Use of Barrier-Impregnated Cloths to Treat Severe Incontinence-Associated Dermatitis: A Case Study

Lynne Lake, RN, BSN, CWOCN; Shawna Philbin, RN, BSN, CWOCN; Terry Hargreaves, RN
Holmes Regional Medical Center, Melbourne, FL

INTRODUCTION

Incontinence is a common condition. One study demonstrated a prevalence rate of nearly 20% among hospital inpatients and that fecal incontinence was more common than urinary incontinence.1 When urine or stool comes in contact with perineal or perigenital skin, the resulting inflammation is known as incontinence-associated dermatitis (IAD).2 IAD increases a patient’s risk of pressure ulcer development, although the etiologies of the 2 conditions are quite different.3-4 Pressure ulcers develop as a result of force exerted over a bony prominence; in contrast, IAD is a skin inflammation that results from contact with an irritant (e.g., urine or feces).4 Factors that are significantly correlated with the development of IAD include fecal incontinence, poor skin condition, poor skin oxygenation, malnourishment and compromised mobility.2

IAD manifests initially as erythema, edema, and occasionally bullae containing a clear exudate; in more severe cases it progresses to erosion or denudation of skin layers and to secondary infection, usually fungal in nature.1,2 Patients may experience general discomfort, itching, burning, or pain in the affected area,4 and patients are at higher risk for developing pressure ulcers. Injury to the skin is considered an indication of quality of care.4 Because of the high costs of treatment and the risk of progression to more severe conditions such as pressure ulcers, prevention of IAD is paramount. Various preventative methods are used, including pH-balanced bathing regimens and the use of barrier creams, ointments, and cloths impregnated with a barrier cream.

PURPOSE

Certain patients with severe IAD did not respond to the usual skin care regimen used in our facility, e.g., generally high-risk patients (Braden<18)5 with moisture control issues (e.g., those using fecal management systems that have some leakage, those with a leaking Foley catheter, and those with pressure ulcer drainage that is not always captured by the dressing). For these patients, the skin often erodes from frequent cleansing, resulting in pain for the patient as well as frustration for the staff.

We decided to alter the skin care regimen for a patient at our facility with the most severe case of IAD with the challenge of substituting barrier cloths instead of our standard protocol of cleansing and barrier creams in order to test the effectiveness of the cloths.

METHODS

The patient chosen had been admitted in October 2008 after a stroke; at that time he was intubated and had a Stage IV pressure ulcer. In January 2009, IAD was diagnosed. By February 2009, he was in a vegetative state and on a ventilator. Prior to the trial, the interventions used included the following:

- Turning every 2 hours
- Cleansing of the affected area every 4 hours or more frequently
- Continuous skin assessment with care provided
- Application of barrier creams every 4 hours and as needed
- Offloading of the heels
- Use of absorbent pads
- Proactive use of containment devices and a low friction support surface
- Use of knee flexion if the head of the bed was elevated >30°
- Increased protein intake
- Increased caloric intake
- Use of supplements as well as a nutrition consult
- Instructions to staff to not massage red or discolored bony prominences

In addition, the hospital had used aggressive incontinence-management methods, including the following:

- A fecal management system (FMS)
- Low-air-loss support system (i.e., total care sport bed)

However, despite these measures, the patient’s skin was constantly exposed to fecal incontinence–related moisture from leakage around the FMS from poor rectal tone with extreme maceration and erosion of the skin. This resulted in a diagnosis of severe IAD (see Figure 1).

RESULTS

The patient’s average Braden5 score during the trial period was 8.大约 one tub of barrier cloths was used every 3 days. The cloths are kept at the patients’ bedside and are available as long as is clinically necessary.

The product saved nursing time with its one-step application to the patient’s skin. The cloths completely regenerated, and had a normal appearance (Figure 2). Surrounding the pressure ulcer was no longer affected by IAD, had been turned, and healed rapidly.

Post-intervention: Patient’s skin is greatly improved and completely healed. The patient no longer has pain in the affected area.

CO N C L US I O N

Use of barrier-impregnated cloths was far more effective than the standard treatment regimen for patients with severe IAD refractory to our standard protocol. The cloths are inexpensive, easy to use, and resulted in less staff time being spent in patient care. The cloths are appropriate for use in patients with severe IAD, and in patients who have some leakage, those with a leaking Foley catheter, and those with moisture control issues (e.g., those using fecal management systems).

REFERENCES


Use of the barrier cloths began on June 5, 2009, and continued until July 2, 2009. Approximately one tub of barrier cloths was used every 3 days. The patient’s average Braden5 score during the trial period was 8.

Drastic improvement was seen within 2 weeks. By July 2, 2009, the skin surrounding the pressure ulcer was no longer affected by IAD, had completely regenerated, and had a normal appearance (Figure 2).

CONCLUSION

Use of barrier-impregnated cloths was far more effective than the standard skin care regimen at resolving severe IAD in a high-risk patient with serious fecal incontinence–related moisture issues. On the basis of the results of this case study, the hospital has incorporated the use of this product into its regimen for patients with severe IAD refractory to our standard protocol. The cloths are kept at the patients’ bedsides and are available as long as is clinically necessary.

CLINICAL IMPLICATIONS

- The product saved nursing time with its one-step application
- Skin regeneration occurred in a timely fashion
- Cost savings were realized because of the elimination of multiple creams and ointments as well as various linens and disposable washcloths
- Patient pain levels were diminished when compared with the original incontinence protocol