

# Use of Gentian Violet and Methylene Blue antibacterial foam dressings on various wound types in the acute care setting.

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## Objective:

To present clinical cases on the use of gentian violet and methylene blue (GVMB) antibacterial foam dressings on various wound types in an acute care setting.

## Method and materials:

Various wound types were managed with either a GVMB polyvinyl alcohol (PVA) or polyurethane (PU) antibacterial foam dressing. Frequency and method of dressing changes were performed as per product labeling instructions.

## Abstract:

With the emergence of advanced technologies, we have a wide diversity of wound care products available in the market. Given so many choices, determining which product to use and when can be a challenge. As health care providers, we should have a better understanding of patient's overall health condition, wound physiology, and how to manage local wound care to be able to find the best option for the patient.

In the acute care setting, patient's present with various wound types such as surgical, trauma, venous leg ulcers, pressure ulcers, atypical ulcers and more. In this case series, we utilized GVMB antibacterial foams as a part of the plan to address debridement, bioburden management and moisture balance.<sup>1,3</sup> GVMB antibacterial foam dressings come in 2 forms: Both foams are absorptive and effective against a wide spectrum of microorganisms typically found in wounds. An article recently published, suggested the GVMB polyvinyl alcohol (PVA) antibacterial foam dressing does aid in autolytic debridement.<sup>2</sup> GVMB antibacterial foam dressings cost less than silver dressings, is easy to use, and patients are able to continue the treatment to a home care setting in some cases. In addition, GVMB antibacterial foam has no known cytotoxic effects.

## Conclusion:

Understanding wound dressing characteristics will enable clinicians to manage local wound care appropriately. We were able to utilize GVMB antibacterial foam dressings as part of the plan of care on various wound types in the acute care setting and address some of the key components in local wound care.

## Case Study 1: Surgical post graft with fistula

Patient: 54 year-old male with end stage liver disease

### Past medical history:

- Liver transplant approximately 1 year ago
- Post-op complications include: malnutrition, wound infection, and fistula

### Previous treatment:

- Silver foam dressings, debridement

### Wound treatment:

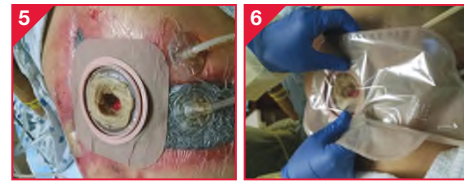
- Cellular tissue base product (CTP) applied with negative pressure wound therapy (NPWT) for 5 days.
- WOC was consulted for fistula management weekly.



Initial wound

Wound measurement: 12.0 cm x 19.0 cm

Wound description: Due to leakage from the fistula, CTP did not fully incorporate.



Day 0

Wound management: Ovine collagen extracellular matrix (CEEM) applied and covered with non-adherent dressing. (Images 1 & 2) Stoma adhesive paste and convex ring applied around the fistula site. NPWT applied over CEEM. (Images 3-6)



Day 5  
Wound measurement:  
7.5 cm x 20.0 cm



Day 7  
Wound description: Healthy granulating wound bed.



Day 20  
Wound management: Autologous thickness skin graft applied with NPWT for 4 days.

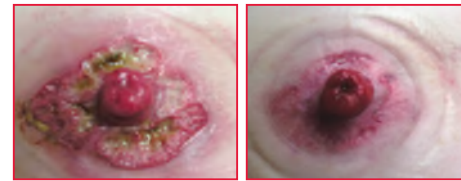


Day 24  
Wound management: NPWT discontinued. GVMB PU antibacterial foam dressing applied over graft site.

Patient continued to progress well and was taught how to address wound care and pouching the fistula. Patient was discharged to home on day 41 with same wound care treatment until he was able to undergo surgical repair of the fistula.

## Case Study 2: Pyoderma Gangrenosum on peristomal area

Elderly patient complained of burning and itching under pouch with problems of leakage.

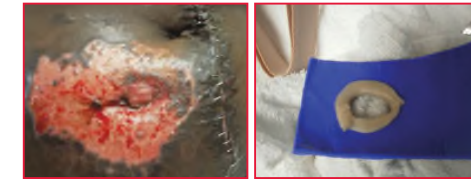


Week 0  
Wound management: Started on steroid pack. GVMB PVA antibacterial foam ostomy dressing. Dressings changed 2 times per week and a 2 piece ostomy appliance was used.



Week 3  
Wound description:  
100% re-epithelialized

## Case Study 3: Severely denuded skin with recessed stoma



### Wound management: (Application only images)

- GVMB PVA antibacterial foam dressing with moisture retentive film applied over denuded skin with stoma paste on the cut out opening
- One piece convex barrier drainable pouch over GVMB PVA antibacterial foam dressing and secured with ostomy belt.

## Case Study 4:

Patient: 58 year-old with cerebral palsy admitted with unstageable pressure ulcer to the right shoulder, right trochanter and left forearm as a result of traumatic fall and lying on the floor for approximately 2 days.

### Previous treatment:

- Hydrogel for 2 weeks at skilled nursing facility prior to acute care admission for respiratory problem.



Day 0

### Wound description:

Wound covered with 80% yellow slough and 20% hypergranulation noted. GVMB PU antibacterial foam dressing applied.



Day 6

Wound description: Wound size reduced. Slough reduced to 40% with 60% beefy red granulation tissues. Patient was discharged home.

## REFERENCES

1. Sibbald, R. Gary, Liza Ovington, and Laurie Goodman. "Wound Bed Preparation 2014 Update: Management of Critical Colonization with a Gentian Violet and Methylene Blue Absorbent Antibacterial Dressing and Elevated Levels of Matrix Metalloproteinases with an Ovine Collagen Extracellular Matrix Dressing." *Advances in Skin and Wound Care: The International Journal of Prevention and Healing* 3 Suppl 1: 27 (2014): 1-6.
2. Applewhite, A. Gentian Violet and Methylene Blue Polyvinyl Alcohol Antibacterial Foam Dressing as a Viable Form of Autolytic Debridement in the Wound Bed. *Surgical Technology International XXVI*
3. Edwards K. New twist on an old favorite: gentian violet and methylene blue antibacterial foams. *Advances in Wound Care* 2016; 5: 1, 11-18.

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