Top tips for managing the skin around a wound

When wounds exudate excessively or the wrong type of dressing is used, the periwound becomes damaged. This article explains some key reasons for excessive exudate and offers a few tips to keep the periwound healthy.

The skin can regenerate itself and, to a certain degree, repair any damage that is inflicted upon it. Given the right conditions, wounds will heal through tissue regeneration (Hughes, 2001). Wounds heal well in a moist environment, therefore, the wound needs to be kept not too dry and not too wet. If there is too much wetness, this is known as exudate.

Exudate is a term used to describe moisture or liquid that comes from a wound (Cutting, 2010). It comes from fluid that is situated between cells — fluid that naturally bathes the cells, protecting them from drying out and providing them with nutrients and oxygen. This fluid, called extracellular fluid, is rich in protein and contains the key chemicals and cells necessary to heal the wound. When there is too much wetness, or too much exudate, it is a sign that something is wrong with the wound-healing process.

Wound exudate contains potent enzymes that can delay healing (in chronic wounds, such as leg ulcers, for example) and if this exudate is not managed properly, it can compromise the surrounding skin, called the periwound area. During the process of wound healing, the integrity of the periwound skin can be affected and can also affect the speed of healing. There are a number of wound-related factors that can compromise the periwound skin, such as drainage from fistula, drainage from a stoma, excessive perspiration, removal of adhesive products and sensitivities (Hampton and Stephen-Haynes, 2005). Wound exudate can also cause damage to the periwound area.

The periwound skin should be kept well-hydrated and supple to keep the protective layer of the stratum corneum intact. Excess wetness can lead to over-hydration of the periwound skin, which results in maceration, or the formation of white oedematous tissue. This tissue no longer offers a barrier to bacteria (Cutting and White, 2002) and, instead, forms the ideal climate for bacteria to reproduce, which can, in turn, lead to infection.

Selecting the appropriate dressing is important, but is not the sole factor in keeping the periwound area healthy. Firstly, a full assessment of the wound bed needs to occur as wounds

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produce exudate for many reasons.

REASONS FOR WOUND EXUDATE

Dead tissue at the wound bed

A thorough wound assessment includes checking that the wound bed does not have any dead tissue (necrotic, black or yellow) that needs removing. The body always works to renew itself and the process of removing dead cells is called autolysis. This process makes the wound wetter and exudate will increase. By removing dead tissue (i.e. debriding the wound), exudate will be greatly reduced (*Figure 1)*. Debridement can be achieved by using dressings containing honey, gels or by sharp debridement, undertaken by a competent and skilled clinician. Larvae could also be used to debride wounds, for example, in diabetic foot ulcers or some pressure ulcers.

Wound Infection

Wound assessment will also include checking that there is no infection in the wound. If infected, the wound will be red, inflamed and more painful (*Figure 2)*. A wound swab can be taken if necessary. A clinically infected wound will start to exudate more and by treating the infection, the exudate will reduce. Infection may require antibiotics, but can also be treated with antimicrobial dressings — dressings containing silver, antimicrobial gels or honey.

Anastomotic leaks

Some surgical procedures involve cutting diseased structures and reattaching them. The reattachment (anastomosis) sometimes fails and fluid starts leaking through the wound. Wound assessment will include checking that there are no 'leaks' — in acute abdominal wounds, for example, there may be urine, faeces, mucus, bile or chyle (lymph) leaking from a wound (*Figure 3)*. Urine, for example, may look like normal exudate, however, if the exudates levels are high in the absence of dead tissue or infection, it may be due to a leak. If a leak is suspected, samples of the exudate are taken and analysed in the labs to reach a diagnosis. With high levels of exudate, a wound management bag is often required.

Anatomical region

Wounds in the lower limbs are more at risk of high exudate (*Figure 4)*. Wounds like leg ulcers or foot ulcers can be highly exuding as gravity pushes the excess fluid toward the closest exit it can find (i.e. the wound).

TIPS

How to keep the periwound area healthy:

1 REDUCE WOUND EXUDATE

Understand why the wound is producing exudate and address these issues if possible.

2 KEEP IT CLEAN

Keep the periwound skin clean, well-hydrated and healthy. The periwound area should be cleansed with sterile saline solution (in acute wounds) or tap water (in chronic wounds) — pat dry using gauze.

3 KEEP IT PROTECTED

Apply a skin protector or a barrier cream. These barrier creams or sprays do not provide any emollient benefit to the skin, their role is to act as a barrier (Beldon, 2012); they contain silicone and are, therefore, water repellent. Barrier creams are often contraindicated in broken skin, so if the periwound area is red and inflamed, there may already be some areas of micro-broken skin and a film (spray) should be used instead. Using a skin protector, such as a film or cream, will protect the skin from skin stripping. This occurs when a dressing with a strong adhesive is used and the action of removing the dressing strips away the top layer of skin.

4 SELECT THE RIGHT DRESSING

Select a dressing that is kind to the skin. There are a number of dressings that are suitable, which, with the application of a skin protector, will help the periwound area to stay healthy in times of high exudate levels. However, selecting an appropriate dressing will also involve selecting a dressing that can absorb high levels of exudate. Furthermore, the fluid absorbed into a dressing needs to be held within the dressing, so that it is not released back to the surrounding skin — otherwise the periwound skin will begin to macerate.

CONCLUSION

Dressing selection in exudate management is secondary to the process of understanding the reasons why a wound produces exudate in the first place. If the exudate is well-managed, the periwound skin will remain well-hydrated, supple, healthy and able to hold a dressing *in situ*. WE

References

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Figure 1: Wound that needs debridement.

Figure 2: Infected wound.

Figure 3: Wound with anastomotic leak, where faecal matter exudates from the wound.

Figure 4: 'Leaky legs.'