Student name and date: Kelsi Critzer 10/11/23

Instructor Signature/Date:

1. Define constipation and address its clinical management.

Constipation is defined as a problem with stooling that occurs typically due to dietary or environmental issues, it is commonly seen in the elderly, pregnant women, or individuals whose normal routine has been disrupted. Constipation can be related to very dry and hard stools, infrequent stooling, sensation disturbances, and pain. Constipation can be managed with lifestyle modifications including a high fiber diet, increased intake of water, and incorporating exercise into lifestyle (Kamp & Heitkemper, 2022). Additionally, medications can be used to soften stool and to help stimulate a bowel movement.

2. You are asked to see a male patient with marked and extensive incontinence associated dermatitis. On assessment you see marked erythema with wet and weepy dermatitis in the perianal and sacral skin. The patient has a recent history of acute CVA affecting the left side of his body complicated by pneumonia and a UTI, and is currently recovering in a long-term acute care facility. Swallow tests for this individual have demonstrated difficulty swallowing; a temporary gastrostomy tube is in place for feedings until oral feedings can safely resume. Diarrhea episodes began a week ago involving 5-6 episodes of liquid stool daily. A Foley catheter is in place with leakage of urine around the catheter.

a. What will your focused assessment consist of?

My focused assessment will consist of identifying the cause of the dermatitis, which appears likely related to the fecal incontinence. Since the patient has a catheter in place, urine is likely not the cause of the irritation even with some leakage. The multiple episodes of diarrhea the patient is having daily is likely related to the tube feeds. Some questions to better assess this patient's need include determining their baseline prior to the CVA. Was this person ever continent? How were their stooling habits previously? Has there been any attempt to toilet this patient? The cognitive and functional abilities of the individual need to be assessed to better understand how the CVA affected them. It will also be important to determine current options being used to manage the fecal incontinence, if any. It is important that we assess the need for the indwelling catheter being in place and attempt to determine why it is leaking. After this assessment is complete, the patient's needs will be better understood, and a management plan can be developed to meet their individual needs.

b. How will you approach the issue of urinary incontinence on a long-term basis?

The first approach for treating urinary incontinence on a long-term basis for this patient would be to teach behavioral interventions. These interventions include scheduled toileting and prompted toileting, this should occur at least every 2 hours. I would also recommend that this patient reduce his caffeine intake as it can stimulate the bladder and cause contractions leading to incontinent episodes. Fluid and dietary modifications should be included in this patient's plan of care once the swallowing issues are addressed, and the tube feeds are discontinued. Another long-term management option for this patient could include the use of an antimuscarinic. These medications block acetylcholine from binding to the muscarinic receptor in the detrusor smooth muscle. The goal of this therapy is that the bladder can store urine at low intravesical pressures and remains free from incontinent episodes between voiding times (Wooldridge, 2022). If the patient failed behavioral modification and pharmacological therapy the next step would be clean intermittent catheterization (CIC); however, due to this patient's history of CVA with left sided

alterations, this would only be feasibly done with a health care provider. Finally, if the prior two management options fail and no other approaches are feasible, a long-term indwelling catheter is used. Silastic and silicone catheters are preferred for long-term use due to the fact they produce less inflammation when left in place for longer periods of time and do not contain latex (Newman, 2022).

c. What initial and ongoing urodynamic testing can be used to track the progress of regular and consistent bladder emptying with minimal break- through leakage?

The initial urodynamic test would include uroflowmetry. This is a noninvasive test that involves a measurement of the rate of urine flow over time and is measured in millimeters/second. Ongoing urodynamic testing that can be done is post-void residual testing. This assesses the amount of urine left in the bladder after voiding by using a bladder scanner or by intermittent catheterization (Dickinson, 2022). This is important to determine if the individual is retaining urine and causing leakage once scheduled toileting is started.

d. How will you approach the issue of fecal incontinence for this person? Will you need to use containment devices? If so, what kind?

I will approach the issue of fecal incontinence first by determining the cause of the incontinence. It is unknown whether this patient has a history of fecal incontinence, however we can assume that due him recently suffering from a CVA in addition to being started on tube feeds, the diarrhea episodes are likely related. Until the patient has established safe transfers with physical therapy, it is in the patient's best interest to stay in bed wearing a barrier cream to protect the skin and a brief to collect the liquid stool. Frequent assessment is pertinent to ensure stool isn't sitting on the patients' skin for long periods of time. Following the establishment of safe transfer techniques, the patient should be placed in pull-ups and a toileting program should be initiated. This will help retrain his bladder and offer him a chance to stool on the commode. Additionally, the pull-up is less bulky but still provides protection in case an accident occurs.

e. What skin care measures will be needed to correct this problem?

If there is no fungal infection present, this patient should only require a barrier cream to protect the denuded skin and healthy surrounding from further damage. I would recommend the Triad Hydrophillic Wound Dressing as the treatment of choice. This is because it is zinc-oxide based hydrophilic paste that maintains a moist wound healing environment, while absorbing excess exudate and still providing protection to periwound skin.

3. A female patient reports she has had progressively worsening urine leakage for the last three years. She is a type II diabetic and has three grown children. The pattern of incontinence includes symptoms of stress and urgency. Given her medical history and symptoms, what type of medical management might be helpful to her? What behavioral strategies can you recommend that may reduce the incontinence episodes? Any additional recommendations?

A type of medical management that might be helpful to her is the midurethral sling procedure. This is considered the gold standard surgical procedure for urinary incontinence and is designed to maximize urethral support. Because this procedure supports the urethra, it minimizes the risk for leaks after surgery and is ideal for females with mixed incontinence, especially those with an obstetrical history (Engburg, 2022). Behavioral strategies for this patient should include monitoring her caffeine intake, if she does not notice a difference in incontinent episode with significant changes in caffeine intake then she may resume her normal intake. She should also keep track of the amount of fluid she takes in. She should drink enough to say hydrated, which is about 1500 mL/day. I would also recommend for her to begin pelvic floor muscle training to increase pelvic floor muscle strength, endurance, and improve pelvic floor muscle coordination. These exercises should be done is sitting, standing, and supine positions, in set of three or four, with 10-15 exercises per set.

4. You are teaching a group of CNAs how to apply an external (condom) catheter. What should be included in this education? How will you evaluate their understanding of what has been taught?

Prior to application of the condom catheter, the glans penis and penile shaft should be assessed for integrity. The appropriate size and fit of the device should be selected based off the inspection. Next, the skin should be cleansed and dried prior to application. A liquid barrier may be applied before applying the condom catheter according to the manufacturer's recommendations all the way to the base of the shaft. No additional adhesive is required for adherence and should be avoided. Additional information to include in education is to avoid use in patients with latex hypersensitivity or allergy. A condom catheter should only be used on intact skin. For men with retracted penises or shorter shaft lengths, other devices should be considered. Following the education component, I would expect a return demonstration of the skill on a patient to ensure the skill is understood. Lastly, I would discuss reportable findings with the group such as, swelling in the penis, color changes, urine leakage, and pain. All these findings require further action and should be reported (Kent & Holderbaum, 2022).

5. A 76 year old woman presents with a history of chronic constipation with fecal impaction and leakage of liquid stool. On assessment she denies any sensation of rectal fullness; her anal wink is intact, and her sphincter tone is normal with good voluntary contractility. She eats mostly starches, dairy products, and meats. She does not eat fruits and vegetables because they bother her stomach. She has used OTC laxatives to induce bowel movements with increasing frequency over the last few years. She reports current use of laxatives as being once a week and frequency of bowel movements as one or twice a week "with straining." The leakage began just this week, and she is very upset about it. She says she will "do whatever you recommend" to get her bowels working right again.

What are your recommendations?

This patient seems to be suffering from functional constipation. It would be important to perform a transit time study to determine whether she is suffering from normal- or slow-transit constipation because the differentiation will determine a more precise plan of care. It seems she may be suffering with normal-transit constipation and simple modifications could be made to help prevent future constipation. I would recommend the patient increasing her fiber and fluid intake. A common cause of this type of constipation is a diet low in fiber and high in simple carbohydrates. I would recommend she increase the amount that she exercises because this can contribute to increased peristalsis and decreased transit time which results in proper movement of stool down the digestive tract. Additionally, it appears she may be impacted at this time and the liquid leakage is going around the blockage. I would recommend an enema to help breakdown the fecal mass and make it passable. For the lifestyle modifications to be successful, we must remove the impacted stool (Kamp & Heitkemper, 2022).

6. The following prompts relate to quality improvement projects and CAUTI:

a.) Describe the components of a quality improvement project.

The components of quality improvement include identifying a problem. Include data and supporting evidence. The problem should be stated, and the purpose should be defined. Next, assemble a group to review and compose the supporting evidence. After enough evidence is identified that change is necessary, propose a new policy that aims to prevent or reduce the initial problem. Is this new policy feasible, can it safely be implemented? If so, introduce the changes and implement the new policy. After the policy has been in place, a review should be completed to determine if outcomes showed improvements in the problem or if additional revisions need to be made (Newman, 2022).

b.) Identify and describe how you would design a QI project using CAUTI as the subject.

A quality improvement aimed to reduce CAUTI's during hospital admissions could include necessity assessments every shift for the catheter in place. If the nurse charts the indwelling catheter is necessary, the charting system prompts them to then select an appropriate CDC guideline that explains why the catheter is considered medically necessary currently. The aim of this practice is to identify promptly when the catheter is no longer indicated and can be removed. If the catheter is deemed appropriate the charting system populates required interventions that must be complete every shift. Some of these interventions include daily CHG baths, catheter care, documentation of securement device and location, and total output emptied during their shift (Newman, 2022).

7. Mr. J.L. had an indwelling catheter placed for urinary retention secondary to an enlarged prostate. He is started on Finasteride (Proscar), 5 mg once a day to decrease the size of his prostate. Mr. J. L. visits the urologist for a 2 month follow-up for removal of his indwelling catheter and a voiding trial. Explain the purpose of a voiding trial and how you will conduct it.

Upon removal of the catheter the patient is encouraged to void naturally. Following voiding, a PVR is obtained to assess if the patient is fully emptying with each void. Large volumes remaining in the bladder indicates the retention of urine and incomplete emptying (Sheldon & Santos, 2022).

8. The PVR is 425 cc, and the urologist orders clean intermittent catheterization rather than indwelling catheter use. The Finasteride is continued.

a. State the goal of intermittent self-catheterization.

The goal of intermittent self-catheterization is to promote normal bladder functioning by allowing the bladder to fill and be completely emptied based on catheterization schedule. ISC is an acceptable method of bladder emptying for those with urinary dysfunction. IC is an alternative to an indwelling catheter for those suffering with acute urinary retention and is typically preferred. ISC is beneficial as it minimizes degeneration of the bladder caused by chronic urinary retention. ISC also allows for renal function to be maintained by reducing pressure exerted on the bladder. ISC establishes a means of bladder emptying that meets the individual's needs (Newman, 2022).

b. Describe education points to include for an individual performing self-catheterization.

Education points include practicing consistent hand hygiene before and after catheterization. Maintain a clean environment during catheterization process (be set up prior to starting, always be aware of catheter location, and replace catheter if it becomes contaminated prior to insertion). Catheterizing in an upright position to allow for complete emptying of urine, adhering to the prescribed catheterizing regimen of 4 to 6 times per day while awake. Ensuring to remove the catheter slowly to completely drain bladder. Locating the urethral meatus and gentle insertion of the catheter until there is return of urine. Education on catheter selection would also be vital for these patients, including catheter size and type, for example this patient should be educated on the coude-tipped catheter and proper use if required (Newman, 2022).

c. Identify at least three complications that can occur with intermittent self-catheterization.

1) UTI can occur for individuals not preforming appropriate hand hygiene, preforming catheterization in the supine position, and not allowing complete drainage of urine.
2) Trauma can occur from individuals not lubricating their catheters prior to insertion and from not using gently insertion technique. Individuals at risk for trauma include those with limited or no urethral sensation.
3) Urethral strictures have been found to occur in individuals who do not adhere to their IC protocol, a healthy lifestyle, and are constantly constipated. It was also found to occur in individuals who used uncoated PVC catheters with water-soluble lubricant (Newman, 2022).

d. Describe the action of Finasteride (Proscar) and any other teaching points, such as side effects.

Finasteride helps reduce the prostate size by inhibiting the conversion of testosterone to DHT and decreasing the blood and tissue levels of this hormone. Which therefore helps with symptoms associated with BPH, like frequent and difficult urination, and may reduce urinary retention. The patient should be made aware of potential side effects such as decreased libido, erectile dysfunction, and ejaculation disorder. This patient should also be informed that it may take 6-12 months for symptom improvement (Robinson et al, 2022).

9. Mr. P.V., 26 years old, has a neurogenic bladder secondary to an accident 3 years ago. He has been managed with an indwelling catheter (ISC was not workable for him secondary to ureteric reflux), is wheelchair bound and sexually active. He is finding intercourse uncomfortable secondary to the indwelling catheter and has discussed insertion of a suprapubic catheter with the urologist. Suprapubic tube (SP) insertion is scheduled for next week.

a. What should be included in the pre-operative teaching of suprapubic catheter insertion?

The patient should be educated on the procedure and what to expect following. The new catheter will be inserted directly through the abdominal wall directly into the bladder. He should understand that the procedure is a painful procedure even with sufficient anesthesia. The preoperative site will be marked and prepped prior to the procedure. He should be informed that this procedure will reduce urethral irritability and allow him to have sexual intercourse without the urethral catheter present (Sheldon & Santos, 2022).

b. Discuss care of the suprapubic tube post-operatively including cleansing, dressing, securing of the catheter, changing of catheter, etc.

Cleanse catheter site daily with warm, soapy water. Apply fenestrated gauze to insertion site around catheter after cleansing until site is healed. No dressing is recommended once site has healed. The patient should monitor the site for skin irritation and urine leakage. Also monitor for urethral leakage and ensure good skin care with cleansing and moisture barriers is being provided if this occurs. The frequency of changing SPC is individually based and usually based on the timeframe to blockage. The first exchange of catheters is typically performed by the urologist. Follow-up catheter exchanges are done by a nurse trained to do so. The nurse will gently rotate the catheter to loosen it, deflate the balloon, and gently remove the catheter. It should take little, to no, tugging to remove the catheter. The replacement catheter should be ready to be placed immediately to prevent complications. The catheter should then be secured with medical adhesive tape or a commercial securement device ensuring that there is no tugging on the tubbing or catheter (Newman, 2022).

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