

# Use of a Ceramide Infused Ostomy Barrier in Neonates

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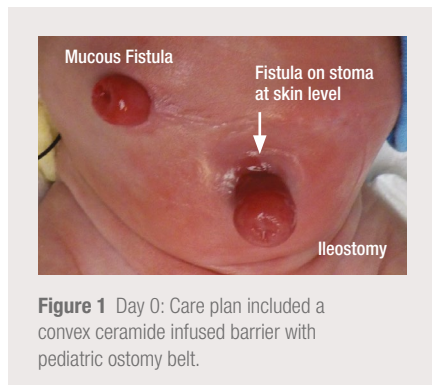
## Statement of Clinical Problem

- Patients in the neonatal intensive care unit (NICU) present with a range of needs and complexities for ostomy management.
- Pouching wear time may be impacted by factors including stool consistency, stomal fistulae and peristomal moisture associated skin damage (PMASD). Acceptable barrier and pouch wear time varies from 12 to 48 hours.<sup>1</sup>
- A high frequency of pouch changes can adversely affect a baby's quality of life and overall development. Leakage of effluent may increase the risk of wound complications.<sup>2</sup>
- Products used on this patient population must be selected in consideration of the immature epidermal barrier as there is a greater transepidermal water loss (TEWL) and greater absorption of the ingredients in topically applied products through the skin.<sup>3</sup>
- A case series on three patients was performed to evaluate wear time and skin health using ceramide infused skin barriers (CeraPlus™ Products\*) on neonatal patients with peristomal moisture associated skin damage (PMASD).

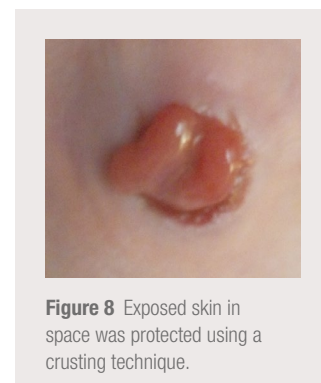
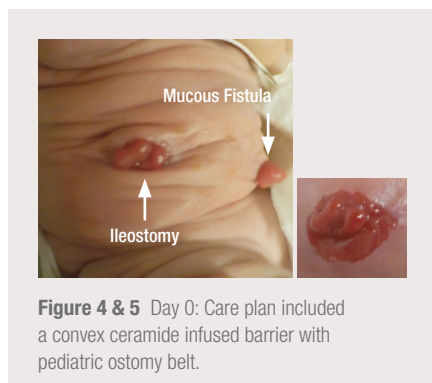
## Description of Past Management

A wear time of 2–12 hours was being obtained on three neonates. Use of accessory products, including paste and rings, with traditional standard wear neonatal ostomy products were not able to improve these wear times.

### Case Study 1 – Eight week old baby with Necrotising Enterocolitis



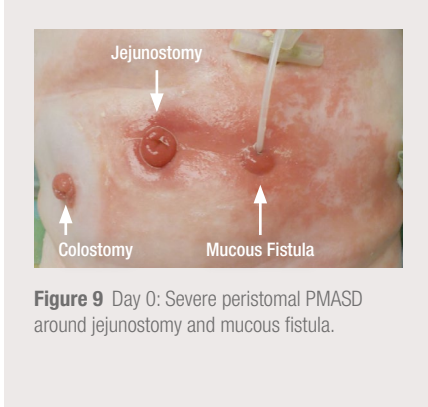
### Case Study 2 – Eight week old baby with Necrotising Enterocolitis



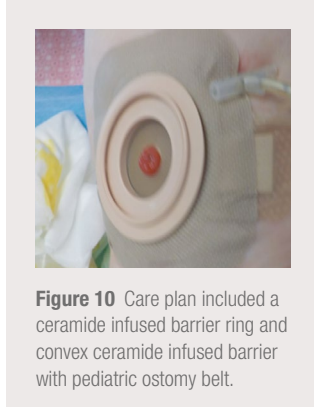
## LEVEL OF EVIDENCE - CASE STUDY

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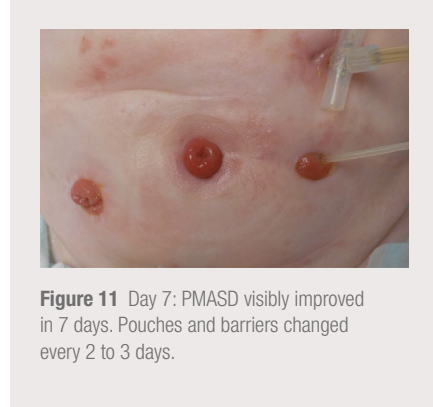
### Case Study 3 – Twelve week old baby with Volvulus



**Figure 9** Day 0: Severe peristomal PMASD around jejunostomy and mucous fistula.



**Figure 10** Care plan included a ceramide infused barrier ring and convex ceramide infused barrier with pediatric ostomy belt.



**Figure 11** Day 7: PMASD visibly improved in 7 days. Pouches and barriers changed every 2 to 3 days.

### Current Clinical Approach

In consultation with the NICU pharmacist, the detailed ingredient list for an extended wear skin barrier infused with ceramide was reviewed. Finding no known product ingredients of concern, approval was obtained to use the CeraPlus™ skin barriers and Adapt CeraRing™ barrier rings.

All babies were over 30 days of life when ceramide infused barriers were applied.

### Patient Outcomes

Pouching wear times increased from less than 12 hours to 3–7 days and PMASD cases were reduced or resolved for each baby.

No adverse skin reactions were noted on the babies after use of CeraPlus™ Products and ceramide infused accessories.

### Conclusion

These cases indicate the use of CeraPlus™ skin barriers and accessories in the overall care management plan increased barrier wear time and a visual improvement in peristomal skin health was observed.

As with all patient care, individual clinical judgement, assessment, and patient response must be applied to treatment choices.



To learn more about CeraPlus™ Products, click here or scan the QR code



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### References

1. Brunette G. *Novel Pouching Techniques for the Neonate With Fecal Ostomies*. J Wound Ostomy Continence Nurs. 2017 Nov/Dec;44(6):589-594.
2. Lockhat A, Kemaleguyen G, Dicken BJ, Van Manen M. *Factors associated with neonatal ostomy complications*. J Pediatr Surg. 2016 Jul;51(7):1135-7.
3. Wound, Ostomy and Continence Nurses Society. (2011). *Pediatric Ostomy Care: Best Practice for Clinicians*. Mount Laurel, NJ.



\*Contains the Remois Technology of Alcare Co., Ltd.

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Disclaimer: This case study represents this nurse's experience in using the CeraPlus™ skin barriers and Adapt CeraRings with the named patient, the exact results and experience will be unique and individual to each person.

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