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Date: 9/26/21

Remedial Continence Management Essay Exam

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

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 utilizing APA format. The possible points awarded for each question varies and is indicated with the question. APA formatting will be considered in final score. A late exam will not be accepted. Good Luck!

1. Mr. Sam has had a stroke. A focused neurologic exam shows normal cognitive status with post-void residual urines as follows: 650cc; 843cc; 575cc; and 667cc. How would you interpret this data? Identify and describe what, if any, the treatment approach. (3points)

In this case scenario the patient had a stroke and maintained a normal cognitive status with PVR that varies residual volume of urine in the bladder after each void. After a stroke, the nerves that control the bladder trigger the detrusor muscle to contract and push urine into the urethra to keep the urine in (inability to urinate) the amount of urine left in the bladder after voiding can result in urinary retention or not fully emptying of the bladder manifested by the PVR results presented in this case above 500cc. A PVR volume of less than 50 ml is considered adequate bladder emptying; between 50 and 100 ml is considered normal. PVR that exceed 250 ml are considered significant and above 350 ml increases the risk for upper urinary tract dilatation and renal damage. In general, a PVR volume greater than 200 ml is considered abnormal and could be due to incomplete bladder emptying or bladder outlet obstruction. Management of voiding dysfunction/urinary retention with or without incontinence includes clean intermittent catheterization used to drain/empty the bladder, routinely empties and decompresses the bladder, and serves to improve neurogenic bladder dysfunction. In this case the treatment approach is the CIC due to the high volume of residual urine. Some medications that could make the bladder less able to squeeze urine out or make the internal urinary sphincter could be Alpha-1 adrenergic blockers, skeletal muscle relaxants, and injectable neurotoxin. Surgical management options include TURP transurethral sphincterotomy used to relieve bladder outlet obstruction (Gray, 2016).

2. Debbie has been diagnosed with stress urinary incontinence and is highly motivated to learn pelvic muscle exercises. She is able to correctly identify the pelvic floor muscles, although her contraction strength is weak. Describe and outline the steps to be included in the pelvic floor muscle exercise teaching plan for this patient. (3 points)

The purpose of this intervention treatment is to perform Pelvic floor exercises which can be effective at reducing leaks and can help with: urinary incontinence, frequency, and urgency but it's important to do them correctly. In this case, the patient is able to identify the pelvic floor muscle but her strength contractions are weak. Teaching the patient about the pelvic anatomy and how different elements work alone and together could be useful in learning breathing and timing techniques that make the exercises more effective. Once you figure out how to isolate the right muscle by learning how to control the PFM without using abdominal, buttock or thigh muscle makes the strengthening easier to accomplish. PFMT exercises are designed to stretch tight muscles, strengthen weak muscles, and increase flexibility. Performing pelvic floor exercises begin by emptying your bladder; /squeeze your pelvic floor muscle. Hold and keep contracting the muscles for 8- 10 seconds. Relax the pelvic floor muscle fully for a count of 10 seconds. Relax muscle as long as the contraction is held it will achieve maximal benefit from the exercise. Complete regimen of 10 repetitions per session for 3 sessions a day (morning, afternoon and night). This routine should continue for at least 15 to 20 weeks and may take as long as 3 months to see a major change. It takes time to strengthen your pelvic floor muscles, especially if they have been weakened or injured, so try to be patient and keep working on it (Engberg, 2016).

3. Clean intermittent catheterization is utilized in the management of neurogenic bladder and urinary retention. Outline patient teaching strategies including frequency or scheduling of CIC. (4 points)

Clean intermittent catheterization is considered the gold standard for the management of urinary retention with or without incontinence. Teaching strategies include catheterization being performed after voiding, to obtain the accurate post void residual urine. Encouraging patient with urinary retention, a bladder diary tool for review of frequency of procedure records of the urine voided and post-void residuals (PVRs) via the catheter (residuals) would cause inaccurate management of the CIC. Catheter selection is an important component of CIC teaching; adults are instructed to use a 14-16 French catheter and also needs to be educated about various types of intermittent catheters. Recommendations use a sterile, single use packet of lubricant jelly for catheter insertion. Regardless of gender, the steps for performing self-catheterization are generally the same. Patients are taught to catheterize every 4-6 hours or four times daily while awake (Gray, 2016). Outline patient teaching starts by first washing your hands and being able to identify the urinary meatus. In women you should lubricate the tip of the catheter and insert it into the urinary meatus, when the catheter is properly inserted, urine will flow allowing all urine to drain and when the urine stops flowing, slowly and gently remove the catheter and measure and record the amount of urine collected. In men lubricate the catheter tip hold the penis with one hand and with the other one insert the catheter through the urinary opening, continue pushing the catheter in until urine begins to flow and hold the catheter until all urine has been drained. When the urine flow stops, slowly remove the catheter. Measure and record urine output. If symptoms of infection such as pain in the lower back, abdomen, cloudy foul smelling urine, bloody urine or chills and fever present notify MD

or WOC nurse immediately. Teaching and support are not one time event and requires ongoing follow ups and encouragements from the WOC nurse (Moore & Franklin, 2016).

4. For each category of medication, explain its role in the treatment of urinary incontinence, one brand and trade name for each category, indication/contraindication, and at least one patient teaching point.

(2 points each)

- a. Antimuscarinic

Pharmacotherapy of Antimuscarinics, which block muscarinic receptors, have been the treatment of choice for overactive bladder (OAB). Bind receptors in bladder wall block acetylcholine and reduce neurogenic detrusor overactivity. Oxybutynin extended-release oral tablet is available as a generic and a brand-name (Ditropan XL) it helps decrease muscle spasms of the bladder and the frequent urge to urinate caused by spasms. Side effects include dry mouth, dizziness, drowsiness, blurred vision, nausea and vomiting. Contraindications in patients with urinary retention, poorly controlled narrow-angle glaucoma, and obstructive gastric disorders. Instruct patient to monitor and inform MD of expected responses to the drug therapy effect on urinary frequency, urgency, bladder emptying. Patient should take the medication with a full glass of water, at the same time each day, with or without food, and should swallow the ER tablet do not crush or chew it. Avoid driving or hazardous activity (Gray, 2016).

- b. Beta-3 adrenergic agonist

Mechanism of actions of Beta-3 adrenergic receptor agonist causes relaxation of the detrusor smooth muscle of the urinary bladder and increases bladder capacity. It is indicated for overactive bladder with symptoms of urge urinary incontinence, urgency, and urinary frequency. Mirabegron Brand name Myrbetriq treat overactive bladder (OAB) with symptoms of urge urinary incontinence, urgency, and urinary frequency. Side effects include increase blood pressure, urinary retention, sinus pain, dry mouth constipation, headache, fatigue. Contraindications may occur in patient with hypertension, dialysis, renal failure, hepatic disease, angioedema, pregnancy and breast feeding as well as elderly patients. Instruct patient to take the medication as directed. If a dose is missed, omit dose and begin taking next day; do not take two doses on the same day. Advise patient to have BP checked periodically during therapy. Advise patient to notify MD if difficulty emptying bladder occurs. Advise patient to avoid driving or other activities requiring alertness since medication may cause dizziness (Gray, 2016).

- c. Alpha adrenergic antagonist

The alpha-adrenergic antagonists reduce urethral sphincter mechanism resistance by blocking adrenergic receptors on the smooth muscle of the urethral sphincter mechanism to reduce urethral resistance to urinary outflow. Tamsulosin generic, and brand name Flomax are used to improve urination in men, relaxes the muscles in the prostate and bladder neck, making it easier to urinate. It does not shrink the prostate, but it works by relaxing the muscles in the prostate and the bladder. This helps to relieve symptoms of BPH. Side effects may cause dizziness or fainting, especially when you first start taking it, low blood pressure, nausea, diarrhea, and headache

Instructions to patient; if you stop taking this medicine for any reason, call your doctor before you start taking it again. You may need a dose adjustment. Take once a day, approximately 30 minutes after a meal. Try to take this medication at the same time each day, not crush, chew, or open a capsule swallow the whole capsule. Emphasize sitting on the side of the bed for a minute to be sure are not light headache or dizziness prior to stand(Gray, 2016).

5. For each diagnostic test listed, provide an explanation of what the test includes and what it is telling you about bowel or bladder function. When would the test be used? (2 points each)

a. Post void residual

A post-void residual urine test measures the amount of urine left in your bladder after you urinate. The PVR can be obtained by the use of ultrasound or catheterization and should be done as soon as possible after voiding. PVR of 50-100ml are considered on the low end of abnormal and patient can be managed with monitoring with conservative strategists to improve bladder emptying. PVR that exceed 250ml are considered significant, and above 350ml increase the risk for upper urinary tract dilatation and renal insufficiency. Indications for PVR measurement include sign or symptoms of incomplete emptying (bladder distention on physical exam, urinary hesitancy straining to void (Nelles, 2016).

b. Bladder / bowel diary

A bladder diary is a tool used to help you track when and how much fluid you drink, urinate, how often you have urgency feeling, and how much urine you may leak. Showing a daily record of the patient's bladder activity is a useful supplement to the medical history of the patient and is an essential part of a continence assessment. Interpreting the results by comparing the results with what is considered normal bladder function may indicate areas of dysfunction and could be used to confirm a diagnosis. In women with Stress UI this is a basic evaluation for voiding dysfunction and physical signs of bladder distention (Engberg, 2016).

A bowel diary provides objective information regarding patient elimination patterns and allows the MD to understand symptoms over time in order to determine severity of FI and effectiveness of therapeutic procedures. A bowel diary records the times and types of bowel motions passed. It is a tool that may be used to determine the type of bowel problems you are experiencing, evaluate both voluntary and involuntary stool for consistency, frequency, volume and severity of incontinence, diet, discomfort activity at time of incontinence and the present of urgency (Callan & Willson, 2016).

c. Cystometry (simple)

This test is part of urodynamic testing, which is a pressure flow study that measure how well the bladder function is and helps diagnose problems related to urine control. As well as, measures how much urine the bladder can hold, measures the pressure inside the bladder and fullness when there is an urge to go, difficulty emptying the bladder, overactive bladder, obstruction or

infections. Simple cystometry is accomplished by placing a small dual lumen catheter into the bladder designed for urodynamic testing. The pressure measure reflects both intra-abdominal events that increase pressure within the bladder and change in bladder pressure. A cystometry study is performed to diagnose problems with urination, including incontinence, urinary retention, and recurrent urinary tract infections (Dickinson, 2016).

d. Urethral pressures

Are performed to assess the pressure in the urethra and provides a graphic representation of the pressure along the entire length of the urethra and requires a catheter mounted transducers air/fluid filled balloon. Measurements are most commonly obtained at rest and under stress during normal bladder storage in semi-reclined position. A resting UPP provides data regarding urethral resistance during the filling cycle, may be use to indicate the site and pressure relation of a urethral obstruction (Dickinson, 2016)

6. There are multiple containment devices available for the management of incontinence. For each one identified below, provide a brief description and the indications for use. (2 points each)

a. Inserts

Urinary incontinence product also called linen, small pads, shields range between light too very heavy urinary incontinence and are held in place by close fitting underwear or stretch mesh briefs. There are many products to help manage urinary incontinence. You can decide which product to choose based on comfort and durability. For light fecal incontinence the liner is positioned against the anus and help in place by the cheeks of the buttock. Disposable inserts with or without standing gathers for moderate/heavy incontinence. Reusable inserts for light and moderate/heavy incontinence (Wilde & Fader, 2016).

b. External catheters

External collection devices are defined as a category of devices that adhere to the external genitalia or pubic area and collect urinary output. Condom catheter use in combination with urine drainage bag and are suitable for men experiencing moderate to heavy urine loss, limited mobility and experiencing frequency and urgency. Correct application of the device followed by a return demonstration of correct technique/instruction in important to decrease serious penile trauma, impair penile skin integrity and leakage. Female external catheter (PureWick) allows for simple, non-invasive urine output management in female patients Using low pressure wall suction, the PureWick keeps urine away from the patient and into a designated collection canister. Indications for use in male and female patient who experience urinary incontinence without urinary retention, manage overactive bladder symptoms and improve comfort to palliative care patients (Wilde & Fader, 2016).

c. FMS

A fecal management system is a temporary containment device, used to contain and divert liquid or semi-liquid stool in patients with little or no bowel control. A soft catheter is inserted into the rectum it contains a low pressure retention balloon at the distal end and a connector attached to a collection bag. The FMS can be left inside the patient for an extended period of time of 29 days and some devices allow for fecal sampling, administration of medication and irrigation. Prior to inserting a FMS, an evaluation should be conducted for patient eligibility and contraindications establish by the manufacture. Advantages of use include reduced risk for skin breakdown and surgical wound to decrease exposure to fecal contact/microorganisms. Indications for use could be to contain infectious stool (*C. difficile* diarrhea), to prevent skin breakdown on exacerbate existing skin breakdown in the p[resent of ongoing diarrhea (Callan & Willson, 2016).

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