Whose Ostomy is this? The Art and Science of Ostomies - Basic Principles

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Objectives

- Differentiate between a fecal and urinary ostomy and associated pouches
- List 2 goals that drive pouching techniques
- Name 3 resources available to the Med-surg nurse and ostomate

What is an Ostomy???

- opening, natural or surgically created, connecting the body cavity to the outside environment
- Stoma-the external opening= Greek for “mouth”
- Surgical procedure in which a stoma is created ends in the suffix “ostomy”
- Ex: ile-ostomy, col-ostomy, ur-ostomy

What is an Ostomy?

History of Ostomy Surgery

- Prior to 1700’s sporadic accounts of ostomy surgery – earliest stomas were accidents
- 1793: Colostomy surgery on 3 day old infant with imperforate anus who survived to age 45 prior to the surgery, the surgeon practiced on dead infants from the poorhouse
- 1846: Introduction of anesthesia=surgical techniques evolved at rapid rate

History of Ostomy Surgery

- Earliest colostomies were created at site of pathology
- Mid 1800’s-ureters were anastomosed to sigmoid colon-urine and stool were eliminated thru the rectum
- Chronic metabolic acidosis
- 40% incidence of carcinoma at anastomosis within 7-49 years
History of Ostomy Surgery

- 1903-diverting colostomy to protect distal anastomosis reduced mortality
- “end” colostomies popularized in early 1900’s by Henry Hartmann (aka “Hartmann’s pouch”)
- 1950’s surgical “maturation” (distal bowel was everted and sutured to skin) of stomas became standard of care - Dr. Rupert Turnbull developed the technique

Types of Ostomies

- Fecal diversion
- Urinary diversion

Fecal Diversions - Indications

- Cancers
  - Rectal/anal
  - Ovarian
  - Prostate
- Diverticular disease
- Familial adenomatous polyposis (FAP)/Gardner’s Syndrome
- Inflammatory bowel disease (IBD)
  - Ulcerative colitis (UC)
  - Crohn’s disease (CD)

Fecal Diversions - Indications

- GI trauma - blunt or penetrating
  - May need temporary ostomy to protect distal anastomosis
- Atonic bowel - congenital or acquired
- Volvulus - “twisting of the bowel”
- Inflammatory bowel conditions
  - Radiation enteritis
  - Ischemic colitis
  - Infectious colitis
- Intestinal obstruction

Fecal Diversions

Can be categorized by

- Surgical construction
  - Loop ostomy
  - Ostomy with mucous fistula (“double-barrel ostomy”)
  - End stoma with/without Hartmann’s Pouch
- Anatomic location
  - Cecostomy
  - Ascending/descending/transverse colostomy
  - Ileostomy

Fecal Diversion

Ascending colostomy
- Liquid to mushy stool consistency, unpredictable
- ++ gas
- Odorous
- Pouch/treat like an ileostomy

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Fecal Diversion

Transverse colostomy
• Mushy, unpredictable stool
• + gas
• Usually seen as a loop ostomy
• Less common: "double barrel". proximal end produces stool, distal end produces mucous (aka: mucous fistula)

Fecal Diversion

Descending/Sigmoid colostomy
• Semisolid to solid consistency, sometimes predictable
• Gas production often dependent on diet
• The more distal the stoma, the more solid/predictable the stool

End Stoma Creation
Fecal Diversion

End stoma
Loop stoma with bridge

Fecal Diversion

Ileostomy
- Liquid to semi-solid consistency, unpredictable
- Contains digestive enzymes
- Less odor than colostomies
- Additional patient education to manage

Ileostomy vs Colostomy

Ileostomy
- Liquid to semi-solid consistency
- 1st 24 hours dark green viscous, odorless
- Contains digestive enzymes
- Avoid insoluble dietary fiber

Colostomy
- Soiled to semi-solid consistency
- Initially liquid stool, large amount of gas
- No/little digestive enzymes
- No absolute dietary restrictions

Fecal Diversion

Postoperative care
- Assess stoma for ischemia/necrosis first 72 hours are critical
- GI functioning ileus normal first 24-48 hours post-op
- NG tube until bowel function returns
- Ambulation 1-2 days post surgery
- Education regarding ostomy management, supplies and support—know who your ostomy/WOCN is!

Fecal Diversions

Potential complications
- In first 30 days
  - Mucocutaneous separation
  - Stomal ischemia/necrosis
  - Blockage in ileostomies
- Long term
  - Blockage in ileostomies
  - Dehydration in ileostomies
  - Peristomal skin breakdown especially in ileostomies
  - Psycho-social/adaptation issues

Urinary Diversions

Types: Standard (Incontinent)
- Urerostomy Bilateral or unilateral
- Urere(s) are connected to abdominal wall and everted to create small stoma
- Vesicostomy
- Opening between the abdominal and anterior bladder wall
- “buttonhole” opening, no stoma, flush with skin
- Usually done in infants/children as a temporary diversion

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Urinary Diversions

Types - Standard (Incontinent)
- Intestinal conduit
  - ileal
  - Sigmoid
  - Jejunal
  - Ileocelecal

A segment of the bowel is isolated, one end is closed and connected to the ureters, and the other end forms the stoma to the outside of the abdomen.

Indications for Urinary Diversions

- Bladder cancer
- Invasive transitional cell
- Locally invasive cervical cancer
- Prostate cancer
- Incontinence not responsive to other therapies - uncommon

Indications for Urinary Diversions

- Severe refractory inflammation
- Radiation cystitis
- Interstitial cystitis
  - chronic inflammatory condition characterized by severe pelvic and bladder pain, urgency, and dysuria
- Neurogenic bladder

Urinary Diversions

Postoperative complications
- In first 30 days
  - Anastomotic leakage
  - Stomal ischemia/necrosis
  - Impotence
- Long term
  - Recurrent infection and stone formation
  - Renal damage
  - Peristomal fungal (Candida) involvement
Urinary Diversions

Postoperative care

- Ureteral stents placed to maintain patency, protect anastomosis
- May have a foley catheter or closed suction to drain area near anastomosis
- NG tube until bowel function returns
- Ambulation day after surgery
- Education regarding ostomy management, supplies, support

Pouches

Ostomy Pouches

- Fecal vs Urinary
- 1 pc vs 2 pc
- Flat vs Convex
- Standard wear vs Extended wear
- Cut-to-fit vs pre-cut vs moldable
- Drainable vs closed end

Urostomy Pouches

Fecal Pouches

Pouch accessories

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Pouching Techniques

- What is your ultimate goal???
- Match patient's abdominal contours to pouch contours
- Secure, reliable seal for at least 24 hours
- Correct size of pouch opening to protect stoma and prevent skin exposure to drainage

Pouching Techniques

- Cut opening 1/8"-1/4" larger than stoma
- Create a flat pouching surface: (stoma paste, barrier ring OR convex pouch)
- Generally ileostomies will require extra skin protection using a barrier ring or paste
- After application, press wafer firmly to skin for better seal

Pouching Pearls

- Maintain clean dry surface prior to pouch placement
- Avoid using paste with urine
- After application, for better seal, press wafer firmly to skin for several minutes

Pouching Pearls

- If a pouch is leaking, you must replace—don't “patch” it!
- If you cut the pouch itself-throw it away and start again
- Existing skin breakdown?
  - Create a dry surface using ostomy powder sealed with a skin barrier (spray or wipe) aka: “crusting”

Pouching Pearls

- Ask patient and/or family for assistance-allow them to manage their own ostomy, if possible
- Use their supplies, if they prefer
- Don't forget, all pouches are waterproof—patient can shower!
- Be familiar with supplies at your facility
- Know your resources!! For you AND your patient

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Confused?
Frustrated with your ostomy products??

Be very, very thankful....

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Resources

- United Ostomy Associations of America
  - www.ostomy.org
- www.phoenixuoaa.org
  - Includes info on local support groups
- Wound, Ostomy, and Continence Nurses Society
  - www.wocn.org
- American Cancer Society
  - www.cancer.org

Resources

- Crohn’s and Colitis Foundation
  - www.ccfa.org
- Familial Adenomatous Polyposis (FAP) Support Group
  - www.fapsupportgroup.org
- Interstitial Cystitis Association
  - www.ichelp.com
- National Institute of Diabetes and Digestive and Kidney Diseases
  - www.niddk.nih.gov

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Resources

- Friends of Ostomates Worldwide (FOW-USA)
  - www.fowusa.org
- Canadian Society of Intestinal Research
  - www.BADGUT.org
- Girls with Guts
  - www.girlswithguts.org
    - Butt Buddies support group, Outreach programs, Pen pal programs, retreats

Patient Resources-after Discharge

- Coloplast® Care
  - www.coloplast.us/care
- ConvaTec® Ostomy Care
  - www.convatec.com
- Hollister® Secure Start
  - www.hollister.com

Resources-Educational

- Wound, Ostomy and Continence Nurses Society®
  - www.wocn.org
- Provides information on certification/education
- Wound, Ostomy an Continence Certification Board®
  - www.wocnch.org
- National Alliance of Wound Care and Ostomy
  - www.wcel.net

References


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References


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