

# Quality of Life Case Study Using TRE Technology

## Kelly Vickers, Stomal Therapy Nurse (STN), Lyell McEwin Hospital & Modbury Hospital, South Australia

*This case study represents my experience in using Dansac NovaLife TRE soft convex barrier and seal with this specific patient and may not necessarily be replicated.*

### Introduction

This case outlines the management of peristomal faecal irritant dermatitis encountered post-operatively by a patient with a high output ileostomy. It was important to not just manage the damaged skin, but maintain a healthy skin environment thereafter, while promoting patient independence, satisfaction and confidence as part of an overall care plan.

### Patient Overview

The patient is a 67-year-old married man admitted to hospital with terminal ileitis and a complete obstructive stricture from active Crohn's disease. He was diagnosed with Crohn's disease more than 30 years ago requiring an ileocolic resection followed by long-term prednisolone treatment, but he had not been reviewed by any inflammatory bowel disease clinic for the last 10 years. After unsuccessful conservative management for the obstruction with no improvement, the patient required surgery and underwent another ileocolic resection and formation of an end ileostomy.

His post-operative recovery was complicated from chronically high stoma output of 1.5-3L/day, intra-abdominal collection, hypovolaemic shock, deranged liver function tests (LFTs) and electrolytes, acute kidney injury and multiple readmissions into hospital.

### Actions

During one of the patient's readmissions, his stoma was reviewed by the Stomal Therapy Nurse (STN) as he reported painful peristomal skin. On review, he had developed a large painful raised pseudoverrucous lesion from 3 from 9 o'clock with peristomal erosion extending outwards 1.5–2 cm (See Figure 1). This damage to the peristomal skin was caused by faecal irritant dermatitis secondary to the patient cutting the bag opening too large for the stoma size.<sup>1</sup>

**A pseudoverrucous lesion** is a growth of benign papules that occur around a stoma from prolonged exposure and irritation from liquid faeces or urine. The skin's inflammatory response to the irritant causes thickening and elevation of the skin around the stoma (Carmel et al, 2016).<sup>1</sup>

The STN suggested that the patient evaluate the small mouldable Dansac TRE seal, with a NovaLife TRE soft convex, one-piece drainable pouch, pre-cut to 30mm, as it was felt that the TRE

pH buffering technology might assist with managing the skin-damaging effects of digestive enzyme activity from his stoma output. The digestive enzymes from his high output ileostomy had attacked and changed the peristomal skin's natural environment. Application of TRE technology was aimed to protect the skin from any further exposure to changes in pH, absorption of excess moisture from both his skin and stoma output, and maintain a healthy skin environment.

### Results

Within 24–48 hours of applying the Dansac TRE seal and the soft convex pouch, the patient expressed a significant reduction in the peristomal skin discomfort he had been experiencing. This relief was a significant step forward in improving his mood and outlook, as he was still dealing with the complications of a high output stoma, hypokalaemia and hypomagnesaemia. He had remained an inpatient and was prescribed the maximum daily doses of loperamide, codeine, and stool bulking agents (fibre), as well as St Mark's solution.

The patient forgot when his pouching system change was due and ended up leaving the both seal and pouch on for five days without experiencing any loss of adhesion or discomfort. Although his original peristomal skin problems had started to resolve, he had developed macerated peristomal skin around the stoma. It was felt that leaving his pouch on for too long a period coupled with a high output stoma, had caused this maceration. (See Figure 2)

**Benbow (2007)<sup>2</sup>** describes maceration as soft moist skin that appears water logged and whiter in colour. More frequent appliance changes may be required to manage peristomal skin maceration.



Figure 1: Skin condition prior to evaluating the Dansac TRE seal and NovaLife TRE soft convex pouch.



Figure 2: Visible maceration after accidentally leaving his pouching system intact for five days

At the next pouch change, a 30mm pre-cut Dansac TRE seal was applied with the NovaLife TRE soft convex drainable pouch as the patient stated the pre-cut seal would be easier for him to apply. The patient was also re-educated to change his pouch system every 2-3 days. He was a vague historian and struggled to remember the days his pouch was changed, so the STN and nursing staff initiated reminders for the patient to ensure the bag was not in place for any longer than 3 days.

A week later, the patient's peristomal skin issue had almost completely visually resolved. (See Figure 3). What was observed on the NovaLife TRE barrier was areas of high moisture absorption visible by its' whiter, speckled appearance and the swelling of the seal. (See Figure 4)

The patient's ileostomy was reversed three months after his ileocolic resection, and he spent 84% of those three months in hospital with complications from chronic high stoma output, and deranged electrolytes. He continued to use these products until his reversal, maintaining a healthy peristomal skin environment with no further complications, leakage or loss of adhesion with this pouching system, as well maintaining complete independence with his stoma care.

Being admitted to hospital for such an extensive period meant that he lost a degree of control over managing his daily living, socialisation, quality of life, and health care needs. Being able to provide this patient with a stoma management plan that maintained a healthy peristomal skin environment and helped prevent further complications, allowed him to gain complete independence with one aspect of his care – his stoma.

He no longer required such intense involvement from the STNs and was able to self-initiate when his pouching system required changing. The patient praised the product's 'strong opening', 'modern, comfortable feel' and 'the pre-cut seal sizing made application easier'.

### Lessons Learned

- Determine and understand the aetiology of peristomal skin disorders so that the correct interventions can be implemented.
- Be aware that independence for ostomates can impact more than just their physical state.



Figure 3: Skin Condition one week later



Figure 4: Barrier & seal appearance after three days wear time.



Figure 5: Patient's stoma and skin condition prior to reversal

### References:

1. Carmel J, Colwell J, Goldberg M (2016) Wound, Ostomy and Continence Nurses Society Core Curriculum: Ostomy Management. Wolters Kluwer Ch 15.
2. Benbow, B 2007, 'Management of peristomal skin: an update', Nursing in Practice, [www.nursinginpractice.com/management-peristomal-skin-update](http://www.nursinginpractice.com/management-peristomal-skin-update), Accessed June 2020.

**CE** Prior to use, be sure to read the Instructions for Use for information regarding Intended Use, Contraindications, Warnings, Precautions, and Instructions. .

The Dansac logo, NovaLife and TRE are trademarks of Dansac A/S. ©2020 Dansac A/S. AUD091. June 2020.

### About Dansac NovaLife TRE

Living with a stoma does not have to mean accepting peristomal skin complications. Helping the skin around the stoma stay healthy goes a long way in enhancing the quality of people's lives.

The **Dansac NovaLife TRE** ostomy barrier is designed to help keep skin naturally healthy with 3 levels of protection: **Adhesion, Absorption and pH Balance.**

**The best skin is healthy skin.**

**For more information contact your local representative.**



**Stoma  
Skin  
Soul**