N431 Concept Map Student Name: Shoshana Zimmerman

Medications

1. Atorvastatin/Lipitor
   20 mg tablet by mouth at bedtime
   Pharmacological: HMG-CoA reductase inhibitor (Comerford & Durkin, 2023)
   Therapeutic: Antihyperlipidemic (Comerford & Durkin, 2023)
   Taking for hyperlipidemia (Comerford & Durkin, 2023)
   Monitor liver function, blood lipid, and glucose levels (Comerford & Durkin, 2023).
2. Diltiazem hydrochloride/ Cardizem
   90 mg tablet by mouth every 6 hours, PRN.
   Pharmacological: calcium channel blocker (Comerford & Durkin, 2023)
   Therapeutic: antianginal, antiarrhythmic, and antihypertensive (Comerford & Durkin, 2023)
   Taking for hypertension (Comerford & Durkin, 2023)
   Monitor liver and kidney function (Comerford & Durkin, 2023)
3. Hydrocodone- acetaminophen/Norco
   325 mg tablet; 1 tablet by mouth every 4 hours PRN.
   Pharmacological: narcotic analgesic combination (Puckey, 2023).
   Therapeutic: analgesic, antipyretic, antitussive (Puckey, 2023).
   Taking for pain, fever, and cough (Puckey, 2023).
   Monitor liver and kidneys and assess for seizure or head injury (Puckey, 2023).
4. Magnesium/Magnesium

3/20: ABG: 7.6 pH (7.35-7.45), 27.6 paCO2 (35-45), 139.3 paO2 (75-100), HCO3 26.5. The patient has acute respiratory alkalosis, which may be due to hypoxemia related to pneumonia (Hinkle & Cheever, 2022).
3/21: LDH: 344 (100-190 units)- the level can be elevated in pneumonia (Pagana et.al., 2020).
3/22: Na 133 (135-145)- slightly lower level may be due to NSAIDs (Pagana et al., 2020). The patient takes aspirin daily.
BUN 7 (10-20 mg/dL)- levels can decrease when protein intake is insufficient (Pagana et al., 2020); the patient does not like the hospital food and does not eat it.
Calcium 7.8 (8.9-10.6 mg/dL)- decreased levels can be due to diuretics and is also related to respiratory alkalosis (Pagana et al., 2020)
Albumin 2.0 (3.4-4.8 g/dL)- low levels can be related to low protein intake (Pagana et al., 2020). The patient prefers to eat something other than the hospital's food.
WBC 13.14 (4.0-11.0 10^3/uL)- high levels indicate an infection (Pagana et al., 2020).
Platelets 551 (140-400 10^3/uL)- elevated levels can signify a malignant disorder (Pagana et al., 2020), coinciding with his multiple myeloma history.

Demographic Data

Date of Admission: 3/18/2024
Admission Diagnosis/Chief Complaint: Hospital Acquired Bacterial Pneumonia
Age: 69
Gender: male
Race/Ethnicity: African American
Allergies: No known allergies
Code Status: Attempt CPR; Full treatment.
Height in cm: 167.6 cm
Weight in kg: 54.1 kg
Psychosocial Developmental Stage: Integrity vs. Despair
Cognitive Developmental Stage: Formal operational stage
Braden Score: 16 – mild risk for pressure ulcer development
Morse Fall Score: 11 – moderate fall risk.
Infection Control Precautions: Standard aseptic precautions.

Admission History

The client was scheduled for an appointment with his infectious disease doctor. When he went to his appointment, he was noted to have shortness of breath and was sent to the emergency room at Carle. He denies any pain but states that he had a slight cough prior to admission. He did not think he needed to go to the hospital for it.

Medical History

Previous Medical History: Afib, CHF, HLD, HTN, multiple myeloma, hemorrhoids, and back pain.

Prior Hospitalizations: 2/20/24: Pneumonia from group b strep; 1/23/24: Multiple myeloma with associated pain.

Previous Surgical History: 2/24: upper GI endoscopy; 5/22: bronchoscopy

Social History: former cigarette smoker 26 pack years; prior alcohol abuse, sober for ten years; prior substance abuse; no smokeless tobacco.

Pathophysiology

Disease process: Hinkle & Cheever (2022) state that bacteria or fungi can invade an immunocompromised host, whereas otherwise healthy individuals can usually fight off a lower respiratory infection. In this case, bacteria were able to grow in the lower respiratory tract of the patient due to being immunocompromised from his cancer while he was hospitalized in February. The bacteria invade the alveoli, which causes inflammation and mucus formation, which blocks air exchange (Hinkle & Cheever, 2022).
S/S of disease: Often, signs of fever, pleuritic chest pain, tachypnea, or other symptoms of respiratory distress will be present. This patient only reports being short of breath and maybe some coughing that he noticed. The patient may also have a poor appetite, fatigue, and sweatiness. This patient had a poor appetite. Purulent sputum is usually present and may be blood tinged. This patient did not expectorate any sputum (Hinkle & Cheever, 2022).
Method of Diagnosis: Patient history, physical examination, chest x-ray, and blood and sputum cultures are performed to diagnose (Hinkle & Cheever, 2022).
Treatment of disease: Using the appropriate antibiotic is vital in treatment. The patient should get much rest and stay hydrated. In some cases, they may also receive supplemental oxygen (Hinkle & Cheever, 2022). This patient was prescribed meropenem and was

Active Orders

Diet: Regular- the patient passed his swallow eval so he can have a regular diet.
Vital signs q 4- standard protocol per hospital policy for admitted patients.
Assess for the continued need for lines, tubes, and restraints daily. – promote patient safety (Hinkle & Cheever, 2022).
Activity as tolerated- the patient is on bedrest but should ambulate to promote strength and increase resistance to fight infection (Hinkle & Cheever, 2022).
Intake & output every shift- the patient has a history of CHF and is an older adult at risk for dehydration and fluid overload (Hinkle & Cheever, 2022).
Pneumatic compression stockings, bilateral on at all times- help to prevent blood clots in bedridden patients (Hinkle & Cheever, 2022)
Nasal cannula > 92% oxygen- the patient has pneumonia and shortness of breath.
PT eval and treat- the physical therapist can help the patient maintain independence in ambulating and strength while walking (Hinkle & Cheever, 2022).

Physical Exam/Assessment

General: The patient is alert and oriented to person, place, time, and situation. He was in no apparent distress as he watched television in bed. He is cooperative and responds appropriately.

Integument: His skin appears ashy and dull, although it is warm. Skin turgor is elastic. Pulses are 2+ bilaterally in the upper and lower extremities—no apparent rashes, bruises, or scars. The patient is balding on his head. His nails are dry; capillary refills are challenging to determine on his hands and feet. There is no apparent clubbing of nails or cyanosis. Braden score 16, mild risk for pressure ulcer development.

HEENT: His head, face, eyes, and ears are symmetrical. His nose and throat are midline. Pupils are round, equal, not reactive to light, but do accommodate. His sclera is white bilaterally, and his conjunctiva has no discharge. The ears and nose are without drainage and are clear. He misses most of his teeth, but his palate rises and falls equally. He states that he has difficulty eating because he has no teeth. No lesions inside the mouth. The uvula is midline, and the mucosa is moist and pink. Bilateral frontal sinuses are without pain or tenderness. His lymph nodes are not palpable bilaterally.

Cardiovascular: S1 and S2 clear bilaterally, with no murmurs, gallops, or rubs. Normal rate and rhythm. No apparent edema. Neck veins are not distended.

Respiratory: Lung sounds are clear, without wheezing. Normal rate and rhythm, non-labored. No chest tubes or drains, no use of accessory muscles. Lung aeration is more pronounced on the left side.

Genitourinary: Urine is yellow, dark, amber, and clear. He does not have pain with urination, he is not on dialysis, and he does not have a catheter. He urinates in the urinal.

Gastrointestinal: Bowel sounds are active in all four quadrants with clicks and gurgles. Last bowel movement on 3/24 per patient, formed, not loose consistency. He does not eat pork or fish. He likes to eat foods that are easy to chew because he has no teeth. His current diet is general. The abdomen is non-tender to palpation without masses, wounds, or scars. No abdominal distention, drains, ostomies, or feeding tubes are present.

Musculoskeletal: The patient uses a walker at home. He states that he has much pain in his extremities, and he takes his pain pills religiously. The pain feels like numbness, tingling, and sharp stabbing pain. Hand and foot pushes and pulls are 5. He is one person assist for ambulation and ADL's. Fall score is 11, moderate risk for fall.

Neurological: Alert and oriented to person, place, time, and situation. He has normal cognition, and he answers questions appropriately. He remembers the events that led up to his admission and that he had a worsening cough and shortness of breath. His speech is slow and soft but intelligible. He is alert and awake but does not like to be disturbed. He states that he would like to rest as much as possible.

Most recent VS (include date/time and highlight if abnormal): 3/25 @ 1506: temp 98.6 degrees Fahrenheit oral, pulse 60, resp 18, O2 96% on 1L nasal cannula, BP 118/66.

Pain and pain scale used: Pain is a 4/10 on a numeric pain scale. His pain medication is due around 1700, and he states that he can tolerate the pain at this level.

Nursing Diagnosis 1	Nursing Diagnosis 2	Nursing Diagnosis 3
Ineffective airway clearance related to shortness of breath and cough as evidenced by low O2 saturation (Phelps, 2020).	Imbalanced nutrition: less than body requirements related to loss of appetite and food consistency as evidenced by insufficient dietary intake (Phelps, 2020).	Chronic pain related to biological injury agents is evidenced by constant numbness, tingling, and stabbing pain in all extremities (Phelps, 2020).
Rationale	**Rationale**	**Rationale**
On admission, the patient complained of increasing shortness of breath and cough and is on 1 liter of oxygen by nasal cannula.	The patient hardly touched his meal, but he needs to eat to get enough nutrients to fight his infection and have energy.	The patient complains of constant pain that he relies on his pain medication regimen. He is also on palliative care due to cancer.
Interventions	**Interventions**	**Interventions**
Intervention 1: Assess respirations, O2 saturation, and lung sounds (Phelps, 2020). **Intervention 2:** Help the patient cough and take a deep breath to promote chest expansion and mucus excretion (Phelps, 2020).	**Intervention 1:** Assess why the patient will not eat his food (Phelps, 2020). **Intervention 2:** Go over the menu and find alternative foods he will consume (Phelps, 2020).	**Intervention 1:** Provide pain medication as prescribed (Phelps, 2020). **Intervention 2:** Adjust the patient's position in bed to relieve discomfort every 2 hours (Phelps, 2020).
Evaluation of Interventions	**Evaluation of Interventions**	**Evaluation of Interventions**
The patient's lung sounds were clear, respirations were unlabored, and O2 saturation remained above 92% during the shift. He could follow instructions on deep breathing and coughing while changing positions in the bed. He did not expectorate any mucus.	The patient provided several reasons he did not eat. First, he has little appetite. Secondly, he does not like the food at the hospital. Finally, he needs to eat easy chew food because he has no teeth. We reviewed the menu with no solutions. However, he was amenable to a meal supplement instead of eating food.	The patient states that his pain level fluctuates between four to seven out of ten on his pain medication regimen. He can tolerate a four out of ten pain level; however, he wants more pain medication when he reaches seven out of ten. He was repositioned every 2 hours in bed with pillows on bony prominences to promote comfort and safety.

References (3) (APA):

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