cooper, 2010) — it also uses healthcare grade silicone for patient safety.

Appeel is available as a no sting spray as well as a wipe (Figures 1 and 2), which is specifically designed to remove stomal adhesives. The spray is perfect for applying the product at any angle around the stoma, while the wipes remove adhesive build-up without damaging the skin. A version of the product that has been sterilised by gamma irradiation (Appeel Sterile) is available for wound care (see www.clinimed.co.uk).

As Appeel dries quickly without leaving any oily residue, the stoma pouch can soon be re-applied again. It is also suitable for sensitive and fragile older skin — as well as reducing the anxiety of anticipated pain and discomfort in stoma pouch changes.

Cost-effectiveness

Skin breakdown in the peristomal area often triggers referral to specialists and GPs as general staff may not be familiar with the correct management of common peristomal complications such as leakage, maceration and skin stripping (Lynch et al, 2008). These problems can incur a much greater amount of clinician time than would have been necessary had the skin breakdown been prevented in the first place.
Therefore, there is an argument that any expense incurred by the use of products such as Appeel is mitigated by the subsequent reduction in peristomal skin complications and the reduced use of nurse specialist or GP time further along the care pathway. The same can be said for the extra cost of equipment or dressings incurred by repairing peristomal skin damage that could have been avoided by the use of products such as Appeel.

**CONCLUSION**

The creation of a stoma can have an extremely deleterious effect on the patient’s quality of life, self-esteem and body image. At the same time, the repeated procedure of removing and applying the stoma pouch leaves the surrounding skin vulnerable, both to damage from effluent leakage and skin stripping due to adhesive fixers.

Silicone-based adhesive removers are an essential tool for community nurses working with people who live with a stoma, not only reducing the pain caused by regular pouch removal, but also improving their quality of life and wellbeing.

Appeel is invaluable to this patient group as it effectively removes adhesive, thereby helping to prevent peristomal skin damage. (Stephen-Haynes, 2008). This not only preserves skin integrity, but also potentially saves resources that may have been spent on subsequent skin breakdown.

**REFERENCES**


**KEY POINTS**

- The repeated procedure of removing and applying the stoma pouch leaves the surrounding skin vulnerable, both to damage from effluent leakage and skin stripping due to adhesive fixers.

- Stomal complications are common and will often occur in the time soon after the stoma has been fitted.

- Using a silicone-based adhesive remover can help to avoid the effects of skin stripping and maintain the barrier function of the peristomal skin.

- Silicone-based adhesive removers are an essential tool for nurses working with people who live with a stoma, not only reducing the pain, but also improving their quality of life and wellbeing.

- The creation of a stoma can have an extremely deleterious effect on the patient’s quality of life, self-esteem and body image.

- As stomas essentially involve maintaining a permanently open breach of the skin, the site requires expert skin care.