

# Clinical Evaluation of Impregnated Silver Tubular Component in Multilayer Compression Dressings

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Diffuse erythema of the lower extremity that is associated with lower extremity peripheral edema and superficial ulceration is problematic in that multiple factors may be contributing to the clinical condition. Contact dermatitis or eczema resulting from excessive drainage with irritation and inflammation to the skin can contribute to the clinical problem but may also be the inciting agent. Problematic with this clinical diagnosis of cellulitis is the similarity of these clinical presentations.<sup>1</sup> The accuracy and significance of bacterial cultures obtained is also problematic as to frequency and accuracy.<sup>2</sup> The use of systemic antimicrobials is common but the efficacy of such a practice is questioned.<sup>3</sup>

The use of silver fiber dressings provides a solution to many of the problems associated with this diagnosis. Silver has a broad spectrum of antimicrobial activity effective against yeast, mold, filamentous fungi, yeast and a wide variety of bacteria encountered in treating this diagnosis.<sup>4</sup> The sustained release of silver allows for an early and prolonged antibiotic effect.<sup>4</sup> Antimicrobial resistance to silver is rare do to the multiple sites of action.<sup>5</sup> Silver also exerts an anti-inflammatory effect by the reduction of metalloproteinases MMP-9 and MMP-2.<sup>6</sup>

The use of multilayer compression dressings in treating lower extremity edema is a recognized standard of care. The recent introduction of a ten percent silver fiber impregnated tubular cast component\* has allowed the incorporation of silver into multilayer compression dressing regime. Patients treated with this silver component exhibited clinical and subjective reduction in pain, erythema, and irritation along with the decrease use of antibiotics. We believe that the substitution of a standard tubular component with its silver counterpart will facilitate healing, decrease costs, and warrants further comparison.



Pre-Application



Pre-Application



Post-Application



Post-Application



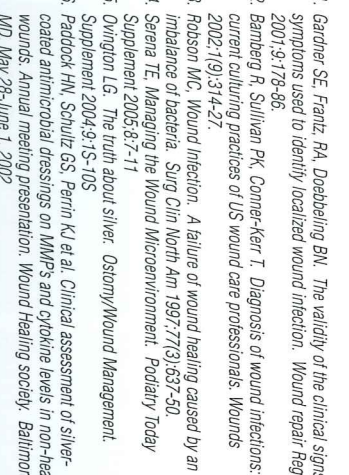
Pre-Application



Pre-Application



Post-Application



Post-Application

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