

Enhancing Patient Outcomes – Reducing the Bottom Dollar: The Use of Antimicrobial Soft Silicone Foam Dressings in Home Health

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INTRODUCTION:

Bioburden in a wound is a major concern for clinicians, causing challenges for the patient, painful dressing removal, delayed wound healing and overall increase in cost of treatment. Promotion of healing through reduction of bacterial burden is a primary goal in wound management and can often be accomplished through the selection of antimicrobial dressings. Secondary management goals are exudate control and the reduction of trauma and pain for the patient. Financial considerations are paramount for the home care setting due to clinician shortages and the cost of managing chronic wounds.

To address the challenges that increased wound bioburden places on both the patient and the home health agency, Middlesex Hospital Home Care choose to evaluate an antimicrobial soft silicone foam dressing, **Mepilex® Ag with Safetac®** technology. Evaluation guidelines for dressing effectiveness were developed and 3 patients were selected. Our goals for this evaluation were to identify if the dressing would:

- Support evidence-based practice
- Be cost effective
- Be easily applied
- Manage moderate to large amounts of exudate
- Decrease pain with dressing changes
- Be atraumatic to the wound and periwound skin

CASE PRESENTATIONS

Case Study # 1:

Lower Extremity Venous Insufficiency Wound

72-year old mobility obese female, developed serous filled bulla on left lower extremity due to uncontrolled edema in lower extremities

Initial evaluation:



- 2+ pitting edema
- Wound measurements: 14cm x 20cm x 0.1cm
- Copious amounts of foul smelling, turquoise colored, purulent exudate

- Macerated, erythematous periwound
- Despite pain medication, dressing removal took 30 minutes
- Pain 10/10 "burning, throbbing" with dressing change (non-adherent gauze and roll gauze)
- **Mepilex Ag** initiated to promote management of bioburden, odor and exudate.
 - Secured with roll gauze and elastic stockinette to provide slight compression
 - Dressing change frequency: three times per week

One Week Later:



- Decrease in burning pain
- Dressing lifted easily, pain score 2/10
- Significant decrease in foul odor and turquoise color of exudate

- Reduced dressing change frequency by HHA to 2 times per week for remaining 5 weeks of treatment.
- Patient able to perform 3rd dressing change which was done for showering purposes

6 weeks later:



- Patient reported pain score 0/10 with subsequent dressing changes
- Wound healed

Case Study # 2:

Candidiasis

31 year old male with muscular dystrophy and skeletal deformities, ventilator dependent, bed bound, fully dependent on family caregivers for ADL's.

Initial evaluation:



- Stage III pressure ulcer, 5.5cm x 4.0cm x 1.8cm
- Erythematous, moist periwound, with signs of candidiasis
- Pain score 8/10 with dressing changes (normal saline moistened gauze – BID)
- Required medication every 4-6 hours due to dressing changes and burning sensation of peri-wound skin
- Topical dressing changed to a silver alginate and covered with **Mepilex Ag** to address periwound candidiasis

One Week Later:



- Wound 5.0cm x 3.0cm x 1cm
- Candidiasis resolved
- Pain score 0/10 with dressing change

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Case Study # 3:

Motor Cycle Accident - Road Rash

20 year old, uninsured, female sustained multiple injuries from an MVA. Wounds (right arm, hip, buttock, leg) were debrided in the OR. Treated for five days with silver sulfadiazine, BID. Covered with non-adherent gauze and secured with roll gauze

Initial evaluation:



- Right arm wound injury: partial thickness wound measuring 21cm x 13cm. 90% yellow non viable tissue and 10 % pink moist tissue
- Premedication required for dressing changes, pain score 10+/10
- Patient was tearful and anxious with each dressing change which took 45 minutes for dressing removal.
- **Mepilex Ag** initiated to reduce bacterial burden, absorb moderate amounts of serous sanguineous drainage, reduce frequency of dressing changes and minimize discomfort
 - **Safetac** offered atraumatic dressing removal
 - Patient did not require premedication for dressing change
 - Patient was able to perform own dressing changes with patient education.

6 days later



2 weeks later



OUTCOMES/FINDINGS:

In all cases **Mepilex Ag** with **Safetac** was able to:

- Effectively minimize signs and symptoms of wound bioburden
- Effectively manage periwound candidiasis
- Allow for patient education and instruction for "self" dressing change due to ease of application.
- Provide atraumatic removal and minimize trauma and pain
- Eliminate premedication for dressing changes

FINANCIAL IMPACT:

In 2 of the 3 cases (cases 1 and 3), patient visits were able to be reduced from 3 times weekly to 1 or 2 times weekly due to the fact that the patients were able to be taught dressing application and anxiety over dressing change was minimized. The self adherence property allowed for patients to securely and easily wrap dressings in place.

Savings to the home health agency (based on nurse visit of \$120.00/day):

- Case 1: Reduction of 5 nursing visits \$600.00 / episode
- Case 3: Reduction of 10 nursing visits \$1200.00 / episode

CONCLUSION:

The goal of the wound team was to provide a wound treatment plan that would be evidence-based while being cost effective regarding labor costs and the use of advanced wound care supplies. Identifying a dressing that could be easily applied, absorb moderate to large amounts of wound exudate, decrease overall pain with dressing changes and decrease bioburden was important for both the patient and the agency. The data collected through documentation regarding exudate management, numbers of dressings needed, and decrease in trauma and pain and length of time to healing supported the continued use of **Mepilex Ag**. The single most important finding of this evaluation was the significant improvement in the quality of life for these three patients.

FINANCIAL ASSISTANCE/DISCLOSURE

Mölnlycke Health Care, US, LLC. provided assistance with poster design.