

# A New Active *Leptospermum* Honey Impregnated Calcium Alginate Dressing\* Has a Positive Impact on a Wide Variety of Wound Types

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## GOALS AND OBJECTIVES

The goal of our trial of this novel product was to determine the effects of an Active *Leptospermum* Honey Impregnated Calcium Alginate Dressing (HICAD)\* on a variety of wound types. Specific data collected to determine the effectiveness of this product was wound measurements, report of pain, wound bed status and exudates levels.

## BACKGROUND

There is a growing body of evidence which supports the use of medical grade honey for wound care. The literature suggests that non-healing wounds are stuck in the inflammatory phase of healing and that chronic wounds possess high bacterial bio-burden, an alkaline environment, matrix metallo-proteinases, and free radicals. Active *Leptospermum* Honey has a low ph, high osmolarity and plant derived characteristics which positively influence the above characteristics. This makes it ideal for hard to heal wounds. In July of 2007 the Food and Drug Administration provided clearance in the United States for dressings containing Active *Leptospermum* Honey for use in wound and burn care.

## PURPOSE

Chronic wounds persist in clinical practice despite a plethora of available wound care products on the market. We decided to investigate the use of Active *Leptospermum* HICADs and confirm reports of clinical efficacy for a variety of wound types.

## METHODS

Four patients with chronic wounds were selected for this trial. The wound types were: dehisced surgical incision, pressure ulceration, venous insufficiency with ulceration, and trauma. This cohort was representative of our treatment population. Wound assessments were performed weekly. The following data was collected: wound bed status, exudates levels, wound measurements, and patients self-report of pain on a visual analog scale.

## RESULTS

The Active *Leptospermum* HICADs demonstrated superior ability to improve the wound bed, absorb exudates, decrease the wound size, and improve patients self-report of pain.

## DISCUSSION / CONCLUSION

The use of Active *Leptospermum* HICADs in this case series demonstrated excellent patient outcomes for a variety of wound types. Patients and staff were satisfied with the ease of use, improvement of the wound bed, absorption and reduction of exudate, healing properties, and pain relief.

### PATIENT #1 - Surgical Wound

This patient, s/p pectoral flap procedure with dehiscence, presented to the wound center 10/25/07. Negative pressure wound therapy (NPWT) was initially used to enhance granulation tissue formation and wound contraction. Progress stalled and NPWT was discontinued 1/18/08. Daily Active *Leptospermum* HICADs were initiated on 1/18/08. The wound measured 4cm x 1.2cm x 0.2cm. Rapid healing was noted. The patient was discharged on 2/8/08 with a healed wound.



### PATIENT #2 - Traumatic Wound

This patient presented to the wound center with a wound caused by a bureau being dropped on the patient's foot. The open wound between his toes was infected with methicillin resistant staphylococcus aureus (MRSA). Cellulitis quickly ensued. Surgical debridement was performed and antibiotic therapy was prescribed. Daily dressing changes with Active *Leptospermum* HICADs were initiated. Initial measurements were 3.0cm x 0.7cm x 0.7cm. The area rapidly improved, the cellulitis resolved, and the patient reported less pain. The wound healed by day 21 with minimal scarring.



### PATIENT #3 - Venous Ulcer

This 85 y/o presented with a 1yr old, painful (10/10 pain scale) venous ulcer causing her much frustration due to it's chronicity. She had been given many different "salves" to no avail by different providers in the community. The wound was debrided. Daily dressing changes with Active *Leptospermum* HICAD was initiated. Initial measurements 1.9cm X 1.0cm X 0.3cm. This patient was pain free after 24 hrs. As she was healing, her plan of care was augmented to include electrical stimulation. Complete healing was achieved by week 8.



### PATIENT #4 - Pressure Ulcer

A Stage III sacro-coccygeal pressure ulcer was acquired during hospitalization for pneumonia and respiratory failure. The wound was covered with slough with moderate exudate. Progress was stalled while using cadexomer iodine. Active *Leptospermum* HICADs were initiated on 1/21/08. Slough was rapidly debrided, exudate levels decreased, and healing was accelerated. The wound healed by week 4. The HICAD was practical, cost effective and tolerated well.



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\*MEDIHONEY™ Absorbent Calcium Alginate Dressing with Active *Leptospermum* Honey, Derma Sciences, Inc., Princeton, New Jersey. Funding for costs associated with this poster provided by Derma Sciences. The information in this poster concerns a use that has not been approved or cleared by the US Food and Drug Administration.