

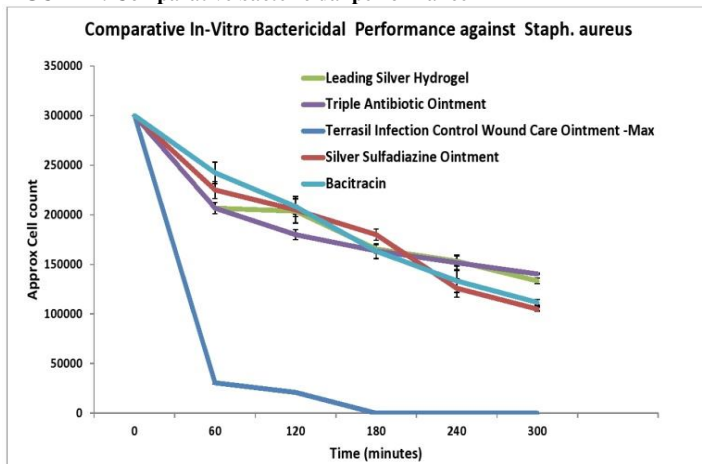
NOVEL MULTI-VALENT WOUND-HEALING OINTMENT PROVIDES BIOBURDEN CONTROL AND MOISTURE MANAGEMENT: A RETROSPECTIVE REGISTRY DATA ANALYSIS

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ABSTRACT

Introduction: Reducing bacterial bioburden and maintaining a moist wound healing environment are key elements in wound bed preparation¹. To achieve more effective control of bioburden, Terrasil® Infection Control Wound Care Ointment (Aspiera Medical) is formulated with a patented multiple-valent complex with positively-charged ions that has a strong attraction to the negatively-charged ions commonly found on the outer membrane of bacteria. This technology was developed to facilitate faster, directed delivery of the active antiseptic² to the wound bed. In-vitro studies suggest it may be far more effective at eliminating bacteria than silver and other commonly-used topical antimicrobial products (Figure 1). The ointment provides moisture management with jojoba seed oil and organic beeswax to achieve long-lasting moisturization without fear of maceration. This prospective multi-center case series assessed the effectiveness of the ointment in the promotion of wound healing.

FIGURE 1: Comparative bactericidal performance



Methods: At four wound care centers in the United States, 30 adult patients with chronic, non-healing wounds of various etiologies, including diabetic foot, venous and arterial ulcers, pressure ulcers, traumatic and post-surgical wounds were selected. Prior to beginning the study, wounds had persisted for an average of six months. The patients received the Terrasil ointment daily, except under compression therapy when it was applied 1-3 times weekly. Length, width, and depth meas-

urements and physician assessments of the wounds were taken during the initial visit and then weekly (ex. Figures 2-4 on page 2). The patients were followed for up to 12 weeks. Most of the patients self-administered the ointment between physician visits.

Results: The ointment controlled bioburden, evidenced by visual observation and random quantitative cultures. The natural emollients provided moisture management as reported by the principal investigators without peri-wound maceration. All patients demonstrated a reduction in wound size with average of 84% surface area reduction in a mean of 23 days of treatment. (Table 1).

TABLE 1: Averaged Results Per Wound Type With Terrasil Infection Control Wound Care Ointment

	Pressure Ulcers	Diabetic Foot Ulcers	Venous Leg Ulcers	Post-Surgical Wounds	Other Wounds	Mean
Average Number of Treatment Days	29	22	31	25	14	23
Percent Wound Closure	79%	83%	63%	94%	99%	84%

Conclusion: This new topical antimicrobial and moisturizing ointment may be employed to promote faster wound closure through a reduction in bacterial bioburden and maintenance of a moist wound healing environment.

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- Schultz GS et al. Wound bed preparation: a systematic approach to wound management. Wound Repair Regeneration 2003 Mar;11 Suppl 1:S1-28.
- 0.2% Benzethonium chloride

FIGURE 2: Diabetic foot ulcer.



Day 1	Day 7
 <p>A close-up photograph of a diabetic foot ulcer on the left plantar foot. The ulcer is circular, approximately 0.2 x 0.2 x 0.1 cm, and contains 100% red granulation tissue. A ruler is visible at the bottom of the image with handwritten text: "N.J.L. L Foot 1.28.13".</p>	 <p>A close-up photograph of the same diabetic foot ulcer on Day 7. The ulcer is significantly smaller and has almost completely healed. A ruler is visible at the top of the image with handwritten text: "N.J.L. L Foot SPECIMEN 1 2".</p>
<p>Description: Diabetic Foot Ulcer 0.2 x 0.2 x 0.1 cm on Left Plantar Foot with 100% Red Granulation Tissue. Photo is post-debridement.</p> <p>Background: The patient had the wound for 9 months before starting the Terrasil treatment. Previous treatment included silver alginate dressing and offloading of foot.</p>	<p>Terrasil Treatment: Patient self-applied ointment 1X/day.</p> <p>Results: After 1 week wound was 100% closed.</p> <p>Concurrent Therapy: Dry dressing and offloading</p>

FIGURE 3: Pressure Ulcer.





Day 1	Day 14
 <p>A photograph of a non-healing pressure sore on the left great toe. The ulcer is deep and contains red granulation tissue. A ruler is visible at the bottom of the image with handwritten text: "Patient Name: C.T. 4/1/13".</p>	 <p>A photograph of the same pressure ulcer on Day 14. The ulcer is significantly smaller and has almost completely healed. A ruler is visible at the bottom of the image with handwritten text: "C.T. 04-10-13".</p>
<p>Description: Non healing pressure sore/wound, left great toe; 2.6 X 1.9 cm; Bilateral lower extremity lymphedema with underlying chronic venous disease.</p> <p>Background: The patient had the wound for 9 months before starting the Terrasil treatment. Previous therapies included debridement and 4-layer compression wrap.</p>	<p>Terrasil treatment: Patient applied Terrasil ointment 3-5 times weekly.</p> <p>Results: 80% closure in 2 weeks.</p> <p>Concurrent therapy: 4 layer compression wraps.</p>

FIGURE 4: Surgical Infection.

Day 1	Day 11
 <p>A photograph of a surgical infection on the abdomen, hernia surgery site. The infection is a large, circular, red, and swollen area. A ruler is visible at the top of the image with handwritten text: "DAP: abd 11-29-13".</p>	 <p>A photograph of the same surgical infection on Day 11. The infection is significantly smaller and has almost completely healed. A ruler is visible at the top of the image with handwritten text: "DAP: abd 12-10-13".</p>
<p>Description: Surgical infection, abdomen, hernia surgery, 100% granulation; measured 6.0 x 6.5 x 0.1 cm</p> <p>Background: The patient had the wound for 20 weeks before starting the Terrasil treatment. Previous treatment was collagen therapy.</p>	<p>Terrasil treatment: Patient applied the Terrasil ointment 1X per day.</p> <p>Results: After 11 days, wound was reduced in size 83%, with 100% granulation, and measuring 2.5 x 2.7 x <0.1 cm.</p> <p>Concurrent therapy: Contact layer, dry dressing.</p>