

# Evaluation of a Non-bordered Soft Silicone Foam Dressing on Exuding Hard-to-heal Wounds

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## BACKGROUND

Chronic wounds such as venous leg ulcers (VLUs) are typically associated with protracted healing, high exudate, malodor, pain, restricted mobility and sleep disturbance.<sup>1,2</sup> Foam-based dressings are commonly used to manage excess exudate and support the underlying healing processes.<sup>3</sup> Dressings used for VLU management should be capable of absorbing and retaining a broad range of exudate volumes and consistencies to prevent leakage, even under compression. Dressings under compression are often left in place for up to 7 days and should perform as intended over this length of time.<sup>2</sup>

## AIM

To evaluate the performance of a non-bordered foam dressing (NBFD)\* with a soft silicone wound contact surface on exuding VLUs.

## METHODS

- Case studies (n=3).
- NBFD was selected to manage exudate, protect the peri-wound skin, and improve wound tissue under compression, applied in conjunction with standard care, including cleansing, debridement, moist wound healing, and compression, and changed according to local clinical practice.
- Wound size and healing progression (wound bed, peri-wound condition, signs of infection, exudate level/nature, and pain) using a visual analogue scale were assessed during scheduled clinic visits.



- NBFD is a highly conformable dressing that absorbs low and high viscous exudates, maintains a moist wound environment and minimizes the risk of maceration.
- NBFD is indicated for management of a wide range of exuding wounds in all healing stages
- NBFD consists of a soft silicone wound contact layer to minimize trauma to the wound and peri-wound skin and reduce pain during dressing removal, a flexible absorbent pad of compressed foam, and a breathable and waterproof outer polyurethane film

Case	Initial Presentation (Day -77)	Evaluation start (day 1)	Evaluation day 21	Evaluation end (day 77)
<b>CASE 1</b> (lateral lower right leg)  <b>PATIENT A</b> <ul style="list-style-type: none"> <li>• 71 years; female</li> <li>• Multiple 3-month-old VLUs</li> <li>• PMH: Type 2 diabetes mellitus, Chronic venous insufficiency, Cardiovascular disease</li> <li>• Previous history of VLUs (2 years prior)</li> </ul>	<ul style="list-style-type: none"> <li>• Several VLUs</li> <li>• <b>Wound:</b> <ul style="list-style-type: none"> <li>• Combined area 114.1cm<sup>2</sup></li> <li>• Average depth 0.2cm</li> <li>• Slough (75%), Non-granular (25%)</li> </ul> </li> <li>• <b>Peri-wound:</b> Erythema, edema, mild denudement, maceration, skin thickening</li> <li>• <b>Exudate:</b> Heavy serosanguinous</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Wound:</b> <ul style="list-style-type: none"> <li>• Area 93.6cm<sup>2</sup>; depth 0.1cm</li> <li>• Slough (100%)</li> </ul> </li> <li>• <b>Peri-wound:</b> Moderate maceration, erythema, edema</li> <li>• <b>Exudate:</b> Heavy serosanguinous</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Wound:</b> <ul style="list-style-type: none"> <li>• Area 32.9cm<sup>2</sup>; depth 0.1cm</li> <li>• Granulation tissue</li> </ul> </li> <li>• <b>Peri-wound:</b> Healthy (day 7 onward)</li> <li>• Signs of infection resolved (day 7 onward)</li> <li>• <b>Exudate:</b> Heavy serosanguinous</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Healed</b></li> <li>• New skin tear, proximal to original VLU</li> </ul>
<b>CASE 2</b> (medial lower right leg)	<ul style="list-style-type: none"> <li>• <b>Wound:</b> <ul style="list-style-type: none"> <li>• Area 132cm<sup>2</sup>; Average depth 0.2cm</li> <li>• Slough (98%) and granulation (2%)</li> </ul> </li> <li>• <b>Peri-wound:</b> Erythema, edema, mild denudement, maceration, skin thickening</li> <li>• <b>Exudate:</b> Moderate serosanguinous</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Wound:</b> <ul style="list-style-type: none"> <li>• Area 93.6cm<sup>2</sup>; Depth 0.1cm</li> <li>• Slough (100%)</li> </ul> </li> <li>• <b>Peri-wound:</b> Moderate maceration, erythema, edema</li> <li>• <b>Exudate:</b> Moderate serosanguinous</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Wound:</b> <ul style="list-style-type: none"> <li>• Area 1.2cm<sup>2</sup>; Depth 0.1cm</li> <li>• Granulation tissue surrounded by re-epithelialization</li> </ul> </li> <li>• <b>Peri-wound:</b> Dry (day 21 onward)</li> <li>• Signs of infection resolved (day 7 onwards)</li> <li>• <b>Exudate:</b> Moderate serosanguinous</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Healed</b></li> </ul>
<b>CASE 3</b>  <b>PATIENT B</b> <ul style="list-style-type: none"> <li>• 71 years; female</li> <li>• 6-day-old, diabetes-related VLU (anterior lower left leg)</li> <li>• PMH: Type 2 diabetes mellitus, Hypertension, Venous disease</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Wound:</b> <ul style="list-style-type: none"> <li>• Area 42.1cm<sup>2</sup>; Depth 0.4cm</li> <li>• Necrotic tissue</li> </ul> </li> <li>• <b>Peri-wound:</b> Fragile</li> <li>• Bleeding profusely</li> <li>• <b>Exudate:</b> Heavy, semi-viscous serosanguinous</li> <li>• Antibiotics &amp; analgesics prescribed</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Wound:</b> <ul style="list-style-type: none"> <li>• Area 40.7cm<sup>2</sup>; Depth 0.3cm</li> <li>• Slough (60%), Granulation (40%)</li> </ul> </li> <li>• <b>Peri-wound:</b> Fragile</li> <li>• <b>Exudate:</b> Heavy</li> <li>• <b>Pain score:</b> 10</li> <li>• Analgesia prescribed</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Wound:</b> <ul style="list-style-type: none"> <li>• Area 14.3cm<sup>2</sup>; Depth 0.2cm</li> <li>• Granulation (100%)</li> </ul> </li> <li>• <b>Peri-wound:</b> Healthy (day 14 onward)</li> <li>• <b>Exudate:</b> Moderate</li> <li>• <b>Pain score:</b> 3 (day 7 onward)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Healed</b></li> <li>• Patient thought NBFD "made her leg feel better" especially as pain was reduced</li> <li>• Peri-wound maceration prevented</li> <li>• NBFD allowed for longer wear times between dressing changes than expected of foam dressings</li> </ul>

## CONCLUSIONS

- NBFD performed well in this case study series involving patients with particularly challenging wounds.
- The dressing was associated with effective VLU exudate management when used under compression, resulting in less frequent dressing changes while protecting the peri-wound skin, optimizing the wound/peri-wound environment and observable healing progression.
- The dressing was rated positively in terms of several in-use characteristics, including handling ability, ease of application, absence of leakage, wear time, and ease of removal without pain or wound/skin damage

References: 1. Todd, M., et al. Managing ulceration and lymphorrhoea in chronic oedema. Br J Community Nurs 2017;22(5). 2. Weir, D., et al. The impact of venous leg ulcers on a patient's quality of life: considerations for dressing selection. Wounds Int 2023;14(1):10-5. 3. Raepsaet, C., et al. Clinical research on the use of bordered foam dressings in the treatment of complex wounds: a systematic review of reported outcomes and applied measurement instruments. J Tissue Viability 2022;31(3):514-22

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