



Clinical and Lifestyle Concerns with an Ostomy

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Clinical and Lifestyle Concerns with an Ostomy

Upon completion of this presentation participants will be able to:

- Choose ostomy products that can help provide longer pouch wear time.
- Identify individuals that can benefit from colostomy irrigation.
- Identify ostomy recourses for your client post-discharge.

I. Introduction

A. Stoma or Ostomy? —The terms ostomy and stoma are general descriptive terms that are often used interchangeably, though they have different meanings:

1. Ostomy relates to the surgical procedure.
 - a. Ostomy is a term used to describe a general surgical procedure. The surgery creates an alternative exit route from internal organs or segments of the urinary tract, diverting the flow of body waste such as urine and feces to the external surface of the body. Where and how the opening is created depends on the pathology of the associated disease process. The small intestine, colon, ureter, or bladder is surgically manipulated through an incision in the abdominal wall. The surgical procedure is called an ostomy.¹
2. Stoma refers to the opening where the bowel or ureter can be visualized protruding through the abdominal wall. The word stoma is derived from the Greek word meaning “mouth” or “opening”. The stoma is the mucous membrane or the lining of the intestine or the lining of the urinary tract that is exposed to the abdominal surface.¹

B. Statistics

1. Evidence suggests that more than 800,000 to 1,000,000 North Americans currently live with a stoma.^{3,4}
2. Annually, there are 120,000 ostomy surgeries in the United States.⁵
3. According to the literature, there are more fecal ostomies than urinary. Of the total number of ostomies, approximately two-thirds are fecal and one third are urinary.⁵
4. Post-operative complication rates, range from 10 to 82%⁶
5. According to Herlufson and based on a study with 202 participants, 45% of individuals with permanent stomas had complications in the area surrounding the stoma (peristomal skin area) and of those, 76% of these issues lasted over 90 days.⁵
6. Despite whether minor or a major complication, they all affect the quality of life (QOL) for individuals with a stoma.

II. Peristomal Skin Irritation

A. What is considered Peristomal skin?

1. Area of skin surrounding the stoma that has contact with skin barrier of the pouching system.⁸
2. In adults, this surface area extends out of approximately 4x4 inches (102mm x 102mm)⁸

B. Causes

1. Irritant contact dermatitis
 - a. Inflammatory reaction caused by a chemical – in the case of peristomal irritant dermatitis; the chemical could be soap, solvents, adhesives, or even the stomal output (aka, moisture associated skin damage) most frequently from a poorly fitting pouch or seal
2. Results from pressure, friction, or shear⁷
 - a. A pressure ulcer in the peristomal skin caused from the ostomy appliance, belt, or increased pressure in the peristomal area related to convexity of skin barrier would be considered a medical device-related pressure ulcer.⁸

3. Contributing factors include:⁷
 - a. Abrasive cleansing technique
 - b. Convex pouching systems
 - c. Ill-fitting pouching system
 - d. Ostomy belt - appliance belt that is either worn too tightly or does not remain in the 3 o'clock and 9 o'clock position to provide equal support
 - e. Skin stripping due to improper removal of pouching system
 - f. Frequent appliance changes
 4. Characteristics⁷
 - a. Well-defined erythema, edema, or loss of epidermis
 - b. Papules and vesicles are often present.
 - c. Pruritus, redness or darker discoloration, crusting, oozing, or dryness may be present.
- C. Solutions
1. Pouching system Review
 - a. Check for pouching system leakage.
 - b. Compare size of stoma and opening in the pouching system.
 - c. Observe technique in removing and applying pouching system and in cleaning the skin.
 - d. Revise pouching system to ensure that the peristomal skin is protected from the drainage from the stoma.⁹, Consider correct sizing of pouching system, using convexity or belt, or modification of pouching system.⁷
 2. Patients should be advised to use warm water (no soap) to clean their ostomies and surrounding skin unless there is retained fecal material or debris that needs to be removed. Burrow's solution (aluminum subacetate solution) is an astringent that can be used to gently remove particulate matter.
 3. Crusting Procedure
 - a. Definition – A procedure used to create artificial scab on peristomal skin using hydrocolloid (stoma powder) and liquid polymer skin barrier. Crusting can protect peristomal skin from effluent, absorb moisture, and increase pouch wear time resulting in fewer pouch changes and less disruption to irritated peristomal skin.
 - b. Indications
 - 1) Denuded peristomal skin
 - 2) Use to absorb moisture from broken skin around the stoma. This allows the barrier to adhere so the skin can heal.
 - c. Contraindications: Allergy to product; stop using the powder when the skin has healed and is no longer moist to the touch. (NOTE: Powder is not indicated for the prevention of skin irritation)
 - d. Supplies
 - 1) Skin barrier powder (Antifungal powders may be substituted in cases of fungal infections)
 - 2) Non-alcohol polymer skin barrier wipes or spray
 - 3) Clean gauze 4x4's or tissue to dust excess
 - e. Procedure
 - 1) Cleanse with water (avoid soap) and pat area dry.
 - 2) Sprinkle skin barrier powder onto denuded skin.
 - 3) Allow powder to adhere to the moist skin.
 - 4) Dust excess powder from the skin.
 - 5) Using a blotting motion, apply the polymer skin barrier or use a polymer skin barrier wipe.

- 6) Allow the area to dry.
- 7) Repeat steps 1 - 6, two to four times to achieve a crust.

III. Flat Stoma (AKA Stoma retraction)

- A. Definition – The location of the stoma is either at or below skin level; stoma that protrudes less than 0.5 cm from the mucocutaneous junction.¹⁰
- B. Characteristics
 1. Retraction presents clinically with all or part of the stoma located below skin level or with the surrounding skin pulled in due to tension¹²
 2. The stoma appears as a concave defect on the abdomen¹²
 3. Dimpling and creasing of the peristomal skin often occur¹²
 4. Effluent undermining the pouching system, persistent leakage, shortened pouch wear time, and resultant peristomal irritant dermatitis may be present^{11,12}
- C. Causes/Contributing Factors
 1. Patients who are obese or have a thick abdominal wall with a more subcutaneous tissue^{9,13}
 2. Presence of adhesions or scar tissue¹⁴
 3. Short stoma¹⁴
 4. Surgical incision incorrectly placed¹⁴
 5. Stoma necrosis¹⁴
 6. Mucocutaneous junction separation and wounds¹⁴
 7. Early removal of the loop rod or device¹⁴
 8. Abdominal wall opening larger than the bowel¹⁵
 9. Infection
 10. Mucocutaneous separation
 11. Necrotic stoma
 12. Stoma located in a skin fold
 13. Tension on the stoma due to: Excessive scar/adhesion formation^{14,15}, Excessive weight gain¹⁵, Poor fixation of the bowel to the fascial layer¹⁵, Short mesentery^{14,15}
- D. Management with Convexity
 1. Definition: The back (adhesive side) of a convex wafer has an outward protrusion; which curves outward toward the skin. The outward curve presses the skin down around the stoma. This allows the stoma to stick out more to ensure urine or stool empties into the pouch instead of underneath the pouching system.
 2. Indications^{16,18}
 - a. Stomas that have no protrusion, at skin level, or below the skin surface
 - b. Stomas that have lumens on the side that do not empty into the pouch
 - c. Stomas with peristomal fistulas
 - d. Convexity can be used with colostomy, ileostomy, and urostomy
 - e. The peristomal area is soft with poor muscle tone, not flat and may have uneven areas that may have been caused by scar formation or creases.
 3. Precautions
 - a. New Stoma (Less than 1 week postop) - May contribute to mucocutaneous separation.¹⁶
 - b. Peristomal varices - May damage distended blood vessels at stoma/skin junction causing bleeding.^{16,17}
 - c. Peristomal Crohn's ulcer – May cause increased pain, further breakdown, and impaired healing.^{16,17}

- d. Peristomal pyoderma gangrenosum - May cause increased pain, further breakdown, and impaired healing. ^{16,17}
 - e. Mucocutaneous separation - May cause deeper tissue destruction and impaired healing at the stoma/skin junction. ^{16,17}
 - f. Peristomal hernia – May cause pressure ulcers, stoma laceration and loosening of the pouching system as the abdominal contour fluctuates when hernia moves. ^{16,17}
 - g. Stomal prolapse ¹⁷
4. Factors to Consider Convexity^{16,17}
- a. Convex products may leave an imprint on the skin.
 - b. CAUTION: Monitor for signs of excessive tissue pressure such as skin breakdown, reddened skin, bruising, or patient report of pain.
 - c. Convex products may be less flexible than non-convex.
 - d. Some convex products, rings and inserts, required increased dexterity or hand strength.
 - e. Use of belt or binder may be necessary.
 - f. Routinely follow up with patients using convex appliances to determine performance and outcomes.
 - g. While convex appliances are widely used and accepted, they are pressure devices and as such should be reviewed intermittently.¹⁷
5. Choose appropriate convex pouching system
- a. Depth^{9,14,15}
 - 1) Shallow convexity – For minor skin irritations and occasional leakage.
 - 2) Moderate convexity– Stoma in deep folds; severe undermining and frequent leakage.
 - 3) Deep convexity – Used when medium convexity is not sufficient, stoma is retracted or in deep folds, or leakage is very frequent and skin is denuded. Use with caution.
 - b. Flexibility
 - 1) With a firm peristomal region, soft convexity can be a better option than firm convexity¹⁸
 - 2) With a soft peristomal region, firm convexity can be a better option than soft convexity¹⁸
 - c. Options
 - 1) Cut-to-fit or moldable convex barrier
 - 2) Pre-cut convex
 - 3) Convex insert
 - 4) Convex Barrier Rings
 - 5) Custom made convex pouching system

E. Other Management

- 1. Consider use of belt, skin barrier rings, strips, or paste. ^{9,15}
- 2. Consider use of a custom silicone or rigid faceplate.¹⁵
- 3. Protect skin using a skin barrier film.¹⁵
- 4. Surgical management - If a pouching system with an appropriate wear time is not achieved and complications from leakage onto peristomal skin continue to result in peristomal complications, surgical repair should be considered.¹⁵

IV. Urine mucus accumulation in urostomy pouch

- A. Urinary diversions when the bladder is either removed or bypassed, include the conventional urostomy (ileal conduit), continent urinary reservoir (continent diversion) and neobladder.
 - 1. All of these diversions include the use of parts of either the small intestine or colon as part of the reconstruction.
 - 2. The intestines produce mucus naturally and these intestinal segments will continue to produce mucus after transposition into the urinary tract.

3. Mucus versus mucous
 - a. Mucus – noun; The clear viscid secretion of the mucous membranes¹⁹
 - b. Mucous – adjective; which means secreting, containing, resembling, or covered with mucus; referring to either mucosa (e.g., mucous membrane) or to mucus (e.g., mucous secretion).²⁰
- B. It is normal to have mucus shreds in urine; the mucous volume is usually high for the first few months following surgery and tends to decrease over time.
- C. Solutions
 1. Drinking more fluids, especially cranberry juice helps reduce mucus in the urine.²²
 2. Mucospense™ Mucous Dispersant; Dissolves mucous build-up in urinary ostomy bags and collection devices.
- V. Ballooning
 - A. Ballooning is the result of a gradual build-up and accumulation of gas (flatulence) passed out through the stoma into the pouch, causing it to blow up like a balloon.
 - B. Gas Amount: Large, Moderate, Minimal
 1. The average number of gas passages is about 13 to 21/day (600 to 700 mL).²⁵
 2. Objectively recording flatus frequency (using a diary kept by the patient) is a first step in evaluation if perceived excessive.
 - C. Causes
 1. Certain foods - dried beans, cucumbers, vegetables from the cabbage family (onions, sprouts, broccoli, cauliflower,) spinach, corn, and radishes.²⁴
 2. Some beverages like pop, mineral water, and beer will increase gas in the pouch²⁴
 3. Swallowed air
 - a. May occur through smoking or drinking through a straw.
 - b. Talking while eating, chewing gum, eating drinking quickly
 - c. Infants swallow large amounts of air with sucking and crying, and tend to fill their pouches with air²³
 - D. Solutions
 1. Eat regular meals.
 2. Control flatus by reducing swallowed air and foods known to increase gas.
 3. Poking holes into the pouch to allow for the release of gas is not recommended. Once the pouch has been punctured, the pouch is no longer odor free or leak proof.
 4. Release gas from pouch. Slightly separate the pouch from the flange at the top of the appliance (complete removal of the pouch is not required) to allow the gas to escape. Once the pouch is empty, reattach the pouch to the flange. For those who use a 1-piece system without a filter, empty the gas by removing the clip.²⁴
 5. Pouch Vent
 - a. Releases air and gas build up which helps to reduce pouch explosions and prevent skin barriers from pulling loose.
 - b. Available built in or snap on.
 - c. Example: Osto-EZ-Vent® was specifically designed without a filter to quickly release air build up on demand. This ability aids in reducing pouch explosions and loose wafers. Because it is not a filtering device, the Osto-EZ-Vent® works efficiently, lasts as long as the pouch, does not become ineffective in water, and is easy to install and use. www.kemonline.com.
 6. Pouch filters or gas filters
 - a. Are integrated into the pouch or can be added.
 - b. These are charcoal filters that allow gas to escape from the pouch but also controls odor.

- c. Small adhesive strips are available to cover the filter and keep it dry during bathing or showering; once moisture reaches these filters, they become inactive.
- d. With liquid output, the filter is easily clogged and becomes less effective. Clogging of the gas filter is common with an ileostomy and may result in the pouch being changed more frequently.
- e. Example: Coloplast Filtrodor® Pouch Filter, Charcoal-activated, Self-sealing Foam Center- will adhere to pouch for added protection against ostomy-related odors
 - 1) Remove Filtrodor from the sheet inside the packaging.
 - 2) Place Filtrodor ostomy pouch filter carefully in the outside upper corner of the ostomy bag. Press firmly to ensure complete adhesion.
 - 3) Use the enclosed pin for punching a hole in the bag through the center hole of the filter. Be careful not to punch through both layers of the ostomy bag. This is avoided by keeping surfaces separated. Insert finger into appliance through the stoma hole to separate inner bag surfaces under filter placement area.
 - 4) Important: Number of holes to be punched: The Filtrodor ostomy pouch filters enable you to regulate the quantity of intestinal gas escaping from the ostomy pouch. Start by punching only 1 hole by use of the enclosed pin. If a large quantity of gas still remains in the bag then punch 2 holes in the next bag.
 - 5) Do not re-use Filtrodor pouch filters.

VI. Difficulty Getting a Good Seal

- A. Achieving a leak proof seal between the skin barrier and the abdominal skin surrounding the stoma is the cornerstone of ostomy management. An unstable seal can result in:
 - 1. Leakage
 - 2. Odor
 - 3. Skin breakdown
 - 4. Embarrassment
 - 5. Social Isolation
 - 6. Can get very costly
- B. Protection of the skin relies on methods to create dry surfaces and fill irregular contours while an adhesive seal is maintained. Skin must be kept in clean irritation free condition to successfully attach and utilize a collection pouch without leakage or odor.
 - 1. Peristomal skin should be thoroughly cleaned and remove any adhesive residue.
 - 2. If there is body hair in the area, it should be shaved to provide a clean dry surface for application of the skin barrier.
 - 3. Peristomal area should be dried thoroughly prior to application of skin barrier as any moisture can impede adhesion of the wafer.
 - 4. Warming the skin barrier to body temperature prior to application will provide maximum adhesion to the skin.
 - 5. Once the skin barrier is in place apply slight pressure all around the wafer to make sure it conforms the body totally and securely.
 - 6. If the skin surrounding the stoma has uneven creases or folds it may be necessary to use additional sealing aids.
- C. Solution - Stoma Paste
 - 1. Skin barrier paste is a semi-solid substance with many of the same ingredients of the solid skin barriers.
 - 2. Stoma paste is used as a "caulking" material and is not adhesive.
 - 3. Paste often contains alcohol and will cause a burning feeling if used on open skin.

4. The paste can be difficult to remove.
 5. Paste can also be used on top of the skin barrier around the stoma for increased sealing when a patient has liquid effluent.
 6. Tips for using paste
 - a. Pre-warm the paste in a tray of warm water for a few minutes to make the paste less thick.
 - b. When applying paste directly to skin it helps to wet your finger to smooth the paste –then allow it to dry.
 - c. Paste is NOT an adhesive and too much paste may actually interfere with a good seal. Use only a small bead of paste, like putting toothpaste on a brush.
 - d. Apply the paste around the opening cut in the skin barrier, unless instructed otherwise.
 - e. Do not spread the paste.
 - f. When trying to remove paste from the skin let it dry a little first.
 - g. Allow the paste to air-dry for 1 to 2 minutes before application of any dressings or another layer of paste.
 - h. Adhesive Remover Wipes may be used to facilitate skin barrier and/or adhesive residue removal.
 7. Examples: Adapt® Paste www.hollister.com, Stomahesive® Paste www.convatec.com, Ostomy Care Paste www.us.coloplast.com, Hollister Karaya Paste.
 8. Trio Silken™ Silicone Stoma Gel ~Sting free Removes in 1 piece
- D. Solution – Skin Barrier Rings
1. A bendable, stretchable alternative to paste that is sting-free and gentle on the skin.
 2. Can be stretched and molded for use on oval or irregularly-shaped stomas; can be cut, bent, and even stacked together to improve the fit of the barrier and prolong barrier wear time.
 3. Due to the softness and flexibility of most rings, they can be placed up against the stoma because they will flex with the stoma, not cause pressure, or cut off blood supply.
 4. For individuals with sensitive skin or limited dexterity; rings can prolong skin barrier wear time when used under a skin barrier.
 5. Sometimes pieces of the ring material are all that's required to address a small problem area.
 6. Examples:
 - a. Eakin® rings and skin barriers (ConvaTec™): moldable, moisture absorbing skin barriers designed to help protect the skin from contact with body fluids.
 - b. Adapt® Ring (Hollister™): Sting free alternative to paste. Can be stretched and molded to create custom shapes; Can be cut, bent, and stacked together to improve the fit of the skin barrier.
 - c. Skin Barrier Ring (Coloplast™)
 - d. Trio Siltac™ is a soft silicone ostomy seal, Maintains integrity & shape to provide a longer-lasting seal, 1 piece removal <http://trioostomy.com/>
- E. Solution – Skin barrier strips
1. Moldable to fill in irregular contours.
 2. Solid form, easier to use with high-volume effluent
 3. Alcohol-free, it won't sting on application.
 4. Break into smaller pieces, and roll or mold. You can cut and rejoin as needed.
 5. Can be warmed by body heat (in the hands) before use for increased workability.
 6. Examples:
 - a. Coloplast™ Moldable Strip Paste
 - b. ConvaTec™ Stomahesive® Strips
 - c. Hollister™ Adapt® Barrier Strips
 - d. Securi-T™ Hydrocolloid Skin Barrier Strips www.genairex.com

VII. Swimming with an Ostomy

A. After healing from surgery people of all ages and types of ostomies can enjoy swimming. There are no ostomy-specific restrictions to swimming in public places. Just follow all the normal pool rules, such as rinsing off before entering, just like everybody else.

B. Pouching Tips

1. Most all pouching systems are resistant to water and with a proper fit are designed not to leak.
2. After changing the skin barrier wait at least several hours, preferably overnight, before swimming. This allows the skin barrier more time to adhere to the skin.
3. Protect the barrier by taping the edges with waterproof or paper tape or skin barrier strips.
 - a. Hydrocolloid Flange extenders - hydrocolloid semicircles that can be used with any stoma pouch and help the pouch to adhere to the body by offering extra hydrocolloid around the pouch; used instead of tape around outside edge of skin barrier ; support longer wear time by ensuring that the edges of ostomy barrier don't roll up. Examples: Safe-n-Simple™ Skin Barrier Arcs ; Coloplast™ Brava® Elastic Barrier Strips,
 - b. Some other products for protection of appliance
 - 1) Waterproof Ostomy Cover by Dry Pro - <http://www.drycorp.com/waterproof-ostomy-protector/>
 - 2) Sure Seal™ Rings - <http://www.alpglobal.com/Sure-Seal-TM-Rings.html>
 - 3) Aqua Seal - Polyurathane Film Dressing; Worn on or under wafer; <http://www.costamedical.org>
4. For swimming, empty the pouch beforehand and remember to eat lightly.
5. If possible use close ended pouch [instead of open ended for drainage] Prevents a clip showing next to the tight bathing suit fabric and it won't slip out of the bottom of the suit.
6. Avoid wearing pouches with gas filters into the pool. Water may get in through the filter.
 - a. Small adhesive strips are available to cover the filter and keep it dry during bathing or showering; once moisture reaches these filters, they become inactive.

C. Fashion Tips - If wanting to conceal pouching system

1. Choose a swimsuit that has a lining to provide a smoother profile. Lots of tankini and high waist bikini bottom options. <http://www.ostomysecrets.com/>
2. Patterns will hide any indication that there is something underneath the fabric because the fabric's busyness hides the pouch creases.
3. Women may wear stretch panties designed for swimsuits.
4. Men may want to wear a support garment or bike shorts under bathing suit.
5. Men may prefer to wear a tank top and trunks, if the stoma is above the belt line.
6. Pouch Covers - Stealth Belt – www.stealthbelt.com

D. Resources

1. UOAA Swimming with an Ostomy Toolkit Free http://www.ostomy.org/Swimming_with_an_Ostomy_Toolkit.html

VIII. Managing Effluent during Appliance Change

A. Case Study report that describes the use of a cardboard tube technique to provide a barrier between stoma and peristomal skin that provides patients with greater time to complete a pouching change or treat peristomal skin problems, while preventing exposure of the skin to effluent from the stoma.²⁶

1. Cardboard Tube Technique for Ostomy Wafer Placement and Management of Peristomal Skin With Persistent Output; Heale M. J Wound Ostomy Continence Nurs. 2013 Jul-Aug;40(4):424-6.

B. Cardboard tube Technique²⁶

1. Utilize a regular index card

2. Tear the card rather than cut to size; the edge is softer and just a little absorbent which allows better conformity with the skin and a longer seal can be maintained.
 3. The card needs to be about 5 × 9 cm for a 2.5-cm (1") stoma, this allows for sufficient overlap to secure into a tube.
 4. Wrap the card around the stoma and secure with tape, alternatively use the wafer or template to size it.
 5. Pack tissue wads tightly into the cardboard tube for urine and liquid stool.
 6. The tube can be used as a guide for barrier placement, managing fistula and exudate output during skin treatments (peristomal skin care), and complex dressing changes.
- C. Free video demonstration: <https://youtu.be/XiiTOJcPGmY>
- IX. Playing Contact Sports with an Ostomy
- A. Stoma shields can be used to protect the stoma. These are small, hard, plastic concave covers that are placed directly over the stoma and held in place with an elastic belt.
 1. Stomaplex Stoma Guards - <http://www.stomaplex.com/>
 2. Stoma Protector <https://www.stomaprotector.com/>
 3. Ostomy Armor <https://www.ostomyarmor.com/>
 4. Stoma Shield <https://www.stomagear.com/>
 5. Stoma Dome <http://stomadome.com/>
 - B. Smaller appliances can be used when playing sports.
- X. Don't want to wear a colostomy pouch – are there any alternatives?
- A. Colostomy irrigation is a bowel management method used by individuals with permanent colostomy to control fecal output. It is an alternative to pouch use, which may provide continence.
 1. The purpose of irrigation management is not to wash out the entire colon but to induce a reflux which brings about a peristaltic wave and evacuates feces from the distal colon.²⁷
 2. Goal is for effluent to pass only when the colon is stimulated by the instillation of water.²⁷
 3. Once mastered, the irrigation procedure can usually eliminate the need to wear standard appliances. In many cases, those who achieve success wear only a stoma cap, mini-pouch or patch to protect the ostomy in between irrigations.²⁸
 - B. Irrigation works on the principle that if you evacuate all or most of the large bowel, it will take 24-48 hours for stool to start to make its way out of the stoma again. This transit time will vary depending on what you eat and drink and upon your particular metabolism.²⁸
 1. Some people irrigate every day, some every other day, and some every third day. It all depends on how the body adapts, how much control desired, and what sort of results are acceptable.
 - C. Indications for colostomy irrigation
 1. Left sided descending or sigmoid colostomy with formed feces^{27,28}
 2. Patients that are interested in maintaining the level of continence provided by the colostomy irrigation²⁷
 3. Patients who can dedicate at least one hour a day to the irrigation process 60, 74
 - D. Contraindications
 1. Not appropriate for people with urostomy or ileostomy or where there is a constant liquid or semi-liquid output^{27,28}
 2. Stomal stenosis, prolapse, retraction, or hernia²⁷
 3. Active diverticular disease, Crohn's disease, ulcerative colitis or irritable bowel disease^{27,28}
 4. Cardiac or renal disease as potential fluid overloading may occur²⁷
 5. Conditions with a risk of perforation: residual or recurrent cancer, infants, post radiation therapy resulting in damage to the colon.²⁷
 6. Other considerations:

- a. If patient will be performing procedure alone consider: Vision, manual dexterity, Confusion/Disorientation, easily excitable or anxious
 - b. Young children who may have difficulty sitting still for any length of time
 - c. Patients prone to diarrhea, or diarrhea
- E. Equipment
- 1. Available as an inclusive kit or as separate items.
 - 2. Equipment Needed:
 - a. Irrigator Water Bag
 - b. Stoma Cone
 - c. Irrigation Sleeve with clip closure
 - d. Stoma Lubricant
 - e. Optional - Cleaning Brush, Stoma Cap
- F. Positioning
- 1. Sitting on the toilet with the sleeve pointed into the toilet
 - 2. Sit beside the toilet in chair with sleeve placed in the toilet
 - 3. Most find that standing for this procedure is very exhausting
- G. Procedure^{27,28}
- 1. Create a fastener or a place to hang the irrigation bag at shoulder height or 12-18 inches above the stoma. The patient will be instructed to sit while irrigating so this should be shoulder height when sitting.
 - 2. Assemble all supplies that are needed for the procedure including the pouching product that will be used after the irrigation process is complete.
 - 3. Clamp the tubing of the irrigation bag so that water will not escape from the tubing.
 - 4. Fill the bag with warm (tepid) tap water.
 - a. Cold water will cause cramping.
 - b. The amount of water instillation will be patient specific
 - c. On the first day, use 250 cc of water. On the second day, use 500 cc. The third day, use 750 cc and then increase to 1000 cc. Once routine has been established patient can use the smallest amount required to irrigate.
 - d. Water temperature should be about 100° to 105°F.
 - 5. Attach colon catheter or cone to the tubing and open the regulator clamp. Run fluid through tubing to expel air.
 - 6. Remove and discard the old pouch or stoma cap.
 - 7. Attach the irrigation sleeve by centering over the stoma.
 - a. Secure clip to the end of the sleeve and remove when ready to empty.
 - b. It is discouraged to allow an unclipped sleeve hang into the toilet bowl to drain as the weight of the returning water may pull the sleeve out of the bowl or pull sleeve off.
 - 8. At time of first irrigation, the professional care giver should insert a
 - 9. gloved, lubricated finger into the stoma to determine the path of the colon (stoma dilation). This will assist with cone placement.
 - a. Don glove and lubricate smallest finger with water soluble jelly or stoma lubricant.
 - b. Gently insert finger into the stoma using a rotating, massaging motion.
 - c. Using the next two larger fingers, repeat the motion until maximum dilation is achieved.
Rationale: Stoma dilation stretches and relaxes the stomal sphincter and allows the nurse to assess the direction of the proximal colon before irrigating.

10. Have the patient sit on the toilet with the sleeve pointed into the toilet or as preferred by most patients, sit beside the toilet in a chair with the sleeve placed in the toilet. Most patients find that standing for this procedure is very exhausting.
11. Lubricate the cone with a water-soluble lubricant.
12. Insert the cone into the stoma very gently pointed in the direction of the passage within the colon.
 - a. Stimulation of the stoma in this manner may result in retraction or contraction 'clenching up' initially. If this occurs, instruct the patient to relax for a few minutes and try again.
 - b. The entire cone does not have to be inserted. One-half of the cone is sufficient. The objective is to occlude the stoma lumen to the point that the water does not leak during the irrigation.
13. Release the clamp and allow the water to flow into the stoma slowly over a 5 to 10 minute time interval. Slow or stop the instillation as needed to prevent cramping, but do not remove the cone from the stoma. Once cramping resolves, continue with the process.
14. If the water does not flow:
 - a. Remove the cone and reposition the cone.
 - b. Advance the cone into the stoma slightly further.
 - c. Flush the cone into the toilet with water from the bag because firm fecal material may occlude the opening in the tip of the cone.
 - d. Relax for five minutes and try again to instill the fluid.
 - e. If the bowel is not returning as much as you put in, patient may be dehydrated.
15. When the desired amount of fluid has been delivered or when can't hold anymore, close the clamp, hold the cone in place for 10 to 15 seconds after the solution has instilled, then gently remove the cone. Abdomen may feel distended or bloated.
16. Return of waste may happen all at once or in stages.
 - a. May experience an immediate return of irrigant and stool with more stool being expelled over the next hour.
 - b. Empty the pouch as necessary.
17. Wear the irrigation sleeve for one hour. There may be several surges of feces and water return during the next hour.
 - a. The patient can pursue other activities during this hour.
 - b. If the patient notices another surge or movement, they should return to the bathroom to empty the sleeve in the toilet. Too much weight in the irrigation sleeve can interrupt the seal resulting in leakage.
18. After approximately one hour, the patient should wash the peristomal skin with mild soap and water. After carefully rinsing and drying the skin, apply the regular pouch until the colostomy irrigation schedule is determined.
 - a. After the bowel movement by irrigation pattern is established, pouching options may be changed to a smaller appliance such as a mini-pouch, stoma cap, or patches.
 - b. The mini-pouches and stoma caps can be ordered with filters to control odor from gas. Filters are not an option for stoma patches.
19. Wash and dry the irrigation supplies as these are reusable and may be used from 6 months to one year without replacement. Place in a storage area to be used for the next irrigation procedure.
20. If the patient is non-ambulatory, the colostomy irrigation can be done at bedside.
 - a. Position the irrigation fluid delivery device about 18 to 20 inches above the patient's stoma.
 - b. Place the bottom of the irrigation sleeve in a bed pan at the side of the bed.

21. NOTE: A regular appliance system should be worn until the patient feels confident enough to wear a stoma cap. Some form of covering will need to be worn over the stoma as mucus is constantly produced by the bowel

XI. Where can I find reputable resources for Patient Education?

- A. Ask Laura - <http://www.shieldhealthcare.com/community/ostomylife/2014/05/05/ask-laura-a-question/>
- B. UOAA – United Ostomy Association www.uoaa.org
- C. Manufacturer & supplier Websites
- D. Need a local ostomy resource – become certified in ostomy management.
<https://www.wcei.net/courses/ostomy-management-specialist/onsite-course>

References Diversion Dilemmas

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