

# PRESSURE ULCER MANAGEMENT IN PALLIATIVE CARE: Maintaining Comfort and Wound Size Reduction with New Self-Adaptive Dressing Technology

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## OBJECTIVE:

To evaluate the effectiveness of a new ultra-absorbent, self-adaptive advanced wound dressing\* with respect to patient comfort and wound size reduction of stage III and IV ischial and sacral pressure ulcers in patients receiving palliative care.

## BACKGROUND:

- Improving the patient's overall health-related quality of life is often the priority for palliative care patients, with wound healing as a secondary goal.<sup>3</sup>
- Decreased dressing change frequency, increased mobility, controlled exudate, and prevention of further wound deterioration are valid endpoints in palliative care.
- Demands of proven pressure ulcer healing interventions, such as offloading, may be beyond the patient's tolerance or stamina, and appear to threaten quality of life for a busy patient, quickly becoming debilitated by the nature of his/her life-threatening disease.<sup>1,2</sup>
- Wound dressings that may be changed less frequently, may effectively contain and keep exudate away from the wound and reduce wound size can play a key role in maintaining comfort and quality of life for these patients.
- A novel synthetic polymer self-adaptive dressing is now available. The dressing is designed to be left in place for a prolonged time and to facilitate proper moisture balance throughout wound and peri-wound areas by simultaneous fluid absorption of exuding areas of the wound and proper hydration of dry/granulated areas.

## METHODS:

- Wound was irrigated with normal saline solution.
- Self-adaptive advanced wound dressing was sized and placed over the wound, overlapping at least 2 to 3 cm onto intact skin.
- Dead space over self-adaptive dressing was filled with a hydrofiber dressing to help maintain dressing contact with the wound surface. This step was omitted when wound depth decreased and filler was no longer necessary.
- Dressings were covered with a thin hydrocolloid or retention tape.
- Dressing changes occurred 1 to 3 times per week in the home care setting.
- Patient comfort, drainage control, peri-wound maceration and wound dimensions were noted.

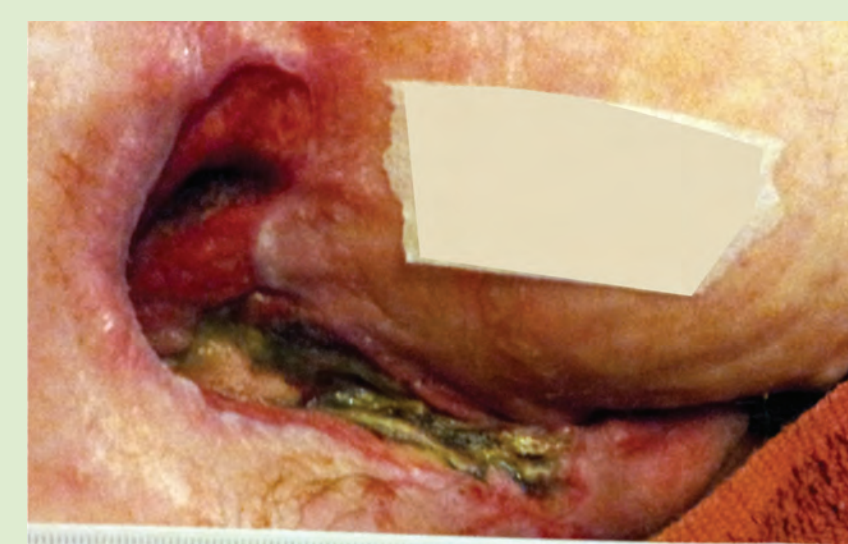
\*Self-Adaptive Wound Dressing, OSBovative Systems, INC  
Santa Clara, CA

## CASE 1: CHRONIC PRESSURE ULCERS IN PATIENT WITH PROGRESSIVE MULTIPLE SCLEROSIS

36-year-old female with three stage III/IV ischial and sacral pressure ulcers that have been present for 3 years. Patient is obese, suffers from chronic neurodegenerative disease of the acetabulum and femoral head, and has had multiple sclerosis for 16 years. Her co-morbidities related to progressive MS include loss of feeling and mobility in lower extremities, intermittent leg spasms, bilateral pedal edema, and contracture of hips, knees and ankles. Patient has decreased appetite and difficulty in swallowing that have resulted in malnourishment, despite nutritional supplementation. In spite of these impairments, patient maintains active lifestyle, spending much of her day in Fowler's position.

### A. Day 0.

Prior treatment for right ischial pressure ulcer includes alginate, hydrocolloid, collagenase, hydrofiber, hydroconductive, and sodium chloride impregnated dressings—all with limited success in drainage control. Wound dimensions are 8.8 x 3.0 x 1.5. Patient orders samples of self-adaptive advanced wound dressing to try. Following irrigation with normal saline, the new dressing is applied.



### B. Day 21.

Three weeks following initial use of self-adaptive dressing, slough is considerably reduced and peri-wound erythema and maceration are resolved. Patient is very satisfied with dressing, due to excellent absorption of drainage and reduced dressing change frequency. Wound edges are level with the wound bed and undermining is decreased.



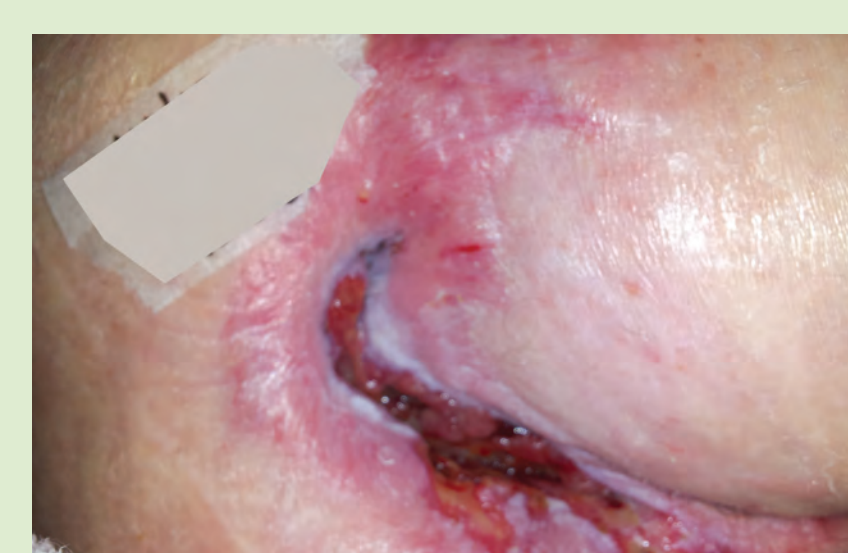
### C. 1 Month.

Despite lack of an appropriate offloading mattress, wound continues to progress with 100% granulation tissue filling in the depth of the wound. Drainage is reduced and contained. Wound measures 7.0 x 2.8 x 0.5 cm.



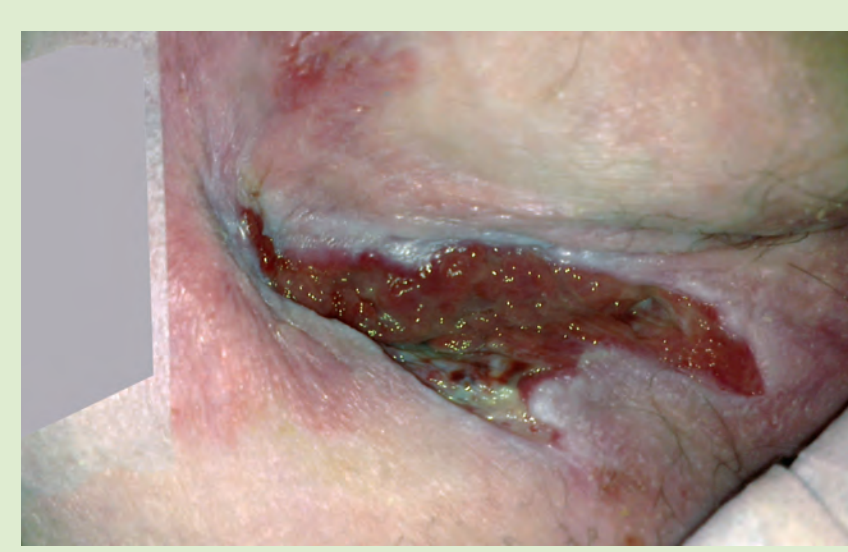
### D. 2 Months.

Dramatic improvement in wound width and depth encourages patient to increase compliance with offloading, including re-positioning and ordering an alternating pressure pad mattress.



### E. 3 Months.

Patient receives new mattress replacement and is more compliant with offloading. Wound size has decreased to 6.4 x 1.9 x 0.5 cm with healthy, re-epithelializing wound edges.

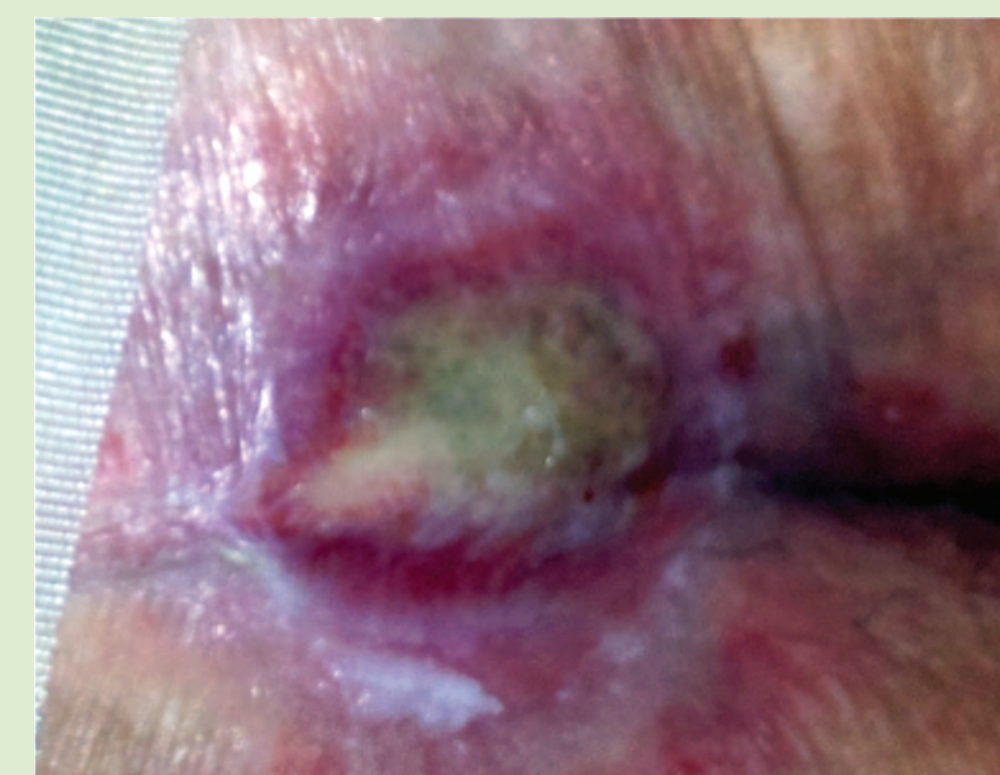


## CASE 2: AUTOLYTIC DEBRIDEMENT IN CHRONIC SACRAL PRESSURE ULCER

45-year-old male with unstageable recurrent pressure ulcer covered in tenacious yellow slough. Patient has leukemia and a coagulation defect requiring anticoagulant therapy. Past history includes obesity, gastric bypass surgery, chemotherapy and stem cell transplant requiring steroid therapy, pulmonary emboli, and respiratory failure.

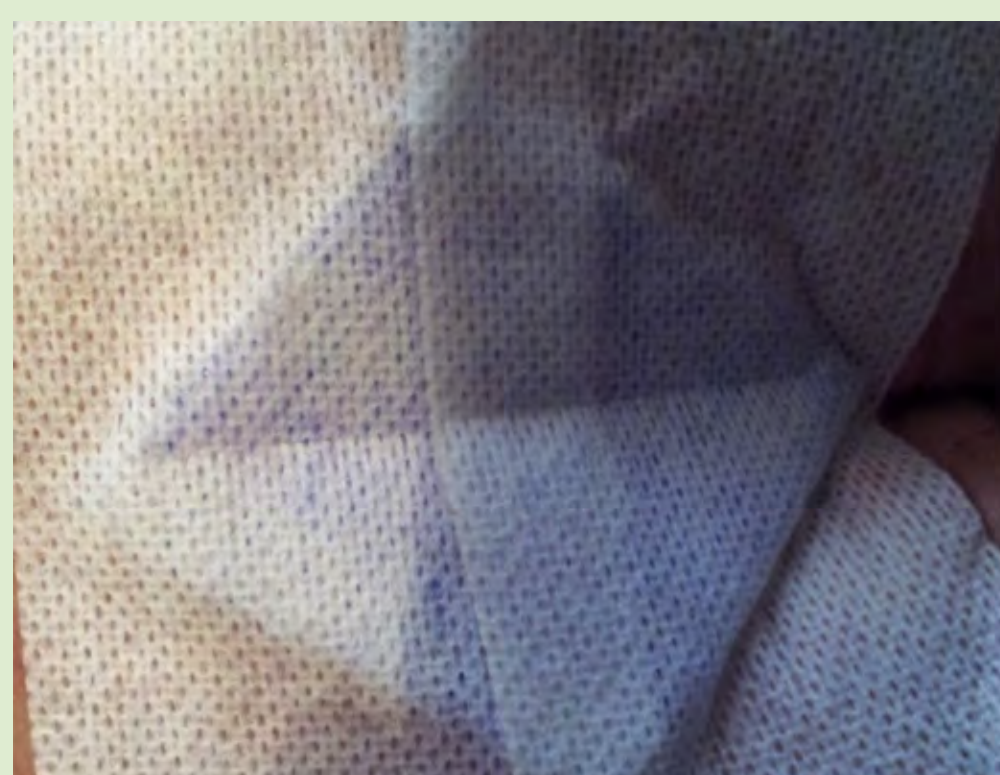
### A. Day 0.

Chronic, unstageable pressure ulcer of one year duration is 95% covered with tenacious yellow slough. Wound measures 2.5 x 2.0 x 0.2 cm.



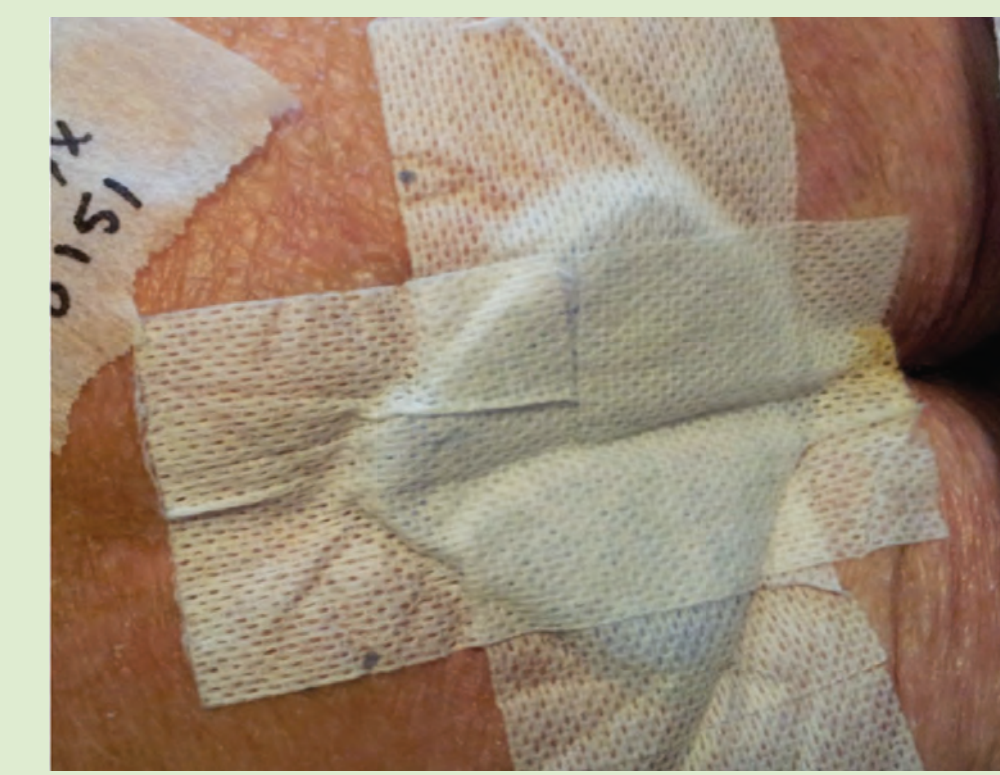
### B. Day 0.

Self-adaptive advanced wound dressing is applied and secured with dressing retention tape.



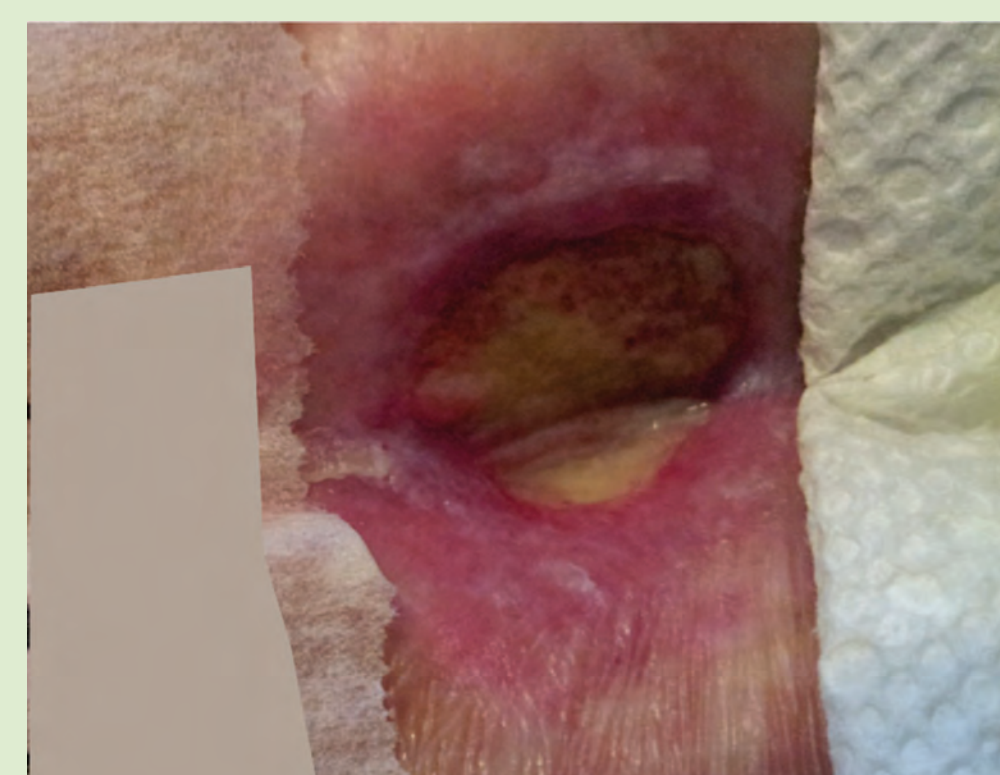
### C. Day 17.

Dressing prior to removal. Dressing appears to maintain good contact with wound bed throughout treatment.



### D. Day 17.

Notably thinner layer of slough. Wound dimensions have decreased to 1.9 x 1.4 x 0.2 cm. Autolytic debridement and re-epithelialization occur simultaneously.



## DRESSING PERINEAL AREA WITH SELF-ADAPTIVE ADVANCED WOUND DRESSING

### A.

Wound is irrigated with normal saline. Self-adaptive dressing is placed over entire surface of the ulcer, overlapping at least 2 to 3 cm onto intact skin. Largest overlap should occur over the lowest expected path of exudate flow.



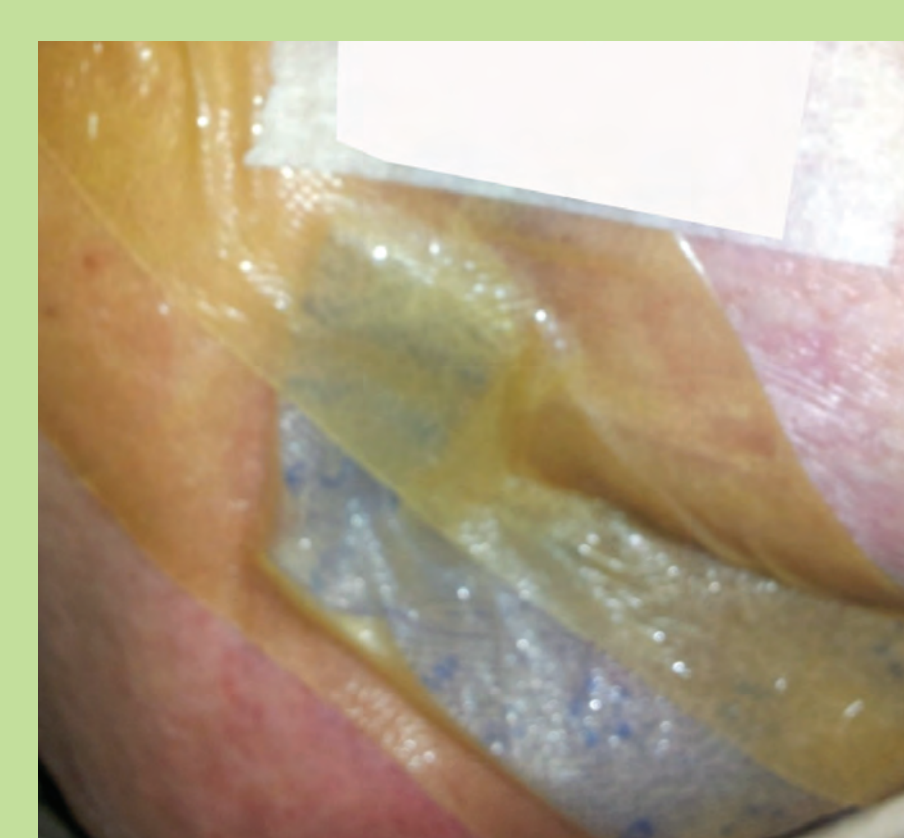
### C.

Prior to dressing change, the dressing is heavy and full of exudate, but does not express fluid back into the wound.



### B.

Dead space over self-adaptive dressing is filled with a hydrofiber dressing to help maintain dressing contact with the wound surface. Dressings are then covered with a thin hydrocolloid. Hydrocolloid is used in this case because of patient's sensitivity to tape and transparent dressing.



### D.

Dressing removal is painless and non-traumatic.



## RESULTS:

- The patients' emotional state and general quality of life greatly improved with the dressings, motivating patients to be more compliant with offloading, re-positioning and other treatment modalities.
- Self-adaptive dressings demonstrated superior drainage absorption and retention properties of pressure ulcer exudate, compared to all previously tried dressings.
- Whereas excessive drainage loosened previously tried dressings in the vaginal area, self-adaptive dressings remained securely in place with no leakage.
- Drainage was reduced and contained with the dressings.
- Slough was reduced in all ulcers with use of self-adaptive dressing application.
- All ulcer dimensions decreased over time.
- Use of self-adaptive dressings decreased dressing change frequency for each ulcer.
- Wounds remained free of wound surface desiccation and peri-wound maceration during use of self-adaptive dressings.

## CONCLUSIONS:

- Self-adaptive dressings were effective in controlling drainage and reducing wound size.
- Self-adaptive dressing increases comfort and improves emotional state for palliative care patients with pressure ulcers in this series.
- Autolytic debridement may be achieved with self-adaptive dressings in pressure ulcers.
- Self-adaptive dressings may be favored by home care patients with pressure ulcers seeking improved drainage absorption and retention capabilities, even during times of limited off-loading and re-positioning.

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