

The importance of pouching system barrier fit

ABSTRACT

As ostomy nurse specialists, it is our job to help our patients find a pouching system that provides a secure seal and protects the peristomal skin. The most important part of the pouching system is the adhesive seal, as this provides the security for predictable wear time and peristomal skin maintenance.

The two critical choices are the opening in the skin barrier and the shape of the skin barrier. The opening in the skin barrier should match the stoma shape and size and the shape of the skin barrier is determined by an assessment of the peristomal body profile and the location of the stoma lumen and the amount of stoma protrusion.

This article is a commentary on the shape of the skin barrier opening and the shape of the skin barrier in the management of the patient with an ostomy.

Keywords convex skin barrier, flat skin barrier, ostomy adjustment, pouching system, pouching system fit

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The goal for patients with an ostomy is to adjust to living with a stoma and, as ostomy nurse specialists, it is our job to help with that adjustment. The most important contribution we can make to our patients is to help find the 'best' pouching system. The best pouching system provides a seal for a predictable period, maintains the integrity of the peristomal skin, and is acceptable and accessible to the patient¹. Finding this pouching system and teaching the patient how to use it are the first steps for the patient to learn to live with an ostomy.

We know as nurse specialists that pouching systems come in a variety of sizes and shapes and that the most important part of the pouching system is the adhesive seal; this provides the security for predictable wear-time and peristomal skin maintenance. The two critical pouching system choices are the opening in the skin barrier and the shape of the skin barrier. There remains some controversy about the size of the opening in the skin barrier and the shape of the skin barrier. I feel strongly about both and will share my thoughts on skin barrier size and shape.

The skin barrier opening should be the size and shape of the stoma to protect the peristomal skin. All the peristomal skin should be covered, leaving no opening that could allow stool or urine to contact skin. In situations where the skin barrier on the pouching system cannot be fit or cut or stretched to fit the shape of the stoma, options might include using an accessory such as a barrier ring or liquid skin barrier to cover and protect the peristomal skin. Solid skin barriers consist of hydrocolloids; they will not cause stoma damage when fit to the stoma skin junction². Historically, when a reusable pouching system was used (plastic or rubber faceplates), it was necessary to size the opening around the stoma to 1/8 inch larger than the stoma to prevent injury, but this is no longer necessary³. There may be some reasons for a fit to not be right up to the stoma such as a retracted stoma (stool/urine can't get over the edge of the skin barrier) or bulky colostomy stool that enlarges the stoma upon passing.

The shape of the skin barrier should be determined based on an assessment of the peristomal profile and the stoma⁴. Flat, convex and concave skin barrier shapes are available in most markets. It is our job as ostomy nurse specialists to determine what shape is best based upon a thorough assessment. The assessment should include examination of the peristomal body profile in sitting and standing positions, examining for the presence of creases and folds, noting if the area is soft (pliable or mushy) or firm, regular, inward or outward, uniform

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or variable. Stoma assessment done in a sitting position should examine the stoma lumen (above, at or below the peristomal skin), stoma protrusion (above, below or at the skin), shape and diameter and output consistency and volume⁴. A flat skin barrier can be used when there are minimal and soft peristomal creases, with a patient whose stoma protrudes above the skin barrier and away from the deep creases or folds. A convex skin barrier can flatten peristomal creases, stabilise soft peristomal skin and apply pressure to encourage stoma output to drain into the pouch with a lumen at or below the skin². A flat or concave barrier can be considered for use in a patient with a peristomal hernia.

Following surgery, as postoperative oedema subsides, the area around the stoma and the stoma will change. Later, if a person gains or loses weight, the area around the stoma can change. It is important that we remember to assess our patients over time, especially during the first 3 months after stoma creation or revision, and on an ongoing basis¹. It is just as important to teach our patients these same assessments to help them understand when they may need to change from or to convexity or a flat skin barrier.

In some instances, a flat pouching system is the first choice until the pouch seal fails. I strongly suggest that we re-evaluate this practice, using our assessment skills to determine the need for a flat or convex pouch and making a choice based on this assessment. Can we prevent leakage by choosing a convex pouching system as the first choice? However, we must not consider convexity a choice we use to only solve problems, rather we must consider the use of a convexity as the best fit to prevent pouch seal issues. In many cases the use of a flat pouch may be the pouching system that provides the secure seal. Ongoing assessments will determine the need for a convex pouching system; this is the reason we must reassess our patient on an ongoing basis for the first 3 months following stoma creation or revisions¹.

Another important consideration is that we must have access to convex products in all settings. Limiting our access to only flat pouching systems when many of our patients require a convex pouching system will not meet the needs of many of our ostomy patients. Additionally, the patient should be educated on the shapes of skin barriers and the indications for use of both flat and convex skin barriers as many of our patients do not have access to ongoing expert ostomy nursing care.

If our assessment after surgery determines the presence of creases/folds, if the peristomal area is soft, if the stoma lumen is even with or below the skin level, the use of convexity is indicated. There is no direct evidence to support that a convex pouch used after surgery can cause damage that cannot be managed. However, clinicians have expressed concern about injury to the mucocutaneous junction from the use of convexity in the postoperative period. A recent consensus panel examined the issue of use of convexity

in the postoperative period and concluded that convexity should be considered for use in the immediate postoperative period to ensure a secure, consistent reliable and predictable seal.¹ The consensus panel, of which I was a part, agreed that providing a consistent seal is the primary consideration and if a mucocutaneous separation occurs with the use of convexity, it can be managed with topical care/wound care¹. However, a poor seal will adversely affect the peristomal skin and the adaptation of living with a stoma⁵.

If there is concern about the healing of the mucocutaneous junction, the type and characteristics of convexity should be considered based on the ability to provide a secure seal, prevent leakage, maintain/restore optimal peristomal skin health, and exert the least amount of pressure on the mucocutaneous junction. Convexity is available in several depths (soft, light, deep), flexibility and locations on the skin barrier; the type used will depend on a thorough patient assessment.

As ostomy nurse specialists we make clinical decisions for the best fit of a pouching system every day and these decisions should be supported by evidence. The best evidence we have in ostomy care are evidence-based guidelines. Two such guidelines that address the issues of assessment of peristomal body and stoma profile, patient engagement and follow-up as well as the use of a convex pouching system in the postoperative period can be used to support our ostomy practice^{1,4}. These clinical guidelines, as well as a risk factor model⁶, synthesise information by relying on an examination of the ostomy literature and integration with clinician experts. These are valuable ostomy clinician tools.

We know that as many as 80% of patients living with a stoma experience ostomy-related complications^{5,7} such as leakage^{5,8}. Finding the best fit of the pouching system can reduce leakage and support the person to live well with a stoma. Information provided in the guidelines as well as our clinical experience allow us to help our patients find the best pouching system, which has the right sized skin barrier opening and the best shape (flat, convex or concave) to prevent leakage and peristomal skin issues. The guidelines¹, our ostomy nursing skills and experience support the importance of assessing our patients on an ongoing basis to ensure the best pouching system is being used to prevent leakage and peristomal skin issues and to help our patients live well with a stoma.

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