USING CONVEXITY IN THE MANAGEMENT OF COMPLEX CLINICAL CHALLENGES

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Purpose

Convexity has been used successfully within ostomy care. As a designated cancer center, the WOC Nurses in our facility are involved in caring for patients with complex clinical needs beyond just ostomy care. The wide variety of challenges requires the creative use of products for the benefit of our patients.

Consultation services are provided for inpatients and outpatients with ostomies, fistulas, draining tube sites and feeding tubes. The intent is to provide innovative options to assist in the containment of drainage, the prevention of skin damage, the enhancement of patient comfort and optimization of nursing time.

One concept we use to create patient solutions is convexity. We have used a variety of products and through the use of Adapt Convex Barrier Rings we have been able to address many of these needs. The following case studies will illustrate the use of convexity in managing complex clinical challenges.

Case Study 1: Enterocutaneous Fistula

A 53-year-old female presented with reddened, denuded, painful skin around an enterocutaneous fistula on her abdomen (Figure 1). She had a history of ovarian cancer with radiation and chemotherapy treatment. When a fistula developed, the patient was using multiple gauze pads to absorb the copious amount of fecal drainage. Protective barrier creams had been applied to her skin but the corrosive drainage, saturated gauzes, and tape contributed to skin damage. The WOC Nurse provided skin care with protective powder and a pouching system consisting of an Adapt Convex Barrier Ring and one-piece urostomy pouch with ostomy belt (Figure 2 and 3).

Figure 1. Enterocutaneous fistula
Case Study 2: Complex Ileostomy

An 80-year-old female with a history of rectal cancer was in a Skilled Nurse Facility and the caregiver stated that the staff used a two-piece flat ostomy pouching systems without success. The pouching system was changed 2-3 times daily causing peristomal skin erosion, extreme pain, and embarrassment due to being “constantly soaked” (Figure 4 and 5). The patient presented with complex skin related symptoms and dehydration. A WOC Nurse was consulted and placed the patient in a two-piece convex 2½” pouching system with an Adapt Convex Barrier Ring and an ostomy belt (Figure 6).

Outcome: Pouching wear time lasted three days with a marked improvement in skin appearance and comfort. The nursing staff was able to measure output and reapply this pouching system.

Case Study 3: Esophageal Fistula

A 56-year-old male with two year history of esophageal cancer, radiation, and chemotherapy developed an esophageal fistula (Figure 7). The patient presented also with depression due to inability to drink and the fact that saliva and phlegm saturated his neck, clothes, and absorptive gauzes. Surgery had bypassed the esophagus from the digestive tract. Gauze dressings were used by staff due to the difficult fistula location on left neck crease. The WOC Nurse provided an Adapt Convex Barrier Ring (Figure 8) and pediatric one-piece pouch to collect drainage and protect skin (Figure 9).

Outcome: As a result of the product changes, the patient had a 4-5 day wear time which allowed for effluent containment, skin protection and comfort.
**Case Study 4: Gastrostomy Tube**

A 67-year-old male presented with an enlarged opening around his gastric tube causing leakage and skin erosion (Figure 10). This patient has a history of leukemia, bone marrow transplant, diabetes and dehydration. The gastrostomy tube had been in place for three months to meet the patient’s nutritional needs. Saturated absorbent gauze was changed hourly. Gastric juices caused reddened, eroded, and tender skin. The WOC Nurse applied a two-piece Flextend wafer, an Adapt Convex Barrier Ring, a urostomy pouch and ostomy belt (Figures 11, 12).

**Outcome:** The convex barrier ring proved to be durable, flexible and easy to use with other products. Gastric juices were contained thus preventing further skin erosion. A four day wear time promoted skin healing and less pain medication was required as the skin healed. Staff was able to measure and record drainage which assisted in monitoring hydration needs.

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Case Study 5: Ileal Conduit

A 70-year-old female was seen in the outpatient clinic with leaking ileal conduit. Her history included bladder cancer, chemotherapy, diabetes, and obesity. A cystectomy was performed two months ago. She presented with a flush stoma within a deep abdominal fold with bilateral creases (Figure 13). The peristomal skin was reddened from urine leakage and frequent changing of the pouching system. The Skilled Nurse Facility used a flat one-piece pouching system which leaked 1-2 times per day. The WOC Nurse applied a two-piece convex wafer with an Adapt Convex Barrier Ring to create deep convexity (Figure 14), a urostomy pouch, and an ostomy belt.

Outcome: The flat pouching system was changed 1-2 times per day. The deep convexity increased the wear time to four days. This simplified the pouching of a complex stoma allowing the family to provide care independently.

Conclusion:

When compared to previous management methods, the Adapt Convex Barrier Ring has allowed for versatility and improved outcomes for many of our more challenging patients. Because they are easy to use, the procedures can be simplified and staff can provide continuity of care when the WOC Nurse is not available. The innovative use of Adapt Convex Barrier Rings in a variety of complex clinical applications has extended wear time, provided skin protection and enhanced patient comfort.

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Figure 13. Urostomy in deep abdominal fold with urine leaking into incision

Figure 14. Deep convexity created using convex barrier ring

Figure 15. Urostomy pouched to contain urine and secure seal