



Case report 1



Case report 2



Case report 3



Case report 4



Case report 5



Case report 6



Case report 7



Case report 8

Case reports using Mepitel[®] One wound contact dressing with Safetac[®] technology

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INTRODUCTION

In recent years a wealth of information has been published on wound-related pain during dressing change, most notably the World Union of Wound Healing Societies' documents *Minimising pain at wound dressing-related procedures* (WUWHS, 2004) and *Minimising pain at dressing-related procedures: Implementation of pain-relieving strategies* (WUWHS, 2007). The need to address pain issues at dressing change is now fully recognised and as knowledge about this aspect of wound management evolves, clinicians have a duty to keep abreast of the most current information available, including knowledge of available atraumatic dressings, to guide best practice (WUWHS, 2007).

Several factors can contribute to painful dressing removal, including aggressive adhesives which adhere to the wound bed and surrounding skin resulting in trauma and pain on removal (Rippon et al, 2007), or the application of adhesive products to vulnerable skin. The repeated application and removal of dressings with traditional adhesives can result in trauma to the skin surface leading to stripping of the skin barrier and in severe cases, erythema and blistering (Dykes and Heggie, 2003). These damaging effects are more likely to occur in those patients who are particularly vulnerable to skin damage, such as the elderly, and those with significant comorbidities. Both groups are susceptible to delayed healing and wound infection once damage has occurred (Timmons, 2007).

Dressings containing Safetac® technology, such as Mepitel® (Mölnlycke Health Care), have heralded a revolution in wound care with the current focus on avoiding pain and trauma at dressing change (Hollinworth, 2005). The silicone in Safetac technology is a relatively biologically inert product, which when applied to dressing materials can reduce the likelihood of skin or wound trauma on removal (White, 2008). Indeed, several studies have shown that soft-silicone dressings are associated with less damage to the skin (Dykes and Heggie, 2003; Zillmer, 2006) and less pain before and after dressing change (Dykes and Heggie, 2003; O'Neill, 2007) when compared to other advanced dressings that use traditional adhesives.

Mepitel® One

Mepitel® One (Mölnlycke Health Care) is a self-adhering wound contact layer dressing with Safetac technology. As its name suggests, the dressing has Safetac technology on one side only, which offers easier application for the clinician and provides the opportunity to use the dressing as a primary contact layer. The dressing is fully transparent allowing for wound assessment, and can be left in place for up to 14 days, meaning the wound can be observed but left undisturbed, thus reducing the likelihood of disrupting the healing process. The open mesh design of the dressing enables free transfer of exudate into the secondary dressing and delivery of topical treatments to the wound bed. The Safetac layer prevents the outer dressing from sticking to the wound and ensures atraumatic dressing changes. This layer also seals around the wound edges, preventing exudate from leaking onto the surrounding skin, thus minimising the risk of maceration. The dressing has stronger Safetac adhesion for extra security and is highly conformable promising a good fit in hard-to-dress locations.

The following case reports produced by the Department of Tissue Viability at Grampian NHS, Aberdeen, were carried out to evaluate the performance of Mepitel One when used to treat a selection of patients with chronic wounds of varying aetiology, some in hard-to-dress areas, that were associated with significant comorbidities. As a result, all patients had wounds that were vulnerable to further skin damage and/or infection, making the use of an atraumatic dressing as part of their treatment regimen, crucial. Within the department, the role of dressings to prevent skin and wound trauma has become one of the main criteria for dressing selection. The findings of the cases reported in this document indicate that Mepitel One is a promising addition to the atraumatic dressing category.

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CASE REPORT I

Over a three-month period, eight patients were treated using Mepitel® One (Mölnlycke Health Care) as part of their treatment regimen. The following case reports present the results of their treatment. The cases met one of two criteria, namely:

- ▶▶ Retention of a primary dressing in a challenging anatomical location
- ▶▶ Protection of a vulnerable wound and periwound area during healing.

Case reports 1–3

Treatment objectives:

- ▶▶ Retention of primary dressing in a difficult-to-treat area
- ▶▶ Prevention of wound or periwound trauma
- ▶▶ Prevention of infection in high risk patients.

Case report one

A 74-year-old lady who had previously had her hallux (big toe) amputated and postoperatively experienced wound dehiscence was referred to the tissue viability department (*Figure 1*). This patient who had a history of wound infection and a medical history of diabetes and chronic kidney disease was considered at risk of further infection. On examination, the wound was found to extend to bone and the decision was taken to prepare the patient for negative pressure wound therapy (NPWT) by desloughing the wound using silver sulfadiazine cream. Mepitel One helped to retain the cream at the wound bed (*Figure 2*). *Figures 3–4* show the wound after 14 days of treatment and two sessions of minor sharp debridement at dressing changes. At this point the patient was started on NPWT.

Summary

This patient presented with a wound which had a history of infection and her overall health status suggested that she was at risk of recurrent infection. Due



Figure 1. Wound dehiscence following amputation of great toe on initial presentation.

to the awkward anatomical location of the wound, a dressing was needed that would retain the silver sulfadiazine cream on the wound bed. Mepitel One was used for this purpose. The dressing conformed to the shape of the wound and periwound area. Only one side of the dressing having a tack helps with manipulating the dressing into place with gloved hands.



Figure 2. Mepitel One retaining silver cream on the wound bed.



Figure 3. Wound after 14 days of treatment and minor sharp debridement.



Figure 4. Wound after 14 days of treatment and minor sharp debridement.

Case 2

This 79-year-old female presented with a longstanding wound, skin conditions and chronic oedema stretching back many years. She had previously undergone toe amputation and had recently been offered amputation of her limb, which she had refused. A large wound had developed on the front of her right foot. This had been successfully reduced using NPWT, however she subsequently developed a wound infection (*Figure 1*). The decision was taken to use an absorbent silver primary dressing. As can be seen in *Figure 2*, this did not conform to the anatomical shape of the wound and periwound area. When applied and covered with a secondary dressing, the primary dressing tended to slip off the wound bed. Adhesive secondary dressings were also difficult to apply due to the periwound area and the high volume of exudate produced as a result of the lower limb oedema. The patient's ankle brachial pressure index (APBI) results prevented the use of bandaging, including toe bandaging, to reduce the oedema in the lower limb. *Figure 3* shows how Mepitel One was cut into strips and used to retain the primary dressing in place, allowing a non-adhesive absorbent pad to be used as a secondary dressing, secured by means of a tubular retention bandage and orthopaedic padding.

Summary

This case presented a number of issues which prevented the use of standard treatments in the management of a lower limb with chronic oedema. Chronic oedema complicates wound management and reduces the chance of healing, while increasing the risks of infection. Mepitel One successfully retained the primary dressing in place despite the challenges of the anatomical area. Again, the manipulation of the dressing with gloved hands was enhanced by the single-sided tack.



Figure 1. Large wound on the front of right foot at initial presentation.



Figure 2. Silver dressing failing to conform to the anatomical shape of the wound and periwound area.



Figure 3. Mepitel One enabled the primary dressing to be kept in place.

Case 3

Two weeks after a hip replacement operation, this 84-year-old female presented with a rapidly developing ulcer to the left calf area. The wound developed as superficial abrasions which had become infected and sloughy. On examination, the limb was hot and painful to touch with high levels of exudate. The patient was experiencing a great deal of pain. Treatment had been started with silver sulfadiazine cream. However, as a result of gravity and the secondary dressing, the cream did not remain in contact with the wound bed (*Figure 1*).

The patient was started on oral antibiotics and the silver sulfadiazine cream was continued but with the addition of Mepitel One to ensure that it remained in place, as described in case 1. After seven days of treatment the wound and limb had improved; there were no signs of infection and sloughy tissue was present (*Figure 2*). The staff reported that at dressing changes the silver sulfadiazine cream was being retained on the wound bed.

Summary

Mepitel One succeeded where the previous dressing had failed in keeping the silver sulfadiazine cream in place on the wound bed, thereby enabling the wound to progress to healing.



Figure 1. Patient's leg showing superficial abrasions and slough.



Figure 2. Sloughy tissue present after seven days of treatment.

Case reports 4–8

Treatment objectives:

- ▶▶ Protection of vulnerable wound and periwound areas during healing
- ▶▶ Prevention of wound or periwound trauma

It is the practice of the Department of Tissue Viability, NHS Grampian to manage soft pitting oedema of the lower limb using a system developed in conjunction with the Chronic Oedema Department. This involves the application of a toe-to-knee layer of blue line tubular retention bandage such as Actifast® (Activa Healthcare)/ Comfifast™ (Synergy Healthcare)/ Tubifast (Mölnlycke Health Care). This is covered with a layer of orthopaedic padding toe-to-knee such as Soffban™ (Smith and Nephew), and then a final layer of blue line tubular retention bandage toe to knee. Where the limb is larger, a yellow line tubular retention bandage would be used. It has been the department's experience that where this system is used appropriately, the soft pitting oedema is reduced and the fluid leaking from any lower limb wounds lessens, thereby facilitating healing. This method is used in cases 4, 5, 7 and 8.

Case 4

A female patient was admitted with a systemic infection which had resulted in a fall before admission. On examination, it was noted that there was a bruised and blistered area to the outer aspect of her right foot, and that the limb was compromised by oedema below the knee (*Figure 1*). As this patient was being treated for systemic infection, it was felt by the tissue viability nurses that the best course of action would be to reduce the oedema in the limb by using the standard method of the Department of Tissue Viability, NHS Grampian for managing soft pitting oedema. It has been the department's experience that this type of limited compression can reduce the degree of soft pitting oedema in the lower



Figure 1. Bruised and blistered area to the outer aspect of the foot at initial presentation.

limb, without compromising patient safety. Mepitel One was used to cover the blistered areas to protect the skin and prevent any wound or periwound trauma.

After one week of treatment, the Mepitel One remained in place and the blistering had resolved, sloughy tissue was exposed for further treatment with debridement, and there was no presence of oedema in the lower limb (Figure 2). Wound management often calls for interventions which seek to reduce the risk of further damage, before starting active treatment. In this case, Mepitel One was used to protect the skin while the oedema and blistering resolved, allowing the next stages of treatment to start.

Case 5

In this case, a 72-year-old man was referred to the team with trauma to the tibial area of his left leg (Figure 1). The patient had previously undergone cardiac surgery. He was started on the team's standard treatment for soft pitting oedema. The wound bed itself was covered with Mepitel One, which was in turn covered with an absorbent dressing. This patient was lost to follow-up.



Figure 2. After one week of treatment with Mepitel One covering the wound and protecting the skin, wound and periwound area from trauma, the blistering had resolved and sloughy tissue was present.



Figure 1. Trauma to the tibial area of the leg at initial presentation.

Case 6

In this case a 55-year-old female had developed a superficial pressure ulcer to her right buttock. The ulcer was not infected but she was in significant pain and discomfort because the dressings were adhering to the wound (*Figure 1*). Mepitel One was used as a primary contact layer along with an adhesive foam dressing with a silicone border as a secondary dressing. Over the next seven days the Mepitel One remained in place while the secondary dressing was replaced (*Figure 2*). As can be seen in *Figure 3*, the wound reduced in size and made good progress towards healing.

Summary

In this case Mepitel One was used to prevent trauma and pain to the wound bed. It was also able to remain in place due to its single-sided tack, which meant that it did not adhere to the secondary foam dressing.



Figure 1. Non-infected superficial pressure ulcer to the right buttock at initial presentation.



Figure 2. Mepitel One being used as a primary contact layer.



Figure 3. Wound has reduced in size and is progressing to healing.

Case 7

A 78-year-old female patient presented with a recent pretibial wound associated with cardiac disease, lower limb oedema and diabetes. Before review, the patient had been started on the team's standard treatment for soft pitting lower limb oedema. *Figure 1* shows a reduction in the previously identified oedema and the size of the wound. The wound was dressed with Mepitel One (*Figure 2*) and an absorbent pad was used as a secondary dressing. *Figures 3* and *4* show the wound at days four and seven respectively.

Summary

The management of a superficial lower limb wound that also involves soft pitting oedema can be complicated by the fact that the fluid leaks via the wound. This represents an almost insurmountable absorption challenge for any secondary dressing. The use of a limited compression system and Mepitel One reduces the fluid in the lower limb, while also allowing the secondary dressing pad to be changed daily if required, leaving the wound undisturbed. Also, as Mepitel One is only tacky on the wound contact side, the risk of the primary dressing sticking to the secondary dressing is reduced.



Figure 1. Wound after compression therapy for soft pitting lower limb oedema.



Figure 2. Mepitel One in situ.



Figure 3. Wound at day 4 of treatment.



Figure 4. Wound at day 7 of treatment.

Case 8

This 80-year-old female presented with a non-infected pre-tibial wound. She had previously undergone cardiac surgery, suffered from acute coronary syndrome and had been diagnosed with lower limb arterial disease. *Figure 1* shows the wound at presentation with dried exudate and debris in the wound bed. The wound was cleaned and treated with the department's standard method of light compression for patients with soft pitting oedema. Mepitel One was used to cover the wound bed and the secondary dressings, with absorbent pads being changed as required. *Figure 2* shows the primary dressing in place, while *Figure 3* shows the wound after one week of treatment. There was clear evidence of contraction and epithelialisation.

Summary

Removal of excess fluid from the wound by addressing the underlying oedema, while ensuring that a reliable primary contact layer remains in place without damaging the wound bed or periwound area, is key to the successful management of wounds such as those described in cases 4, 6 and 7. In this particular case, the wound healed quickly and effectively under this regimen.



Figure 1. Dried exudate and debris in the wound bed at initial presentation.



Figure 2. Mepitel One covering the wound bed.

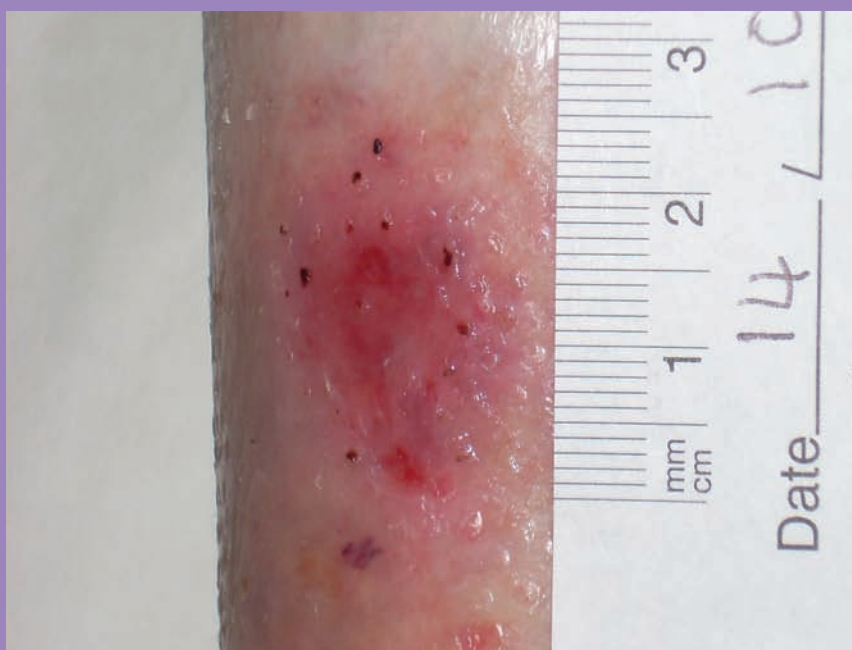


Figure 3. Wound after one week of treatment.

Discussion

The cases presented in this document, show how each patient presented with their own unique challenges. These challenges needed to be addressed by a treatment regimen which best suited their needs. Some of the care plans were identical, as they met the patients' requirements, while others were tailor-made for the individual patient. To deliver effective wound management which meets the needs of the patient, practitioners should be open to using different treatments from across the spectrum and have a knowledge of the therapies available.

Mepitel One was used as part of the management plan where there was a need for a conformable, Safetac technology primary contact layer. It was found that the dressing performed well whether it was used to retain a primary dressing in an anatomically difficult-to-dress area, or to act as a primary dressing while healing took place. All the practitioners favourably reported on the single-sided tack of the dressing in helping handling with gloved hands. In all other aspects the dressing performed as would be expected from a thin wound contact layer with Safetac technology.

As practitioners, it is important to remain open to all treatment options, and to remember that innovation and an open mind remain the cornerstones of providing effective wound management.

