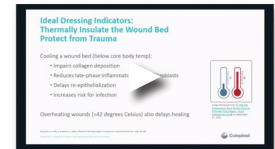


Coloplast Sponsored Learning: Modern Management of Complex Woundscapes



Presenter: Melody Yaceyko, BScN MN:NP ET/NSWOC

Melody Yaceyko is a registered Nurse Specialized in Wound, Ostomy and Continence (NSWOC) who has been practising at Alberta Health Services for the past 17 years. She is also a Family All Ages Nurse Practitioner. She has contributed to the development of policies and guidelines on topics such as basic and complex wound management, ostomy assessment, lower leg assessment and negative pressure therapy.

Client-Centred Dressing Selection

Dressing selection for wound care is a complex clinical decision. There is no “magic bullet” dressing that is suitable for all wounds and clients nor a “one-size-fits-all” approach for dressing selection. Clinicians should choose dressings based on client-centred goals and research evidence. Clinicians should also consider the following factors when choosing a dressing:¹

- Goal of treatment
- Wound characteristics (including infection)
- Indications and contraindications
- Phase of healing
- Needs (and risk factors) of the patient, patient choice, lifestyle and comfort
- Cost-effectiveness
- Product availability and skill of the caregiver
- Safety, effectiveness and ease of use

Biatain® Foam: An Ideal Dressing

As mentioned above, there is no “magic bullet” when it comes to dressings. With that said, according to research evidence, there are “ideal” dressing properties and characteristics that can support and/or accelerate wound healing.

Thermal Insulation and Wound Protection

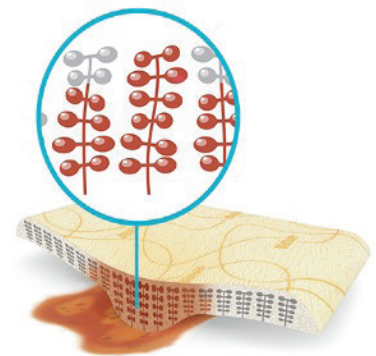
When a wound bed is cooled below core temperature (<33°C), evidence shows that neutrophil, fibroblast and epithelial cell activity decreases. There is also impaired collagen deposition, reduction of late-phase inflammatory cells and fibroblasts, delayed re-epithelialization and increased risk of infection. In essence, cooling of a wound bed below core temperature delays healing. Similarly, overheating wounds (>42°C) also delays wound healing. At core temperature of 33°C, there is increased blood flow, improved oxygen tension and increased collagen deposition and immune function.

Biatain® foams are made with polyurethane (PU) substrate, are biocompatible, mechanically stable, non-toxic, hypoallergenic, non-shedding and flexible. The open-celled PU structure is uniquely engineered to support form and function, unlike other polyurethane foams (PUF). Biatain® foams can provide thermal insulation without overheating, and protection from external trauma and debris.

Moisture Balance

Evaporative loss of moisture of injured skin is 20 times that of intact skin. Without a dressing, wounds can easily dry out and healing will be delayed.

Biatain® foams have an open-cell alveolar structure that promotes vertical absorption of exudate into the dressing. Since liquid is a better thermal conductor than air, drawing exudate vertically into the dressing promotes better thermal insulation than a dry dressing. Biatain® foams also have superior exudate retention, reducing flashback and retaining drainage in the structure of the dressing.



The outer layer of the Biatain® foam dressing consists of a film backing. This film is water-proof and impermeable to environmental contaminants and pathogens. It is also engineered to support moisture-vapour transfer, preventing the wound from drying out.

Conformability

Wounds come in all shapes and sizes on all parts of the body. These factors can be a challenge for clinicians when choosing and applying dressings. For deeper wounds,

there is often a need to apply “filler” dressings to fill the dead space and gaps. Failure to fill the wound adequately can lead to increased risk of drainage pooling, maceration, tissue degradation and infection. The use of “filler” dressings also increases the cost of treatment.

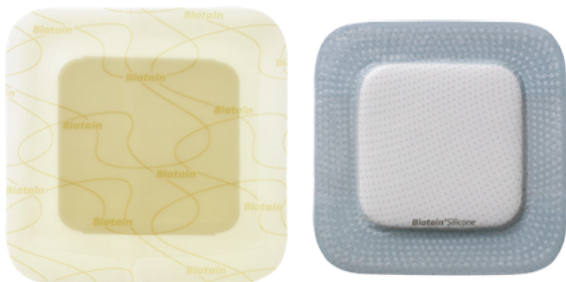


Biatain® foams are engineered with a proprietary 3DFit technology to maximize intimate contact with the wound bed by conforming exactly to the shape and depth of the wound to a maximum of 2 cm.

Non-adherent/Atraumatic Removal

Dressing removal is often reported as the most painful component of wound care by patients. Pain related to dressings is commonly associated with suboptimal moisture balance and tissue adherence or skin stripping associated with adhesives.

Biatain® foams come in adhesive and non-adhesive forms. Biatain® Silicone dressings contain atraumatic silicone technology across the foam interface and the borders of the dressing. This significantly reduces the incidences of painful dressing adhesion and skin stripping related to removal. Biatain® Adhesive dressings contain the Coloplast proprietary 3DFit technology in the PU substrate along with a thin hydrocolloid border. This feature facilitates an improved seal compared with standard acrylates. The moisture absorption into the hydrocolloid promotes superior seal flexibility and contamination prevention. The Biatain® Adhesive dressing is especially useful for clients with complex periwound anatomy.



Protection from Infection and Removal/Containment of Odour

Biatain® foams contains an occlusive film outer layer that provides a barrier against external contaminants and pathogens. Biatain® Ag and Biatain® Silicone Ag dressings provide a sustained release of silver ions to achieve delivery of high volumes of soluble ionic silver

to the wound bed for up to seven days. Biatain® Ag and Biatain® Silicone Ag dressings have also been shown to kill 99.9% of mature biofilms (*Pseudomonas aeruginosa*) and to prevent biofilm formation (shown *in vitro*). Both dressings are effective against a broad spectrum of bacteria and fungi, without the need for agents such as chelators or surfactants. By addressing the bacterial balance in the wound, these dressings can also contain and prevent odour associated with local infections.

Ease of Use, Infrequent Changes and Cost Effectiveness

Biatain® foams have a no-touch backing system and are easy to apply. They require infrequent dressing changes due to their abilities regarding moisture balance and sustained ionic silver release. Their ease of use and infrequent changes can result in reduction in the nursing time required. Compared with conventional gauze, advanced products such as Biatain® foams have a high per-unit-cost but may ultimately be more cost-effective due to faster wound closure rates and the decreased frequency of dressing changes. The 3DFit technology allowing the dressing to conform intimately to different wound shapes reduces the need for “filler” dressings and hence, the overall treatment cost.

Reference

1. Orsted HL, Keast DH, Forest-Lalande L, Kuhnke JL, O'Sullivan-Drombolis D, Jin S, et al. Best practice recommendations for the prevention and management of wounds. In: Foundations of Best Practice for Skin and Wound Management. A supplement of Wound Care Canada; 2017. 74 pp. Retrieved from: www.woundscanada.ca/doman/public/health-care-professional/bpr-workshop/165-wc-bpr-prevention-and-management-of-wounds/file.



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