

Medications (Jones & Bartlett, 2020)

acetazolamide, Pharm class: Carbonic anhydrase inhibitor; takes for edema caused by CHF, Key assessments: monitor electrolytes, I&O, and daily weight , **aspirin**, Pharm class: Salicylate; takes for osteoarthritis pain and inflammation, Key assessments: monitor for signs of bleeding, **budesonide**, Pharm class: Corticosteroid; takes for COPD treatment, Key assessments: N/A, **docsate**, Pharm class: Surfactant; takes to treat constipation, Key assessments: N/A, **enoxaparin**, Pharm class: Low-molecular-weight heparin; takes to prevent blood clots in the hospital, Key assessments: monitor for signs of bleeding, platelet count, potassium level, **finasteride**, Pharm class: 5-alpha reductase inhibitor; takes for prostatic hyperplasia, Key assessments: Pt should have urologic evaluation periodically as well as digital rectal examinations, **formoterol**, Pharm class: Selective beta2-adrenergic; takes for COPD treatment, Key assessments: pulse and BP, **furosemide**, Pharm class: Loop diuretic; takes to reduce edema caused by CHF, Key assessments: monitor electrolytes, daily weights, BP, hepatic/renal function, BUN, blood glucose, creatinine, and uric acid levels, **gabapentin**, Pharm class: 1-amino-methyl cyclohexaneacetic acid; takes for neuropathic pain, Key assessments: monitor renal function labs, **guaifenesin**, Pharm class: Glyceryl guaiacolate; takes to promote productive cough, Key assessments: N/A, **levothyroxine**, Pharm class: Synthetic thyroxine; takes to treat hypothyroidism, Key assessments: monitor blood glucose, thyroid function tests, **simvastatin**, Pharm class: HMG-CoA reductase inhibitor; treats pts hyperlipidemia, Key assessments: monitor serum lipoprotein, liver enzymes, and CPK levels, **nitrofurantoin**, Pharm class: antibiotic; for UTI

Lab Values/Diagnostics

-Na (135-145): 132 (L) Low Na can be the result of the patient's HF and SIADH causing water retention (Mayo Clinic, 2020).
-K (3.5-5.1): 2.7 (L) Low K can be caused by some diuretic medications the patient is on such as acetazolamide and Lasix (Mayo Clinic, 2020).
-Cl (98-107): 88 (L) Low Cl can be the result of the patient's SIADH or could also be caused by medications like diuretics (Brennan, 2021).
-CO2 (22-29): 40 (H) The patient's COPD can increase CO2 levels in the blood (Leonard, 2020).
-BUN (6-20): 26 (H) A high BUN can indicate the kidneys are not working well possibly due to the patient's CHF (Mayo Clinic, 2021).
-Cr (0.50-1.00): 0.43 (L) Low Cr levels could indicate liver problems or be the result of the patient's poor nutrition (Sissons, 2017).
-Ca (8.4-10.5): 7.5 (L) Low Ca can be caused by diuretics like Lasix which can cause increased calcium excretion (Kahn, 2019).
-Protein (6.0-8.3): 4.5 (L) Low protein can be due to the patient's CHF or his poor nutrition (Watson, 2018).
-Albumin (3.5-5.2): 2.3 (L) Low albumin may be the result of the patient's poor nutrition or possibly his thyroid issues (Jewell, 2018).
-RBC (3.9-4.98): 3.01 (L) Low RBC can also be caused by thyroid problems or poor nutrition (Cafasso, 2018).
-Hgb (12.0-15.5): 10.2 (L) The patient's hypothyroidism and anemia can cause low Hgb levels (Mayo Clinic, 2020).
-Hct (35-45): 29.8 (L) Low Hct can be due to the body fighting infection or the patient's history of anemia (Mayo Clinic, 2021).
-Eosinophil (0.0-6.3): 7.0 (H) High eosinophil level could indicate chronic inflammation possibly related to patient's osteoarthritis (Mayo Clinic, 2021).
-Lymphocyte (0.8-5.0): 0.7 (L) Low lymphocyte level may be due infection such as a UTI, and lymphocytes being destroyed faster than they're being made (Iftikhar, 2019).
-XR of abdomen and chest to check for aspiration/urolithiasis: The patient had this done to check for kidney stones which can cause UTI's, and to check for aspiration because the patient has a peg tube.
-Urine culture/at nursing home: Showed 2 different gram-negative species, diagnosing the patient's UTI, and helping to find specific antibiotic to treat species.

Admission History

On November 18th, a 92 y/o male arrived at SBL hospital complaining of lethargy w/confusion starting on the 17th. The patient also had his urine tested the 17th at his nursing home which showed two different gram-negative species. The patient reports no pain only general lethargy which he has been experiencing since the 17th. He reports feeling tired but that sleeping did not relieve his lethargy. The patient also reports only taking his prescribed medications and reports no other treatment for his lethargy.

Medical History

Previous Medical History: Advanced age, anemia, CAD, osteoarthritis, diastolic CHF, chronic SIADH, hyponatremia, chronic indwelling foley catheter, COPD, chronic osteomyelitis of cervical spine, chronic pulmonary aspiration, dysphagia, enlarged prostate with urinary retention, fall risk, gastrostomy tube in place, GERD, history of gross hematuria, history of percutaneous coronary intervention, hydronephrosis (left), hyperlipidemia, hypertensive cardiovascular disease, hypothyroidism, immobility, left ureteral stone, neurogenic bladder, obesity
Prior Hospitalizations: N/A
Previous Surgical History: Cystoscopy 6/15/20, indwelling bladder catheter 4/28/20, esophagogastroduodenoscopy with peg placement 9/17/19, esophagogastroduodenoscopy biopsy 10/2/18, insert non-tunnel CV catheter 8/2/15, cardiac catheter, cataract, cervical spine, colonoscopy, hip replacement, hernia repair, stented artery
Social History: Tobacco: former smoker quit in 1965, 1 pack a day, smoked for 19 years, no other substance or alcohol use reported

Demographic Data

Date of Admission: 11/18/21
Admission Diagnosis/Chief Complaint: UTI/Lethargy
Age: 92 y/o
Gender: Male
Race/Ethnicity: Caucasian
Allergies: Iodine: Rash, Morphine, Penicillins
Code Status: DNR
Height in cm: 163 cm
Weight in kg: 57.3 kg
Psychosocial Developmental Stage: Integrity vs. despair
Cognitive Developmental Stage: Formal operation
Braden Score: 20
Morse Fall Score: 70
Infection Control Precautions: Contact precautions

Pathophysiology

Disease process: Urinary tract infections (UTI) are relatively uncommon in males; however, in older adults, especially those with long-term indwelling catheterization such as the patient's, they may still occur (Capriotti, 2020). Infection occurs when the healthy sterile urinary tract and its normal flora are disrupted by bacterial overgrowth. The urinary tract is maintained by the continual free outflow of urine that clears any lingering bacteria. However, this mechanism cannot always be counted on in older adult males because they commonly have enlarged prostates. An enlarged prostate, which obstructs the urinary outflow and causes stagnation of the urine, provides the perfect environment for bacteria to grow in. Other obstruction causes may include kidney stones hence why the patient I cared for had an XR of his abdomen to check for any obstructions. UTI's should be treated promptly because, if left unchecked, urosepsis may occur, which is a full-body infection of the bloodstream (Capriotti, 2020). Lower urinary tract infections can also turn into upper urinary tract infections, such as pyelonephritis, when the bacteria travel up to the bladder and ureters to the kidneys. The patient I treated had many risk factors for UTIs, including chronic indwelling catheterization, an enlarged prostate, and a history of kidney stones.
S/S: UTI symptoms in older adults may include changes in behavior and disorientation, both which the patient I cared for experienced (Capriotti, 2020). Classic UTI symptoms include frequency, pain, or burning during urination. Urgency and hematuria are also a common finding (Mayo Clinic, 2020).
Dx/TX: UTI's are diagnosed with a urinalysis and urine culture. The urinalysis for a UTI will show positive RBCs, leukocyte esterase, and nitrates (Capriotti, 2020). The urine culture shows colony count which if higher than 10⁵/mL indicates infection (Capriotti, 2020). Treatment includes an antibiotic determined by the culture and sensitivity testing. The patient I treated was taking nitrofurantoin to treat his infection.

Active Orders

-Left forearm wound care: relevant because the patient has bleeding hematoma along forearms
-CHG baths daily: relevant because it prevents infection
-Catheter care BID: relevant because it prevents infection
-Cardiac monitoring: relevant because the patient has a history of CHF and is on several meds that can alter heart rates/rhythms
-Monitor I&O: relevant to monitor if the patient is having bowel movements following medication administration
-Code status change to DNR: All patients need a code status while in the hospital
-Continuous pulse oximetry, keep above 92%: relevant because patient has COPD and his sats were in the 80s upon admission
-Contact precautions (MRSA), and fall risk: Keeps MRSA from spreading in the hospital, patient's is high on morse fall scale and is on several meds that can impair function and cause bleeding
-Turn patient Q2, float heels: prevents ulcers and skin breakdown
-Provide oral care daily: Pt has a peg tube
-HOB 30 degrees or greater: Prevent aspiration
-Tube feeding bolus 325 mL, check residual: nourishment
-CBC w/Diff: check for anemia
-CMP: check for electrolyte deficiency
-Consult to pulmonary for CO2 retention: Help patient breath
-Daily weight: CHF management
-Vitals Q4: Vitals must be monitored when giving meds

Physical Exam/Assessment

General: Patient alert and responsive to verbal and painful stimuli, Patient is alert to person, place, time and situation, Patient did not appear to be in any pain or distress, Patients' appearance was appropriate for age, Patient appeared clean and well groomed.

Integument: Skin color was usual for ethnicity. No cyanosis, ecchymosis, or jaundice noted, Patient's skin was dry, Patient was warm to the touch, Skin turgor was slow/tented, no rashes noted, bruising along wounds of the forearms noted with serous fluid weeping, Braden: 20, No drains present

HEENT: Head and neck were symmetrical, No trauma to the head, No tracheal deviation was presented, thyroid and lymph nodes were not palpable, Eyes were symmetrical, sclera was white, no erythema, discharge, or conjunctiva, Patient does have vision problems. The patient uses glasses. Six cardinals were preformed, and pupils were equal round and reactive to light and accommodation, No discharge or erythema on the nose. Nose was midline of the face. No turbinate's, polyps, deviated symptom was seen. Patient had good oral care. The mucosa membrane was pink and moist. Rise and fall of the soft palate were seen. Dentures intact

Cardiovascular: Sinus Rhythm, Heart sounds S1 and S2 were heard. No murmurs or gallops detected. S4 sound detected. Peripheral pulses: 2+ and symmetric
Capillary refill: After nail was blanched nail bed returned to normal in less than 2 secs, No neck vein distention, edema noted in lower extremities 1+

Respiratory: No use of accessory muscles. Respirations were unlabored. Respiration patten was normal. Crackle breath sound noted in lower lobes. Lung sounds equal bilaterally

Genitourinary: Patient's urine appeared light yellow. Patient's urine was cloudy. Patient has indwelling foley catheter. No dialysis. Genitals appeared clean with no odors noted.

Musculoskeletal: All extremities are warm to the touch with edema noted in both lower extremities. Nail beds are intact and appear pink with a <3 second cap refill. Patient has limited range of motion. Patient can move arms well, lower extremities are very weak, patient uses a wheelchair and is immobile Patient's strength is a 2 with full range of motion and gravity eliminated. ADL Assistance required. Fall Risk Score: 70. Patient does require assistance with equipment.

Neurological: Patient moves upper extremities well without assistance, lower extremities very weak. Patients' pupils are equal, round, reactive to light and accommodation. Patient's strength is a 5 in upper extremities and 2 in lower extremities. Patient is alert to person, place, situation, and time. Cognition is normal and appropriate for age. Speech is clear and easy to understand. Sensory: Patient could feel when I assessed all his pulses as well as when I palpated his abdomen. Patient was alert, awake, and able to answer all questions.

Most recent VS (include date/time and highlight if abnormal):

11/29/21 0930: BP: 105/56, SpO2: 94%, RR: 16, P: 70, Temp: 36 c

Pain and pain scale used:

Patient reports pain 0/10 on the numeric scale, reports only being tired.

Nursing Diagnosis 1 Risk for aspiration	Nursing Diagnosis 2 Risk for urinary retention	Nursing Diagnosis 3 Risk for electrolyte imbalance
<p style="text-align: center;">Rationale</p> <p>The patient is at risk for aspiration because a peg tube increases his risk of aspiration pneumonia due to increased gastroesophageal reflux (Capriotti, 2020). He also has a difficulty with swallowing in the first place.</p>	<p style="text-align: center;">Rationale</p> <p>The patient is at risk for urinary retention due to his enlarged prostate. This is likely the cause of the UTI.</p>	<p style="text-align: center;">Rationale</p> <p>The patient is at risk for electrolyte imbalance due to his CHF and diuretic medication usage.</p>
<p style="text-align: center;">Interventions</p> <p>Intervention 1: HOB elevated to at least 30 degrees Intervention 2: Check Peg tube residual before tube feeding</p>	<p style="text-align: center;">Interventions</p> <p>Intervention 1: Assess catheter for patency or any kinks, provide perineum care Intervention 2: Flush peg tube with free water</p>	<p style="text-align: center;">Interventions</p> <p>Intervention 1: Monitor patients labs Intervention 2: Administer electrolyte replacement as needed</p>
<p style="text-align: center;">Evaluation of Interventions</p> <p>Patient seemed happy where his bed was set. Residual was checked before feeding and the patient is not experiencing any delayed gastric emptying.</p>	<p style="text-align: center;">Evaluation of Interventions</p> <p>Patient did not enjoy being cleaned but he enjoyed a nice nap afterwards.</p>	<p style="text-align: center;">Evaluation of Interventions</p> <p>Patient's daughter enjoyed learning about her father's labs, and what electrolytes he is low on.</p>

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