Managing patients with large, shallow, complex wounds: a case series

KEY WORDS
- Case study
- Complex wounds
- Shallow wounds
- Transparent wound contact layer

Large wounds on the leg and abdomen can be particularly challenging to manage as dressings are often not big enough to cover the entire wound bed. Patchworked dressings are difficult to apply and there can be slippage, leading to gaps where the wound is exposed or to which retention products can adhere. The successful overlapping of dressings, however, is demanding and expensive. Superabsorbent dressings can be used on large wet wounds, however when saturated they can become heavy, cold and pull at the skin. This small case series examines the use of the new larger-sized Mepitel® One dressings with secondary dressings in the management of eight patients' wounds.

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Patients with chronic wounds present many challenges to the clinicians delivering care; challenges may include determining the cause of the wound or cause(s) of delayed healing, identifying appropriate treatment options and gaining patient concordance. When determining the most suitable treatment, aside from addressing the cause (for example using compression to manage venous disease), product selection is about managing the presenting symptoms of the wound, such as exudate or pain. One factor that is not widely discussed, however, is the management of wounds at the extremes of size. This small case series examines the use of the new larger-sized Mepitel One dressings in the management of eight patients with large wounds.

THE PROBLEM

Dealing with a large wound is always challenging because of what it means to the patient in terms of pain, suffering and overall quality of life, and due to the practicalities of managing the presenting symptoms (Dowsett, 2008; Lo et al, 2011).

While the management of large wounds (and particularly large wet wounds) appears frequently in published literature (World Union of Wound Healing Societies, 2007; Wounds UK, 2013; Chamanga, 2015; Tickle, 2015) the preferred management option appears to be negative pressure therapy (Dowsett, 2008; Dumville et al, 2015). This form of treatment is not, however, suitable for all patients or wounds. Outside of negative pressure therapy there are very few options.

In the leg ulcer literature, large circumferential leg ulcers (e.g. *Figure 1*) are frequently discussed, however the treatment option presented is usually a form of compression to address the underlying aetiology (Harding et al, 2015). This does not help patients where the aetiology is not venous or who are unable to tolerate compression. Franks et al (2016) state that: "Unfortunately we do not have one single study assessing the effectiveness of modern wound dressings in patients with large ulcers".

In addition to their size, many of these wounds can also be very wet, and therefore either require frequent redressing or the use of superabsorbent products. Superabsorbents manage large amounts of fluid and so may only need to be changed once daily. A contact layer is still often required, however, and this is the major challenge as several pieces of contact layer and then a second set of dressings on top need to be held in place (Faucher et al, 2012). Some but not all brands of superabsorbents are available in large sizes. When fully saturated they can be heavy and secured edges may pull on the skin, potentially causing skin damage. If the weight of the dressing causes it to 'bag' or pull away from the wound, exudate can pool underneath and cause skin maceration or leakage through and around the dressing, which

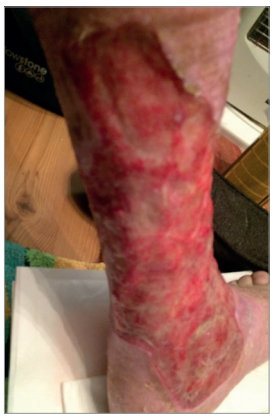

Figure 1. Extensive wet leg ulcers are difficult to successfully dress as dressings are often not large enough to cover the entire ulcerated area

can be distressing for the patient. Some patients report that the fully saturated dressings are cold and therefore uncomfortable.

While many contact layers are available in 'large' sizes, 'large' is often 15 × 15 cm or at most 20 × 30 cm. This is still not adequate to wrap round a large leg or place across the whole of a chest wall. Clinicians will therefore patchwork smaller than desired dressings to achieve full coverage. In order to reduce the risk of the secondary dressing or retention product sticking to the wound and causing pain or trauma on removal, it is common practice to overlap the dressings to ensure that there are no gaps. Obviously this means more pieces of dressing are required, but it has a better outcome for the patient. The difficulty with this process, especially on a limb, is holding the many pieces of dressing *in situ* without slippage until the secondary product and retention are in place. Patchworking or overlapping can therefore be difficult and time consuming to do, resulting in considerable discomfort for the patient and often requiring more than one member of staff to achieve. Having enough staff available to support patients during frequent dressing changes, particularly in a community setting, is challenging and requires considerable organisation (Maybin et al, 2016).

Box 1. Aspects of the new products evaluated in comparison to products previously used

- Ease of handling
- Ease of application
- Ability to reposition during application
- Time required to apply the dressing
- Conformability
- Patient comfort during wear
- Ability of dressings to stay in place
- Ability to transfer exudate (to secondary dressing)
- Transparency (i.e. ability to visualise wound whilst in place)
- Ability to maintain its integrity (during wear and on removal)
- Ease / speed of removal
- Ability to reduce pain associated with dressing removal
- Patient comfort during removal
- Time required to remove dressing
- Overall impression of the dressing.

THE IMPACT OF LARGE WOUNDS ON PATIENTS

For most patients with large wounds it is the symptoms that impact significantly on their quality of life, most noticeably these are exudate leakage and pain (Barrett, 2005; Lo et al, 2008; Harding et al, 2015). Patients frequently describe how poor exudate control significantly impacts on both their quality of life and overall wellbeing as they become anxious about wound leakage with movement (Grocott, 2000; Lo et al, 2011; Hopman et al, 2014; González de la Torre et al, 2016). Exudate leakage can stain and also result in significant malodour, which is distressing for the patient.

THE SOLUTION

Mepitel One is a one-sided, transparent, non-adherent silicone wound contact layer. Unlike many other contact layers, it is possible to leave the silicone-coated product in place for up to 14 days, minimising possible discomfort due to dressing changes and allowing for good exudate control.

Mepitel One is frequently used in patients with very wet wounds as the nature of the dressing allows the exudate to pass through to the secondary layer, which can consist of an inexpensive but highly absorbent product such as gauze or surgical pads. The self-fixating mesh stays in place during use, allowing clinicians to change only the secondary absorbent dressing when required (Cooper et al, 2010), making it a cost-effective treatment (Barrett, 2012).

Previously the largest available size was 24 × 27.5 cm; however this size was insufficient to manage some of the larger wounds, e.g. large legs or sizeable truncal wounds. This case series presents the early results of two new larger Mepitel One sizes: 27.5 × 50 cm and a 9.5 × 150 cm roll.

CASE SERIES

After obtaining appropriate governance approval, eight patients from two hospital sites agreed to participate in a product evaluation of Mepitel One 27.5 × 50 cm and 9.5 × 150 cm. Two patients had fungating chest lesions, five patients had lower limb ulceration and one patient had epidermolysis bullosa.

Clinicians were asked to score various aspects of the new products (*Box 1*) against the product(s)

Table 2. Treatment regimens of patients before and during the product evaluation

Patient	Type of wound	Previous product(s)	Number of pieces	Current product(s)	Number of pieces	Performance (out of 30)
1	Painful fungating breast wound	N-A™ Ultra 9.5 × 19 cm	4 every 2 days	Mepitel One 27.5 × 50 cm	1 every three days	27
2	Circumferential leg/foot ulceration following cellulitis	Mepitel One 13 × 15 cm	2 every 2 days	Mepitel One 27.5 × 50 cm	1 every 3 days	24
3	Large painful venous leg ulcer	Mepitel One 24 × 27.5 cm, Flivasorb® superabsorbent dressing	4 per day	Mepitel One 27.5 × 50 cm, Flivasorb®	2 every 3 days	26
4	Multiple ulcers to foot and toes	N-A™ Ultra 9.5 × 9.5 cm	6 every 4 hours	Mepitel One Roll (9.5 × 150 cm)	1 every 10 days	24
5	Multiple painful fungating breast tumours	UrgoTul® Absorb 15 × 20 cm	3 per day	Mepitel One 27.5 × 50 cm	1 per day	30
6	Venous leg ulcers secondary to obesity and self-neglect	Allevyn Foam dressing 20 × 20 cm	8 per day	Mepitel One 27.5 × 50 cm	Mepitel One weekly; outer dressings twice per week	30
7	Leg ulcers following cellulitis	Atrauman Ag sterile dressing, 20 × 10 cm Allevyn Non-Adhesive, 20 × 20 cm	6 per day 4 per day	Mepitel One 27.5 × 50 cm, Surgipad® surgical dressing	Mepitel One weekly; Surgipad® every 6 hours	24
8	Epidermolysis bullosa	UrgoTul® dressings: 10 ×10 cm and 10 ×12 cm	Data missing	Mepitel One Roll (9.5 × 150 cm)	Data missing	2

previously used. A Likert scale was used where: 2 = much better; 1 = better; 0 = as good; -1 = worse; and -2 = much worse. The maximum performance score for each patient was 30.

Results

The treatments that the eight patients received before and during the product assessment are given in *Table 1*. Six patients Mepitel One 27.5 × 50 cm and two patients (patient 8, with epidermolysis bullosa, and patient 4, with a breast tumour) used the roll dressing.

Reported outcomes all included a reduction in the time required to prepare and apply the product, and more importantly a reduction in patient discomfort while the product was being applied. No negative performance scores were given for the replacement dressings, and in total the new products scored 187 out of 240. Scores improved for all patients, even when compared against smaller sizes of Mepitel One (Patients 2 and 3). One clinician highlighted how the product could encourage patient/family involvement in the process due to the simplicity of the roll.

Fewer pieces of dressing were used and there were fewer dressing changes when patients' care was changed to Mepitel One, as the comprehensive coverage of the contact layer meant there was no leakage. For some patients, such as Patient 6 (*Figure 2*), it was possible to leave the Mepitel One *in situ* for a week. The secondary dressing, a simple absorbent pad, was changed every 6 hours for in order to manage the volume of fluid. Previously the whole dressing had needed to be changed, causing pain and discomfort.

The frequent dressing changes required prior to the use of Mepitel One had also led to additional costs.

Patients 1 and 5 with fungating breast tumours experienced significant reductions in pain, which was measured using a visual analogue scale. Patient 1, a particularly private woman, was able to replace her own secondary dressing. The ability to partially self-manage her large, complex-shaped breast tumour (*Figure 3*) gave her great comfort and she felt that her dignity had been restored.

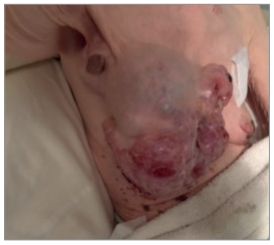

Figure 3. Patient 1 had a large fungating breast wound that she was able to partly self-manage, as she was able to change the secondary dressings herself

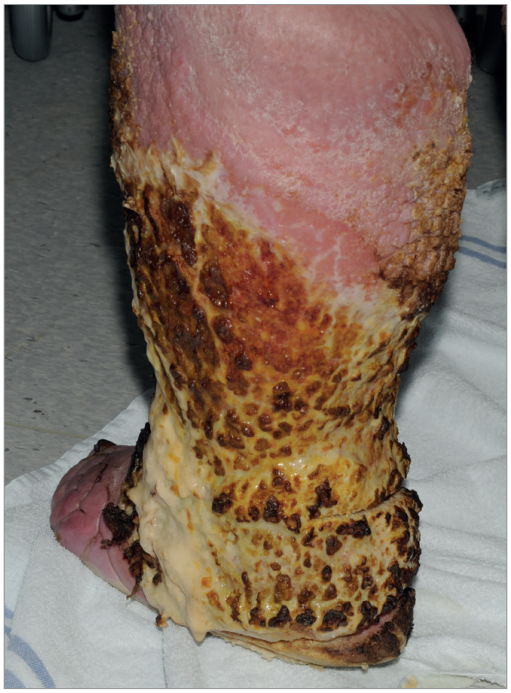

Figure 2. Despite the volume of exudate produced by the wound, Mepitel One dressing was able to be left in place for a week in patient 6

DISCUSSION AND CONCLUSION

The management of large wounds, particularly those with complex contours such as patient 1's fungating breast tumour, presents many challenges. This case study found that larger dressings increased patient comfort and restored dignity, were simpler to use and allowed the patient to be involved in self-care should they wish. Larger dressings also reduced the time taken during each dressing change, freeing up clinical time that was able to be used to support the patient in other ways.

Having the most appropriate dressing size available rather than patchworking multiple pieces of dressing has many benefits. For the patient, benefits include a possible reduction in pain, the maintenance or restoration of dignity, and a reduction in the intrusion of their wound in their daily routine. For the clinician, larger dressings are easier to use and lead to confidence that the wound bed is fully covered and there will be no areas of adhesion causing trauma on removal. Such dressings reduce the time needed for dressing changes and, for patients who want to be involved in their own management, can lead to a reduction in the number of clinician appointments required. Suitable dressing selection can also reduce the number of dressing changes required, further enhancing the benefits already mentioned. For the healthcare organisation it can mean actual cost savings, especially if clinician time is factored in. Having the two larger sizes of Mepitel One available offered real benefits for all of the patients in the evaluation. WUK

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