

Name: Natalie Scott

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Remediation Ostomy Management Essay Final Exam

This is a remediation final exam developed based upon your previous objective exams. This exam is developed to further enhance understanding of concepts in Urinary and Fecal Diversion Management.

A score of 80% or higher is required for passing this exam. Your answers should be scholarly, including complete sentences. Should you feel the need to research the concepts, please be sure to include references and citations as appropriate. The possible points awarded for each question varies and is indicated with the question. APA formatting will be considered in final score. Good Luck!

1. Identify the sections of the large intestine along with the main function of each (2 points)

The large intestine or colon is an important component of the gastrointestinal tract. It consists of the cecum with appendix appendage, ascending colon, transverse colon, descending colon, followed by the sigmoid colon, rectum and anal canal (Netsch, 2022). The superior mesenteric artery supplies the cecum, right colon, transverse colon and splenic flexure while the inferior mesenteric artery supplies blood to the descending colon, the sigmoid colon, and the proximal portion of the rectum (Netsch, 2022). This process of fluid absorption in the large intestine starts in the cecum and the ileocecal valve where a large portion of fluids is absorbed. The colon acts to collect, concentrate, transport and ultimately eliminate fecal waste (Netsch, 2022). Fluids and electrolytes become absorbed as they pass through the large intestine first thickening up in the ascending colon, becoming semi-formed in the transverse colon, and formed in the descending colon. By the time the waste gets to the sigmoid colon stool is formed and stored pending excretion.

2. Identify strategies for odor control regarding an ostomy. (1 point).
 - a. There are several strategies for odor control regarding an ostomy. Accessory products such as pouch deodorants and odor eliminators can be added into the pouch to eliminate malodor. These products mix with stool to decrease odor. Other strategies include oral medications such as bismuth subgallate or chlorophyllin (Carmel & Scardillo, 2022). Room sprays are commercially available to mask the smell of pouches before emptying in the bathroom. Dietary changes can also help manage the smell of stoma output such as avoiding asparagus, cabbage, beans, and beer. Pouches also can come with charcoal ventilation, filters, and self-sealing filters that help control odor (Carmel &

Scardillo, 2022).

3. For each of the listed conditions, provide a definition, symptoms, and treatment.
(2 points each)

- a, Suture Granuloma

A suture granuloma can be defined as erythematous soft to firm papules that bleed easily (Salvadaleña & Hanchett, 2022). They are located along the stoma edge to periwound skin. They form when the body reacts to a foreign material (retain sutures or surgical material) or when there is friction on the stoma from the pouching system in combination with a moist environment (Salvadaleña & Hanchett, 2022). Symptoms may include reports of leakage from the affected area while wearing a pouching system. To assess and treat suture granulomas with a cotton tipped applicator gently probe the area of concern to see if there are any loosening sutures then apply silver nitrate twice weekly to areas of elevated skin. This can be followed up with stoma powder and liquid barrier film to absorb any excess moisture (Salvadaleña & Hanchett, 2022). If the granulomas continue to spread, then a referral to a LIP is necessary to evaluate the need for possible biopsy or definite diagnosis.

- b. Mucosal Transplantation

A mucosal transplantation occurs when the bowel is sutured to the epidermis instead of the dermis on its surgical creation. It can be mistaken for hypergranular tissue, typically presents with bright red erythematous moist papules that appear similar to mucosal tissue (Salvadaleña & Hanchett, 2022). Patients may report difficulties pouching and leakage. Treatment includes using stoma powder to help absorb excess moisture, silver nitrate to reduce the growth of these lesions, or in severe cases, referral for electrocautery (Salvadaleña & Hanchett, 2022). If no progress is seen with these treatments, then they can be referred to the surgeon for stoma revision.

- c. Peristomal varices (caput medusa)

Peristomal varices are a type of peristomal skin complication that arises from portal hypertension leading to enlarged venous channels at points where high- and low-pressure venous systems meet. These varices present as dilated veins resulting in a bluish coloring and a raspberry-like colored stoma (Salvadaleña & Hanchett, 2022). Symptoms include spontaneous bleeding from the stoma or peristomal skin. The patient will need to address underlying etiology of their portal hypertension which may be caused by liver cirrhosis or cholangitis as rebleeding is common and they are at risk for hemorrhage. The ostomy nurse can recommend applying liquid barrier film, using one-piece pouching systems can help reduce the chances of bleeding when changing removing pouching systems along with avoiding convex pouches and ostomy belts (Salvadaleña & Hanchett,

2022). Additionally, it is important to educate patients to gently remove their pouching systems to prevent possible trauma to the area.

d. Pseudoverrucous Lesions

Pseudoverrucous lesions are another type of peristomal skin complication. It refers to the overgrowth of benign papules around the stoma that form when the peristomal skin has prolonged contact with urine or stool (Salvadalena & Hanchett, 2022). Chronic exposure to stoma effluent creates an inflammatory response by the body which causes thickening of the skin. Pseudoverrucous lesions typically present as wart-like papules or encrustations and nodules that are a different color than the surrounding skin and feel gritty. Patients may report bleeding, tenderness to the area and notice skin erosion. In order to manage these lesions it is imperative that the stoma effluent does not contact the skin. This may require refitting the pouching system, ensuring that the skin barrier is correct, if the patient has a urostomy pouch then the ostomy nurse should ensure that the patient's bag has an anti-reflux pouch (Salvadalena & Hanchett, 2022).

4. Ostomy appliances are chosen based upon stoma and peristomal characteristics. Identify what appliance characteristics would be needed for the following scenarios:
 - a. Stoma is red and moist, protrudes slightly above skin level, and measures 1 ½". Peristomal skin is intact with the plane being flat except for an area from 3 to 6 o'clock which dips down lower. The abdomen is noted to be soft. (2 points)
 - i. The stoma described above appears to be healthy and budded beyond ½ above the abdominal wall surface. The peristomal plane has creases from 3 to 6 o'clock indicating a dip which may cause the patient difficulty pouching. The abdomen is reported to be soft which may allow a soft convexity pouch to be used if a firm convex pouch system continues to pop off (Colwell & Hudson, 2022). Additional pouching accessories can be used after observing the leak pattern of the pouch. To support the 3-6 o'clock dip a skin barrier ring such as an eakin ring can be added to the crease to even out the peristomal plane and stoma barrier paste can be added to enhance the seal. An ostomy belt can be utilized as well to enhance the seal, if desired.
 - b. You have a 25 y/o female who presents to the outpatient clinic complaining her appliance will no longer stay in place. Your assessment notes she is 30 weeks pregnant. Her stoma is red, moist and protrudes about 1" above skin level. Peristomal plane is flat and without irritation. (2 points)
 - i. Based on this patient's clinical presentation, a flat pouching system may be recommended for use. Flat pouching systems are utilized when the

peristomal plane is flat and the stoma is well budded (Coldwell & Hudson, 2022). Depending on the patient's preference, and as the pregnancy advances creating a larger belly a flat two-piece system can provide easy visualization for the patient.

- c. You are consulted to see a 45 y/o patient with an ileostomy for pouch leakage. Upon entering the room, you note a towel over the stoma. The patient indicates staff has been using the towel since yesterday. Peristomal skin is sore, tender to touch, irritated and weeping. Stoma is red, moist, and at skin level. When he sits up, stoma retracts below skin level. Effluence is liquid to slightly pasty stool. (2 points)
 - i. This assessment implies that the patient and staff are having a difficult time maintaining a seal due to high output and difficult body contours. In addition to assisting with this pouching, it is important to address any dehydration concerns this patient may be experiencing. A firm deep convex pouching system may be indicated because the stoma sits at skin level and then retracts below skin level upon sitting indicating a very soft abdomen. The use of an ostomy belt to enhance the seal could also be utilized. On a soft peristomal plane such as this firm convexity can be a better option than soft convexity (Coldwell & Hudson, 2022). To address the irritated peristomal skin, stoma powder and liquid barrier film can be added to absorb excess moisture and form a barrier between possible exudate and the skin.
5. Continent diversions require intubation through the stoma with a catheter. Identify and explain the purpose of such and when one would contact their surgeon. (2 points)
 - a. A Knock pouch and Indiana pouch are examples of continent diversions that require intubation through the stoma with a catheter. Candidates for a continent ileostomy include individuals who have suffered fistulas, hernias, stenosis and prolapse with a normal ileostomy while IBD is a contraindication (Rubin, 2022). If the patient is unable to intubate their stoma, then in affect, they have a functional bowel obstruction and need to contact their surgeon for the insertion of a flexible endoscope to be suctioned and temporarily decompress the obstruction (Rubin, 2022). Catheters are left for approximately two weeks after the knock ileostomy creation to allow time for healing. If there is leakage between the catheter and skin this may indicate a leak and the surgeon should also be notified. Initially the patient will insert the catheter every two hours then gradually decrease that time as the pouch capacity expands to contain 500 ml of contents (Rubin, 2022). The LIP should be notified for any signs of infection including temperature, purulent drainage, or chills.

6. Describe what is referred to as the “Anal Transition Zone”. (1 point)
 - a. The anal transition zone is where the tissues “transition” from columnar epithelium to squamous epithelium between the anorectal line and the dentate line. This occurs approximately 6-12 mm proximal to the dentate line (Carmel & Scardillo, 2022). This area differentiates the area between the rectum and the perianal skin. Above the dentate line epithelium is innervated with autonomic nerves while below exist many free sensory nerve endings that are sensitive to pain and touch (Carmel & Scardillo, 2022).

7. You are consulted to begin teaching a patient with a new urinary diversion. Upon entering the room, you note there is no urine in the pouch and there is one stent. Identify and explain your next course of action. (1 point)
 - a. It is important to understand what type of urinary diversion this patient has before moving forward. If the patient has an ileal conduit, stents are placed to maintain the ureterointestinal anastomoses and the urine output is typically continuous. Stents are typically kept in between 5 days to two weeks (Packiam et al., 2022). Occasionally these stents will fall out if they were sutured with dissolvable sutures. It would be important to notify the responsible surgeon if one stent has come out especially if this patient is only one day postoperative. Other common complications for ileal conduits include stenosis, prolapse, retraction, and parastomal hernia (Packiam et al., 2022). If there is no urine output in three hours this could indicate one of the previously mentioned complications and the surgeon should be notified immediately. If these complications are ruled out the patient’s hydration status and kidney function should be assessed. If the patient had a continent urinary diversion such as an Indiana pouch stents are placed and left in for one to two weeks (Packiam et al., 2022). A catheter is placed in the stoma as well and requires irrigation of 30 to 60 ml three times a day in the early post-operative stages (Packiam et al., 2022). No output may indicate that it requires irrigation. For both the Knock and Indiana pouch surgeries, Jackson Pratt bulbs are placed to assess for urinary leakage. It would be important to assess the color of these bulbs to rule out urinary leakage. Complications of an Indiana pouch include ureteral stricture, pouchitis, parastomal hernia, and ileus (Packiam et al., 2022).

8. One type of surgical procedure which results in an ostomy is the total proctocolectomy. Identify at least two conditions or diseases where this procedure might be performed as well as the type of ostomy which results from this procedure. Why might dehydration be a complication? (4 points)

- a. A total proctocolectomy with permanent ileostomy may be the procedure required for an individual with pancolitis, extensive colorectal Crohn's disease, or in the presence of malignancy. The large intestine receives 1 to 1.5 liters of intestinal fluids through the ileocecal valve (Netsch, 2022). As this fluid moves through the colon more fluid is absorbed until only waste product exists to be excreted. When the entire large intestine is removed in a total proctocolectomy the body's absorptive capacity is removed. Dehydration and electrolyte imbalance become a large concern as fluid losses of someone with an ileostomy can be 1,200ml compared to 100-200ml by someone with an intact colon (Carmel & Scardillo, 2022).
9. Stoma site marking is an integral component of the WOC nurse's practice. Describe how to perform such on an individual prior to surgery *and* on an individual in surgery. (5 points)
- a. After obtaining consent and explaining the procedure gather all the necessary equipment including a surgical marker, transparent film dressing, and a flat skin barrier or stoma marker tool. First, provide privacy and examine the patient's abdominal surface with the patient's clothes on examining clothing items or accessory devices that might interfere with the stoma placement. Afterwards, examine the patient's exposed abdomen in different positions including sitting, lying, and standing observing for creases and scars. Place the patient in a supine position and locate the rectus muscle by having the patient tighten their abdominal muscles. Locate the infraumbilical fat mound and mark the chosen stoma site. The site should be two to three inches away from the umbilicus, bony prominences while positioned on the flattest plane available. In the documentation records, ensure that it is clearly defined why each stoma site was chosen and which is the best location.

In emergency situations, the patient may already be on the operating table and unable to sit or stand, but still requires stoma marking. The main goal is to avoid creases, bony prominences, and place the stoma high enough that the patient can see the stoma (Goldberg & Mahoney, 2022). The clinician can gently squeeze the abdomen to identify the infraumbilical and supraumbilical folds (Goldberg & Mahoney, 2022). Of note, it is important to select a spot that provides ample room between the midline incision and the stoma site.

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