**Evaluation of efficacy and cost savings utilizing a super absorbent leg wrap dressing and its’ management of exudate versus traditional composite pads**

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**Problem statement**

Venous insufficient legs traditionally are very edematous because of valve incompetence and many times weep large amounts of fluid. Sustained compression therapy and ambulation with calf pumping is the traditional treatment. Unfortunately, if an active cellulitis is present, compression is contraindicated until the active infection is brought under control. The exudate compromises dignity and much nursing time is utilized in order to attain or maintain dignity because of the “open fire hydrant” effect of weeping skin. This study examines the efficacy and cost savings established while utilizing a super absorbent leg wrap dressing versus traditional composite pads.

**Study overview and past treatment and execution**

Four residents were chosen between the ages of 49 and 87 years of age. All had active cellulitis involving both lower extremities and were contraindicated for compression secondary to active cellulitis and/or arterial insufficiency being present. Both legs had 90 to 100% maceration at the start of each study. Both legs on each resident were cleansed with pH balanced soap and water between dressing changes. The left leg was chosen for the composite dressing group and the right leg was to utilize the super absorbent leg wrap dressing.

**Findings**

**Resident #1:** Left leg changed three times a day for five days because of soiling. 11 pads used per dressing change and 2 gauze wraps.

- Total cost of goods: $26.40 pads $14.40 wraps
- Nursing time: $45. Total cost of care: $85.80

<table>
<thead>
<tr>
<th>Patient</th>
<th>Cost of dressings</th>
<th>Cost of nursing time</th>
<th>Total cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>$45.00</td>
<td>$85.80</td>
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<tr>
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<tr>
<td>4</td>
<td>$24.64</td>
<td>$42.00</td>
<td>$66.64</td>
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**Savings using boot: $43.80**

Maceration left versus right leg:

- Day 1: 100/100
- Day 2: 100/40
- Day 3: 100/20
- Day 4: 90/0
- Day 5: 80/0

**Resident #2:** Left leg changed four times/day for 5 days. 8 pads used per dressing change and 1 gauze wrap.

- Total cost of goods: $25.60 pads $9.60 wraps
- Nursing time: $60. Total cost of care: $95.20

**Savings using boot: $24.64**

Maceration left versus right leg:

- Day 1: 100/100
- Day 2: 90/50
- Day 3: 90/50
- Day 4: 70/0
- Day 5: 70/0

**Resident #3:** Left leg changed 2 times/day for 5 days. 10 pads used per dressing change and 1 gauze wrap.

- Total cost of goods: $16.00 pads $4.80 wraps
- Nursing time: $30.00 Total cost of care: $50.80

**Savings using boot: $8.80**

Maceration left versus right leg:

- Day 1: 100/100
- Day 2: 100/60
- Day 3: 100/20
- Day 4: 90/0
- Day 5: 80/0

**Resident #4:** Left leg changed three times/day for 4 days and 2 times/day for 1 day. 8 pads and 1 wrap used per dressing change.

- Total cost of goods: $17.92 pads $6.72 wraps
- Nursing time: $42.00 Total cost of care: $66.64

**Savings using boot: $24.64**

Maceration left versus right leg:

- Day 1: 100/100
- Day 2: 90/60
- Day 3: 80/40
- Day 4: 60/0
- Day 5: 50/0

**Conclusion**

The high capacity super absorbent leg wrap exceeded and out-performed the traditional composite pads when being used to manage peri-wound maceration and resulted in significant cost savings for the facilities involved.

*Special thanks to Kane Regional Systems and the Highmark Foundation for participating in the study and for providing the ABD pad (Kendall) and the Kerlex (Kendall) as well as to Advancis Medical for providing the Eclipse Boot®.*