

ActivHeal® range: responding to the needs of patients with complex wounds

Chronic wound healing has many phases and, as such, wounds require dressings which can respond to the changes in exudate production and effectively protect the surrounding skin. ActivHeal® Foam has a new formulation which improves the dressing's ability to handle exudate. This article looks at the key features of foam dressings, considers the importance of cost-effectiveness when considering treatments and presents a case where ActivHeal® was used to treat a patient after cardiac surgery who developed an infected femoral line site.

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KEY WORDS

Foam dressings

Exudate

Moisture vapour transmission rate (MVTR)

Chronic wounds

The demands on wound dressings have increased as greater numbers of patients present with many chronic concurrent conditions. Conditions such as diabetes, coronary artery disease and vascular disease, can all negatively impact on the wound-healing ability of the patient. Reduction in local tissue perfusion is often the result of macrovascular conditions which will reduce the amount and the quality of the wound-healing components which reach the wound bed.

The cornerstone of wound treatment is assessment. Assessment will help to establish causation, tissue types, exudate level and will also assist in addressing patient concerns. The decision of which dressing to apply will depend not only on the condition of

the patient and the wound, but also on the reliability and cost-effectiveness of the treatment regimen.

ActivHeal® Foam (Advanced Medical Solutions, Cheshire) is an absorbent foam dressing which is available as a foam 'island' dressing with an adhesive border, and also as a non-adhesive foam. Foam dressings have been part of the mainstay of wound care products over the past 15 years and remain important for the treatment and management of chronic wounds when exudate is problematic. The new formulation of ActivHeal® Foam non-adhesive and foam island has improved the performance of the product while remaining cost-effective.

The key features of foam dressings

The technology for foam dressings has been available since the 1950s and they have been used in wound care since the mid-1980s. Despite their current popularity, there were times when foam dressings were not the dressing of choice. The key features of foam dressings include absorbency, patient comfort, provision of a moist warm environment, prevention of maceration, longer wear time and ease of application.

Absorbency is viewed as a priority with foam dressings as they are most likely to be applied to wounds which

have a moderate to heavy amount of exudate. Foam dressings' mode of action will vary; however, the majority of foams will absorb exudate and retain some or all of this exudate within the dressing, preventing the fluid from re-entering the wound. Many foam dressings will have the added benefit of moisture vapour transmission, which is also referred to as the dressing's breathability. This occurs through the membrane at the back of the dressing and results in water vapour being released from the back of the dressing. This feature allows the product to handle a greater amount of fluid. Moisture vapour transmission rates (MVTR) will vary depending on the product and should be considered when choosing a dressing. In products with a high MVTR, there may be a risk of drying out the wound bed if applied to a wound which has a low level of exudate.

Most foam products are presented as simple polyurethane foams which will require retention via surgical tape or retention bandages. ActivHeal® Foam is also available as an adhesive dressing which will enable the product to stay in place without the need for retention. Choosing which type is required will depend on the site, size, shape and the exudate levels of the wound.

Patient comfort

ActivHeal® Foam dressings are based on polyurethane foam which is a

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low adherent material and provides a 'soft' contact layer, making them a comfortable option for patients. Foam dressings are also flexible allowing them to be placed onto wounds at a number of body sites. Patient comfort is an important issue which has received more attention recently in order to raise awareness of the problem of pain experienced by patients when dressings are applied and removed.

Another important feature of ActivHeal® Foam which will assist in patient comfort is the ability of the dressing to retain fluid and prevent maceration.

Absorbency

The new foam dressing range is designed to be more absorbent with a higher MVTR due to the polyurethane backing layer. This allows ActivHeal® to lose water vapour through the back of the dressing, thus handling more exudate. For many patients, the absorbency of the dressing is one of the more important features of the product, as more absorbent dressings allow longer wear time and less chance of exudate escaping from the wound site.

Clinical indications

ActivHeal® Foam dressings can be used as a secondary dressing to help support the role of other wound care products. It can also be used as a primary dressing on granulating wounds.

Necrotic wounds

When there is extensive black eschar on a wound surface, it may be part of the treatment to apply hydrogel dressings which will begin to debride the necrosis. ActivHeal® Foam 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 more moist sloughy wounds, there is still a need to continue with autolysis of the devitalised tissue. ActivHeal® Foam dressings can be applied to help

facilitate the debridement of the sloughy tissue as a secondary dressing. The primary dressing will depend on the level of exudate present and on the bioburden of the wound.

Cavity wounds will need 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, ActivHeal® Foam can be applied as an absorbent dressing to assist in removing exudate from the primary dressing.

Granulating wounds require protection from environmental factors which include mechanical and chemical trauma. A foam dressing such as ActivHeal® can be used to cover granulation tissue in order to support the granulation process. By supporting a moist warm environment, ActivHeal® can allow epithelialisation to take place and protect the wound bed from trauma.

Economic considerations

The cost of dressings has been the subject of debate in the NHS throughout the UK in the past five years. While the emphasis has often been on the actual price of dressings, it is a very narrow-minded approach to the problem. There is no advantage to be gained if the NHS purchases dressings which do not perform to a

sufficient level in clinical practice. The true cost of a dressing has to include the wear time, the reliability of the product and the time it takes to be applied.

The following are factors which should be considered when assessing the clinical and cost-effectiveness of a dressing product:

- ▶▶ Initial cost of the product
- ▶▶ Nursing time including time to get to patients and time to replace the dressing
- ▶▶ Wear time dependent on exudate levels, fluid handling ability of the dressing and the ability of the dressing to stay in place
- ▶▶ Patient satisfaction
- ▶▶ Wound site. Sacral and heel dressings are more prone to friction than other body sites.

Steve Thomas (1997) highlights the key economic considerations when choosing a dressing:

Cost

- ▶▶ Unit cost
- ▶▶ Treatment cost
- ▶▶ Cost of alternative materials.

Availability

- ▶▶ On prescription (Drug Tariff)
- ▶▶ In stores or pharmacy departments
- ▶▶ Inclusion in local formularies.

The cost of the ActivHeal® Foam dressings are highlighted below (Table 1).

Table 1
ActivHeal® Foam Drug Tariff pricing

Foam Island (Adhesive)	Cost per box	Cost per dressing
Foam Island 10cm x 10cm	£15.70	£1.57
Foam Island 12.5cm x 12.5cm	£15.00	£1.50
Foam Island 15cm x 15cm	£19.20	£1.92
Foam Island 20cm x 20cm	£43.40	£4.34
Foam Non Adhesive		
Foam (non-adhesive) 5cm x 5cm	£7.20	£0.72
Foam (non-adhesive) 10cm x 10cm	£10.90	£1.09
Foam (non-adhesive) 10cm x 18cm	£22.60	£2.26
Foam (non-adhesive) 20cm x 20cm	£37.80	£3.78



Figure 1. Following cessation of negative pressure therapy the wound has signs of sloughy tissue present and is still highly exuding.



Figure 2. The wound following two weeks of management with AquaFiber® and ActivHeal® Foam (Medlogix).



Figure 3. After three weeks of treatment, the wound is much reduced in size and the base of the wound is more shallow.

Case study

This case study follows the care of a patient after cardiac surgery who developed an infected femoral line site. The wound in the groin had broken down and was heavily exuding. Primarily, negative pressure wound therapy was used to help control the exudate and once the volume of exudate reduced it was decided to apply AquaFiber® (AMS) dressing and ActivHeal® Foam dressings.

Over a period of three weeks, the combination of the AquaFiber® and

ActivHeal® Foam successfully managed to absorb the exudate and there was no recurrence of infection.

The surrounding skin in such a wound is also at risk from excoriation and, as can be seen from *Figures 1–3*, the skin remained in good condition throughout the patient's treatment. This may be due to the improved MVTR of the ActivHeal® Foam.

The patient and nursing staff also found the ActivHeal® Foam and the AquaFiber® products to be comfortable and easy to apply and remove.

The wound reduced in size, the exudate level decreased, there was 100% granulation tissue in the wound base and visible epithelialisation at the wound margins.

In the third week, just before the patient was discharged to the community, the wound was much reduced in size, the base of the wound was more shallow and epithelial migration was occurring from the wound edges.

This case demonstrates that ActivHeal® Foam is a comfortable, conformable wound dressing which can be used in combination with AquaFiber® in heavily exuding wounds. The dressing also promotes a moist wound healing environment which nurtures granulation and epithelial migration.

Conclusion

Central to choosing the correct dressings for patients' wounds is the need for accurate and individual assessment. This allows all of the aspects of the patient's condition to be taken into account when considering which dressings to use. Wounds which are heavily exuding can pose many problems for the patient and the healthcare professional. Heavy, wet dressings, leaking wounds and the odour which may occur not only affect the patient physically but can be responsible for anxiety. In addition, the effects of wound exudate on the surrounding skin can be extremely damaging and may lead to maceration and breakdown of the surrounding skin itself.

Key Points

- ▶ Chronic wounds present a number of problems for practitioners when choosing dressings.
- ▶ Exudate is a major concern for many patients and can affect their ability to function normally if not dealt with.
- ▶ ActivHeal® Foam is able to cope with moderate to highly exuding wounds due to an improved MVTR.

Dressings chosen for such wounds should minimise the leakage of exudate onto the surrounding skin and assist in the healing process of the wound. At the same time, they should be acceptable to the patient and staff.

ActivHeal® Foam dealt effectively with this wound which was heavily exuding and appeared to provide a moist wound environment to promote healing. **WUK**

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