

## INTRODUCTION

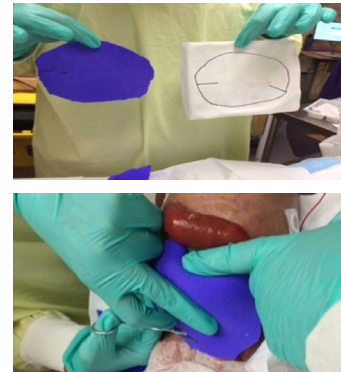
- Neonatal wound care often presents unique challenges, especially for those born under 26 weeks of gestational age or under 800 grams, often referred to as "micro-preemies".
- In the United States approximately 18,000 to 19,000 micro-preemies are born annually, representing 0.46% of all live births (McGarrah, 2015).
- Due to risks of absorption and potential toxic overdose, wound care products containing iodine, silver and calcium must be used with caution.



## CASE

- BB was born at 24 weeks. He had an ileal perforation at 9 days of life, leading to the creation of an ileostomy and mucous fistula. At 38 days of life he developed a second perforation.
- The surgical team was unable to close his abdomen and therefore it was left open with a silo (clear sheath of silicone that protects the exposed intestines). After 11 days, with the silo leaking, he was becoming septic.
- The surgical team requested an alternative treatment plan to allow the bowel to heal over by secondary intention.
- The Enterostomal Therapy Nurse (ET) had previously cleared the use of gentian violet / methylene blue polyvinyl alcohol (GV/MB PVA) antibacterial foam for this population with the neonatal pharmacists. The foam was deemed appropriate because it avoids depositing chemicals onto the skin, limiting the risk of absorption.
- The ET suggested the application of the GV/MB PVA foam over the fascia

## TREATMENT PLAN



1. The bowel was first covered in a hydrogel to keep the area moist, then the dressing was cut to fit and applied over the fascia. A tracer was provided so that other care providers would have a guide



2. An ostomy protective sheet was applied to secure the dressing, ensuring that the skin between the wound and stoma was covered.



3. The dressing was easily applied to the abdomen in three pieces, proximal, distal and midline to the wound, as well as added protection at base of the stoma.



4. An ostomy ring was applied to protect the peristomal skin.



5. Due to the changing size of the stoma, at times a pediatric pouch could be applied, and at times the stoma was so large that an adult fistula pouch was applied.



6. We carefully ensured that the sides of the pouch were secure to prevent stool from leaking into the wound.



7. A pediatric ostomy wafer was applied to protect the skin around the mucus fistula from leaks from the wound or from the re-feeding.



8. A foam dressing was applied over the mucous fistula to absorb any exudate from the site.



9. The dressing was covered with rolled gauze for added support to the bowel.



## RESULTS

- The GV/MB PVA dressing and pouch were changed every 3 days. No leaks were noted.
- Within seven days the exposed bowel was covered with granulation tissue and there was advancing epithelium.
- Over the following weeks the wound size continued to decrease. This final photo was 1 month into the treatment plan.



## CONCLUSION

This case describes the successful use of a GV/MB PVA foam for a micro-preemie's open abdominal wound. Each patient will present with unique challenges and dressing selections should always be tailored to fit the patient's needs.

## REFERENCES

McGarrah B. Using Negative Pressure Therapy for Wound Healing in the Extremely Low-Birth-Weight Infant (Micropreemie). *J Wound Ostomy Continence Nurs.* 2015 Jul-Aug;42(4):409-12.

## ACKNOWLEDGMENTS

Dr. Karen Bailey and Dr. Yasser Alfraih for providing photos and adapting this patient's original dressing care plan into a user guide which has been further expanded upon for this poster, and Hollister Limited for their support in the creation of this poster.

Note some images shown with ostomy model when images of BB were not available to show a specific part of the care plan.