

Gentle, Cost-Effective Debridement for All: The Microfiber Debridement Pad

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Problem

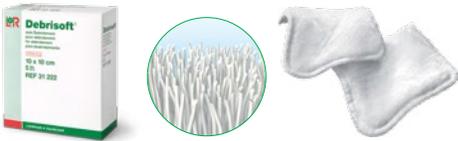
Wound debridement is critical to wound bed preparation and effective wound healing. However, debridement is often not provided by bedside clinicians, or is ineffective due to poor technique. The “Gold Standard,” sharp debridement, requires a licensed clinical expert and is determined by individual state Nursing Practice Acts (NPA).

- Delayed access to wound debridement may slow the healing process, increase the risk of infection and result in poor patient outcomes.
- While other forms of debridement exist, i.e., enzymatic, mechanical, autolytic, and biodebridement, selection of the therapy depends on overall of goals, cost, urgency, setting, skill level of provider and the availability of resources.

Significance

Serial wound debridement has been demonstrated to improve wound healing outcomes and time to healing regardless of wound type or method of topical therapy selected.¹

- A new microfiber debriding pad allows clinical staff the opportunity to provide effective debridement in acute care, outpatient clinics, long term care and in the home setting.
- The simple to use, cost-effective product is very efficient at removing non-viable tissue in addition to addressing the concerns of pain induced by some debridement modalities.³⁻⁵
- No specialized training required! Appropriate patients can be taught how to utilize the product at home.⁶



Benbow (2011):

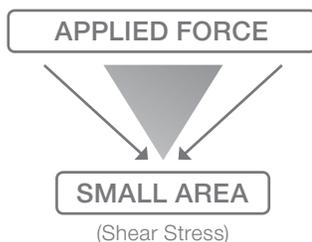
- 100% knitted monofilament polyester fibers with an outer surface of polyacrylate.
- Contains no pharmacologically or potentially irritating substances.
- Top fibers cut at an angle assist with debridement and bind cellular debris and keratosis.

Perfect for debridement of:

- Soft slough
- Fibrinous membrane
- Hyperkeratosis
- Hematoma
- Lipodermatosclerosis
- Burn patients
- Road rash
- Traumatic wounds
- Painful wounds
- Routine wound bed preparation



A scalpel cuts by concentrating the clinicians’ applied load over a very small area equaling almost 10,000 lbs/in.



Microfiber debridement pads work in a similar fashion, transforming the gentle circular scrubbing motion of the clinician into a powerful debriding tool.

Implementation

This poster will demonstrate a case series of patients from acute care and the outpatient clinic who had microfiber debridement provided by bedside nurses and WOC nurses to achieve wound bed preparation.

Case Study 1

Pt is a 46 year old African-American male with PMH of obesity, syncope, cardiomyopathy, diastolic heart failure, s/p AICD, Afib, gout, chronic bilateral lower extremity edema.



Pre Debridement



Post Debridement

- ◆ Admitted with a non-healing vascular ulcer on the left lower extremity that was very tender to palpation.
- ◆ Able to debride fibrinous exudate without need for any pain medication in less than five minutes.
- ◆ Resulted in immediate, pain free removal of necrosis.

Case Study 2

Pt is a 38 year old African-American female with PMH of ESRD, DM, cardiomyopathy. Left Ventricular Assist Device placed April 2012 with explant and heart transplant in February of 2014. Sternal wound dehiscenced post op.



Initial Post Op Dehiscence Pre Debridement Post Debridement



Pre Debridement Post Debridement Closed

Following heart transplant, patient on multiple antirejection medications leading to stalled non-healing wound despite 3 month use of NPWT with non-contact low frequency ultrasound.

- ♦ Patient's INR supratherapeutic between 3.5–9 throughout the duration of wound healing, preventing sharp debridement.
- ♦ Patient with recurrent sepsis and malnutrition further preventing wound healing.
- ♦ Debrisoft® became available for trial and was initiated twice weekly while in hospital with daily cadexomeriodine.
- ♦ Debrisoft® continued in outpatient clinic bimonthly with on-going use of cadexomeriodine and bordered foam dressing.
- ♦ After initiation of serial debridement and cadexomer, the wound began contracting and epithelializing until complete closure 12 weeks later.

Case Study 3

This case shows the use of 2 debridement modalities for the management of a non-healing lower extremity wound with mixed venous and arterial etiology:



Pre Debridement Post Debridement

- ♦ First, Debrisoft® was used to remove dense fibrinous membrane from the outer wound bed.
- ♦ Next, a 15 blade was used to remove the eschar in the center of the wound bed.
- ♦ Finally, Debrisoft® was again utilized to remove the remaining necrotic remnants.

Case Study 4

Pt is a 40 year old African-American female admitted with sickle cell anemia, rheumatoid arthritis, new right knee pain and worsening left lower extremity pain. PMH: asthma, atrial fibrillation, cardiomegaly, CVA, diastolic heart failure, Hodgkin's lymphoma, lower extremity ulcers, s/p cholecystectomy.



Pre Debridement Post Debridement

- ♦ Sickle cell leg ulcers are painful and disabling. These ulcers are intractable and heal slowly. Pain is severe, excruciating, penetrating, sharp and stinging.^{2,6}
- ♦ Dressings had foul smelling green and yellow drainage and dense fibrinous membrane and loose slough was visible in the wound bed.
- ♦ Patient had extreme pain with palpation and was anticoagulated, which prevented ultrasound guided curette or sharp debridement.
- ♦ Debrisoft resulted in minimal pain and improved wound bed appearance.

Conclusion

In our practice, we find the use of a cost-effective, microfiber debriding pad to be an effective means of removing nonviable tissue. While it does not replace the impact of a scalpel, use of Debrisoft® can potentially minimize the need for surgical debridement and can be done at the bedside or in a clinic. In many cases it reduced patient complaints of pain, expedited wound bed preparation and can be provided by all licensed healthcare professionals.

References:

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