

Reduced Visits and Improved Results on Chronic Wounds using Active Fluid Management Dressings

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BACKGROUND

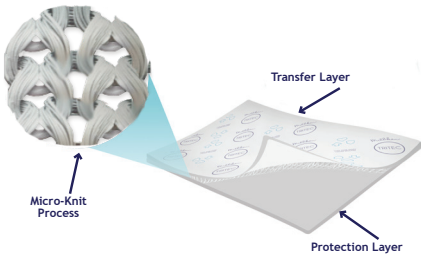
Socioeconomic factors (e.g. income level and quality of health insurance) have been shown to impact access to wound care and compliance with standard of care treatment protocols.^{1,2} More specifically, treatment visit frequency is often dictated by ability to make co-payments, secure transportation and get time off from work. This often leads to being unable to adhere to the high frequency of treatment visits needed to effectively resolve complex chronic wounds.

OBJECTIVES

Wound care treatment protocols across Allegheny General Hospital (AGH) include up to three dressing change visits per week for lower extremity wounds with high levels of exudate. Often, patients request a reduced number of visits. Therefore, the AGH wound care team evaluated a unique dressing with Active Fluid Management (AFM) technology to determine if visit frequency could be reduced by the ability of the AFM technology to manage moisture for extended periods of time.

METHODS

Patients with highly exudative lower extremity wounds who requested fewer visits were reduced to one visit per week and dressing protocol was changed from alginates, foams, and other traditional dressings to a dressing with AFM technology. The study dressing consists of a bi-component textile engineered to move exudate through the **Protection Layer** to the **Transfer Layer**, where it is spread across the entire dressing and transferred into a secondary, disposable, absorbent dressing. The **Micro-Knit Process** creates high surface area yarn entanglements with capillary action that pulls excess moisture up and away from the wound bed, preserving optimal moisture for wound healing while protecting the healthy periwound skin.

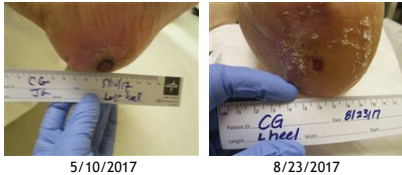


CASE STUDY 1



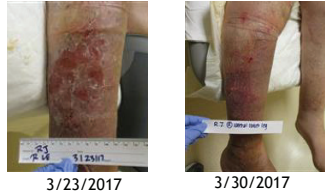
- **Patient:** 62 year-old female h/o CHF, HTN, venous insufficiency, morbidly obese, type II diabetes, arthritis, lymphedema
- **Wound Type:** Non-healing VLU on left posterior calf
- **Previous Treatment:** Inconsistent use of custom compression garments or pneumatic compression pump with two times per week treatment visits for six weeks prior to this study.
- **New Treatment:** The patient was admitted to the hospital with acute CHF and upon returning to outpatient care requested to reduce visits to one time per week due to transportation issues and cost of parking. The dressing protocol was switched to AFM technology, 2 ABD pads, 2-layer compression, and elevation.
- **Outcome:** The wound closed in <10 weeks with one treatment visit per week.

CASE STUDY 2



- **Patient:** 57 year-old female h/o HTN, type II diabetes, neuropathy, and Charcot arthropathy.
- **Wound Type:** Multiple surgical debridements for left calcaneus osteomyelitis potentially requiring a transtibial amputation.
- **Previous Treatment:** Wound previously closed following 7 months of NPWT with 3 times per week treatment visits. When the wound returned, patient requested treatment visits 1 time per week due to transportation issues and experienced a cycle of improvement and deterioration with consistent difficulty managing wound exudate with NPWT.
- **New Treatment:** Dressing protocol was switched to AFM technology, a bordered foam, pressure relief with a modified shoe, limited weight bearing activity, and continued weekly visits.
- **Outcome:** The wound is progressing toward closure. At the time of publication this patient is still in treatment.

CASE STUDY 3



- **Patient:** 62 year-old male h/o HTM, DVT, COPD, PE, arthritis, type II diabetes, Lyme disease, psoriasis, venous insufficiency.
- **Wound Type:** Recurrent right lateral calf VLU
- **Previous Treatment:** Inconsistent use of RTW compression garments with treatment visits up to three times per week. Patient requested weekly visits due to financial concerns and was dressed with a traditional absorbent dressing and 2-layer compression wrap which led to blistering.
- **New Treatment:** A dressing with AFM technology was used with an ABD pad and 2-layer compression wrap.
- **Outcome:** The wound closed in <2 weeks with one treatment visit per week.

RESULTS

After reducing visit frequency to one time per week and switching to the AFM dressing, all patients saw improved wound healing and were pleased to have their socioeconomic needs met. Two of the three patients progressed to full wound closure, while the third saw improved moisture management with less periwound maceration and is still in treatment.

CONCLUSION

All patients demonstrated wound healing progress with traditional dressings and 3x/week treatment visits. With the addition of AFM technology, accelerated progress was observed for all wounds indicating that managing wounds with an AFM dressing with 1x/week treatment visits results in a lower socioeconomic burden on the patient and potentially improved wound healing rates. More research is needed to understand the correlation of dressing change frequency, AFM dressings, and wound healing rates.

References

1. Johnson M. Patient characteristics and environmental factors in leg ulcer healing. J. Wound Care. 1995 June; 4(6):277-82
2. Pieper B. Vulnerable Population: Considerations for Wound Care. OWM. vol 55, no 5, May 2009.



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