Simulated Clinical Experience (SCE™) Overview

Location: Telemetry Unit

History/Information:
This patient is a 67-year-old male with ischemic cardiomyopathy and a history of chronic heart failure. He is a veteran who also cares for his 70-year-old wife at home who has early Alzheimer’s. His neighbor, who is also a veteran, brought him to the Emergency Department (ED). He was complaining of shortness of breath, especially at night and when walking, fatigue, and swelling in his ankles and feet. Physical examination revealed mild respiratory distress and 2+ dependent pitting edema. Serum creatinine level was 1.0. Upon questioning the patient about the events leading up to this morning, he stated that he did not take his “water pill” for the last five days because his wife’s ankles were swollen so he gave the pills to her. He also admitted to being out of “one of them heart pills” but cannot remember which one. He states he is on several heart medications. He has not brought any of his medication to the ED with him. 12-lead ECG revealed sinus tachycardia without ectopy. His chest radiography showed cardiomegaly with perihilar infiltrates. An ABG was drawn and the results are pending. A saline lock was inserted into his right forearm and he was admitted to the telemetry unit. He is allergic to penicillins, cephalosporins, and midazolam.

Healthcare Provider’s Orders:
Admit to Telemetry Unit
Telemetry monitoring (notify healthcare provider if rate less than 60 or greater than 120 or development of arrhythmias)
Administer O2 2-5LPM per nasal cannula to maintain pulse oximeter greater than 95% (notify healthcare provider if less than 95%)
Pulse oximeter every 4 hours; Incentive spirometry every 4 hours
Vital signs every 4 hours; Apply sequential compression devices; Intake and Output every shift
Low Sodium diet; Fluid restriction of 1000mL per day
Daily weights; Bathroom privileges
Electrolytes, Blood Glucose, BUN, Creatinine, Magnesium Level, CBC, Cardiac enzymes
Echocardiogram
Digoxin 0.25mg PO every day
Captopril 6.25mg PO every 6 hours
Metoprolol 12.5mg PO every day
Furosemide 40mg PO twice a day
Potassium 20mEq PO every day
Docusate sodium 60mg PO every day
Saline flush every shift; Nitroglycerine 0.4mg tablet SL every 5 minutes x3 prn chest pain
Morphine Sulfate 2mg IVP for unrelieved chest pain (notify healthcare provider)

Learning Objectives

1. Describes the pathophysiologic changes that result in right-sided heart failure and left-sided heart failure (KNOWLEDGE).

2. Uses history information and assessment data to plan and provide care for the patient with acute exacerbation of chronic heart failure (SYNTHESIS).

3. Anticipates diagnostic orders and therapies, including medications, for the patient with acute exacerbation of chronic heart failure (COMPREHENSION).

4. Evaluates effectiveness of treatment plan and revises as necessary (ANALYSIS).
Questions to Prepare for the Simulated Clinical Experience

1. List the risk factors for chronic left sided heart failure related to coronary artery disease.

2. Explain the cause of the compensations for chronic heart failure.

3. Describe the manifestations and effects of right-sided and left-sided heart failure.

4. List the goals in the interdisciplinary care of chronic heart failure.

5. List the two hormones released by heart muscle in response to changes in blood volume.

6. Explain the nursing implications for the client receiving echocardiography with Doppler flow studies.

7. Define “refractory heart failure”.

8. List the nursing implications and education needs for each of the following categories of medication related to heart failure.
   a. ACE Inhibitors and Angiotensin II blockers
   b. Diuretics
   c. Positive inotrope agents
   d. Sympathomimetic agents
   e. Phosphodiesterase inhibitors

9. List the interdisciplinary interventions for each of the following nursing diagnosis related to chronic heart failure.
   a. Decreased cardiac output
   b. Excessive fluid volume
   c. Activity intolerance
   d. Health promotion and community based care

10. List the signs and explain the interdisciplinary interventions for each of the following nursing diagnosis related to pulmonary edema.
    a. Impaired gas exchange
    b. Decreased cardiac output
    c. Anxiety

References


