Multiple Pressure Ulcers
With Methicillin-Resistant Staphylococcus aureus (MRSA) Infection

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

Background
Pressure ulcers pose a major health problem affecting approximately 3 million adults in the United States. In 2006, over 500,000 hospital admissions were related to pressure ulcers. While the average hospital stay costs $10,000; the cost for those admitted primarily for the treatment of a pressure ulcer averages $37,800.

For those pressure ulcer patients with antibiotic resistant infections, such as MRSA, treatment costs can be even higher and the problem is growing. In 1972, 2% of staph infections were MRSA, in 2004 this number increased to 63%.

Patient Profile: 66-year-old Female

Conditions: Osteoporosis, cachexia, anemia, chronic pain, and multiple pressure ulcers infected with MRSA.

Care Setting: Long-term Care

Pre-MIST® Therapy

<table>
<thead>
<tr>
<th>Wounds</th>
<th>Location</th>
<th>Area</th>
<th>Volume</th>
<th>Stage</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sacrum</td>
<td>37.4 cm²</td>
<td>3.7 cm³</td>
<td>IV 3.5 cm tunneling at 8 o’clock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right Back</td>
<td>2.3 cm²</td>
<td>1.2 cm³</td>
<td>IV Undermining 3.2 cm at 12 o’clock Undermining 2.3 cm from 1 to 2 o’clock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower Spine</td>
<td>1.9 cm²</td>
<td>0.4 cm³</td>
<td>III</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right Inner Heel</td>
<td>0.6 cm²</td>
<td>0.4 cm³</td>
<td>III</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Treatments: Treatments included negative pressure wound therapy (NPWT) and calcium alginate/silver dressings for 6 months. MIST® Therapy was then added two to three times a week.

Post-MIST® Therapy

Outcomes: After 6 weeks of MIST® Therapy treatment the lower spine and right inner heel wounds closed completely. The sacral wound area reduced by 99.7% (0.1 cm²) and volume by 100% (0.0 cm³) after 4 months and the back ulcer area was reduced by 60% and volume by 92%.

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 cost savings associated with MIST® Therapy is the result of its ability to accelerate wound healing. In this case study, 6 months of standard wound care treatment was unable to bring these wounds to closure. Six weeks of MIST® Therapy treatment brought two of the four wounds to closure, an additional 10 weeks reduced the third and largest wound by 99.7% and the fourth wound area was reduced by 60%, well on its way to complete closure.

* Cost was determined using $565/week ($60 canisters, $36 for dressings, $469 rental) for negative pressure wound therapy (NPWT) and $108/week for the silver alginate dressings (assumes 3 dressing changes per week). *Cost for extended care and treatment of infection not included in this analysis.

** $150/week was added to the costs of standard care for MIST Therapy ($60 each for applicators/rental/avg 2.5 times per week) and silver alginate charges reduced at 6 weeks due to the healing of two of the four wounds.

*** 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.

For more case stories related to this topic and others, please contact your local Celleration representative or call (952) 224-8700.

www.celleration.com