

BEST PRACTICE IN CONTINENCE SKINCARE

Poor management of incontinence can result in a loss of patient dignity, prolonged hospital stay and increased care costs. It is the excoriation and maceration of skin that causes pain and patient discomfort, and can result in secondary infection. This article emphasises best practice in this area.

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Skincare is a fundamental part of nursing care and clinicians play an important role in preventing skin breakdown. However, the evidence to support much of what they do is limited, and there are many gaps in knowledge. This means that practice is often based on expert opinion.

There is a well-recognised association between urinary and faecal incontinence, and skin breakdown. All of the commonly used risk assessment tools for pressure ulcers (Norton et al 1975; Waterlow, 1988) incorporate an assessment of the patients' continence status.

Although the prevalence of urinary and faecal incontinence in the general population is difficult to measure due to under-reporting (National Institute for Health and Clinical Excellence [NICE], 2006; NICE, 2007), the incidence of urinary incontinence in institutionalised care is easier to assess and is estimated to be:

- ▶ One-in-three in residential homes

- ▶ Nearly two-in-three in nursing homes
- ▶ A half to two-thirds in wards for the elderly and elderly with mental health conditions.

Information about faecal incontinence is not so extensive, but best estimates suggest that the prevalence in adults at home is about 1%, with 17% of the very elderly reporting symptoms. In institutional care, the prevalence of regular faecal incontinence is about 25% (Department of Health [DH], 2000). It is recognised that in acute care continence issues can also be ignored, as the primary focus of care is management of the acute illness.

Incontinence-associated dermatitis, also known as moisture lesions or perineal dermatitis, is a painful condition, which causes distress to patients and can prove difficult to manage. In babies and young children it is easily recognised as nappy rash, but in incontinent adults it can prove harder to diagnose and is often confused with grade 2 pressure damage. These

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lesions are distinct and differ from pressure ulcers and skin tears (Gray et al, 2012), but may co-exist in the same patient. The main differences are summarised in *Table 1*.

Incidence rates of incontinence-associated dermatitis (*Figure 1*) vary widely, between 5.6% and 50% (Gray et al, 2012) perhaps reflecting the difficulty in distinguishing them from pressure ulcers.

The time taken for them to develop seems to vary from an average of four days (range one to six days) in an acute care setting (Bliss et al, 2011) to 13 days (range 6–42 days) in nursing home residents (Bliss et al, 2007).

It is thought that incontinence-associated dermatitis results from ‘top-down damage’ to the skin, when it is exposed to urine and faeces, whereas pressure damage is primarily ‘bottom-up’, when pressure or shearing forces destroy deeper tissues.

Skin exposed to urine may become over-hydrated, and its pH increased, while, in addition, it may be subject to more friction as the skin moves against bedding and incontinence pads. It is thought that water penetration of skin increases its permeability to irritants.

When skin is exposed to stool, it becomes damaged due to the presence of digestive enzymes. Clinical experience suggests that liquid stool is more of an irritant than solid stool. Diarrhoea often comes into contact with more skin, and contains more bile salts, and pancreatic lipases, which are particularly irritant to the skin, making it more vulnerable to other agents, such as ammonia in infected urine.

Prevention

It is well recognised that to

prevent pressure ulcers, clinicians must institute care that reduces and relieves pressure. In the case of incontinence-associated dermatitis, the most important factor in prevention and healing is to keep the skin, clean, dry and well-hydrated. Obviously, the best method of preventing skin damage is to prevent urinary and faecal incontinence episodes, and to cleanse the skin properly should any incontinence occur.

Incontinence is frequently accepted as a part of ill health and a consequence of aging, and is often simply managed, rather than the causes of the incontinence investigated and treatment plans initiated. Incontinence is, however, a symptom and there may be many causes, therefore, the type of incontinence should be assessed in order that the correct treatment can be instigated (*Table 2*).

To assess the nature of the incontinence, a history and basic assessment should be undertaken. This should include:

- ▶▶ Onset
- ▶▶ Main urinary/bowel symptoms
- ▶▶ Past medical history
- ▶▶ Drug therapy
- ▶▶ Levels of mobility
- ▶▶ Ability to communicate needs.

In addition, those experiencing urinary incontinence should have their urine checked to determine whether or not they have a urinary tract infection, and their ability to empty their bladder should be determined by performing a post-void ultrasound of their bladder.

Those with faecal incontinence should be assessed for treatable causes, including (NICE, 2007):

- ▶▶ Faecal loading
- ▶▶ Potentially treatable causes of diarrhoea

Table 1

A comparison of incontinence-associated dermatitis and pressure ulcers (adapted from Doughty et al, 2012)

	<i>Characteristics of incontinence-associated dermatitis</i>	<i>Characteristics of pressure ulcers</i>
<i>Associated factors</i>	▶▶ Urinary and/or faecal incontinence	▶▶ Reduced mobility ▶▶ Reduced sensory awareness
<i>Location</i>	▶▶ Perineum, ▶▶ Perianal are, ▶▶ Inner thighs ▶▶ Buttocks	▶▶ Over a bony prominence ▶▶ Under a medical device
<i>Depth</i>	▶▶ Usually partial thickness	▶▶ Initially may appear to be grade 1 and superficial, usually full thickness (3/4)
<i>Shape</i>	▶▶ Irregular indistinct borders	▶▶ Typically round ▶▶ If shear involved may be oval/elongated; distinct borders
<i>Associated findings</i>	▶▶ Surrounding skin typically macerated	▶▶ May have necrotic tissue ▶▶ May have undermining or tunnelling.

- ▶ Warning signs for lower gastrointestinal cancer
- ▶ Rectal prolapse or third-degree haemorrhoids
- ▶ Acute anal sphincter injury
- ▶ Acute disc prolapse/cauda equina syndrome.

If loose stool is present, the stool should be sent for culture to exclude an infective cause, such as *Clostridium difficile* or norovirus.

An assessment should allow for a targeted intervention to reduce the number of episodes of incontinence.

Skincare

A consensus panel in 2007 drew up recommendations for the prevention of incontinence-associated dermatitis (Gray et al, 2012). These included: gentle cleansing, moisturisation and the application of a skin protectant.

Gentle cleansing

Skin cleansing should take place as soon as possible after an incontinent episode, in order to limit the contact of the skin with stool and urine. In particular, faecal incontinence is implicated as being a strong risk factor for the development of skin damage, so there is a recommendation that there should be timely cleansing after each episode of faecal incontinence. The evidence is less clear when there are very frequent episodes of urinary incontinence alone, when washing frequency should be limited (Gray et al, 2012).

The product chosen should be one whose pH range is slightly acidic (normal skin ranges from pH 5.4–5.9). A more alkaline pH increases the risk of colonisation by micro-organisms. This, therefore, excludes ordinary soap, which is alkaline, and it is, therefore, recommended that skin cleaners are used. Cleansers emulsify dirt

and micro-organisms, so that they can be removed mechanically. Many of these cleaners are no-rinse and, therefore, reduce the time involved in cleansing. If soap and water are used, it is recommended that a soft cloth is used and that the skin is not scrubbed, as this can increase the risk of friction damage.

Moisturisation

Moisturisers are designed to repair or supplement the skin's

natural moisture barrier, retain and increase its water content, reduce water loss through the epidermis and help the lipid barrier to attract, hold and redistribute water (Gray et al, 2012). Moisturisers differ in their formulations — some may contain humectants, which increase the water absorption of the skin from the environment, and should, therefore, be avoided, as this increases the permeability of the skin to irritants. A moisturiser



Figure 1. Incontinence associated dermatitis.



Figure 2. Indwelling bowel management system.

with a high lipid content should be chosen instead.

Skin protectant

The third step in skin care should be to apply a skin protectant. These are aimed at reducing skin breakdown by preventing the penetration of water and irritants through the skin. They may be based on petroleum, zinc oxide or dimethicone products.

Combination-based products, such as three-in-one washcloths that contain cleansers, moisturisers and skin protectants, have been shown to be useful in reducing staff time, and encouraging adherence to a skin care regimen (Warshaw et al, 2002).

Management of incontinence

It is recognised that not all incontinence can be cured, and it is, therefore, necessary to instigate nursing care to minimise skin damage and to maintain the dignity of the patient.

Management of urinary leakage

Incontinence pads are designed to contain incontinence. They are

designed to be body-worn, close to the perineum. Their structure normally consists of three layers:

- ▶ A top layer, designed to keep the area that is in contact with the skin dry, by allowing urine to pass through it, but preventing its return from the core of the pad
- ▶ An absorbent layer, which contains cellulose to give the pad stability and also a superabsorbent polymer (a powder that absorbs many times its own weight in fluid, forming a gel)
- ▶ A backing layer, which is usually waterproof.

Incontinence pads are principally useful for dealing with urinary incontinence — their use for faecal incontinence is limited mainly to protecting patients' dignity (NHS Supplies, 2011).

Disposable underpads are not primarily designed to deal with incontinence, as they usually contain little superabsorbent polymer. Pads have been shown to be less effective at keeping the skin dry when used in combination with large amounts of barrier cream, as it is thought that the cream affects the way that the top layer of the pad

works and this effect was not seen with barrier films (Hart, 2002). It is, therefore, suggested that creams should be used sparingly, or that a film is applied.

There is sometimes a tendency to catheterise individuals who are at risk of incontinence-associated dermatitis, to protect their skin.

Indeed, catheterisation (either indwelling or intermittent) is the treatment of choice when the incontinence is secondary to incomplete bladder emptying. This, however, is not without its risks, since catheterisation is associated with the development of urinary tract infections, which can increase the morbidity of the patient (Pratt et al, 2007).

In addition, many of these catheters run the risk of becoming a long-term treatment and are then associated with the problems of blockage and bypassing and can cause as many problems as they are designed to address.

As in the case of any treatment, it is the nurses' responsibility to continually review the need for the catheter's continued use.

Table 2
Types and symptoms associated with different incontinence types

<i>Symptoms</i>	<i>Urge incontinence</i>	<i>Stress incontinence</i>	<i>Overflow incontinence</i>	<i>Functional incontinence</i>
<i>Leakage</i>	<i>Variable volumes</i>	<i>Small volumes</i>	<i>Small volumes</i>	<i>Large volumes</i>
<i>Pattern of loss</i>	<i>Unpredictable</i>	<i>Associated with coughing, sneezing and moving</i>	<i>Constant</i>	<i>Unpredictable</i>
<i>Able to delay incontinence?</i>	<i>Unable</i>	<i>Able to delay, except when abdominal pressure is raised</i>	<i>Sometimes able</i>	<i>Able</i>
<i>Volumes of urine passed</i>	<i>Variable</i>	<i>Normal</i>	<i>Small</i>	<i>Normal</i>
<i>Treatment options</i>	<i>Bladder retraining Drug therapy</i>	<i>Pelvic floor exercises</i>	<i>Catheterisation, treatment of underlying cause</i>	<i>Toileting programmes Adapted environment</i>

Management of faecal incontinence

The individual with loose stool and faecal incontinence must be assessed (NICE, 2007). It is important to establish the cause of any liquid stool, whether it is secondary to constipation, which can be successfully treated by the use of aperients and or enemas. If the diarrhoea is due to infection or disease the management will be different.

Indwelling bowel management systems (Figure 2) are commonly used in immobile and acutely unwell patients with diarrhoea or faecal incontinence.

They may be seen as being expensive, however, these devices protect against perianal skin excoriation and allow for healing and at the same time restrict the potential spread of infection and reduce basic nursing requirements. The system can be used for up to 28 days.

There are several systems available in the UK. Prior to use, the patient should be assessed to determine that they have adequate anal tone to retain the device.

Faecal incontinence can often be effectively managed with drug therapy (NICE, 2007).

Antidiarrhoeal medication can be offered to those whose faecal incontinence is associated with loose stools, once acute treatable causes have been excluded, and can sometimes be combined with rectal evacuants to establish a predictable pattern of bowel evacuation.

Conclusion

The management of those individuals with incontinence-associated dermatitis is challenging for the clinician. Clinicians have a responsibility to understand the causes and to direct their care to

try and reverse these causes and, therefore, good continence and skin care are paramount. **WE**

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