



## CASE STUDY

# Closing Stalled Heel Pressure Ulcers: Two Problem Patients, One Easy Solution



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### PROBLEM

Heel pressure ulcers on extremely disabled patients tend to have marginal circulation and often become infected. Even with good compliance, which is rare, many heel pressure ulcers never close. This study highlights two men who would not appropriately offload their heels: an 85-year-old with severe Parkinson's and a combative 80-year-old with Alzheimer's, both with three and four month-old stage IV heel pressure ulcers acquired during hospitalization. Attempts to form dry stable eschar using betadine had failed.

### RATIONALE

Wound bed trauma slows healing. Unique polymeric membrane dressings\* cushion wounds. Ingredients in the safe, non-adherent dressings work together to draw regenerative cells into the wound bed, balance wound bed moisture and continuously cleanse wounds.

### METHODOLOGY

One patient's pressure ulcer was sharply debrided. A hydrogel and polymeric membrane dressings moistened with a small amount of saline softened the eschar on the other. After initial debridement, a polymeric membrane dressing was placed directly on each wound and replaced daily without rinsing or any other intervention. Later, dressing changes were every other day.

### CONCLUSION

Polymeric membrane dressings protected the wounds by providing cushioning and created a balanced moist environment which led to wound closure. Polymeric membrane dressings are safe and non-adherent; using them, manual wound bed cleansing was unnecessary. This allowed both families to participate in care by doing dressing changes, greatly saving nursing costs.

\*PolyMem® Dressings are made by Ferris Mfg. Corp., Burr Ridge, IL 60527 USA

### RESULTS

Both patients benefited from the cushioning and wound moisture balance provided by the polymeric membrane dressings. The patient with Alzheimer's was extremely aggressive when he became impatient, banging his heels on the bedrail. Dressing changes were quick, atraumatic and easy to perform, so his wife was able to do them without irritating him, allowing community nursing visits to decrease from daily to weekly. The patient with Parkinson's did not tolerate a low air-loss bed. He would not wear heel protectors, perhaps due to the heat (no air conditioning). His previous dressings stuck painfully to his wound bed, but polymeric membrane dressings are non-adherent and promoted steady wound healing. Both heel pressure ulcers closed within nine months.

### OBJECTIVES

1. Discuss how polymeric membrane dressings' built-in wound cleansing system helps maintain a desirable wound temperature and serves to minimize disruption to the wound bed tissue.
2. Note how the quick atraumatic dressing change process dramatically decreased costs and provided comfort and convenience to these difficult patients.
3. Consider the role that polymeric membrane dressing's ability to promote an ideal wound healing environment played in facilitating the closure of these wounds.

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A quite aggressive 80-year-old male with Alzheimer's was unable to walk: confined to bed. He developed a heel pressure ulcer while hospitalized. At home, he banged his heels on the bed rails, which traumatized the wound, even after the rails were covered with soft sponge. Four months of betadine failed to create dry stable eschar.



18 October 2007

Following initial sharp surgical debridement, a standard polymeric membrane dressing was placed on the Grade IV pressure ulcer. No other form of wound cleansing or rinsing was needed.



19 December 2007

Dressing were changed daily at first, then every other day. After only two months, the slough was completely gone; the wound bed was well granulated and most of the exposed tendon was covered with new tissue.



15 January 2008

Since the dressings were continuously doing the work of removing slough, the patient's 78-year-old wife was able to do the dressing changes, allowing the home health nurses to decrease their visits to weekly.



20 March 2008

Despite the lack of appropriate offloading, the wound healing progressed steadily. Because the wife could perform the dressing changes so quickly and atraumatically, the changes did not tend to agitate the patient.



7 May 2008

Wound treatment was very inexpensive and convenient to the family because all that was needed was a standard polymeric membrane dressing, which the patient's wife could change without assistance.



27 June 2008

Polymeric membrane dressings' unique ability to create an ideally balanced moist wound healing environment, plus the cushioning they provided, facilitated full closure of the pressure ulcer in 8½ months.

A 85-year-old male patient who was immobile with severe Parkinson's Disease developed a heel pressure ulcer while he was hospitalized for pneumonia. Betadine and paraffin gauze, which stuck to the wound, were used for three months on the wound in an attempt to dry it. Rather than forming stable eschar, the wound continued to deteriorate.



31 January 2008

Initially, the black eschar was softened with a combination of a hydrogel and standard polymeric membrane dressings, with a bit of water added. After this, polymeric membrane dressings were used alone.



6 February 2008

The wound dressings were changed daily, without washing or flushing the wound bed. Pain at dressing changes was dramatically reduced and there were signs of continuous autolytic debridement.



20 April 2008

The patient was cared for in his un-airconditioned home by uneducated family members. He refused to use a low-air-loss bed. He also refused to wear heel protectors, perhaps because of the heat.



28 June 2008

Signs of regeneration of new cells and a steady healing rate proved that the chosen dressings were effective. The dressings did not stick to the wound bed at all, and the patient never complained at dressing changes.



28 August 2008

When the wound was very dry, a small amount of water was added to the surface of the polymeric membrane dressings before placing them on the wound. No other intervention was needed.



22 October 2008

Polymeric membrane dressings were comfortable, affordable and easy to use, and they promoted consistent healing. Despite the lack of off-loading, the heel pressure ulcer fully closed in less than 9 months.