Medications

Nitroglycerin
- Pharmacological classification - "Nitrate" (Nurses Drug Handbook, 2021, p. 960).
- Therapeutic classification - "Antianginal, vasodilator" (Nurses Drug Handbook, 2021, p. 960).
- The patient is taking this medication for chest pain he is experiencing.
- Check for allergies and medication interaction. Check blood pressure, hold if systolic <90 mmHg or diastolic more than 30 mmHg below baseline.

Hydroxyzine
- Pharmacological classification - "Piperazine derivative" (Nurses Drug Handbook, 2021, p. 663).
- Therapeutic classification - "Anxiolytic, antiemetic, antihistamine, sedative-hypnotic" (Nurses Drug Handbook, 2021, p. 663).
- The patient is taking this medication for anxiety.
- Check for allergies and medication interaction. Evaluating alertness of the patient.

Morphine
- Pharmacological classification - "Opioid" (Nurses Drug Handbook, 2021, p. 908).
- Therapeutic classification - "Opioid analgesic" (Nurses Drug Handbook, 2021, p. 908)
- The patient is taking this medication for his chest pain
- Obtaining the patients pain on the pain scale. Check for allergies and medication interaction.

Lab Values/Diagnostics

There were no abnormal lab values for the patient.

The patient had an x-ray done of his chest. The imaging found the heart size was borderline enlarged. No pneumothorax or pleural effusion was noted in the imaging. Diagnostic results showed a mild streaky left lung base scarring. There were no infiltrate notes with granulomatous calcification. Osseous structures were intact. The patient was ordered an x-ray of the chest due to the severe chest pain the patient was experiencing. The description of the pain mirrored a myocardial infarction.

Demographic Data

Date of Admission:10/9/2022

Admission Diagnosis/Chief Complaint: Chest pain

Age: 35

Gender: Male

Race/Ethnicity: White

Allergies: lisinopril

Code Status: Full code

Height in cm: 185.42 cm

Weight in kg: 97.400 kg

Admission History

The patient was experiencing consistent pain in the middle of his chest, back, left arm, and a panic level of anxiety. The patient was experiencing a heaviness, tight, and burning sensation in his chest. The patient expressed pain when walking and no relieving symptoms. The patient was brought to the hospital by ambulance after nitroglycerin tablets would not relieve the pain.

Medical History

Previous Medical History: Hypertension

Prior Hospitalizations: Shelbyville Hospital (Patient admitted for severe groin pain, 10/7/2022)

Pathophysiology

Disease process: The patient was admitted for chest pain. Our body relies on the heart to pump an adequate supply of oxygen throughout the body to support contractility. "At the cellular level, ischemia causes an increase in anaerobic glycolysis" (Hermiz & Sedhai, 2021). When this happens, hydrogen, potassium, and lactate levels can increase in the venous return of the ischemic or area affected by the myocardium (Hermiz & Sedhai, 2021). "The hydrogen ions compete with calcium ions cause hypokinesia/akinesia of the affected area" (Hermiz & Sedhai, 2021). Several body systems can affect chest pain. "Aside from the heart, many parts of the chest that can cause chest pain include the lungs, esophagus, muscle, bone, and skin" (Better Health Channel, 2020). The nerves in the body can cause referred pain due to the complex system. Patients can mistake their chest pain as another diagnosis throughout the body systems.

S/S of disease: Symptoms of chest pain include pressure, fullness, burning or tightness in your chest and pain that spreads to the back, neck, jaw, shoulders, and arms (Mayo Clinic, 2021). Other symptoms can include shortness of breath, cold sweats, dizziness or weakness, nausea, and vomiting. My patient was experiencing fullness in his chest and referred pain in his back and left arm.

Method of Diagnosis: When admitted for chest pain, an EKG is done first. The diagnostic tests can include electrocardiograms, blood tests, chest X-rays, and computerized tomography scans (Mayo Clinic, 2021). Blood tests that specify myocardium damage include troponin. My patient had an electrocardiogram, but the results were not posted in Cerner.

Treatment of disease: The prevention treatment includes exercising regularly, maintaining weight, and stopping smoking. Treatment options include nitrates, morphine, beta-blockers, antiplatelet agents, and anticoagulants (Hermiz & Sedhai, 2021). These treatment options are pain, reducing mortality, and maintaining vital signs.

Active Orders

- EKG in progress related to the patient's chest pain.
- Cardiac monitoring to rule out a myocardial infarction.
- Caffeine free diet related to having a stress test done to rule out heart related factors.
- Stress test to rule out any heart related complications.

Physical Exam/Assessment

General: The patient is alert and responsive and oriented to person, place, situation, and time. The patient is in no acute distress and overall appearance is appropriate and well groomed.

Integument: The patient's skin color is appropriate for ethnicity. Skin is dry and warm upon palpation. Turgor is non-tenting with normal mobility. No rashes, bruises, lesions, or wounds noted. The patient scored a 21 for the Braden score. There are no drains present.

HEENT: Head and neck are symmetrical, trachea is midline without deviation, thyroid is not palpable, no noted nodules. Bilateral carotid pulses are palpable and 2+. No lymphadenopathy in the head or neck noted. Bilateral sclera white, bilateral cornea clear, bilateral conjunctiva pink, no visible drainage from eyes. Lids are without lesions or discharge bilaterally. PERRLA bilaterally intact. Auricles have no visible or palpable deformities, lumps, or lesions bilaterally. Septum is midline. Bilateral frontal sinuses are nontender to palpation. Posterior pharynx and tonsils are moist pink without exudate noted. Uvula is midline; soft palate rises and falls symmetrically. Hard palate intact. Dentition was not good. There were no top teeth and bottom teeth having several cavities. Patient will be receiving dentures soon. Patient coughed up black mucus. No lesions noted inside the mouth. Patient had trouble swallowing due to the swollen tongue after administration of lisinopril.

Cardiovascular: Clear S1 and S2 without murmurs, gallops, or rubs. PMI palpable at 5th intercostal space at MCL. Normal rate and rhythm. Bilateral pulses 3+. Capillary refill is less than 3 seconds. No neck vein distention or edema is noted.

Respiratory: Normal rate and pattern of respirations, respirations symmetrical, clear, and non-labored lung sounds clear throughout anterior chest bilaterally. No wheezes, crackles, or rhonchi noted. When admitted patients had trouble breathing when resting. “Felt like someone sitting on my chest.”

Genitourinary: The patient's urine is dark, clear yellow. Patient urinated a scant amount due to dehydration. Patient has hesitancy when urinating. There is no pain with urination. No catheter or dialysis noted.

Gastrointestinal: The patient is on a regular diet at home. Current diet includes a caffeine-free diet and a heart healthy nutrition diet. The patient weighs 97.400 kilograms and 185.42 cm tall. The bowel sounds are hyperactive. Last bowel movement was October 10th, 2022. Patient is not passing gas regularly. There was tenderness upon palpating the abdomen due to the patient being diagnosed with epididymis. There is no distention, incisions, scars, drains, or wounds noted. There is no ostomy, nasogastric, or feeding tube noted.

Musculoskeletal: Nail bed is bilaterally pink. Nail bed is firm and shiny bilaterally. Patient performed an active range of motion. Bilateral strength 5+. There are no supportive devices, ADL assistance, or fall risk noted. Patient scored a 10 on the Morse fall risk scale. Patient does need assistance with walking due to a shuffling walk. Patient also stated he had a stiff neck and pain in ankles and knees.

Nursing Diagnosis 1	Nursing Diagnosis 2	Nursing Diagnosis 3
Acute angina pain related to substance use as evidenced by feeling of heaviness in his chest.	Anxiety related to substance misuse as evidence by increase in blood pressure	Deficient fluid volume related to insufficient fluid intake as evidenced by dry mucous membranes.
Rationale Patient was admitted to the hospital due to chest pain that radiates to his back and left arm.	**Rationale** Patient has a history of substance misuse which increases the patient's anxiety.	**Rationale** The patient had a stress test done in the morning which required him to just drink water. Patient complained of dry mucous membranes and had less than 300 mL while I was there.
Interventions **Intervention 1:** "Perform comfort measures to promote relaxation, such as massage, bathing, repositioning, and relaxation techniques" (Phelps, 2020, p. 422). **Intervention 2:** "Manipulate the environment to promote periods of uninterrupted rest" (Phelps, 2020, p. 422).	**Interventions** **Intervention 1:** "Listen attentively; allow patients to express feelings verbally" (Phelps, 2020, p. 32). **Intervention 2:** "Have patients state what kinds of activities promote feelings of comfort and encourage patients to perform them" (Phelps, 2020, p. 32).	**Interventions** **Intervention 1:** "Monitor and record vital signs every 4 hours" (Phelps, 2020, p. 237). **Intervention 2:** "Measure intake and output every 1 to 4 hours" (Phelps, 2020, p. 237).
Evaluation of Interventions The patient was able to use the comfort measures for distractions resulting in no pain.	**Evaluation of Interventions** The patient stated that therapy was comforting and continued to go at least once a week until clean of drugs.	**Evaluation of Interventions** The patient increased his fluid intake which helped with saliva production.

References (3) (APA):

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Jones & Bartlett Learning. (2021). *2021 Nurse's drug handbook* (20th ed.), p. 663, 908, 960. Jones & Bartlett Learning.

Mayo Foundation for Medical Education and Research. (2021). *Chest pain*. Mayo Clinic. Retrieved from https://www.mayoclinic.org/diseases-conditions/chest-pain/diagnosis-treatment/drc-20370842

Phelps, L.L. (2020). *Sparks and Taylor's nursing diagnosis reference manual* (11th ed.), p. 32, 237, 422. Wolters Kluwer.