

# ENHANCED HEALING AND BENEFICIAL EFFECTS OF A NOVEL TOPICAL ANTIMICROBIAL SUSPENSION

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## Introduction

Topical ointments and gels have long played an important role in wound healing with the goal of speeding recovery and easing discomfort. An optimal wound environment promotes the proliferation of epidermal cells, fibroblasts, tissue granulation and new blood vessel formation. This leads to epidermal cell migration and wound closure (1). CurX™, a novel antimicrobial gel, propriorarily combines antimicrobial agents in a petroleum based therapy for the topical treatment of skin wounds. This gel has been used to treat a series of three chronic wounds with varying etiologies of wound development. The purpose of these case studies was to evaluate the hypothesis that the topical application of a novel antimicrobial gel would lead to a more rapid reduction in wound size as compared to previous therapies on difficult slow healing wounds.

## Methods

This series of case studies focuses on topical wound care. These studies were conducted on patients who had a history of slow or unsuccessful wound healing using previous therapies. A thin layer of CurX™ antimicrobial gel was applied to and around the affected area. The area was covered and dressings changed according to facility protocol. At each dressing change, the wounds were cleaned with sterile saline.

## Results

Using the antimicrobial gel CurX™, improved healing has been demonstrated for difficult to heal wounds of various etiologies. All wounds showed a more rapid reduction in wound size as compared to previous therapies, and patients also communicated a reduction in discomfort during dressing changes.

## Conclusions

Positive outcomes in these case studies encourage additional research to determine the effect of CurX™ on these and other wound types, looking at the rate and degree of wound healing.

### Case Study 1 Lower Extremity Ulcer



Baseline



Week 1



Week 2



Week 4

**Patient Outcome:** Improved healing was realized in 4 weeks.

**Case Discussion:** A 70 year old with a medical history of COPD, DVT progressed to PE and previous venous leg ulcers presented with a new right lower leg ulcer one month after final treatment for previous bilateral lower leg venous ulcers. Original treatment consisted of honey sheets, unna boot, Coban™ and ACE™ wrap, with acceptable healing after 7 months. Given the patient's history of slow healing, a trial of CurX™ was initiated on the new ulcer. The patient was followed for 4 weeks during which time rapid improvement in the wound was observed.

### Case Study 2 Foot Wound



Baseline



Day 3



Day 10

**Patient Outcome:** After 10 days, the wound area was free of pain, visibly healthier, and lacked necrotic tissue.

**Case Discussion:** A 22 year old healthy individual with no co-morbidities was admitted to the emergency room with severe abrasions. His wounds were cleaned and treated with triple-antibiotic ointment, sterile gauze and impregnated silver mesh. After 5 days post-hospitalization there was no visible reduction in wound state and there was a buildup of necrotic tissue. A trial of CurX™ was initiated. The patient was followed for 10 days at which time improved healing, pain reduction and elimination of necrotic tissue without active debridement was noted.

### Case Study 3 Lower Extremity Skin Tear



Baseline



Week 2



Week 3



Week 10

**Patient Outcome:** After 10 weeks of treatment, the wound stabilized and re-epithelialization was beginning.

**Case Discussion:** An 88 year old non-ambulatory patient with a history of Alzheimer's, low albumin, PVD, hypertension and hypothyroidism had been undergoing unsuccessful treatment for 4 months to manage a complicated skin tear. Many dressing techniques had been tried with minimal progress including silver and topical antibiotics. A trial of CurX™ was initiated. The patient was followed for 10 weeks at which time wound stabilization was achieved and re-epithelialization was noted. A reduction in patient discomfort during dressing changes was observed.