Exudate from both acute and chronic wounds can be distressing to the patient, result in catastrophic tissue damage to the wound bed and surrounding skin, reduce quality of life and increase the need for specialist resources (Wound Essentials, 2012). Effective exudate management is, therefore, paramount to ensure wound healing can take place in a timely manner (Walker et al, 2010). This product review explores 38 ward-based patients who presented with acute and chronic exuding wounds; it examines and evaluates the proposed benefits of the Cutimed® Siltec foam dressing range alongside a pre-set education regimen for both the patient and clinician. The outcomes of the evaluation are exudate management, protection of the periwound skin, atraumatic application and removal, non adherence and benefits of using a patient information leaflet within the dressing regimen. The evaluation highlights not only a significant improvement within exudate management and damaged periwound skin healing, but emphasises the key importance of a collaborative approach through the education of patients and clinicians, ensuring concordance and informed choice of care continuation.
overhydrated or too dry (Wound Essentials, 2012). Dressings are primarily utilised within exudate management as the first choice of intervention and many are designed to handle fluid through varying mechanisms (Wicks, 2012).

WUWHS (2007) proposes well-known criteria for dressing selection to aid the clinician in the decision-making process when choosing the most appropriate product to meet the individual patient’s needs (Table 2).

### Holistic Approach to Exudate Management

Ousey (2013) emphasised that due to the negative impact highly exuding wounds have on the patients’ overall wellbeing, the assessment and reassessment must include an holistic package encompassing all aspects of the patients wound care journey.

Gorecki et al (2012) encouraged clinicians to be mindful of the discrepancy in priorities between the patient and clinician; where clinicians may focus on the wound healing process and outcomes, while patients prioritise discharge home from the care setting, pain and symptom control or odour reduction. It is, therefore, vitally important that patients are educated in product choice and rationale of use, the benefits and expected outcomes of that product with regard to their wound management, alongside their inclusion in the decision-making process, if concordance with wound care regimens is to be maximised (WUWHS, 2007).

Patient choice, direction of care and active involvement in decision making has become a key national agenda in the drive to improve patient experience, concordance and ultimately care outcomes (Moffatt, 2004; Department of Health [DH], 2010). Indeed, the fundamentals of any wound care regimen, aiming at the best possible successful outcome, requires the patient to be central to the care plan, and must encompass close collaboration and interaction between clinicians, patients, carers, the healthcare system and industry members. Overall education is an important aspect to this success (Wounds International, 2012).

### Aim of Implementation

With the ongoing burden that highly exuding wounds pose to the clinician and the inconsistency and/or lack of patient-tailored wound product

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**Table 1. Factors that may have an effect on exudate production.**

<table>
<thead>
<tr>
<th>Wound healing</th>
<th>Localised</th>
<th>Systemic</th>
<th>Clinical</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Delayed or static healing</td>
<td>5. Trauma</td>
<td>10. Infection/inflammation</td>
<td>15. Concordance of patient</td>
</tr>
<tr>
<td></td>
<td>8. Fistula/sinus</td>
<td>13. Lymphoedema</td>
<td></td>
</tr>
</tbody>
</table>

Adapted from Wicks (2012) and Wounds UK (2013).

**Table 2. Criteria for dressing selection adaptation (WUWHS, 2007).**

<table>
<thead>
<tr>
<th>Does the dressing:</th>
<th>Is the dressing:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stay intact and remain in situ throughout expected wear time?</td>
<td>Comfortable, conformable, flexible and of a bulk/weight that does not impede physical activity?</td>
</tr>
<tr>
<td>Prevent leakage between dressing changes?</td>
<td>Suitable for leaving in situ for a long duration?</td>
</tr>
<tr>
<td>Cause maceration, allergy or sensitivity?</td>
<td>Easy to open and apply?</td>
</tr>
<tr>
<td>Reduce pain?</td>
<td>Easy to remove without traumatising the tissues?</td>
</tr>
<tr>
<td>Reduce odour?</td>
<td>Available and accessible to the clinician and patient?</td>
</tr>
<tr>
<td>Retain fluid away from the wound bed?</td>
<td>Cost effective?</td>
</tr>
</tbody>
</table>

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information, the initiative of implementing Cutimed® Siltec foam products in conjunction with a patient/clinician-tailored information document (Figure 1) for patients presenting with exuding wounds was agreed between the wound care lead nurse, consultant, registrar, procurement and industry at a large teaching NHS Foundation Trust. All ward-based patients who were referred to the wound care lead nurse for specialist intervention for exuding wound optimisation were given the opportunity to be included in the evaluation process.

The decision to evaluate the Cutimed Siltec foam dressing was based on supporting evidence in respect to its effectiveness within exuding wound management, particularly its absorbency, its nonadherence to the wound bed, its atraumatic removal and cost-effectiveness status (Stephen-Haynes and Timmons, 2009) and positive current clinical use within the wound care service across a wide range of patient ages, clinical conditions and wound groups.

Cutimed Siltec is promoted as a range of foam dressings with a non-adhesive wound contact layer, a super absorbent layer and a highly breathable top film layer, providing gentle and effective exudate management. The bordered variety (Cutimed Siltec B) has an adherent silicone border which offers secure fixation. The product has demonstrated in clinical case studies (Thomas, 2009; Süss-Burghart, 2009) that it absorbs and locks away excess exudate within the dressing, promoting a moist wound environment. It is also highly conformable and reliably retains exudate under various circumstances, including compression therapy.

Clinical indications for this product pertain to wounds with varying levels of exudate inclusive of venous and arterial leg ulcers, diabetic foot lesions, pressure ulcers, skin grafts, surgical and traumatic wounds, either as a primary or secondary dressing (Stephen-Haynes and Timmons, 2009). Although there are many super absorbers and advanced foam dressing products available to the clinician in the management of exuding wounds, not all products meet the needs or choice of individual patients for variety of reasons. With advanced wound care product development improving the mechanics and product functions, it is essential that clinicians ensure that a holistic approach to product use is maintained and this includes education and ongoing support to the end user to promote appropriate use and compliance.

**METHODS**

A total of 38 patients, who were referred with exuding wounds, were recruited over a 2-month period through the Trusts’ wound care service, inclusion criteria were that the patient had an exuding wound that was not being managed by...

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**Table 3. Patient demographics summary.**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>34–93 years</td>
<td>37–92 years</td>
<td>Mean age: 54 years</td>
</tr>
</tbody>
</table>

**Table 4. Priority of symptoms at referral stage.**

<table>
<thead>
<tr>
<th>Priority at day one</th>
<th>Clinician</th>
<th>Patient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maceration to periwound skin</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Exudate management</td>
<td>38</td>
<td>17</td>
</tr>
<tr>
<td>Pain at wound/peri skin site</td>
<td>0</td>
<td>15</td>
</tr>
</tbody>
</table>
current regimens and exclusion referred to those patients who did not have an exuding wound and or who did not wish to change their current dressing regimen. One patient who wished to be included was referred with a partial exuding burn that also had dry regions to the wound; previous products had adhered to the wound, hence the patient’s wish to try a different product to his previous regimens. Patients were initially provided with verbal information regarding the evaluation process, its aims and objectives and the choice to getting involved or carrying on with their current regimens.

Due to the product being utilised within the organisation as part of the formulary review process, and benefits were reviewed through an evaluation process, no ethical approval was required. The evaluation took place over a 2-month period, with each patient being monitored over a 28-day span, due to the nature of short bed stays in the acute sector or their discharge from service (Table 3). The evaluation data collection related to patient demographics, objectives of therapy, previous treatments used, wound status and patient/clinician experience of product and education leaflet. Both patient and clinician were asked: “What is your priority of management” at day one (Table 4) and “would you wish to continue with this product and was the education leaflet helpful” as part of the data collection at mid-point (2 weeks) and discharge.

The first 38 patients who were referred had all agreed to take part within the evaluation. Verbal/

**Introduction**

It can be difficult to live with wounds which weep profusely. Excess fluid can cause pain and embarrassment if left untreated. However, Cutimed Siltec dressings, designed to provide gentle and effective exudate management, can help. You won’t have to worry about fluid leaking through the dressing and becoming visible on bandages, clothing or bedding or causing unpleasant odour or further pain.

**How long will I wear the dressing?**

This will depend on the level of fluid (exudate) your wound is producing. Your nurse will be best placed to make that decision. When the dressing has become saturated, the nurse will apply a new dressing but only when appropriate. When your wound reaches a stage that the fluid is reducing, you may be switched over to another type of dressing.

**Why has this dressing been chosen for me?**

Your wound goes through different stages as the body tries to heal and this needs to be managed. As this happens your wound will exude fluid. By choosing a dressing that has the capacity to absorb low to high levels of fluid, your quality of care and way of life will be much improved as you do not have to worry about the levels of fluid your wound is producing. The way this dressing works means that it can stay on for longer, reducing the amount of times it has to be changed (as we know, dressing changes can be uncomfortable and even painful).

**How does your Cutimed® Siltec dressing work?**

The Cutimed Siltec range of foam dressings behave a little differently to other dressings on the market.

**Gentle**

They have a non-adhesive, perforated, silicone wound contact layer – designed to offer protection of the delicate skin around the wound and provide pain-free dressing changes. There is very little tack to the silicone wound contact layer deliberately so your dressing may be fixed in place with a bandage or secondary fixation dressing (except for Cutimed Siltec B which has an adherent border).

**Secure**

At the top of the dressings there are super-absorbent particles designed to absorb and to lock away excess fluid inside the dressing. This helps to protect your surrounding skin from weakening and becoming sore.

**Unique**

Fluid may be visible at the top of the dressing but it is not an indication that the dressing needs to be changed. It simply indicates that the unique fluid handling action of these dressings is working.

**How can these dressings help you**

- **Non-adhesive silicone wound contact layer**
  - Protects your surrounding skin and allows pain-free dressing changes

- **Super-absorbent particles**
  - Absorb quickly and lock away fluid in the dressing, reducing the risk of damage to your surrounding skin. As such these dressings are particularly suited to use with compression therapy

- **Intelligent polyurethane film on the top of the dressing**
  - Prevents strike-through from the exudate (fluid) giving you comfort and peace of mind that fluid will not leak through onto your clothes or bedding

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Figure 1. This is an excerpt of the education leaflet each patient and nurse received after the initial assessment. A copy was placed within the nursing notes and another copy was kept with the patient at his/her bedside.
written consent was documented in the medical and nursing notes. Each patient and nurse at the onset of the evaluation were given a tailored education document and dressing product, a copy of the education leaflet was placed within the nursing notes and a copy kept with the patient at the bedside. All patients remained in the evaluation either to the 28-day endpoint or up to discharge from the service.

Following entry into the evaluation and information provision each patient’s wound was cleansed as required prior to being dressed with the Cutimed Siltec product. The previous wound care continuum dressing regimen was consistently adhered to; those wounds that required the foam as a secondary product would continue to deploy the same wound filler prior to the evaluation as with those wounds that were being managed with barrier films, creams, bandaging and compression therapy.

It is essential in any evaluation to remove all variables that can affect outcomes (Mayer, 2004). The wound assessment documentation was reviewed at day 3 and day 7 by the lead nurse to ensure accurate up to date data collection and to monitor utilisation of the educational leaflet.

**RESULTS**

The overall results from the evaluation of 38 patients demonstrated positive outcomes with regards to exudate containment and maintenance of a moist wound bed, periwound skin healing and protection, atraumatic application and removal

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Clinical benefits</th>
<th>Comments</th>
</tr>
</thead>
</table>
| Exudate management | ⇒ Absorption of exudate  
⇒ No leakage  
⇒ No malodour  
⇒ Good adherence of product  
⇒ Dressing change average from 12 hours to 4 days | ⇒ "Patient felt safe and trusted the dressing.”  
Consultant (C)  
⇒ "Doesn’t leak like the other one.” Patient (Pt)  
⇒ "Kept my skin dry.” Pt  
⇒ "Less visits to GP practice nurse – Could go back to work.” Pt |
| Healing of periwound skin maceration | ⇒ No adherence to macerated tissue  
⇒ No leakage onto periwound skin region  
⇒ All periwound skin tissue damage healed at day 14 | ⇒ "Less changes, and no inconvenience of it leaking.” C  
⇒ "Didn’t stick to the scabby areas.” Pt  
⇒ "Feels soft and strong.” Pt  
⇒ "I trust the dressing not to stick to my wound.” Pt  
⇒ "No problem on baby’s skin.” C  
⇒ "Didn’t cause damage to the red, inflamed skin borders.” C |
| Dressing removal | ⇒ Atraumatic application  
85% patients at day one  
⇒ Atraumatic application  
100% patients at day 4 second dressing change  
⇒ Atraumatic removal 100% patients at first dressing change | ⇒ "Before trial patient needed Entonox to help with pain during dressing changes. With Cutimed Siltec, no longer needed Entonox and didn’t hurt at all after second dressing.” C  
⇒ “Those dressings helped my mum’s legs in that they didn’t hurt when the nurse took them off.” Pt |
| Patient wear ability and comfort | ⇒ Good adhesion  
⇒ Comfortable  
⇒ Gentle  
⇒ Conformable and flexible  
⇒ Easy to fit and apply | ⇒ "No pain on removal didn’t leave a sticky residue on skin.” C  
⇒ “With previous dressing pain was 5/5 with this new dressing my pain reduced to 0.” Pt  
⇒ "Didn’t curl up and leak like my other one.” Pt  
⇒ "I could flex my hand and it stayed in place.” Pt  
⇒ "Didn’t move under bandages.” Pt  
⇒ "Stays in place better than my other dressings, especially when I walk.” Pt  
⇒ "Dressing sat comfortable around my chest drain.” Pt  
⇒ "I like the feel of the dressing.” Pt |
Table 6. Patient and clinician experience from data collection questionnaire.

<table>
<thead>
<tr>
<th>“Did you read the information leaflet provided?”</th>
<th>Yes</th>
<th>No</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient</td>
<td>38–100%</td>
<td>0–0%</td>
<td>“Very interesting and unusual to get so much information beforehand.”</td>
</tr>
<tr>
<td>Nurse</td>
<td>38–100%</td>
<td>0–0%</td>
<td>“I am new to nursing and wound care and this has helped me a lot to explain things to my patient.”</td>
</tr>
<tr>
<td>Lead Nurse Wound Care</td>
<td>01–100%</td>
<td>0–0%</td>
<td>“The format, information and presentation is easy for patients to understand and a good update for nurses and doctors.”</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>“Did you understand the information leaflet provided?”</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient</td>
<td>38–100%</td>
<td>0–0%</td>
</tr>
<tr>
<td>Nurse</td>
<td>38–100%</td>
<td>0–0%</td>
</tr>
<tr>
<td>Lead Nurse Wound Care</td>
<td>01–100%</td>
<td>0–0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>“Did the information leaflet help you within your wound care experience?”</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient</td>
<td>38–100%</td>
<td>0–0%</td>
</tr>
<tr>
<td>Nurse</td>
<td>38–100%</td>
<td>0–0%</td>
</tr>
<tr>
<td>Lead Nurse Wound Care</td>
<td>01–100%</td>
<td>0–0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Do you wish to continue to use this product regime? Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient</td>
<td>38–100%</td>
</tr>
<tr>
<td>Nurse</td>
<td>38–100%</td>
</tr>
<tr>
<td>Lead Nurse Wound Care</td>
<td>01–100%</td>
</tr>
</tbody>
</table>

(Table 5). When both patients and clinicians were asked whether they wished to continue with Cutimed Siltec B rather than products previously used, all said ‘yes’ (Table 6). All participants within the evaluation felt that the education leaflet and verbal explanation for product use and rationale was a welcome addition within the wound care journey and supported both the patient and clinician awareness and understanding compared to previous experiences with other regimens where leaflets of this type were not available. Both clinician and patient felt that the leaflet was transferable from clinical area to clinical area, which increased more clinician’s knowledge and
One of the 38 patients was a 32-year-old male who presented following surgical debridement of an upper right scapular abscess which had been present for two weeks prior to surgical intervention. Although the wound was granular, clean with intact periwound skin the post debridement high exudate levels were not being satisfactorily contained with the adhesive foam product that was being utilised, resulting in twice-daily dressing changes. Due to the location of the abscess, the frequent dressing changes and pain symptoms, the patient was unable to return to work as a car mechanic. Within the first week of the evaluation, the dressing changes were reduced to every 72 hours and at day 14 weekly dressing changes were undertaken with the patient being able to return to his work.

**REFERENCES**


Thomas SB (2009) Exudate handling mechanisms of Cutimed® Siltec range of foam/film dressings. Available at: www.cutimed.nl/sites/all/themes/cutimed/case-studies/113953.PDF (accessed 08.05.14)


