

A case study illustrating the clinical benefits of using a fibrous gelling dressing

Introduction

A natural response to inflammation during the healing process is a surge in exudate levels which is required to soothe, clean and supply the wound bed with essential nutrients needed to follow a normal healing trajectory. Whilst exudate production is a vital element of the normal healing response if this fluid is not managed effectively it can be damaging to the wound bed and cause damage of the peri-wound and surrounding skin. It is well documented that a moist but not wet environment needs to be maintained to promote cell activity and proliferation within the wound.

A key element of modern wound management is the application of wound management products with the objective of attaining the desired moisture balance within the wound bed and thereby optimising conditions for healing. Any dressing products selected for this task should ideally foster the optimal moist conditions which both facilitate wound progression and avoid the damaging consequences arising from excessive moisture.

This poster describes a small in-practice evaluation of a fibrous gelling dressing (DURAFIBER[®] Smith & Nephew) carried out within a tissue viability centre and utilises an expanded single-patient case study to illustrate clinical benefits and patient outcomes.

Method

The product evaluation was undertaken in a Tissue Viability Centre in Essex, UK and was performed by the Tissue Viability Nurse team. DURAFIBER was used and applied to patients by the Tissue Viability Nurses within their everyday practice and used on those wounds for which it was deemed suitable following an appropriate wound assessment. The treating clinicians were asked to document the performance of DURAFIBER over a period of up to four dressing changes. During the course of treatment the Tissue Viability Nurses' experiences of product usability and clinical performance were captured.

Information on a number of key dressing performance parameters was captured in this fashion:

- Ease of application
- Ability to conform to the wound bed
- Patient comfort during wear
- Ability to handle exudate
- Any noted shrinkage of the dressing
- Integrity of the dressing during removal
- Ease of removal
- Patient comfort on dressing removal
- Condition of surrounding skin

Results

The feedback from clinicians following the in-practice use of the DURAFIBER fibrous gelling dressing identified a number of positive performance characteristics:

- Easy to apply and remove
- The dressing absorbed and locked-in the exudate preventing it coming into contact with the peri-wound area
- No shrinkage of the dressing was seen when in-situ
- The dressing conformed well to the wound bed
- Low dressing profile, with no indentation caused under compression therapy (a particular problem where gross oedema exists)

The nurse feedback on benefits experienced by the patient:

- Comfortable to wear
- Painless application and removal
- No strike through of exudate
- Improved quality of life as able to self-care and maintain independence by taking responsibility for application of hosiery and skin care.

Background

- 75-year-old lady with a history of venous disease and recurrent leg ulceration.
- She also had a history of type 2 diabetes, skin grafting for carcinoma and previous DVT to the left leg.
- Previously prescribed compression hosiery however patient concordance levels varied which lead to non-compliance to wear the hosiery at times.
- The wound had previously been treated with hydrocolloid and class II compression hosiery.
- She was currently prescribed a low profile foam dressing to the ulcerated area and short stretch compression bandaging with the aim of reducing the oedema sufficiently before re-measuring for hosiery, in addition to promote concordance and contain the exudate.

Initial presentation

- Presented to the tissue viability centre with superficial and heavily exuding ulceration to the gaiter region of her left leg.
- The wound exhibited maceration to the surrounding skin (see Figure 1)

Management challenges

- The patient experienced some discomfort and indentation from the foam dressing currently being used.
- The peri-wound area was becoming macerated due to ineffective management of the exudate.
- The patient was due to go on holiday, therefore needed to heal and go into hosiery to improve quality of life, promote self-care and independence.

Treatment intervention

- The objective was to manage exudate more effectively in order to foster healing and prevent maceration.
- To enhance exudate management capacity DURAFIBER 15 x 15cm was applied as a primary dressing (see Figure 2).
- Used in conjunction with ALLEVYN[®] compression which offered additional fluid handling capacity.
- Following vascular assessment cohesive short stretch bandage applied toe to knee to address the oedema and underlying venous incompetence.

Outcome

- The first dressing change was performed five days later.
- Wound exudate had been managed effectively being contained within the DURAFIBER dressing with no shrinkage observed (see Figure 3).
- The wound was improving, the level of exudate had reduced and the ulcer was smaller in size (see Figure 4).
- The management regimen was maintained although a smaller size of dressing was used (see Figure 5).
- A final dressing change was performed two days later.
- At this stage the wound had fully epithelialised with the surrounding skin intact (see Figure 6).
- DURAFIBER was discontinued.
- Patient was able to apply prescribed moisturisers and compression hosiery.

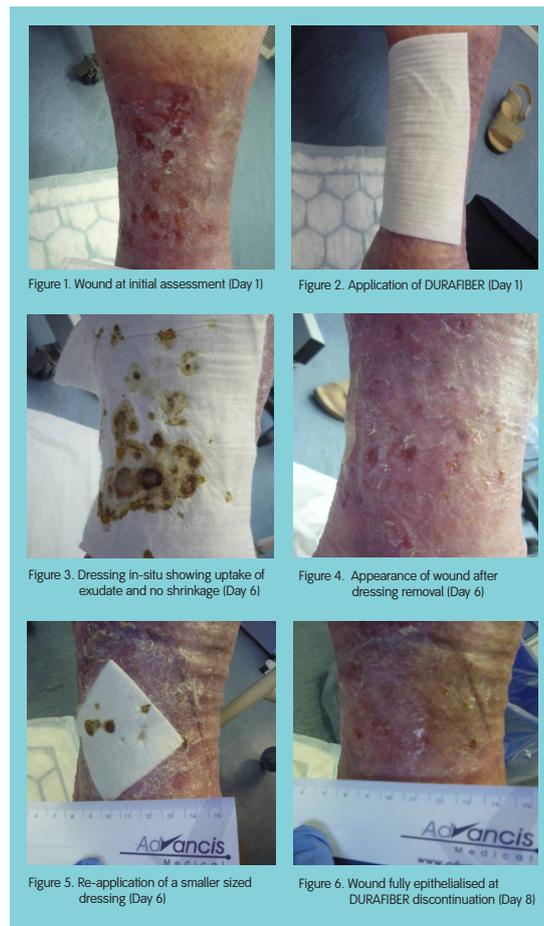


Figure 1. Wound at initial assessment (Day 1)

Figure 2. Application of DURAFIBER (Day 1)



Figure 3. Dressing in-situ showing uptake of exudate and no shrinkage (Day 6)



Figure 4. Appearance of wound after dressing removal (Day 6)



Figure 5. Re-application of a smaller sized dressing (Day 6)

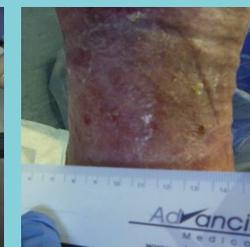


Figure 6. Wound fully epithelialised at DURAFIBER discontinuation (Day 8)

Patient Feedback

- Comfortable to wear.
- Painless application and removal.
- No strike through of exudate.
- Improved quality of life as able to self-care and maintain independence by taking responsibility for application of hosiery and skin care.

Conclusion

The DURAFIBER fibrous gelling dressing evaluation has confirmed both the clinical benefits and the very positive patient outcomes that this dressing delivers.