

# A Journey to Achieve Skin Health

## Case Study

### Abstract:

This case study follows the twenty-one-day journey of a person with a newly formed stoma suffering from peristomal moisture-associated skin damage (PMASD) from ill-fitting pouching systems and retraction of his stoma. He reported itching and faecal leakage, necessitating a community based Stomal Therapy Nurse (STN) review. This case study will demonstrate how correct stoma assessment in conjunction with appropriate product selection can provide swift improvement to a person's skin condition and provide positive impacts on their quality of life.

### Background:

Joe (name changed to protect privacy) is an eighty-one-year-old gentleman who underwent the formation of a loop colostomy for rectal carcinoma via laparotomy. He was discharged with a two-piece convexity standard wear hydrocolloid ostomy system, with standard wear barrier ring and stoma powder. Initially he reported no problems and with the assistance of community nurses was able to manage the stoma effectively.

Over time, as the stoma decreased in size, peristomal irritation became apparent and extended beyond the immediate peristomal area. The community registered nurse requested review by a Stomal Therapy Nurse.

### Medical & Surgical History:

Joe has a past medical history of hypertension, vision impairment, osteoarthritis, appendectomy and gout. He lives in his own home with his supportive wife and their daughters living nearby. He and his wife receive domestic and personal care assistance through Commonwealth funded community health support services.

Joe underwent a laparotomy, division of adhesions, and formation of loop colostomy, and was discharged after a standard eleven-day hospital stay under the care of his wife. He and his wife both received stomal therapy education during his hospital stay. Joe was referred to community nursing service for ongoing stomal therapy education and management.

### Nursing Assessment:

**Day 1:** A stomal therapy review was first conducted in the client's home at the request of a community registered nurse. Client consent was obtained for stoma photography and use in case study. Joe had not yet returned to hospital for his follow-up appointment with the stomal therapy nurse and some days had elapsed since discharge. He reported some itching to his immediate and outer peristomal skin, with occasional faecal leakage. His stoma depending on his positions was noted to be retracted to flush and slightly below the skin.

Joe was suffering from PMASD<sup>1</sup> where his skin had visually significant peristomal burning and erosion, with a clear demarcation from his original pouching system adhesive that extended to the outside of the hydrocolloid base. His stoma had shrunk significantly since discharge from hospital and the stoma products provided on discharge were too large by approximately 10mm. There was some marking and small areas of scabbing noted to distal peristomal skin also present outside range of hydrocolloid adhesive. (See *Figure 1*) Additionally, his output was frequently continuous liquid output that slightly thickened on occasion.

### Intervention:

The cause of Joe's PMASD was deemed likely to be the retraction of his stoma combined with an ill-fitting pouching system and a delay in post-operative follow up.<sup>2</sup> It is to be noted that most peristomal skin complications occur within the first ninety-days of surgery,<sup>3</sup> and therefore the delay in follow up care provision may have also been a contributing factor. Peristomal skin complications also have a significantly negative impact on an ostomate's quality of life as leaking, irritation due to ill-fitting or inappropriate appliances prevents social engagement and interaction.<sup>4</sup>

*continued on back*



**Figure 1** Stoma and Peristomal Skin at Day 1 Assessment



**Figure 2** Day 7 – Skin condition post application of the CeraPlus skin barrier.



**Figure 3** Day 14 – Skin deterioration two days following return to his original pouching system.



**Figure 4** Day 21 – Return to using CeraPlus skin barrier. Outer peristomal skin clear and visually improved.

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There was a discussion with Joe regarding changing to a CeraPlus skin barrier with Remois Technology\*, two-piece system, following an explanation of the documented benefits of ceramide infused skin barriers. This being largely assisting to provide a waterproof protective barrier for the skin thereby maintaining hydration, with reports of symptomatic itching relief associated with dry skin.<sup>5</sup> Joe was agreeable to evaluate and sample products of Adapt CeraRing barrier ring (slim), CeraPlus convex skin barriers, and corresponding pouches were procured from Hollister.

### Outcomes:

**Day 7:** Within seven days post-application of the CeraPlus skin barrier, Joe's skin had visually improved to almost clear. He reported that his itching had completely gone and that the new product was both more comfortable to wear and the skin barrier had ceased leaking, thereby reducing skin erosion.<sup>2</sup> He also preferred the feeling of the tape border over the non-tape.

**Clinical observations:** Visually, his peristomal skin had improved dramatically. Erythema at the outer peristomal skin had resolved, and the marking and scabbing to distal peristomal skin had gone. His immediate peristomal skin remained slightly reddened but no longer broken and eroded. (See Figure 2)

**Day 12:** Unfortunately, due to supplier error from the product distribution point, incompatible products were sent to Joe and he had to return to the originally prescribed product that he had been sent home with upon discharge.

**Day 14:** In the immediate two days after reapplication of the original standard hydrocolloid product, the client's unsatisfactory experience of both the itch and peristomal irritation returned. Visually his immediate peristomal skin had eroded and re-broken and the distal peristomal skin was noted to be dimpled. He had marginal tracking of erythema into the outer peristomal skin at approximately nine o'clock on his stoma. (See Figure 3)

**Day 19:** As soon as his new products were again available, Joe returned to using the revised pouching system with immediate visual improvement in his outer peristomal skin.

**Day 21:** Within days, visual benefits to the outer peristomal skin were noted. These benefits were evident almost as immediately as the first application, with signs of skin improvement just as convincing. Joe's satisfaction returned. Clinically, the skin dimpling was noted to have dissipated and the erythema on both the outer peristomal skin and under the skin barrier had cleared. (See Figure 4) Of note, also during this time of change, Joe also had the complicating factor of commencing radiation therapy resulting in a grey, sludgy and very corrosive output which resulted in burning to his immediate peristomal skin.

### Conclusion:

This case study describes a twenty-one-day journey of Joe's during which time he was changed from a standard hydrocolloid product to the CeraPlus skin barrier, a barrier infused with ceramides. From a clinical perspective, changing Joe's pouching system showed great visual improvement to his peristomal skin. These improvements were observed quickly following initial application, and then replicated after a recurring breakdown of the peristomal skin following an unfortunate return to the standard skin barrier.

Joe's satisfaction with the CeraPlus skin barrier was also high and he reported no itching, leaking, or irritation when using the new pouching system. He expressed that the product enabled him to participate in daily activities and enhance his quality of life. Joe genuinely felt confident with the benefits CeraPlus skin barriers provided him.

### References

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\*Remois is a technology of Alcare Co., Ltd.

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