Cost Savings Through the Addition of MIST® Therapy to Standard Wound Care

Background
Neuropathic foot ulcers are a serious complication of diabetes. 24 million Americans have diabetes and 15% or 3.6 million will develop a lower extremity ulcer at some time.2

Patient Profile: 76-year-old Male5
Conditions: Type I diabetes, hypertension, peripheral artery disease, venous insufficiency, peripheral neuropathy, chronic obstructive pulmonary disease and total knee replacement (right).
Care Setting: Long-term Care

Pre-MIST® Therapy
Wound: Wagner Grade III ulcer of the right plantar heel with chronic osteomyelitis that had been non-healing for 14 years.
Area: 4.5 cm x 3.4 cm = 15.3 cm²
Volume: 4.5 cm x 3.4 cm x 1.4 cm = 21.4 cm³
Wound bed was 25% slough with bone and tendon exposure, chronic osteomyelitis and copious drainage consistent with pseudomonas.
Treatments: Compression therapy with bandages and garments, sharp and surgical debridement, negative pressure wound therapy (NPWT) and offloading shoes.

Amputation recommended by vascular and infectious disease physicians.

MIST® Therapy was added to standard wound care three times a week.

Post-MIST® Therapy
Outcomes: After 26 MIST® Therapy treatments over 8 weeks the wound closed completely. The patient was able to return home independently with his limb intact.

Infection can be a barrier to wound healing. The mechanical stress of the MIST® Therapy sound waves has been shown to disrupt biofilm and cause bacterial cell death in a wide range of bacterial types including MRSA, VRE and Pseudomonas.6-9

The costs and cost savings depicted in this case study are illustrative only and represent the types of costs that may be incurred by a health care institution. They will vary for each institution, care setting, patient type, treatment course, etc., but provide an outline for consideration and discussion.
The addition of MIST® Therapy to the treatment of a non-healing diabetic foot ulcer results in significant cost savings. Not only did this wound heal after 14 years of standard wound care failed, but an amputation was avoided.

** Cost was determined using $565/week ($60 canisters, $36 for dressings, $469 rental) for negative pressure wound therapy (NPWT) and enzymatic debridement ($36) for 4 weeks (assumes 3 dressing changes per week) and $180/week was added for MIST® Therapy ($60 each for applicators/rental) for 8 weeks. Cost of extended care and infection treatment not included in this analysis.

** Results with MIST® Therapy are not necessarily representative of and may vary with each patient.

† This economic analysis is based upon empirical evidence and has not been derived from a formal cost effectiveness study.

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