N321 Concept Map

Student Name:

Medications:

Name:	Sacubitril-Valsartan	Insulin Detemir	Hydrocodone-Acetaminophen	Metoprolol	Rosuvastatin
Class:	P: angiotensin II receptor antagonists neprilysin inhibitors T: vasodilators antihypertensives	P: pancreatics T: antidiabetics hormones	P: opioid agonists nonopioid analgesic combinations T: antitussive opioid analgesics	P: beta blocker T: antianginals antihypertensive	P: hmg coa reductase inhibitor T: lipid-lowering agents
Reason for taking:	Congestive heart failure	Types 2 diabetes	Pain	Hypertension, angina pectoris, and decreased mortality due to recent MI	High cholesterol
Nursing considerations:	-Assess blood pressure and pulse frequently before and periodically during administration. -Monitor daily weight and assess for fluid overload -Assess for signs of angioedema	-Assess for signs and symptoms of hypoglycemia and hyperglycemia -Ensure proper medication administration because medication error may result in death	-Do not use with other CNS depressants -Assess type, location, and intensity of pain 1 hour after administration -Assess blood pressure, pulse, and respirations before and periodically during administration	-Monitor blood pressure, ECG, and pulse before and during therapy -Monitor vitals and ECG every 5-15 minutes during therapy -Monitor intake, output, and daily weights	-Evaluate cholesterol and triglyceride levels before, after 2-4 weeks, and periodically after therapy -Monitor CK levels
Name:	Furosemide	Aspirin	Nitroglycerin	Pantoprazole	Calcium Carbonate
Class:	P: loop diuretic T: diuretics	P: salicylates T: antiplatelet agents, antipyretic, nonopioid analgesics	P: nitrates T: antianginals	P: proton pump inhibitor T: antiulcer agents	P: N/A T: mineral and electrolyte replacement/ supplements
Reason for taking:	Hypertension or CHF	Pain	Angina pectoris	Esophagitis	Indigestion/ heartburn
Nursing considerations:	-Assess daily weight, intake, and output -Monitor blood pressure and pulse before and during administration -Assess for skin rash frequently during therapy -Assess for signs of ototoxicity	-Monitor for signs and symptoms of DRESS (fever, rash, lymphadenopathy, facial swelling. -Monitor hepatic function -Monitor for signs of toxicity	-Assess location, duration, intensity, and precipitating factors of patient's pain -Monitor blood pressure and pulse before and after administration	-Monitor bowel function during therapy -Use antacids concurrently for abdominal upset	-Do administer enteric-coated tablets within 1 hour of calcium carbonate -Follow oral with a full glass of water -Do not administer with foods high in oxalic acid, phytic acid, of phosphorus

(Vallerand & Sanoski, 2021).

Demographic Data

Date of Admission: 4/10/2022
Admission Diagnosis/Chief Complaint: Non-ST elevation myocardial infraction
Age: 65 years old
Gender: Male
Race/Ethnicity: Caucasian
Allergies: Codeine (vomiting), Robitussin (paralysis), egg (hives), Morphine (vomiting), Flu vaccine (unknown reaction), Jardiance (unknown reaction).
Code Status: Full code
Height in cm: 177.8 cm
Weight in kg: 82.4 kg
Psychosocial Developmental Stage:
Cognitive Developmental Stage:
Braden Score: 21
Morse Fall Score: 35
Infection Control Precautions: Standard precautions

Pathophysiology

Disease process: Infarction, also called ischemic necrosis, is the death of tissue because of prolonged ischemia. When there is a lack of sufficient coronary artery blood supply to the cardiac muscle, ischemia occurs. If ischemia is prolonged without recirculation, to the myocardial muscle, infarction occurs. When infarction occurs, lysosomal enzymes and proteins from dead cardiac cells are released into the bloodstream. In infarction, blood levels of the lysosomal enzyme CPK-MB and the cardiac protein troponin are measured to confirm death of myocardial tissue (Capriotti, 2020).

S/S of disease: Associated signs and symptoms of a myocardial infarction are as follows: pain radiating into the left arm, jaw, or back, dyspnea, diaphoresis, pallor, hypotension, and Levine's sign (clenched fist to the chest) (Capriotti, 2020). My patient presented to the walk-in clinic with severe dyspnea, but he had no other symptoms of a heart attack.

Method of Diagnosis: An EKG and lab tests are the best way to diagnose a myocardial infarction. CPK-MB, CRP and troponin are usually drawn to confirm a diagnosis. High levels indicate cardiac tissue death (Capriotti, 2020). My patient had a high troponin level which indicated that he recently endured a heart attack.

Treatment of disease: Aspirin and thrombolytic or clot dissolving drugs are the most common treatment of a myocardial infarction (Capriotti, 2020). Medications that lower the stress on the heart are the best way to help the cardiac muscle after a heart attack. My patient received blood thinning medications to lower stress on his heart.

Admission History

arah Bush walk in clinic for shortness of breath. The patient has been short e days and is worse when he is active. No interventions have relieved the patient's condition. The nurse practitioner assessed the patient and determined that he was having a cardiac episode and was immediately sent to the emergency room. It was determined at the ER that the patient endured a myocardial infarction and is showing signs of congestive heart failure.

Lab /Diagnostics

Lab	Normal range	Patient's results
Blood Glucose	70-110	285
Creatinine	0.7-1.4	8.3
GFR	60-120	57
Hgb	F: 12-15 M: 14-16	12.2
MCV	80-100	76.1
MCHC	33.4-35.5	24.4
Neutrophils	45-75%	82.4
Lymphocytes	20-40%	10.3
Monocytes	1-10%	0.5

(Van & Bladh, 2017).

High values **Low values**

Medical History

Previous Medical History: NSTEMI, acute CHF, type 2 diabetes, hypertension, hyperlipidemia, hypercholesterolemia, uncontrolled angina, pleural effusion, impaired mobility.

Prior Hospitalizations: Prior hospitalizations related to previous surgical history. Arthroscopic rotator cuff repair, cholecystectomy, removal of foreign body for hand (3/14/15), Debridement and irrigation of joint (10/19/15), Bilateral prosthetic arthroplasty of knees (3/21/16).

Previous Surgical History: Arthroscopic rotator cuff repair, cholecystectomy, removal of foreign body for hand (3/14/15), Debridement and irrigation of joint (10/19/15), Bilateral prosthetic arthroplasty of knees (3/21/16).

Social History: No drinking, smoking, or drug use. Lives in a home with significant other. Support from wife and children. Apart of the Baptist church.

Active Orders

-Daily weights
-Stress testing
-Fluid restriction
-Heart healthy diet
-Also, diabetic diet
-No caffeine
-Incentive spirometry
-Blood glucose monitoring
-Telemetry
-Echo
-EKG monitoring

Physical Exam/Assessment

General: Patient is A&Ox4. Oriented to person, place, date, and time. Patient shows no signs of distress. The patient is well groomed, maintains personal hygiene.

Integument: Skin color is appropriate for ethnicity. Skin is pink, warm, dry, and intact. The patient's temperature is 37.3°C. The patients skin turgor is elastic with no signs of rashes. The patient has generalized bruising and scratches. The patient states that his dogs are hyper and often scratch him. The patients Braden score is 21 and there are no drains present.

HEENT: Head is normocephalic. The neck is supple, no signs of masses, and no deviated trachea. Denies facial numbness, tingling, or weakness. Ears are symmetrical, no signs of cerumen. Eyes are equal, round, reactive, and accommodate to light. No deviated septum, nares are patent and shows no signs of polyps. Oral mucosa is pink, moist, and teeth are intact.

Cardiovascular: S1 and S2 heart sounds noted and dually paced. Patient is typically in normal sinus rhythm but sometimes jumps to a fully evolved phase then returns to normal. Heart rate is 100 beats per minute. Peripheral pulses are 2+ bilaterally. Capillary refill is less than 3 seconds, no signs of neck vein distention or edema.

Respiratory: Breath sounds anteriorly and posteriorly are clear bilaterally. Airway is patent with no signs of change in clinical course.

Genitourinary: The patient's urine is clear and yellow with no foul odor. The patient voided 800 mL in 4 hours. The patient denies pain upon urination. The patient is not on dialysis and does not have a catheter. Genitals were not assessed.

Musculoskeletal: The patient shows active range of motion with strength equal bilaterally in upper and lower extremities. The patient can ambulate unassisted. No assistive devices necessary but has a fall score is 35. The patient had previous falls before knee surgery but has not had any since.

Neurological: The patient can move all extremities equally. Eyes are equal, round, reactive, and accommodate to light. The patient is oriented to time, date, place, and situation, A&O x4. Speech is clear.

Most recent VS (include date/time and highlight if abnormal): 1045, Pulse:100 beats per minute Temp:37.3°C BP:125/80 mmHG RR:18 breaths per minute O2 sat:94%

Pain and pain scale used: 1045, numerical, 0/10

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References (3) (APA):

Capriotti, T. M. (2020). *Davis Advantage for Pathophysiology Introductory Concepts and Clinical Perspectives*. [CoursePoint]. Retrieved from https://coursepoint.vitalsource.com/#/books/9781719641470/

Vallerand, A. H., & Sanoski, C. A. (2021). Davis's drug guide for Nurses. F.A. Davis Company

Van, A. M., & Bladh M. L. (2017). *Davis's comprehensive handbook of laboratory & diagnostic tests with nursing implications.* F.A. Davis Company.

Nursing Diagnosis 1	**Nursing Diagnosis 2**	**Nursing Diagnosis 3**
Risk for decreased cardiac output due to myocardial infarction as evidence by death of cardiac tissue.	Risk for unstable blood pressure due to hypertension as evidence by high blood pressure.	Risk for unstable blood glucose levels due to type 2 diabetes as evidence by blood glucose level of 285.
Rationale The patient endured a myocardial infarction, and his heart is only working at 20%.	**Rationale** The patient has a history of hypertension and recently endured a heart attack.	**Rationale** The patient has admitted to not complying with diet in the past and not taking his diabetes seriously.
Interventions **Intervention 1:** Diuretic and other pharmacological therapy to lessen the stress on the heart. **Intervention 2:** Monitor vital signs and educate the patient on signs of a myocardial infarction.	**Interventions** **Intervention 1:** Antihypertensive medications to lower blood pressure. **Intervention 2:** Lifestyle changes to lower blood pressure like diet and exercise.	**Interventions** **Intervention 1:** Compliance with diet and medication. **Intervention 2:** Monitoring blood glucose effectively.
Evaluation of Interventions The patient is eager to learn and lower the risks of another heart attack.	**Evaluation of Interventions** The patient takes antihypertensive medication, is on a cardiac diet, and also lives and active lifestyle.	**Evaluation of Interventions** The patient is now on a cardiac diet that is diabetic friendly and will have his wife keep him accountable for taking care of his blood sugar levels.