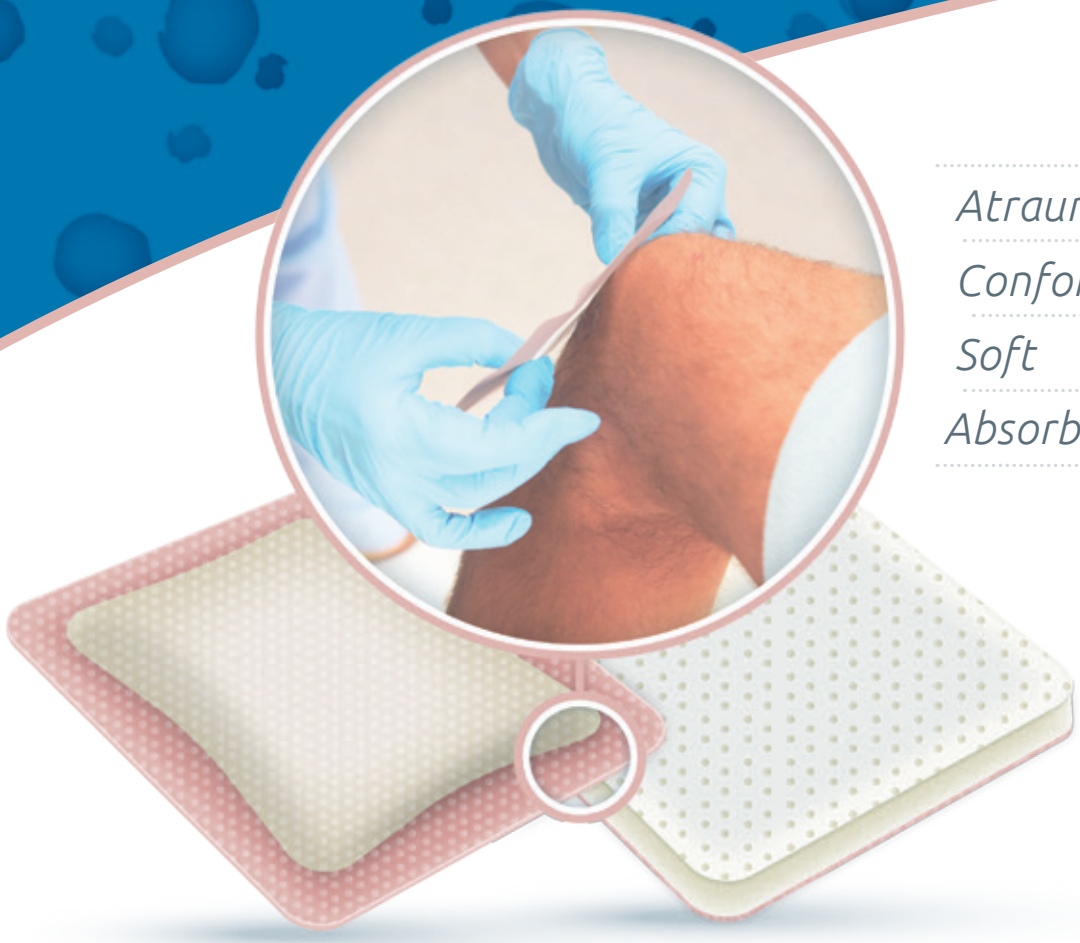
Silicone Foam

Clinical case studies



Atraumatic

Conformable

Soft

Absorbant

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Foam dressings have been commercially available for over 30 years for the management of exuding wounds.

However, the composition and mode of action of different foam dressings varies (Sussman,2010). The provision of a moist, warm, wound healing environment and good exudate- handling properties are essential when treating patients with chronic wounds, and foam dressings are one of the best available treatments (Thomas,2010).

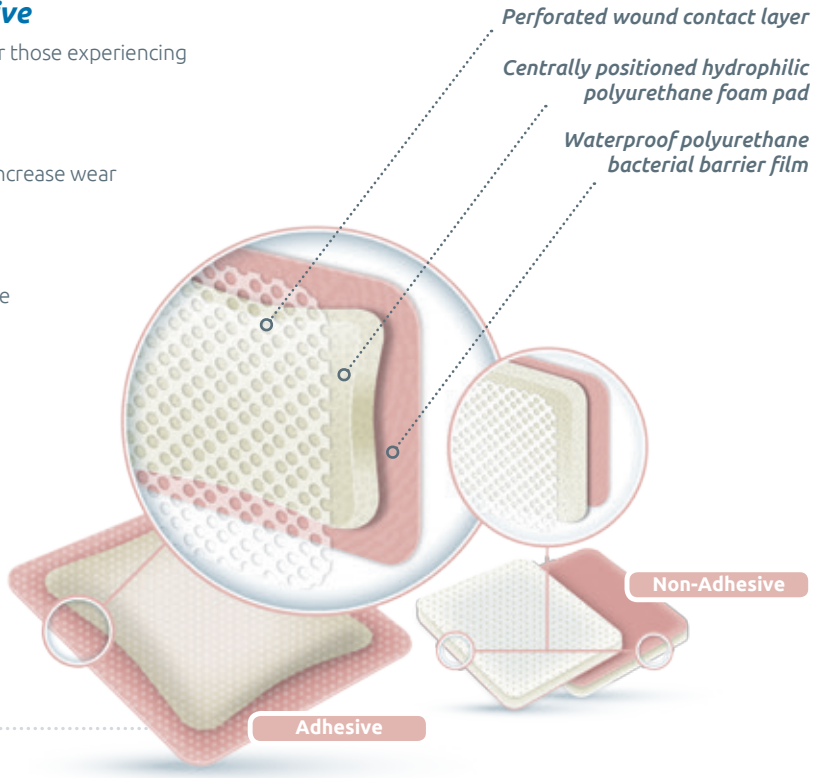
Changes in the skin occur as an individual ages. These changes affect the integrity of the skin, making it more vulnerable to damage. Over time, skin becomes fragile, with loss of tissue, skin lubrication, elasticity and strength; and a reduction in its overall protection mechanism. Chronic wounds are much more common in people aged over 65 and in the UK this group has predicted to increase from 9.5million in 2005 to 13 million in 2025 (Posnett and Franks, 2008).

Effective wound management involves the informed selection and application of products that are matched to the patient being treated. A full wound assessment needs to be undertaken to address patient's needs with regards to the fragility of their skin and level of exudate. The clinicians' judgement should be based on the results of each assessment and choice of dressing based on the clinical appearance of the wound (world Union of Wound Healing societies,2007). Wound care products should minimise pain and damage on removal, as well as being comfortable. The repeated application and removal of adhesive dressings can cause damage to the layers of the stratum corneum, and may cause inflammation, oedematous changes, skin soreness, and have a detrimental effect on skin barrier function (Dykes et al, 2001; Langoen et al, 2009). Products that have gentle adhesion and an atraumatic contact layer reduce the likelihood of pain and trauma on removal and are more likely to have higher patient acceptability. It is important clinicians minimise peri wound skin contact with exudate, protecting the area with an appropriate barrier and using atraumatic dressings where possible to avoid skin stripping as maintaining skin integrity is vital to overall patient health and quality of life, particularly in the elderly (White et al, 2012). The decision as to which adhesive type to use should be based on the patient. Silicone dressings may be used on wounds with compromised skin e.g. vulnerable or fragile patient skin.

Advanced Medical Solutions (AMS) have been a trusted partner for more than 20 years.

We are a UK based company developing and manufacturing innovative and technologically advanced products for the global wound care, surgical and wound closure markets. We are focused on value for our customers and quality outcomes for patients. This document contains two case studies of patients with a range of wound aetiologies and demonstrates the clinical effectiveness of the AMS Silicone Border and Non-Border Foam.

- ***Soft silicone "atraumatic" adhesive***
  Especially suited to patients with fragile skin and/or those experiencing pain at wound dressing changes.
- ***High Total Fluid Handling***
  Helps to reduce the number of dressing changes, increase wear time and and reduce maceration.
- ***Perforated wound contact layer***
  Reduces the risk of newly formed granulation tissue penetrating the foam.
- ***Waterproof and bacterial barrier***
  Protects both the patients and healthcare professional from cross contamination. Keeps bacteria and other contaminants away from the wound.



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Tri-Laminate

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Case Study 1:
Using AMS Silicone Foam

Background

A 45-year old lady was admitted to the hospital with multiple pressure ulcers along with poor nutrition and faecal impaction. She had no other past medical history to note. The patient lived at home with her husband.
On presentation the lady had numerous pressure ulcers varying in degree of severity and size. The majority were full thickness with hard necrotic eschar. For this particular case study the wound was a 3 week old category 4 pressure ulcer to the outer right knee. The wound was fully assessed and measured 4.5cm long, 2.5cm wide and 2.5cm in depth. The exudate levels were high and it contained 40% necrotic tissue and 60% granulating tissue. (fig.1) The area around the wound was Inflammed and the patient's pain score rated 8 on a visual analogue scale (0 being no pain and 10 being worst pain imaginable).

Wound at initial assessment

The prime wound management objectives were to:

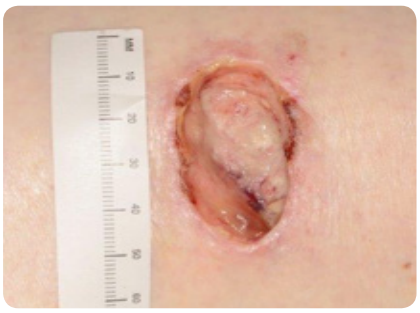

Figure 1

- ***Facilitate debridement of sloughy tissue***
- ***Manage exudate, preventing peri wound skin damage and reducing the risk of further complications.***
- ***Minimise pain, discomfort and trauma at dressing changes.***
- ***Protect and secure the Primary dressing.***

Treatment

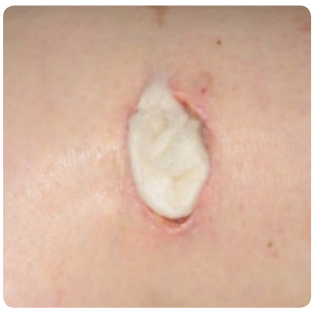

Figure 2

Figure 3

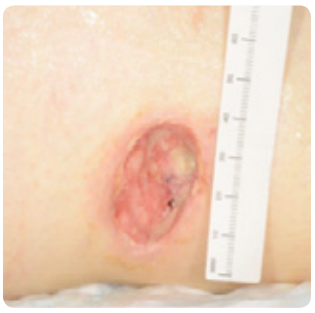

Figure 4

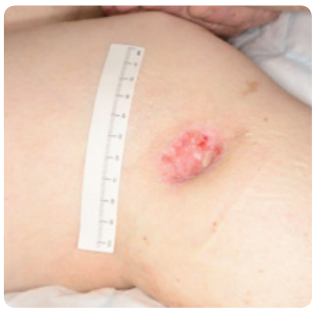

Figure 4 -3rd dressing change

AMS Alginate dressing was applied as the primary dressing to assist with the facilitation of debridement and management of exudate. The wound was then covered with AMS Silicone Border Foam to aid the management of exudate, prevent peri wound damage and minimise pain, discomfort and trauma at dressing changes. (Pictures 1 & 2)
At the next dressing change the wound (3 days later) the wound had reduced slightly in size to 4.25cm long, 2cm in width and 2cm deep. The exudate levels had reduced to moderate and it contained 20% slough and 80% granulating tissue. (Picture 4) The patient was taking analgesia for the pain however she was apprehensive in regards to the removal of the AMS silicone Border foam dressing however the dressing was removed with without discomfort or trauma. The same dressing regime was continued. If the dressing remained intact with no strike through the ward staff were informed to leave in place. After 2 further dressing changes the wound was reassessed. The wound measured 1cm long, 1cm wide and < 0.5cm deep. The exudate level had reduced further to low, and it contained 20% granulating tissue and 80% epithelial tissue. The primary dressing was changed to the ActivHeal Silicone Foam dressing alone and the patient was discharged for rehabilitation.

Outcomes

Significant progress was noted in this wound along with the management of pressure ulcer measures, ensuring that all contributory causes relating to pressure ulcer had also been addressed. Clinical observations noted that AMS Silicone Border Foam dressing:

- ***Effectively manage exudate and ensure the dressing remained in place.***
- ***Maintained the peri wound skin condition.***
- ***Minimised pain and discomfort at dressing changes – the patient found the dressing comfortable to wear, it was conformable and no pain or discomfort was reported on dressing removal.***
- ***Was easy to apply and remove.***
- ***Was comfortable to wear.***
- ***Protected and secured the Primary dressing.***
- ***Provide a moist wound environment***

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Case Study 2:
Using AMS Silicone Foam

Background

A 28 year old lady was seen as an outpatient at an Acute Hospital within the UK having sustained a large laceration to the back of the right leg following a fall from her bike whilst on a cycling holiday. She was initially treated in the A&E department where she received stitches to the laceration, dry addressing applied and advised not to cycle or get the wound wet. Unfortunately the wound became infected and dehisced as the patient did not adhere to the advice given due to the nature of the cycling holiday and the only form of transport being the bike and having to make a train 400 miles away. The patient was being treated by Practice nurse and was given antibiotics prior to Tissue viability input being sought, which was 2 ½ weeks following the injury.

Wound at initial assessment

Significant progress was noted in the wound, with the wound reducing in size and showing wound progression along with the AMS Silicone Border Foam dressing staying in place whilst the patient continued with her exercise regime of 25 mile cycle ride. The wound size had remained the same although the exudate levels had increased and odour suggesting further infection. The dressing regime had assisted in aiding autolytic debridement of slough and wound progression with the status of the wound tissue to be 60% granulation tissue and 40% epithelial tissue. (fig.2) The clinician continued with the honey dressing to manage the wound bioburden and the AMS Silicone Border Foam to continue to manage exudate levels. The wound continued to make great progress, at the 3rd dressing change the wound had reduced in size to length 4.5cm, width 0.2cm and depth 0.2cm. The exudate levels were low and 20% granulation tissue and 80% epithelial tissue. Both the patient and clinician were impressed with how well the dressing stayed in place with the activity and provided the right environment for wound healing. The AMS Silicone Border Foam was applied as the primary dressing to continue to manage exudate level and maintain a moist wound healing environment.

Treatment

The primary management objectives were to:

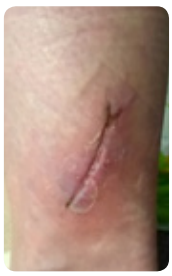

Figure 1

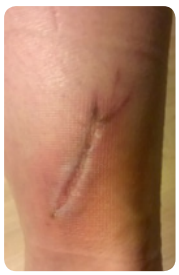

Figure 2

- ***Maintain a moist wound healing environment.***
- ***Manage exudate, preventing peri wound skin damage and reducing the risk of further complications.Maintain a moist wound healing environment***
- ***Protect the integrity of the peri wound skin.***
- ***Minimise pain, discomfort and trauma at dressing changes.***
- ***Protect and secure Primary dressing.***

Following a full assessment the wound would be managed using the AMS Silicone Border Foam along with a honey dressing. The wound was showing signs of infection and was producing large volumes of exudate. The wound length was 6cm, width 0.5cm and depth 0.2cm. The exudate level was moderate and the status of the wound bed was 20% slough, 50% granulation tissue and 30% epithelial tissue. (fig.1).The honey dressing was selected to assist in reducing the wound bioburden and reduce signs and symptoms of infection. The AMS Silicone Border Foam was chosen to manage and absorb high levels of exudate, maintain a moist wound environment, promote healing and minimising pain, discomfort and trauma at dressing changes.

Outcomes

Progress was noted and successful patient outcomes were achieved. Clinical observations noted that the AMS Silicone Border Foam:

- ***Effectively managed exudate levels***
- ***Provided a moist wound environment***
- ***Maintained the integrity of the peri-wound skin***
- ***Minimised pain and discomfort at dressing changes – the patient found the dressing comfortable to wear, it was conformable and no pain or discomfort was reported on dressing removal.***
- ***Was comfortable to wear.***
- ***Was easy to apply and remove.***
- ***Protected and secured the Primary dressing.***
- ***Provide a moist wound environment***

Conclusion:
Silicone Foam Case studies

The two case studies demonstrate that AMS Silicone Foams provide a suitable environment to facilitate moist wound healing, peri wound protection and integrity, protected and secured the primary dressing, and manage exudate safely and effectively. The Silicone foams provided safe and secure adhesion and conformed well to the wound providing patients with comfort and security as were easy to apply and remove. The Silicone foam minimised pain and discomfort at dressing change thus protecting the peri wound area and vulnerable skin.

Caring for patients with chronic wounds and controlling exudate whilst protecting the surrounding skin and comfort is a big challenge for clinicians. These case studies demonstrate that the AMS Silicone foam range has the capability to provide the right environment for healing, contain high levels of exudate whilst protecting the peri wound area and preventing trauma and discomfort on removal.

References:
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