

USE OF NEW ACTIVE *LEPTOSPERMUM* HONEY DRESSINGS IN NON-HEALING WOUNDS

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OBJECTIVE

Evaluate the clinical efficacy of a new Active *Leptospermum* Honey* alginate dressing to cleanse and debride slough, absorb and manage exudate, provide an antimicrobial barrier and promote healing.

BACKGROUND

Honey, an ancient remedy, has long been used to treat infected wounds. Recently, Active *Leptospermum* Honey has experienced increased attention in the medical community due to its antimicrobial properties. Active *Leptospermum* Honey, also called manuka honey, originates in New Zealand where the bees feed on indigenous *Leptospermum* scoparium bushes.

METHODOLOGY

Patients were asked to participate in this non-randomized open label pilot study. Inclusion criteria included wounds with various etiologies, positive wound cultures, signs and symptoms of infection, moderate to heavy amounts of wound drainage, and fibrin slough within the wound bed. The investigators collected the following data: wound appearance, pre- and post-treatment wound cultures, ease of dressing changes, ability to manage moderate to large amounts of exudate, odor control and the capability of the dressing to debride slough from the wound bed.

OUTCOMES

A new Active *Leptospermum* Honey alginate dressing demonstrated superior ability to manage pain and exudate, debride slough, and reduce bacterial bio-burden in this series of chronic wounds. The unique properties of the dressing promoted an environment conducive for positive wound healing outcomes.

CONCLUSION

Dressing selection is a vital part of the successful management of acute and chronic wounds. The evaluation of Active *Leptospermum* Honey Alginate dressings in this small case series demonstrated ease of use, debridement, eradication of malodor associated with exudate, antimicrobial effectiveness against MRSA and positive wound healing outcomes.

References:

- Cooper, R. Molan, P. (1999). The Use of Honey as an Antiseptic in managing pseudomonas infection: Journal of Wound Care. 8 (4) 161-164.
- Honey as a Topical Antibacterial Agent for Treatment of Infected Wounds. World Wide Wounds Website: www.worldwidewounds.com
- Leading Wound Care Experts to Discuss Benefits of Manuka Honey in Wound Treatment. BusinessWire Website: www.home.businesswire.com.
- Manuka Honey and Wound Care. Press Releases website: www.pr.com

PATIENT 1

A 73 year-old female with CVI and a painful MRSA-colonized venous ulceration of 6 months duration. Previous topical antimicrobial therapy (silver sulfadiazine) was ineffective. Upon initial assessment there was mixed slough and granulation tissue present in the wound bed with moderate exudate. Active *Leptospermum* Honey alginate was applied and changed weekly. After initiation of treatment there was decreased pain and exudate. By week five there was a 96% reduction in wound volume and significant reduction in slough, scant exudate and no pain. Complete healing was accomplished by week 8.



2/14/08 1.0cm X 1.5cm X 0.3cm



3/20/08 0.6cm X 0.3cm X 0.1cm

PATIENT 2

A 51 year-old female with a non-healing, five-year old traumatic, MRSA-infected wound sustained in a boating accident (torn flesh from a tow rope hook). Previous treatment included multiple debridements, and topical and systemic antibiotic therapy. Upon initial assessment the wound was painful with heavy exudate. Active *Leptospermum* Honey alginate was applied with a foam dressing and changed twice weekly. After initiation of therapy there was less pain and minimal exudate. At week six cultures were negative for MRSA. At week eight there was a 92.6% reduction in volume, increased granulation tissue and minimal pain. Wound subsequently reached a plateau and final closure was achieved with bilayer skin substitute in March 2008.



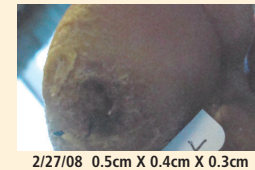
11/06/07 4.9cm X 2.5cm X 0.2cm



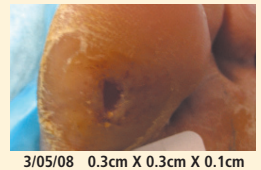
1/08/08 3.0cm X 0.6cm X 0.1cm

PATIENT 3

A 44 year-old female with type 2 un-controlled diabetes and peripheral neuropathy. A non-healing neuropathic ulcer on the plantar aspect of the great toe was colonized with MRSA, and non-responsive to topical antimicrobial therapy. Upon initial assessment there was no granulation tissue and a large amount of exudate. Sharp debridement was performed. Active *Leptospermum* Honey alginate was applied and covered with gauze three times weekly. After 1 week of treatment was minimal, healthy granulation tissue was visible, and there was a 85% reduction in volume.



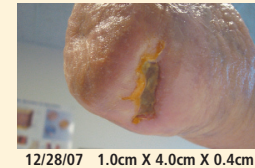
2/27/08 0.5cm X 0.4cm X 0.3cm



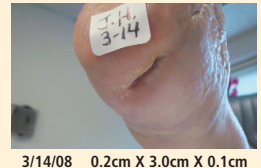
3/05/08 0.3cm X 0.3cm X 0.1cm

PATIENT 4

A 73 year-old female with PVD, S/P ORIF left hip with a Stage IV non-healing pressure ulcer on the left heel. Wound cultures positive for MRSA and MRI was positive for osteomyelitis. Initial assessment revealed 100% yellow adherent slough in the wound bed, moderate exudate and pain. Enzymatic debridement was poorly tolerated in the past. Active *Leptospermum* Honey alginate was applied with a foam dressing and changed three times weekly. After initiation of therapy pain was diminished and exudate was scant. At week four pain was absent, cultures were negative, slough was 100% cleared and exudate was minimal. By week ten there was a 96.25% reduction in volume.



12/28/07 1.0cm X 4.0cm X 0.4cm



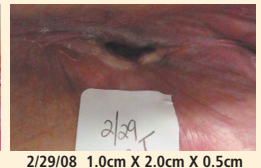
3/14/08 0.2cm X 3.0cm X 0.1cm

PATIENT 5

A 54 year-old morbidly obese male with a history of necrotizing fasciitis, surgical debridement and skin grafting, presented with a non-healing, one-year old MRSA infected ulcer on inferior pannus. Previous wound care using amorphous hydrogel, silver dressings, and hydrocolloids was ineffective. Active *Leptospermum* Honey alginate was applied and covered with a non-adherent dressing every other day. By week three cultures were negative, exudate was scant, healthy granulation tissue was visible and there was a 66.7% reduction in wound volume.



12/04/07 1.0cm X 3.0cm X 1.0cm



2/29/08 1.0cm X 2.0cm X 0.5cm

Note: the color in this photograph is not an accurate representation of the wound. The wound bed actually had red granulation tissue.

It Looks Like Honey. It Smells Like Honey. Yes, It Is Honey!

*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