

# Explorative use of a silicone foam across various wound aetiologies and stages of wound healing; a positive outcome

## Introduction

The requirements for an ideal dressing have been well rehearsed (*Box 1*). However, finding a dressing that is suitable for a range of wounds of various aetiologies, or one that can manage even a single wound throughout all phases of healing is challenging. Often, practitioners will have to use a number of dressings during the management of the wound. This poster summarises the evaluations undertaken in 12 patients with a range of wounds who were treated using products from the Biatain® (Coloplast UK Ltd) family of dressings.

### Box 1: Main characteristics of an ideal dressing<sup>1</sup>

- Does not release particles or non-biodegradable fibres into the wound
- Forms an effective bacterial barrier to prevent the transmission of micro-organisms into or out of the wound
- Forms a water-resistant and protective seal to the peri-wound skin, but is easily removable without causing trauma or skin stripping
- Maintains the wound and the surrounding skin in an optimum state of hydration (including when under compression)
- Requires minimal disturbance or replacement
- Produces minimal pain during application
- Maintains the wound at the optimum temperature and pH

## Evaluation

Over a 5-week period from April to May 2012, we evaluated the use of a range of Biatain dressings on patients referred within the acute wound care service review process. Biatain dressings are made of soft, flexible foam which absorbs and retains wound exudate effectively, maintaining moisture balance<sup>2,3</sup>. Biatain Ibu and Biatain Ag dressings may reduce wound pain or remove infection from the wound<sup>4</sup>.

Thirteen wounds in twelve patients were treated during the study period. These included: four pressure ulcers (Categories II and III; 4cm<sup>2</sup>, 4 x 3cm, 2 x 2cm & 1 x 3cm), two venous leg ulcers (6 x 3cm, 2cm<sup>2</sup>), two dehisced wounds (5 x 3 x 2cm, 4 x 3 x 3.5cm) a haematoma (6 x 8 x 0.2cm), two lower leg biopsy wounds (3 x 2 x 1cm, 2 x 2 x 1cm) and a foot wound (4 x 3 x 1cm). Wound beds contained of slough, granulation tissue, necrotic tissue and epithelial tissue, and in six patients, peri-wound skin maceration was noted. Wound dressings changes ranged between twice per day to once a week.

While no inclusion or exclusion criteria were formally set, patients gave verbal consent to participate as part of the wound review process. Depending on the wound type, appearance and stage of healing, a Biatain dressing was used either as a sole dressing or in combination within the patient's ongoing dressing regimen. Pain score at dressing change and continuous pain score was assessed at start and finish, and both patients and staff were asked their opinion of the dressing at study end.

## Results

The results were excellent. Wound size decreased in all patients, taking between 6 and 27 days to achieve. One patient died (no. 9), one discontinued the evaluation due to maceration and leakage (no. 6) noted by both the nurse and the patient. Patient 10's wound healed completely in 19 days. Figure 1 shows healing (NB. Wound sizes have been squared for illustration purposes).

Nursing staff comments were positive in relation to all Biatain dressings used. The dressing was easy to apply and remove, was secure, did not adhere to friable skin, nor did it cause pain or trauma upon removal, absorbency excellent, was soft to the touch and could be reapplied without losing adherence.

Patient comments demonstrated that they felt the dressings were 'soft', had better adhesion ('sticks better to my skin'), discreet ('same colour as skin') pain free on removal, reduced number of dressing changes required and were very comfortable. Pain scores for both pain at dressing change and continuous pain dropped with the use of Biatain products (pre-study score range 9/10 to 1/10, post study score range 0/10 to 3/10 and pre-study score range 8/10 to 1/10, post-study score range 0/10 to 3/10 respectively).

## Discussion

The results clearly indicate that Biatain range of dressings were suitable for a variety of acute and chronic wounds, were able to manage exudate, and met the criteria for an ideal dressing as outlined in box 1. This has positive implications for cost savings on a number of levels: the dressing provided effective exudate absorption and retention, wear time increased thus reducing the number of dressing changes required and therefore dressing costs; patients find the dressing comfortable and atraumatic upon removal, increasing concordance; wound size reduced in all patients in a short space of time, and having a single range of dressings aids selection, which increases effectiveness.

## Conclusion

This small evaluation demonstrated that the addition of Biatain Silicone to a wound management regimen has a number of positive benefits.

### References

1. Thomas S. (2008) The role of dressings in moisture-related skin damage. World Wide Wounds /www.worldwidewounds.com/2008/march/Thomas/Maceration-and-the-role-of-dressings.html)  
2. Reitzel N, Marburger M, Torpe RM, et al. (2008) An in-vitro test of absorption capacity of foam dressings under pressure. Poster presentation; European Wound Management Association, Lisbon 2008 and the World Union of Wound Healing Societies, Toronto 3. Jørgensen B, Sulcaite R, Vilkevicius G, et al. (2008) A randomised, controlled trial on safety and performance of a new foam dressing on venous leg ulcers. Poster presentation; European Wound Management Association, Lisbon 2008 and the World Union of Wound Healing Societies, Toronto 4. Rampino Cordaro E, Faini G, Guarneri GF, et al. Preliminary evaluation of ibuprofen foam on a painful split-thickness dermo-epidermic graft harvesting sites. Data on File

