

# Improved Exudate Control Utilizing Advanced Moisture Management Dressings for Diabetic Foot Limb Salvage, Surgical and Post-Operative Wounds

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## BACKGROUND

Surgical wounds closed with sutures or staples<sup>1</sup> heal by primary intention. Wounds generated from limb salvage surgery often cannot be closed simply by sutures and follow a healing path like that of a chronic wound. These surgical wounds can produce large amounts of drainage which can lead to higher chance for maceration, breakdown to the surrounding skin, and even dehiscence. The wound dressings utilized need to not only manage the exudate but provide protection to the surrounding skin while the wound progresses through the healing cascade.

## METHOD

A case series study was conducted consisting of a 15-patient sampling that underwent potential lower limb-saving surgery, such as flaps, wound closure, and digit/partial foot amputation requiring drainage control.

An advanced moisture management dressing\* was utilized as the primary dressing for exudate control and protection to the periwound. The technology† within the dressing wicks away excess exudate while maintaining a moist wound environment.<sup>2</sup>

Following sharp surgical debridement and wound bed preparation, the moisture management dressings were applied to the wound and multi-layer compression\*\* was used when clinically necessary.

Dressing change frequency varied based on drainage levels from once a week (low) to upwards of three times per week (high). The wounds were examined for exudate amount, quality of the wound bed/peri-wound, overall patient comfort, and ease of use.

## RESULTS - CASE EXAMPLE #1

- 56 y/o AAF with raging gas forming infection in a chronic non-healing diabetic foot ulcer. Was Initially recommended for Right BKA.
- Emergently taken to OR for Right great toe amputation, partial first ray amputation with wide excisional debridement - Copious amounts of drainage.
- Xenograft application on 07/27/2020 with non-adherent dressing and moisture management dressing\* usage for exudate control.
- Wound fully healed on 12/31/2021.



## RESULTS - CASE EXAMPLE #2

- 56 y/o AAM with wet gangrene in both feet for >3 months. Underwent Right foot open TMA, Left foot open TMA of the “gangrene slippers”.
- **Right:** Packed with packing strips, non-adherent gauze and moisture management dressing\*. **Left:** non-adherent primary dressing and two (2) moisture management dressings\*.
- Xenograft application on 02/19/2021 with non-adherent dressing and moisture management dressing\* usage for exudate control.
- **Right:** Wound progressed towards fully healed. **Left:** Wound continues to contract and progress towards healing with continued moisture control from the dressings.



## CONCLUSION

The advanced moisture management dressings were able to handle the varying drainage levels while still maintaining an optimal environment at the wound and peri-wound skin.

Patients were adherent and overall wound outcomes improved with this course of treatment.

Exudate levels managed with this moisture management dressing coupled with standard and advanced wound care treatment protocols, including serial sharp wound debridement and edema control, showed promising results in advancing wound healing in these very complex limb salvage cases.

## FOOTNOTES

Milliken Healthcare Products, LLC, Spartanburg, SC:  
†Active Fluid Management Technology  
\*TRITEC Silver, ULTRA Silver, ULTRA, ULTRA Border, AGILE  
\*\*CoFlex TLC two-layer compression

## REFERENCES

1. Dumville JC, Gray TA, Walter CJ, et al. Dressings for the prevention of surgical site infection. Cochrane Database Syst Rev. 2016;12(12):CD003091. Published 2016 Dec 20. doi:10.1002/14651858.CD003091.pub4
2. Okan et al. The role of moisture balance in wound healing. Adv. in Skin and Wound Care 2007; 20:39-53