OSTOMY CARE & MANAGEMENT

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OBJECTIVES
- Review types of ostomies and reasons for diversion
- List steps of general ostomy care and discuss their importance in prevention of preistomal complications
- List factors that relate to appliance selection for patients with ostomies
- Discuss possible treatments for peristomal complications
- Discuss the role of bedside staff in developing patient confidence in caring for own ostomy

What is an ostomy?
Ostomy vs. Stoma

- An ostomy is a term used to describe a surgical procedure in which a created opening in the body replaces a normal opening.

- A stoma is a mouth-like opening; the visible part of an ostomy. This is where the actual end of the large bowel, small bowel, or ureter, can be seen protruding through the abdominal wall.

Stoma Appearance

- Normal stoma appearance is red, round, budded, no changes in color and no peristomal breakdown.

- Some stomas may be oblong in shape, and some may have changes in appearance.

![Stoma Appearance Images]
What is effluent?

Terminology used to describe the discharge, output from a stoma. It is waste material such as fecal matter, mucus, or urine. It may be a liquid, solid, or gaseous emission.

What is a diversion?

Surgical creation (ostomy) of an alternative route for effluent (waste products) of the GI tract or the Urinary Tract and can be described as continent or incontinent.

Common Ostomies: predictable output

- Ileostomy: liquid, watery, can be greenish-brown in color
- Colostomy: pasty, mushy or well formed
- Urostomy: clear, amber/yellow, with mucus

(TIP: Mucus is a fluid, mucous is descriptive, like mucous membrane!)
Pouching Systems

- **Pouch** – AKA bag; designed to catch and contain stomal effluent (stool/urine). The pouch is made of plastic and is held to the body with an adhesive.

- **Skin Barrier** – AKA wafer, barrier, flange, faceplate; is adhesive. Adheres to the skin around the stoma and helps to protect skin from stoma output and attaches the pouch to the body.

- **Appliance** – refers to the entire containment system (the pouch and the skin barrier); can be one piece or two piece; can come in closed end or drainable.
Pouching Systems

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Pouching Considerations

- Transparent or Opaque
- 1 piece or 2 piece
- Dexterity limitations
  - Presized/Precut
  - Moldable
- Drainable, High Output, Closed End

Stoma Facts

- Stool and flatus or urine passes through the stoma rather than through the rectum or bladder
- There is no voluntary control of gas or stool expelled through the stoma
- There is no sensation in the stoma because there are no sensory nerve endings in this area
Stoma Facts
- Has a mucous lined inner surface that continually produces mucus, which cleanses the stoma
- Can be wiped clean or rinsed with water
- Rectal discharge of mucus may occur with some patients with a stoma

Stoma Facts
- Mucus varies in consistency: clear "egg white" to opaque, or thick "sticky glue"
- Vascular and may bleed slightly when rubbed or irritated

Patients with Ostomies
- Visualize stoma (mirror)
- Encourage early participation
  - Practice cutting
  - Emptying own pouch
  - Describing procedure
- Discuss intimacy, clothing
- The way you react to it will stick with them!
Types of Diversions

Colostomy
- Created when a portion of the colon or the rectum is removed and the remaining colon is brought to the abdominal wall.
- It may further be defined by the portion of the colon involved and/or its permanence.
- May be temporary or permanent

Ascending Colostomy
- Located on the right side
- Effluent is high volume with a liquid-mush consistency
Transverse Colostomy
- Upper abdomen in the middle or toward the right
- Effluent is a paste-like, soft substance

Descending Colostomy
- Left lower side
- Effluent is formed and solid

Sigmoid Colostomy
- Left lower side below descending colostomy
- Effluent is formed and solid
Expected output from a colostomy includes liquid or formed stool (or somewhere in between), gas, and odor. Generally you will see more “formed” stool.

Ileostomy

- Opening in the small intestine, usually at the end of the ileum
- May be temporary or permanent.
- May involve removal of all or part of the colon

Ileostomy

- Loop ileostomy – where a loop of small intestine is pulled out through an incision in the abdomen, before being opened up and stitched to the skin to form a stoma
- End ileostomy – where the ileum is separated from the colon and is brought out through the abdomen to form a stoma.
- Can be temporary or permanent
Output

- Expected output from an ileostomy after surgery is generally a steady liquid type of drainage. Over time though the stool will become thicker and more paste-like.

Urostomy

- Diverts urine away from a diseased or defective bladder
- It may include removal of the diseased bladder

Ileal Conduit or Cecal Conduit

- Right lower side
- Most common urostomies
  - Either a section at the end of the small bowel (ileum) or at the beginning of the large intestine (cecum) is surgically removed and relocated as a passageway (conduit) for urine to pass from the kidneys to the outside of the body through a stoma.
**Ureterostomy**
- Two stomas; one on the right and one on the left

**Continent Urinary Diversions**
- Indiana Pouch – right lower side or umbilicus
- Mitrofanoff – right lower side or at umbilicus
- Orthotopic Neobladder – no stoma
Output

- Expected output from a urostomy is urine and possibly some mucus.

CHARTING FOR OSTOMIES:

1. Type
   - Ileal conduit / urostomy
   - Ileostomy
   - Colostomy
   - End ostomy
   - Loop ostomy (with/without rod)
   - Double barrel ostomy
   - Permanent
   - Temporary

2. Location (Quadrant)
   - MUQ to R or L = usually temporary (transverse colostomy)
   - RUQ
   - RLQ
   - LUQ
   - LLQ

My Right
My Left
CHARTING FOR OSTOMIES:

3. Shape  4. Description  5. Height
- Round
- Oval
- Irregular
- Can vary with peristalsis
- Smooth
- Firm
- Long
- Retracted
- Shiny
- Taut
- Budded
- Flat/Flush
- Prolapsed

Movement of pain over 24 hours

Penstomal skin
- Thoma Lumen
- Mucocutaneous Junction
6. Size
- Measurement

7. Color
- Red
- Dusky
- Gray
- Dark brown to black = melanosis coli
- Black or black areas = stomal necrosis

8. Peristomal skin
- Bluish purple = Caput medusae
- Presence of hernia
- Indurated
- Ulcerated
- Mucocutaneous separation
- Painful
- Contact dermatitis
- Yeast and Fungus
- Erythematic and irregular shaped lesions with red purple margins = Pyoderma gangrenosum
- Wartlike papules or nodules with white-grey or reddish-brown = Pseudo verrucous lesions
- Stenosis
- Folliculitis
CHARTING FOR OSTOMIES:

9. Opening, Creases, Folds
10. Mucocutaneous Border
   Intact, separated, puckered, visible sutures

General supplies needed for Ostomies:

- Measuring guide and pen
- Skin Barrier (Wafer or Flange)
- Open end pouch (matches Skin Barrier/ Wafer)
- Accessories (ring, strip, or paste, belt, skin prep, powder)
- Tube adaptor for urostomy
- Scissors
- Disposable Chux
- Washcloths
- Tap water
- F/C drainage bag

Pouching

- Cut the opening to size of stoma or no more than 1/8” larger than the measurement of the STOMA
- If necessary, protect the peristomal skin with an Adapt moldable barrier ring or skin prep barrier
Post-Op Notes

- Encourage patient/family independence in care
- Progress diet as ordered

Notify MD:
- Minor retraction or prolapse of stoma
- Change in color
- Frank bleeding
- Change in output/no output
- Nausea, vomiting, or abdominal pain/cramping

STAT page for a physician:
- Prolapsed stoma
- Prolapsed stoma that is edematous or cyanotic
- Severe stoma retraction in which bowel mucosa is no longer visible

Pouching

- Measure the stoma using a sizing guide or use a pattern
- Trace the pattern onto the skin barrier/flange
- The skin barrier/flange should fit completely around the stoma
- Keep 1/8” spacing
Always rinse the skin and stoma with plain water. Refrain from using cleansers or soaps, since the residues from these can affect the pouch seal.

When using powder, make sure to brush off the excess before applying any other pastes or skin barriers. Stop using the powder once the skin has healed.

Empty or change the pouch when 1/3 to 1/2 full

Peristomal Skin Complications

They not only prevent proper pouching, they undermine the comfort and well-being of our patients.

Our mission is to help patients heal and enjoy a higher quality of life whenever possible.

By understanding the different types of complications and combining treatment with patient education, we can fulfill that mission tenfold.
Of all ostomy patients, ileostomy patients have the most complications. That’s because the output from their stomas (the effluent) is watery and caustic.

**PERISTOMAL Skin Complications**

- Usually fall into one of five categories:
  - Mechanical trauma
  - Infection
  - Chemicals and irritants
  - Diseases
  - Skin allergens

**Peristomal Breakdown**

- Candidiasis
- Allergic Contact Dermatitis
- Irritant Dermatitis
- Foliculitis
- Pseudoverrucous Lesions
- Pressure Ulcer
Mechanical Peristomal Skin Trauma

Mechanical trauma results from pressure, friction, or shear. Pressure can result from an ill-fitting ostomy appliance, ostomy belt or convex pouching system. Friction occurs from abrasive cleansing, improper pouching removal techniques, and frequent appliance changes. The tissue damage can be partial to full thickness.

Peristomal Skin Infections

Peristomal skin is prone to infection from bacteria and fungi. Two common peristomal infections are candidiasis and folliculitis.

Peristomal Candidiasis

This type of infection is an overgrowth of the fungus *Candida albicans* surrounding a fecal or urinary diversion. Fungi thrive in warmth, moisture and darkness. When an ostomy patient experiences perspiration, pouch leakage, denuded skin or prolonged wear time, moisture is added beneath the skin barrier.
**Cruising**

Create a dry surface for adherence of an ostomy pouching system
- Sprinkle skin barrier powder onto the denuded skin.
- Allow the powder to adhere to the moist skin.
- Dust excess powder from the skin using a gauze pad or soft tissue. The powder should stick only to the raw area and should be removed from dry, intact skin.
- Using a blotting or dabbing motion, apply the polymer skin barrier over the powdered area, or lightly spray the area if you’re using a polymer skin barrier spray.
- Allow the area to dry for a few seconds; a whitish crust will appear. Stop using the crusting procedure when the skin has healed and is no longer moist to the touch.

**Folliculitis**

This is inflammation and/or infection of superficial hair follicles, resulting in isolated lesions or discoloration right at the follicle site. (traumatic removal of hair during pouch change)

It can be caused by chemical irritation (effluent), or physical injury, such as rough shaving of the peristomal skin, ripping off the skin barrier, or friction of hair follicles under the skin barrier.

Staphylococcus aureus, streptococci, and Pseudomonas aeruginosa are the most common bacteria found with folliculitis.

As with candidiasis, patients with diabetes, immunosuppression or antibiotic therapy are more likely to develop this infection.
Treating folliculitis

Topical antimicrobial powder, cover large lesions with nonadherent dressing. Once healed, carefully shave area. Use an adhesive remover.

Chemicals Irritants

Peristomal Irritant Contact Dermatitis is an inflammatory reaction to a chemical that results in well-defined erythema, edema, or loss of epidermis. Papules and vesicles are often present as well.

Also known as peristomal moisture associated dermatitis. The chemical irritant can be soap, solvents, or adhesives – but often is the effluent leaking from a poorly fitting pouch or seal.

It’s especially prevalent in ileostomy patients because their stoma output is watery and caustic.
Hyperplasia  This condition is known by many names: pseudoverrucous lesions; chronic papillomatous dermatitis; hyperkeratoses; granulomas; pseudo-epithelial hyperplasia; exuberant tissue growth; and proud flesh. It’s the result of prolonged skin exposure to urine and moisture. Typical causes include: a pouch that is cut too large for the stoma patients with high output liquid stool urostomy patients, if the skin is in contact with alkaline urine a stoma that is flush with surrounding skin or retracted Hyperplasia presents as patches of discolored, thickened epidermis and papules, nodules, or both.

Chemicals Irritants

Treating Irritant Dermatitis

Review product usage and techniques to determine cause. Correct/revise pouching system.
Alkaline encrustations
In your urostomy patients, you may find crystal-like formations on exposed peristomal skin. These crystals are called alkaline encrustations.

When you remove the pouching system, the skin may bleed. This condition is associated with hyperplasia (previous slide), alkaline urine and/or concentrated urine that pools on the peristomal skin, renal calculi or kidney stones, and urinary tract infections.

Chemicals Irritants

- Pre-existing skin diseases such as psoriasis, eczema, or seborrheic dermatitis can cause issues in the skin surrounding the stoma.
- Sometimes more serious conditions can develop, such as *pyoderma gangrenosum* (PG), which is an inflammatory, ulcerative autoimmune disease condition.
- Begins as pustules and continues to extremely painful ulcers that may become full thickness and excavate under the skin.
- Occurs in 50% of ostomy patients with underlying IBD (such as Crohn’s disease and ulcerative colitis); the etiology of peristomal pyoderma gangrenosum remains unknown.
Treatment for PG

Systemic treatment of underlying disease, local ulcer treatment by unroofing the area is generally not advised.

A non-adherent pouching system can be fashioned with a one-piece pouch with belt tabs, an extra gasket and a solid skin barrier wafer.

Peristomal Skin Allergens

Peristomal Allergic Contact Dermatitis

Contact skin allergies are fairly common in the population, so it's not surprising to find that some ostomy patients have allergic reactions to pouching systems, accessories or skin care products.

Many patients develop a peristomal contact allergy only after repeated exposure to the offending product, or if they are sensitized to a related cross-reacting substance.

Allergic reactions typically include erythema along with itching, papules, vesicles, discoloration, crusting, oozing, or dryness.
Suture Granulomas – Suture granulomas are granulation tissue at the suture skin interface and are a reaction to suture material. These present as scattered, red areas of friable granulation tissue where sutures are present.
Resources

www.wcei.net
www.wocn.org
www.ostomy.org