

Cutimed® Siltec: a foam dressing range with super absorbers and a silicone wound contact layer

Foam dressings have played a major role in wound healing treatments for a number of years. Although mainly used to maintain optimum moisture levels and for absorbency, there are foam dressings available that meet the needs of a number of clinical presentations. Some of the adaptations include thicker, more absorbent dressings, adhesives have become gentler to prevent trauma and antimicrobial agents have been introduced into the dressings. Patients now present with more complicated pathologies and, likewise, wounds have increased in complexity, with larger, sloughy and more heavily exuding wounds requiring dressings that can stay in place, manage exudate and reduce pain or trauma on removal (Timmons, 2006).

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KEY WORDS

Cutimed® Siltec® foam dressings
Exudate management
Pain at dressing change
Atraumatic dressings
Quality of life

The most important part of the treatment process will always be thorough and accurate assessment. However, choosing the correct product or combination of products can assist in healing and, more importantly, help to improve the patient's quality of life, for example, by managing odour and exudate (Grey et al, 2006). Assessment will help to establish causation, tissue type, exudate levels and also go some way to addressing the patient's concerns.

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One of the most significant changes in wound care therapy has been the emphasis on reducing pain during application and removal of dressings. For many patients this pain can affect concordance with treatments and cause additional anxiety. Therefore, choosing wound care therapies which reduce trauma and assist in the wound healing process may help to reduce anxiety (Hollinworth, 2005).

Role of foam dressings

Foam dressings have been used in wound care since the mid-eighties and the technology has been available since the 1950s (Thomas, 1997). They are often applied to wounds which have moderate to heavy amounts of exudate. The key features of foam dressings include:

- ▶▶ Absorbency
- ▶▶ Patient comfort
- ▶▶ Provision of a moist, warm environment
- ▶▶ Prevention of maceration
- ▶▶ Longer wear times
- ▶▶ Ease of application (Thomas, 1997).

Absorbency is often viewed as the most important feature of foam dressings, as this feature allows longer wear time and less chance of exudate escaping from the wound site. While the mode of action of foam dressings varies, the majority will absorb exudate and retain some or all of this exudate within

the dressing, preventing the fluid from re-entering the wound. However, some products when under compression may allow fluid to re-enter the wound, as the exudate is not locked in.

Cutimed® Siltec® foam dressings from BSN medical are constructed of a silicone wound contact layer which gently adheres to the wound and minimises pain and trauma at dressing change. The polyurethane foam centre benefits from a layer of superabsorbers above the foam core. These allow the dressing to lock exudate into the product, preventing the wound bed from drying out and the surrounding skin from becoming macerated. The breathable film layer on the surface of the dressing also allows moisture levels to be managed, and is a bacterial barrier. The dressings are available as bordered and non-bordered, in standard or thinner versions depending upon the levels of exudate.

Causes of wound pain

Wound pain may be present for a number of reasons. The actual disease process, such as vascular lesions or malignancy can cause pain, or wounds may be painful at specific times, such as during dressing changes. Many patients will have a degree of background pain related to their wound and this may increase in severity when wound care procedures are carried out. This

should be considered when choosing dressings, as this may directly impact on the patient's quality of life. In addition to correct dressing choice, the patient should have adequate analgesia both to control the background pain and, if necessary, prior to dressing change to ensure the maximum therapeutic benefit.

Pain at dressing change

Factors which can lead to tissue damage when removing dressings include:

- ▶ Application of absorbent dressings such as alginates to wounds with low volumes of exudate
- ▶ Adhesives on the dressing surface can adhere to the wound bed and/or surrounding skin which when removed can cause skin stripping (Rippon et al, 2007)
- ▶ Applying dressings which are permeable and likely to dry out
- ▶ Failure to moisten the dressings prior to removal, as this can help to break down adhesives, thereby reducing the risk of trauma
- ▶ Using dressings which are unable to cope with the volume of exudate, allowing the surrounding skin to become damaged.

In addition to providing gentle adhesion to the patient's skin surrounding the wound, Cutimed Siltec foam dressings are also flexible, allowing them to be placed onto wounds in a number of body sites. Patient comfort is an important issue which has recently been receiving attention in order to raise awareness of the problem of pain experienced by patients when dressings are applied and removed (Young and Roden, 2008).

Clinical indications

Cutimed Siltec foam dressings are indicated for use in wounds of varying levels of exudate depending on the product chosen, such as:

- ▶ Venous leg ulcers
- ▶ Arterial leg ulcers
- ▶ Diabetic foot ulcers
- ▶ Pressure ulcers
- ▶ Skin grafts.

They can be used as a secondary dressing to help support the role of other wound products and also as primary dressings on granulating wounds.

Necrotic wounds

When there is extensive black eschar *in situ* on a wound surface, it may be part of the treatment to apply hydrogel dressings which will begin to debride the necrosis. Cutimed Siltec B can be used to support this process as a secondary dressing, helping to maintain moisture levels beneath the dressing.

Sloughy wounds

In the case of sloughy wounds when the tissue has more moisture present, there is still a need to continue with autolysis of this tissue. Cutimed Siltec would be the ideal product to cope with the amounts of exudate that may be present in sloughy wounds (see colour code on packaging). The primary dressing will depend on the level of exudate present and on the bioburden of the wound.

Cavity wounds

These require a primary dressing to be placed into the wound to assist in absorbing exudate and to encourage granulation tissue to grow from the base of the wound. Once a primary layer is in place, Cutimed Siltec foam can be applied as an absorbent dressing to help remove exudate from the primary dressing.

Granulating wounds

These wounds require protection from environmental factors, including mechanical and chemical trauma. A foam dressing such as Cutimed Siltec or Siltec L (depending on exudate level) can be used to cover granulation tissue to support the granulation process. By supporting a moist warm environment, Cutimed Siltec foams can allow epithelialisation to take place and protect the wound bed from trauma.

The following case reports are interim results from a UK-wide clinical audit evaluating the clinical performance of Cutimed Siltec foam in relation to its ability to absorb wound exudate while facilitating wound healing and atraumatic dressing removal. Further results of this clinical audit will be published in future issues of *Wounds UK*.

Case report I

A 96-year-old female patient presented

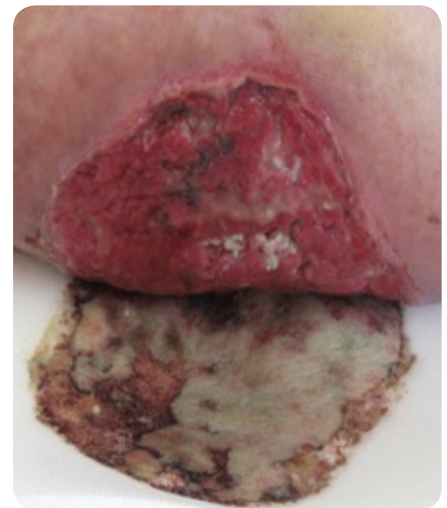


Figure 1. Wound post larval therapy.

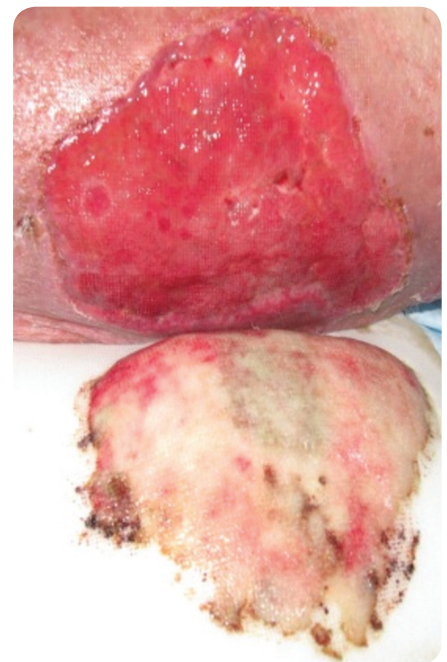


Figure 2. After four days the wound was reviewed and the granulation tissue was red and healthy and there was no trauma to the surrounding skin.



Figure 3. Image of the wound after four weeks of treatment showing epithelial coverage over approximately 50% of the wound area.

with a complex wound on her left leg, which she had sustained after an accident while using a zimmer frame. As a result, a haematoma had formed in the wound bed which required removal. This was successfully debrided with LarvE® (Zoobiotic Biosurgical Products), with a K-Band® (Urgo) retention bandage.

After this process was complete the wound measured 14x7x4cm deep. *Figure 1* shows the wound bed following this procedure, where clean granulation tissue is present in the wound, although there are small cavities within the tissue. The periwound skin was healthy with no evidence of maceration.

Although the patient was elderly, she experienced good health. She was sprightly and enjoyed an excellent quality of life, taking an active interest in both her wound progress and any treatment which was implemented.

The aim of treatment was to maintain a moist wound environment, and to manage exudate effectively, while allowing her to maintain her lifestyle. A Cutimed Siltec foam dressing was selected and applied to the wound to promote granulation and epithelialisation and reduce the risk of contamination. The dressing conformed well to the leg and the patient found it comfortable to wear.

The wound was reviewed after four days of treatment, where there was a marked improvement in the wound bed (*Figure 2*). There was an increase in granulation tissue, and the periwound tissue remained healthy. *Figure 2* shows Cutimed Siltec foam during removal, where the wound progress can be observed.

After seven days of treatment with Cutimed Siltec foam the wound continued to improve. The wound exudate was managed effectively and granulation tissue within the wound continued to proliferate.

Over a four-week period the wound began to epithelialise. In *Figure 3* there is approximately 50% epithelial tissue and 50% granulation tissue. The Cutimed Siltec foam had absorbed

the exudate and there were no signs of infection in the wound during the healing phase.

The granulation tissue was also protected by the low adherent nature of the product, which helped to prevent trauma to the patient. The patient was delighted that the wound was healing, and the nursing staff who managed her care were impressed by the performance of the dressing.

Case report 2

A 57-year-old male patient who suffered from multiple sclerosis developed a grade 3 pressure ulcer on his hip. He had a natural tendency to lie on his right side and, despite regular repositioning and an air pressure mattress, he had erythema surrounding his wound to 2.5cm. This blanched on pressure.

At initial assessment the wound was covered with thick, yellow sloughy tissue and measured 4x5x2cm. It had been present for three months (*Figure 4*).

The wound exudate levels were high and initial treatment involved a hydrogel and low-adherent wound contact dressing.

It was decided to continue with the hydrogel dressing, however, the secondary dressing was changed to Cutimed Siltec foam. This debrided the wound and the periwound area remained in tact. No maceration was present, despite the high level of



Figure 4. Wound at initial assessment showing thick, yellow slough with erythema visible around the wound edges.



Figure 5. Slight softening of the sloughy tissues visible, but there is still spreading erythema around the wound edges.



Figure 6. Following treatment the sloughy layer of tissue has been removed and there is a reduction in the local erythema.

exudate from the wound. In this case, an antimicrobial was not prescribed, highlighting the importance to differentiate between redness due to pressure and redness due to local infection.

During the four weeks of treatment the wound was debrided and the base of the wound bed became visible (*Figure 6*). Throughout treatment the wound did not appear infected or critically colonised.

Case report 3

A 70-year-old male presented with a grade 2 pressure ulcer on his right hip. He had been admitted to the community

hospital for investigation after a history of falls and on examination was found to have pressure damage present. He was well-nourished and there were no additional risk factors observed.

On presentation, the wound measured 3x3cm at its widest points (Figure 7). The wound bed was covered in a layer of slough with maceration and erythema of the surrounding tissue.

The pressure ulcer had previously been treated using a hydrogel to the wound bed, with an absorbent, low-adherent secondary dressing applied.

The patient was ambulant so pressure reduction was provided using a foam replacement mattress.

The wound had moderate exudate levels and, although it did not appear infected, due to the nature and position of the wound, there was a risk of increased bioburden. Cutimed Siltec foam was selected and applied to the wound. No additional wound care products were used.

The wound was reviewed after three days and although there were no changes to the wound size, the sloughy tissue was observed to have softened. There was also an improvement in the periwound skin, where there was a reduction in both maceration and erythema.

The wound was re-dressed using the Cutimed Siltec foam, and progress was reviewed 11 days after the product had been started. The wound had continued to improve, both in the wound bed and the periwound skin. As the wound was improving and managing the exudate effectively, it was decided to continue with Cutimed Siltec foam.

A further wound assessment was undertaken two weeks later, where it was found that the wound had reduced in size to approximately 2x1cm and there was no sloughy tissue present. Granulation and epithelial tissue were the main tissue types present (Figure 8). As with other cases, the foam dressing did not cause trauma to the wound bed and dealt with the wound exudate levels.

Key points

- ▶▶ Absorbency is often viewed as the most important feature of foam dressings, as this feature allows longer wear time and less chance of exudate escaping from the wound site.
- ▶▶ Cutimed Siltec foam dressings from BSN medical consist of a polyurethane foam containing a layer of superabsorbers above the foam core and a silicone wound contact layer.
- ▶▶ Choosing wound care therapies which reduce trauma and assist in the wound healing process may help to reduce anxiety (Hollinworth, 2005).
- ▶▶ An atraumatic dressing with improved absorbency, Cutimed Siltec foam offers an excellent alternative to clinicians for the treatment of patients with complex wounds.

Conclusion

Heavy wet dressings, leaking wounds and odour which may occur; not only affect the patient physically but can be the cause of anxiety. In addition, the effects of wound exudate on the surrounding skin can be extremely damaging, leading to maceration and breakdown of the surrounding skin itself. As the field of wound care progresses, advances in technology have improved the quality of care for the patient. One of the most important advances has been the introduction of low-adherent, atraumatic dressings which minimise pain and trauma on removal. Combined with improved absorbency, Cutimed Siltec foam offers an excellent alternative to clinicians for the treatment of patients with complex wounds. **WUK**

References

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Figure 7. On presentation, wound predominantly sloughy tissue with some small signs of granulation underneath and erythema on the wound edge.



Figure 8. Wound almost 95% epithelial tissue, 5% granulation tissue and nearly completely closed.

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