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Instructor Signature/Date:

1. Define simple constipation and address its clinical management.

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? I will review the previous medical history : any blood disorders, surgeries, Hx of allergies, and if patient could control bladder function before CVA occurred. The diarrhea can be related to antibacterial therapy for pneumonia and UTI and TF formula. I would ask to rule out C.Diff infection. I will assess the patency of the urinary catheter and date of placement. I would also assess patient's ability to report incontinence episodes and urges to have a BM, and how well Pt can communicate his needs. I will assess his cognitive function. Functional mobility needs to be assessed, if Pt can turn himself or need assistance. If Pt can be transferred out of bed for PT with stand pivot or needs a lift. I will assess skin in perianal and perineal area, and sacrum. Will inspect the sacrum to rule out pressure injury. Will assess for satellite rash typical for candidiasis. I will check labs for protein level.

   b. How will you approach the issue of urinary incontinence on a long-term basis? I will remove indwelling catheter, assess for a voiding pattern and rule out urine retention. Will try to keep patient on scheduled voiding if it is possible and use external catheter intermittently. If Pt retains urine I would start IC every 4-6 hours when bladder scan over 300 ml.

   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? Initial test is simple urodynamics including diary recording of the episodes of incontinence, checking PVR after each episode, observation of stream, and cystometrogram with probe inserted in the rectum and attached to the catheter. Bladder filled with NS or sterile water. Pt asked to report when he fills pressure in bladder and pressure then leakage of urine happens also recorded. Bladder pressure measured in filling and voiding phases.

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 use the briefs with super absorbent polymers. If there is no contraindications, I will use internal fecal management system until diarrhea resolves to protect perianal skin from further damage. Use of internal fecal management devise should not exceed 29 days. Continue to provide perianal skin care around devise as leak of stool is typical and will damage the skin.

e. What skin care measures will be needed to correct this problem? Gentle PH balanced cleaning solutions for perineal skin cleaning, moisture protective barrier after each perineal care , Aquaphor ointment in perianal area, 3 times a day, anti fungal medications: Nystatin powder or Miconazole on macerated skin in sacral area 3 times a day. Reposition patient every 2 hours to reduce pressure on sacrum area. Increased pressure from long time lying in one position can compromise blood flow causing pressure injury.

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? Life style management include weight reduction if BMI over 30. Reduce caffeine intake to one coffee cup a day, cutting down on tea, cola drinks, chocolate, alcohol, artificial sweeteners, spices, aged cheese, tomatoes, cigarettes if smoking. Perform Kegel exercise while sitting, lying, standing by contracting perivaginal muscles and anal sphincter preventing void or defecation counting by 10 with following the same length relaxation. Perform the exercise at least 10 times three times a day. Recommend to contract muscles of perineum 5 times before starting activity. Vaginal exam would be recommended to find out if there is a uterine prolapse and to examine the quality of tissue in vagina. Pt may benefit from pessary or estrogen cream. UTI should be ruled out or treated. Modification in liquid intake by reducing intake before activities, but still consuming not less than 2 L/day. Learning about BM pattern to prevent constipation. Bladder training by suppressing urge for 30 sec using deep breaths and distraction techniques.If these strategies don't help the reference to specialist for medicaments management is required. These strategies include antimuscarinic medications, b 3 agonist Mirobegron, Botulinum toxin injection, tibial nerve stimulation, transvaginal E stim, and augmentation cystoplasty if other approaches unsuccessful

4. What strategies will you use to teach a group of nurses' aides to improve the use of condom catheters? First, to clean the area from residual adhesives by washing with soap and water and drying. Long pubic hair needed to be trimmed to improve adhesion. Catheter needs to be sized properly by registered nurse before catheter application. Apply skin protection barrier liquid form, let the skin dry. Keep the gap at the end of sheath between the glands penis and top of condom continuing into the drainage tube. Make sure the base of the penis is not squeezed. Remove gently by rolling down while applying warm soapy water.

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.

a. What are your recommendations? To restore normal stool elimination pattern. It looks like Pt's stool leakage contributes to chronic constipation. First, change a diet. Reduce diary products to yogurts with probiotic bacteria and milk with cereal. Include in a diet salads, fruits and vegetables what pt can tolerate. If patient refuses recommend fiber supplements: Metamucil or Citrucel would be the choice. Metamucil is a Soluble fiber with reduced fermentation. It produces less flatulence. Citrucel, which is a insoluble non fermentable fiber reduces transit time significantly but increases flatulence. It should be started with low dose. Recommend Myralax in the morning and Senna with lunch for two weeks. Evaluate Pt's life style. Recommend to increase activity. Yoga exercise with twisting the body help to increase peristalsis. Exercise can be done in lying position on the bed. If applicable, Pt should be motivated to increase walking. Fluid consumption to 2 L/day is important. Recommend water, unsweetened juices. Discourage carbonated drinks. Evaluation of Pt's medications is important to make sure the constipation is not attributed to medication such as anticholinergics and opioids.

6. Describe the components of a quality improvement project using CAUTI as the subject with the goal to decrease an institution's CAUTI rate. The first and the most productive measure is to remove indwelling catheter as soon as possible. It Pt requires indwelling catheter, the sterile technique needs to be followed on insertion, system should be closed with drainage bedside bag or leg bag attached. Leg bag should be emptied when filled to 300 ml. Drainage bags should be always placed below the bladder level. Bags should be disposed and not reused. Leg bag should be attached to the leg with velcro to prevent tension on the catheter and tubing kinks. The tubing should be free from kinks to prevent blockage to urine flow. The catheter should be secured to the inner thigh with the catheter secure device at the Y hub with loop created to prevent tension on the catheter. The meatus should be cleaned as part of perineal care. Urine should be observed for cloudiness, color changes, blood, and blood clots. Encourage Pt to drink not less than 2 L a day of fluids, including water and cranberry juice. Monitor for symptoms of UTI: chills, flank pain, suprapubic pain, fever, nausea, vomiting, loss of appetite. Use silicone catheter instead of latex. Catheter size should be not more than 16 Fr. The large catheters increase the risk of urethral trauma. Educate staff on catheter, meatus care, symptoms of UTI, bags changes, bag placement, prevention on tubing kinks.

7. Mr. J.L. had an indwelling catheter placed for urinary retention secondary to an enlarged prostate. He is started on Finasteride (Proscar), 5 mgm 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.

a. What is meant by a voiding trial? Voiding trial is the evaluation of patients ability to void and empty bladder. It is more successful in patients younger than 65, known cause and PVR less than 1000 ml. Pt was started on Proscar and there is a chance his prostate decreased in size and he would be able void without retention.

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. To empty the bladder to prevent secondary kidneys injury. In other cases IC is used to measure the residual when no bladder scan is available, instill medications into the bladder, and obtain urine sample to avoid cross contamination.

b. Describe education points to include for an individual performing self-catheterization. First, make sure patient is able to see the meatus or palpate it in order to insert the catheter. A mirror can be helpful for teaching purpose. Family education is important as in many cases the family member will help patient with IC if Pt can not perform it. Mobility and dexterity are needed to be assessed. Pt needs to learn first to prepare the equipment: catheter, lubricant, basket with a soapy water, and clean hand towel. Wash hands meticulously, wash perineal area with water and soap or wipe with pH balanced wipe, squeeze the lubricant covering about 6 inch of catheter, locate the urethral opening visually or on palpation, move the foreskin, insert the catheter 6-8 in for male, drain the bladder, remove a catheter after a urine flow stops, measure the output. Never force catheter. Measure and document urine output. Notify PCP if there is a blood or clots in urine.
c. Identify at least three complications that can occur with intermittent self-catheterization. Bleeding secondary to trauma. The risk of bleeding is less prominent with the use of hydrophilic coated or gel coated catheters and the use of lubricant. UTI-the most frequent complication. Pyelonephritis is a serious complication of IC. It requires urologist involvement.

d. Describe the action of Finasteride (Proscar) and any side effect Mr. J. L. should be made aware of. Finansteride is 5a reductase inhibitor. The medication is blocking the conversion of testosterone into its active derivative dihydrotestosterone, preventing the enlargement of prostate. Pt should be informed that effect of medication may take up to 6 months to decrease the size of prostate. Medication may decrease the volume of ejaculation without affecting sexual function. Pt needs to report breast changes such as lumps, pain, or nipple discharge. Pt may experience dizziness, headache, hypotension. Medication should not be taken with St. Jonh's wort. It may decrease Finasteride level.

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 teaching points will Mr. V. need to know preoperatively? The SPC is placed 5 cm above the pubic symphysis bone. The placement requires local anesthesia. The area of the insertion will be shaved from hair. Pt needs to know he will lie flat on his back. The physician will use ultrasound to locate the bladder. After injection with anesthetic, the needle will be placed in a bladder with consequent catheter placement. The catheter balloon will be inflated to keep catheter in place. The doctor may also put skin sutures to stabilize a catheter. Catheter will be connected to the bag attached to the thigh.

b. Discuss care of the suprapubic tube post-operatively including cleansing, dressing, securing of the catheter, changing of catheter, and etc. Cleansing: Check for redness, swelling, and discharge. Wash hands, clean the skin around catheter with soap and water. Don't use powder, creams and sprays around the catheter. Loop the catheter and secure with a tape on the abdomen to prevent kinks. Make sure the drainage bag is below the waist. Check for kinks.

While the insertion site healing use AMD split dressing. Remove, inspect the old dressing for discharge, and clean the site around catheter with soapy water. Apply dressing. Secure with tape. After the incision heals the dressing is not required.

Catheter needs to be changed every 4 to 6 weeks. Before the procedure prepare sterile gloves, catheter, syringe, sterile solution to clean the skin, lubricant, and a drainage bag. Put two sets of sterile gloves one on another. Prepare and lubricate the catheter. After lying on the back, clean the skin around the catheter with sterile solution, deflate the balloon with a syringe, remove old catheter slowly. Remove top pair of gloves. Insert new catheter as far as another was placed. Drain the bladder, inflate balloon with 5 to 8 ml of sterile water. Attach drainage bag.

Drink 8 to 12 glasses of water unless on water restriction for a few days after catheter change. Avoid physical activity for couple of days.

Call PCP if no urine flow or increased urine output, urine leak, blood in urine, change of urine color, suprapubic pain, fever or chills.