N441 Care Plan

Lakeview College of Nursing

Corinne Monte De Oca

Demographics (3 points)

Date of Admission	Client Initials	Age	Gender
9/19/2022	D.A.	66 years	Male
Race/Ethnicity	**Occupation**	**Marital Status**	**Allergies**
White	Retired	Married	NKA
Code Status	**Height**	**Weight**	
Full	168 cm	90.5 kg	

Medical History (5 Points)

Past Medical History: Acute NSTEMI, aortic insufficiency, CAD, PAD, COVID-19, pneumothorax, hyperlipidemia, hypertension, paroxysmal atrial fibrillation, seizure disorder

Past Surgical History: PCI of LCA, cardiac catheterization, cholecystectomy

Family History: Heart attack (mother, father), renal failure syndrome (father)

Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use):

Half pack of cigarettes per day (40 years), no drug or alcohol use

Assistive Devices: None

Living Situation: Lives at home with spouse

Education Level: 8th grade

Admission Assessment

Chief Complaint (2 points): Chest pain

History of Present Illness – OLD CARTS (10 points): Patient is a 66-year-old male who was brought to the ED via EMS for chest pain. Patient states he got up in the morning (09/18/2022) and took his morning medications and was drinking coffee. Patient states he began feeling a "pressure-like" pain in the center of his chest. Patient states mild shortness of breath and nausea accompanied the chest pain. Patient denies any vomiting, fever, cough, recent trauma or injury.

Patient was given aspirin and nitroglycerin before arriving to the ED. Patient states the

nitroglycerin did not alleviate his symptoms.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Coronary artery disease (CAD)

Secondary Diagnosis (if applicable): Chest pain, ventricular fibrillation

Pathophysiology of the Disease, APA format (20 points):

Coronary artery disease is a condition in which the coronary arteries cannot get sufficient

blood, oxygen, and nutrients to the heart. It is the result of the buildup of plaque in the arteries,

which leads to a narrowing of the arteries and can partially or completely block the blood flow

(Mayo Clinic, 2022).

Signs and symptoms of coronary artery disease vary depending on factors such as the

location and severity of narrowing of the arteries, thrombus formation, and obstruction of blood

flow (Hinkle et al., 2022). A few common signs and symptoms of coronary artery disease

include chest pain, radiating pain to the jaw or arm, epigastric discomfort, and shortness of

breath (Hinkle et al., 2022).

Labs associated with coronary artery disease include elevated triglycerides and fasting

blood glucose levels and reduced HDL levels. Increased blood pressure is another expected

finding in these patients. Providers will likely use a combination of tests and screens to diagnose

coronary artery disease. These may include a lipid panel as well as a high sensitivity C-reactive

protein test (Hinkle et al., 2022). This patient has likely had a lipid panel in the past to help

confirm coronary artery disease. He had an EKG, echocardiogram, and chest x-ray, which are all

common tests done to help support diagnosis and monitor the disease. The patient had also just had cardiac catheterization prior to this admission and had a stent placed.

Treatment typically involves decreasing modifiable risk factors associated with coronary artery disease. These risk factors include physical inactivity, tobacco use, obesity, hypertension, hyperlipidemia, diabetes, metabolic syndrome, chronic inflammatory conditions, and chronic kidney disease (Hinkle et al., 2022). These risk factors can be modified through a combination of lifestyle changes and medications. A few common medications used with the treatment of coronary artery disease include aspirin, beta blockers, angiotensin-converting enzyme (ACE) inhibitors, and angiotensin II receptor blockers (ARBs), nitroglycerin, and cholesterol drugs, such as statins (Mayo Clinic, 2022). Procedures such as percutaneous coronary intervention and stent placement or coronary artery bypass graft surgery may also be necessary depending on the patient (Mayo Clinic, 2022). Due to the intubation and sedation, the patient was unable to answer questions about lifestyle changes he has implemented, but the patient was on medications to help manage some of these risk factors, including hypertension and hyperlipidemia.

Pathophysiology References (2) (APA):

Hinkle, J. L., Cheever, K. H., & Overbaugh, K. (2022). *Brunner & Suddarth's textbook of medical-surgical nursing* (15th ed.). Wolters Kluwer.

Mayo Clinic. (2022, May 22). *Coronary artery disease*. Mayo Clinic.

https://www.mayoclinic.org/diseases-conditions/coronary-artery-disease/diagnosis-treatment/drc-20350619

Laboratory Data (15 points)

CBC <mark>Highlight All Abnormal Labs</mark>—**Explanations must be in complete sentences and contain in-text citations in APA format.**

Lab	Normal Range	Admission Value	Today's Value	Reason for Abnormal Value
RBC	3.8-5.4 x 10^6/ mcL	3.99	4.05	N/A
Hgb	13.0-17.0 g/dL	12.9	13.2	
Hct	38.1-48.9%	<mark>37.1</mark>	<mark>37.7</mark>	Low hematocrit levels can be the result of being extremely hydrated or due to anemia (Hinkle et al., 2022).
Platelets	149-393 K/mcL	187	275	N/A
WBC	4.0-11.7 K/mcL	11.1	<mark>17.2</mark>	An elevated WBC count is often due to an infection of some sort that the body is trying to fight off (Hinkle et al., 2022).
Neutrophils	40-60%	<mark>63.1</mark>	N/A	Increased neutrophils could be due to acute infection, stress, leukemia, gout, rheumatoid arthritis, trauma, and cigarette smoking (Hinkle et al., 2022).
Lymphocytes	20-40%	24.0	N/A	N/A
Monocytes	2-8%	6.6	N/A	N/A
Eosinophils	1-4%	<mark>5.3</mark>	N/A	Elevated eosinophils often indicate infection (parasitic), allergic reaction, or cancer (Mayo Clinic, 2021).
Bands	0-3%	N/A	N/A	N/A

Chemistry <mark>Highlight All Abnormal Labs</mark>—**Explanations must be in complete sentences and contain in-text citations in APA format.**

Lab	Normal Range	Admission Value	Today's Value	Reason For Abnormal
Na-	136-145 mmol/L	140	138	N/A
K+	3.5-5.1 mmol/L	3.7	4.1	N/A
Cl-	98-107 mmol/L	107	105	N/A

CO2	21-31 mEq/L	27	25	N/A
Glucose	74-109 mg/dL	<mark>120</mark>	<mark>125</mark>	Glucose levels can increase with stress or the patient could have eaten prior to testing. If this is a typical fasting blood glucose level, this could indicate diabetes (Hinkle et al., 2022).
BUN	7-25 mg/dL	7	9	N/A
Creatinine	0.70-1.30 mg/dL	1.02	<mark>1.49</mark>	Increased creatinine levels are a good indicator of decreased renal function (Hinkle et al., 2022).
Albumin	3.5-5.2 mg/dL	N/A	N/A	N/A
Calcium	8.6-10.3 mg/dL	7.8	7.6	N/A
Mag	1.5-2.4 mg/dL	1.5	N/A	N/A
Phosphate	2.7-4.5 mg/dL	N/A	N/A	N/A
Bilirubin	0.3-1 mg/dL	0.5	N/A	N/A
Alk Phos	34-104 U/L	87	N/A	N/A
AST	13-39 U/L	14	N/A	N/A
ALT	7-52 U/L	11	N/A	N/A
Amylase	40-140 U/L	N/A	N/A	N/A
Lipase	0-160 U/L	N/A	N/A	N/A
Lactic Acid	0.5-2.2 mmol/L	N/A	N/A	N/A
Troponin	0.0-0.04 ng/mL	<mark>0.309</mark>	N/A	Elevated troponin levels indicate cardiac ischemia or trauma (Hinkle et al., 2022).
CK-MB	3-5%	3.55	N/A	N/A
Total CK	25-200 U/L	59	N/A	N/A

Other Tests <mark>Highlight All Abnormal Labs</mark>—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
INR	0.8-1.2	1.2	N/A	N/A
PT	11-13 sec	15.8	N/A	Patient currently takes aspirin, which will affect his clotting time (Hinkle et al., 2022).
PTT	22.6-35.3	49.8	33.8	Patient was receiving anticoagulation therapy, which can account for his increased value (Hinkle et al., 2022).
D-Dimer	< 250 ng/mL	N/A	N/A	N/A
BNP	< 100 pg/mL	N/A	N/A	N/A
HDL	> 60 mg/dL	N/A	N/A	N/A
LDL	< 130 mg/dL	N/A	N/A	N/A
Cholesterol	< 200 mg/dL	N/A	N/A	N/A
Triglycerides	< 150 mg/dL	N/A	N/A	N/A
Hgb A1c	4-5.6%	N/A	N/A	N/A
TSH	0.5-5.0 mIU/L	N/A	N/A	N/A

Urinalysis <mark>Highlight All Abnormal Labs</mark>—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
Color & Clarity	Straw-dark yellow, clear-slightly hazy	Light yellow, clear	N/A	N/A
pH	5.0-8.0	6.5	N/A	N/A
Specific Gravity	1.005-1.034	> 1.050	N/A	Specific gravity increases as fluid intake decreases. A few conditions that can cause a high specific

				gravity include diabetes, nephritis, and fluid deficit. Glucose or protein in the urine can also cause a falsely elevated specific gravity (Hinkle et al., 2022).
Glucose	Normal	Normal	N/A	N/A
Protein	Negative	<mark>2+</mark>	N/A	Proteinuria, or protein in the urine, can be caused by fever, prolonged standing, or strenuous exercise. It could also be one of the first signs of diabetic nephropathy (Hinkle et al., 2022).
Ketones	Negative	Negative	N/A	N/A
WBC	Negative	N/A	N/A	N/A
RBC	Negative	<mark>3+</mark>	N/A	RBC in the urine could indicate glomerulonephritis, or in more severe cases, acute kidney injury and oliguria (Hinkle et al., 2022).
Leukoesterase	Negative	Negative	N/A	N/A

Arterial Blood Gas <mark>Highlight All Abnormal Labs</mark>—Explanations must be in complete sentences and contain in-text citations in APA format.

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
pH	7.35-7.45	<mark>7.30</mark>	<mark>7.31</mark>	The pH is below normal range, meaning this is an acidotic level (Capriotti, 2020).
PaO2	75-100 mmHg	<mark>158.0</mark>	<mark>73.8</mark>	High PaO2 levels can occur in mechanically ventilated patients (Hinkle et al., 2022). A low PaO2 can result from hypoventilation or a disturbance in ventilation-perfusion.
PaCO2	35-45	<mark>46.9</mark>	43.4	Increased PaCO2 levels are caused by hypoventilation, since the body

	mmHg			retains too much CO_2 (Hinkle et al., 2022).
HCO3	22-26 mEq/L	<mark>21.5</mark>	<mark>20.7</mark>	Low HCO3 levels and a low pH are indicative of metabolic acidosis, which can be caused by diarrhea, alcohol use, liver failure, and hypoglycemia (Hinkle et al., 2022).
SaO2	95-100%	N/A	99%	N/A

Cultures <mark>Highlight All Abnormal Labs</mark>—**Explanations must be in complete sentences and contain in-text citations in APA format.**

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
Urine Culture	Negative	N/A	N/A	N/A
Blood Culture	Negative	N/A	N/A	N/A
Sputum Culture	Negative	Negative	N/A	N/A
Stool Culture	Negative	N/A	N/A	N/A

Lab Correlations Reference (1) (APA):

Hinkle, J. L., Cheever, K. H., & Overbaugh, K. (2022). *Brunner & Suddarth's textbook of*

medical-surgical nursing (15th ed.). Wolters Kluwer.

Mayo Clinic. (2021, September 21). *Eosinophilia*. Mayo Clinic.

https://www.mayoclinic.org/symptoms/eosinophilia/basics/definition/sym-

20050752#:~:text=Eosinophilia%20(e%2Do%2Dsin%2Do,an%20allergic%20reaction

%20or%20cancer.

Diagnostic Imaging

All Other Diagnostic Tests (5 points):

Diagnostic Test Correlation (5 points):

Diagnostic Test Reference (1) (APA):

1. 1 view XR of the chest

    a. A chest x-ray allows visualization of the cardiac shadow and pulmonary fields. If a patient is in heart failure, a chest x-ray can show enlargement of the heart (Capriotti, 2020).

    b. The patient came in complaining of chest pain. The chest x-ray also confirmed ET tube placement and showed no signs of pneumothorax or pleural effusion.

2. EKG

    a. An electrocardiogram (ECG), or an EKG, records the heart's electrical activity through electrodes placed on different points of the body (Capriotti, 2020).

    b. The patient's chief complaint was chest pain, so this was done to check for any cardiac abnormalities. The client also had a previous history of atrial fibrillation and a possible STEMI was suspected.

3. Echocardiogram w/o contrast

    a. An echocardiogram is used to show the size and function of the ventricles and structure and function of the valves. It can help diagnose and/or monitor heart disease (Capriotti, 2020).

    b. The patient came in complaining of chest pain, so an echocardiogram can help determine if this is cardiac related.

Reference

Capriotti, T. M. (2020). *Davis advantage for pathophysiology introductory concepts and clinical*

perspectives (2nd ed.). F. A. Davis Company.

Current Medications (10 points, 1 point per completed med)
10 <u>different</u> medications must be completed

Home Medications (5 required)

Brand/Generic	Plavix/ clopidogrel	Toprol XL/ metoprolol	Bayer/ aspirin	Zestril/ lisinopril	GoNitro/ nitroglycerin
Dose	75 mg	25 mg	81 mg	20 mg	0.4 mg
Frequency	Daily	Daily	Daily	Daily	Q5 min PRN
Route	PO	PO	PO	PO	Sublingual
Classification	Pharmacologic: $P2Y_{12}$ platelet inhibitor Therapeutic: Platelet aggregation inhibitor	Pharmacologic: $Beta_1$-adrenergic blocker Therapeutic: Antianginal, antihypertensive	Pharmacologic: Salicylate Therapeutic: NSAID (anti-inflammatory, antiplatelet, antipyretic, nonopioid analgesic)	Pharmacologic: Angiotensin-converting enzyme (ACE) inhibitor Therapeutic: Antihypertensive	Pharmacologic: Nitrate Therapeutic: Antianginal
Mechanism of Action	Binds to adenosine diphosphate (ADP) receptors on the surface of activated platelets, which deactivates nearby glycoprotein IIb/IIIa receptors and prevents	Inhibits stimulation of $beta_1$-receptor sites, located mainly in the heart, resulting in decreased cardiac excitability, cardiac output, and myocardial oxygen demand.	Blocks the activity of cyclooxygenase, the enzyme needed for prostaglandin synthesis. Prostaglandins, important mediators in the inflammatory response, cause local	May reduce blood pressure by inhibiting conversion of angiotensin I to angiotensin II. Angiotensin II is a potent vasoconstrictor that stimulates adrenal cortex to secrete aldosterone.	May interact with nitrate receptors in vascular smooth-muscle cell membranes. This interaction reduces nitroglycerin to nitric oxide, which activates the enzyme

	fibrinogen from attaching to receptors. Without fibrinogen, platelets can't aggregate and form thrombi (Jones & Bartlett Learning, 2021).	These effects help relieve angina, minimize cardiac tissue damage from a myocardial infarction, and help relieve symptoms of heart failure. Metoprolol also helps reduce blood pressure by decreasing renal release of renin (Jones & Bartlett Learning, 2021).	vasodilation with swelling and pain. With blocking of cyclooxygenase and inhibition of prostaglandins, inflammatory symptoms subside. Pain is also relieved because prostaglandins play a role in pain transmission from the periphery to the spinal cord. Aspirin inhibits platelet aggregation by interfering with production of thromboxane A2, a substance that stimulates platelet aggregation (Jones & Bartlett Learning, 2021).	Lisinopril may also inhibit renal and vascular production of angiotensin II. Decreased release of aldosterone reduces sodium and water reabsorption and increases their excretion, thereby reducing blood pressure (Jones & Bartlett Learning, 2021).	guanylate cyclase, increasing intracellular formation of cGMP (Jones & Bartlett Learning, 2021).
Reason Client Taking	PAD, MI	MI, HTN, chest pain	Hx of MI	HTN	Chest pain
Contraindications (2)	-Intracranial hemorrhage (Jones & Bartlett Learning, 2021). -Peptic ulcer	-Sinus bradycardia (Jones & Bartlett Learning, 2021). -Heart block	-Active bleeding or coagulation disorders (Jones & Bartlett Learning,	-Concurrent aliskiren use in patients with diabetes (Jones & Bartlett Learning,	-Acute MI (Jones & Bartlett Learning, 2021). -Circulatory failure and

	(Jones & Bartlett Learning, 2021).	greater than first degree (Jones & Bartlett Learning, 2021).	2021). -Third trimester of pregnancy (Jones & Bartlett Learning, 2021).	2021). -Hereditary or idiopathic angioedema or history of angioedema related to previous treatment with an ACE inhibitor (Jones & Bartlett Learning, 2021).	shock (Jones & Bartlett Learning, 2021).
Side Effects/Adverse Reactions (2)	-Fatal intracranial bleeding -Acute liver failure	-Shortness of breath -Pruritus	- Hepatotoxicity -Reye's syndrome	-MI -Hypotension	-Arrythmias - Hypotension
Nursing Considerations (2)	-Use clopidogrel cautiously in patients with severe hepatic or renal disease, risk of bleeding from surgery or trauma, or conditions that predispose to bleeding (Jones & Bartlett Learning, 2021). -Be aware that clopidogrel prolongs bleeding time, so expect to stop it 5 days before elective surgery (Jones &	-Know that if dosage exceeds 400 mg daily, patient should be monitored for bronchospasm and dyspnea because drug competitively blocks beta$_2$-adrenergic receptors in bronchial and vascular smooth muscles (Jones & Bartlett Learning, 2021). - Expect to taper dosage over 1 to 2 weeks when drug is discontinued; stopping abruptly can	-Do not crush timed-release or controlled-release aspirin tablets unless directed (Jones & Bartlett Learning, 2021). -Ask about tinnitus. This reaction usually occurs when blood aspirin level reaches or exceeds maximum dosage for therapeutic effect (Jones & Bartlett Learning, 2021).	-Use Lisinopril cautiously in patients with fluid volume deficit, heart failure, impaired renal function, or sodium depletion (Jones & Bartlett Learning, 2021). -Keep in mind if angioedema, affects face, glottis, larynx, limbs, lips, mucous membranes, or tongue, notify provider immediately and expect to stop Lisinopril and start appropriate	-Place sublingual tablet under patient's tongue and make sure it dissolves completely (Jones & Bartlett Learning, 2021). -Place patient in sitting position, if possible, when administering sublingual powder. Have patient open mouth, sprinkle powder under tongue (Jones & Bartlett Learning, 2021).

	Bartlett Learning, 2021).	cause MI, severe hypertension, or ventricular arrhythmias (Jones & Bartlett Learning, 2021).		therapy. If airway obstruction threatens, promptly give 0.3 to 0.5 mL of epinephrine 1:1000 solution subcutaneously, as prescribed (Jones & Bartlett Learning, 2021).	
Key Nursing Assessment(s)/Lab(s) Prior to Administration	-CBC -Blood glucose	-Heart rate -Blood pressure	-Signs of bleeding -Signs of flu or chicken pox in children	-BP -Serum creatinine, potassium	-Heart sounds -Breath sounds
Client Teaching needs (2)	-Advise patient to notify provider promptly if they experience extreme skin paleness, fever, neurologic changes, purple skin patches, weakness, or yellowing of the skin or eyes (Jones & Bartlett Learning, 2021). -Warn patient that drug may cause low blood sugar levels. Review signs and	-Instruct patient to take metoprolol with food at the same time each day – once daily for E.R. tablets (Jones & Bartlett Learning, 2021). -Advise diabetic patients to check blood glucose levels often during therapy (Jones & Bartlett Learning, 2021).	-Instruct patient to take aspirin with food or after meals because it may cause GI upset if taken on an empty stomach (Jones & Bartlett Learning, 2021). -Advise adult patient taking low-dose aspirin not to also take ibuprofen or naproxen because these drugs may reduce the cardioprotective and stroke preventive effects of aspirin (Jones	-Advise patient to take Lisinopril at the same time every day (Jones & Bartlett Learning, 2021). -Advise patient to drink adequate fluids and avoid excessive sweating, which can lead to dehydration and hypotension. Make sure they understand that diarrhea, excessive perspiration, and vomiting can also cause	-Teach patient to recognize signs and symptoms of angina pectoris, including chest fullness, pain, and pressure, possibly with sweating and nausea (Jones & Bartlett Learning, 2021). -Inform patient that nitroglycerin commonly causes headache, which typically resolves after a few days of

| | symptoms of hypoglycemia and how to treat it (Jones & Bartlett Learning, 2021). | | & Bartlett Learning, 2021). | hypotension (Jones & Bartlett Learning, 2021). | continuous therapy. Suggest taking acetaminophen, as needed, and not contraindicated (Jones & Bartlett Learning, 2021). |

Hospital Medications (5 required)

Brand/Generic	Protonix/ pantoprazole	Cordarone/ amiodarone	Levophed / norepinephrine	Diprivan/ propofol	Lipitor/ atorvastatin
Dose	40 mg	360 mg/200 mL	4 mg + premix 250 mL	1000 mg + premix 100 mL	40 mg
Frequency	Daily	16.7 mLhr	10 mcg/min Titrate 2 mcg/ min Q1min	5 mcg/kg/min Titrate 5-10 mcg/kg/min Q5min	Daily
Route	PO	IV drip	IV drip	IV drip	PO
Classification	Pharmacologic: Proton pump inhibitor; Therapeutic: Antiulcer	Pharmacologic: Benzofuran derivative; Therapeutic: Class III antiarrhythmic	Pharmacologic: Sympathomimetic; Therapeutic: Vasopressor	Pharmacologic: Phenol derivative; Therapeutic: Sedative-hypnotic	Pharmacologic:HMG-CoA reductase inhibitor; Therapeutic: Antihyperlipidemic
Mechanism of Action	Interferes with gastric acid secretion by inhibiting the hydrogen-potassium-adenosine	Acts of cardiac cell membranes, prolonging repolarization and the refractory period and raising	At more than 4 mcg/min, inhibits adenyl cyclase and directly stimulates alpha-adrenergic receptors,	Decreases cerebral blood flow, cerebral metabolic oxygen consumption, and intracranial	Reduces plasma cholesterol and lipoprotein levels by inhibiting HMG-CoA reductase and cholesterol synthesis in the liver and by

	triphosphatase enzyme system, or proton pump, in gastric parietal cells (Jones & Bartlett Learning, 2021).	ventricular fibrillation threshold. Drug relaxes vascular smooth muscles, mainly in coronary circulation, and improves myocardial blood flow. It relaxes peripheral vascular smooth muscles, decreasing peripheral vascular resistance and myocardial oxygen consumption (Jones & Bartlett Learning, 2021).	which inhibits cAMP production. Inhibition of cAMP constricts arteries and veins and increases peripheral vascular resistance and systolic blood pressure (Jones & Bartlett Learning, 2021).	pressure and increases cerebrovascular resistance, which may play a role in propofol's hypnotic effects (Jones & Bartlett Learning, 2021).	increasing the number of LDL receptors on liver cells to enhance LDL uptake and breakdown (Jones & Bartlett Learning, 2021).
Reason Client Taking	Peptic ulcer prophylaxis	Dysrhythmias	Maintain systolic BP	Sedation	Hyperlipidemia
Contraindications (2)	-Concurrent therapy with rilpivirine-containing products (Jones & Bartlett Learning, 2021). -Hypersensitivity to pantoprazole, substituted benzimidazoles, or their	- Cardiogenic shock (Jones & Bartlett Learning, 2021). -Second and third-degree AV block, unless pacemaker present (Jones & Bartlett Learning,	-Concurren use of cyclopropane and hydrocarbon inhalation anesthetics (Jones & Bartlett Learning, 2021). -Hypovolemia, except as an emergency measure (Jones &	- Hypersensitivity to propofol or its components (Jones & Bartlett Learning, 2021). - Hypersensitivity to eggs, eggs products, soybeans, or	-Active hepatic disease (Jones & Bartlett Learning, 2021). -Pregnancy or breastfeeding (Jones & Bartlett Learning, 2021).

	components (Jones & Bartlett Learning, 2021).	2021).	Bartlett Learning, 2021).	soybean products (Jones & Bartlett Learning, 2021).	
Side Effects/Adverse Reactions (2)	-Angioedema -Hepatic failure or toxicity	-Torsades de pointes -QT prolongation	-Bradycardia -Metabolic acidosis	-Bradycardia -Hypotension	-Thrombocytopenia -Arrhythmias
Nursing Considerations (2)	-Flush IV line with D$_5$W normal saline solution, or lactated Ringer's injection before and after giving drug (Jones & Bartlett Learning, 2021). -When giving IV over 2 minutes, reconstitute with 10 mL of normal saline injection. Solution may be stored up to 2 hours at room temperature (Jones & Bartlett Learning, 2021).	-Monitor amiodarone IV infusion closely because loading doses at higher concentrations and rates may cause acute renal failure, hepatocellular necrosis, and death (Jones & Bartlett Learning, 2021). -Be aware that amiodoarone may cause or worsen pulmonary disorders that may develop days to week after therapy and progress to respiratory failure or even death (Jones & Bartlett Learning, 2021).	-Make sure solution contains no particles and isn't discolored before administering (Jones & Bartlett Learning, 2021). -If blanching occurs along vein, change infusion site and notify provider at once.	-Shake container well before using, administer drug promptly after opening, and use vial for a single patient. Use prefilled syringes within 6 hours of opening (Jones & Bartlett Learning, 2021). -Dosage must be tapered before stopping therapy. Stopping abruptly will cause rapid awakening, anxiety, agitation and resistance to mechanical ventilation (Jones & Bartlett Learning, 2021).	-Notify provider immediately and expect to withhold atorvastatin therapy if patient develops an acute condition suggestive of a myopathy or has a risk factor predisposing to the development of renal failure secondary to rhabdomyolysis (Jones & Bartlett Learning, 2021). -Monitor diabetic patient's blood glucose levels because atorvastatin therapy can affect blood glucose control (Jones & Bartlett Learning, 2021).

Key Nursing Assessment(s)/Lab(s) Prior to Administration	-Urine output -Serum magnesium levels	-EKG -Liver enzymes and thyroid hormone levels	-EKG -BP	-HR -BP	-Lipid levels -Liver function
Client Teaching needs (2)	-Instruct women of childbearing age to notify provider if pregnancy is suspected or occurs, because drug may cause fetal harm (Jones & Bartlett Learning, 2021). -Instruct patient to notify prescriber if diarrhea occurs and becomes prolonged or severe (Jones & Bartlett Learning, 2021).	-Advise patient to report cough, dark urine, dyspnea, fatigue, fainting, light-headedness, nausea, swollen feet and hands, vomiting, wheezing, yellow sclerae or skin, or a sudden change in quality or rapidity of pulse (Jones & Bartlett Learning, 2021). -Advise patient to avoid drinking grapefruit juice or taking St. John's Wort while receiving amiodarone (Jones & Bartlett Learning, 2021).	-Urge patient to immediately report burning, leaking, or tingling around the IV site (Jones & Bartlett Learning, 2021). -Advise patient to notify provider if pregnant or breastfeeding (Jones & Bartlett Learning, 2021).	-Inform patient and family that caution is required when performing activities requiring mental alertness, such as driving, because mental alertness may be impaired for some time after general anesthesia or sedation such as propofol has been given (Jones & Bartlett Learning, 2021). -Urge patient and family to voice concerns and ask questions before administration (Jones & Bartlett Learning, 2021).	-Instruct patient to take a missed dose as soon as possible. If it's almost time for the next dose, they should skip the missed dose. Tell them not to double the dose (Jones & Bartlett Learning, 2021). -Tell patient to take the drug at the same time each day to maintain its effects (Jones & Bartlett Learning, 2021).

Medications Reference (1) (APA):

Jones & Bartlett Learning. (2021). *Nurse's Drug Handbook* (20th ed.).

Assessment

Physical Exam (18 points) – <mark>HIGHLIGHT ALL PERTINENT ABNORMAL FINDINGS</mark>

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	Alertness: Unable to assess d/t intubation sedation Orientation: <mark>Drowsy d/t sedation</mark> Distress: No signs of acute distress Overall appearance: Patient appeared well-groomed
INTEGUMENTARY: **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N ☒** **Type:**	Skin color: Color normal for ethnicity Character: Dry, intact Temperature: Warm Turgor: Elastic No rashes, bruises, or wounds present Braden score: 10
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	Head/neck: Head and face symmetrical, trachea midline, lymph nodes nonpalpable Eyes: Pupils 2 mm, <mark>sluggish pupillary response to light</mark> Nose: Patent, no discharge or drainage present Teeth: No teeth present, mucous membranes moist and pink .
CARDIOVASCULAR: **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:**	. Heart sounds: S1 and S2 auscultated Cardiac rhythm: <mark>Sinus tachycardia</mark> Peripheral pulses: Radial and dorsalis pedis <mark>2+ in all 4 extremities</mark>

Capillary refill: **Neck Vein Distention:** Y ☐ N ☒ **Edema Y** ☐ **N** ☒ **Location of Edema:**	Capillary refill: Less than 3 seconds

RESPIRATORY:
Accessory muscle use: Y☐ N ☒
Breath Sounds: Location, character
 	
ET Tube:
    Size of tube:
    Placement (cm to lip):
    Respiration rate:
    FiO2:
    Total volume (TV):
    PEEP:
    VAP prevention measures:
	Respirations: Regular
	Pattern: Regular
	Breath sounds: ==Course lung sounds in upper right==, clear in upper left, ==diminished in lower right and left==
	
	ET tube:
	Size: 8.0
	Placement: 24 cm to lip
	Respiration rate: 16
	FiO2: 25
	Total volume (TV): 400
	PEEP: 8.0
	VAP prevention measures: Oral care every 2 hours, suctioning PRN

GASTROINTESTINAL:
Diet at home:
Current Diet
Height:
Weight:
Auscultation Bowel sounds:
Last BM:
Palpation: Pain, Mass etc.:
Inspection:
    Distention:
    Incisions:
    Scars:
    Drains:
    Wounds:
Ostomy: Y ☐ N ☒
Nasogastric: Y ☐ N ☒
    Size:
Feeding tubes/PEG tube Y ☐ N ☒
    Type:
	Diet at home: Regular
	Current diet: NPO
	Height:
	Weight:
	Bowel sounds: Active in all 4 quadrants
	Last BM: Unable to assess
	Palpation: No masses present
	Inspection: No distention, incisions, wounds, scars noted

GENITOURINARY: **Color:** **Character:** **Quantity of urine:** **Pain with urination:** Y ☐ N ☐ **Dialysis:** Y ☐ N ☒	Color: Yellow Character: Clear Quantity: 40 mL Unable to assess pain d/t intubation sedation

Inspection of genitals:
Catheter: Y ☒ **N** ☐
   Type:
   Size:
   CAUTI prevention measures:
	Genitals not assessed at this time
	Indwelling catheter present
	Size: 14 F
	CAUTI prevention measures: Catheter care provided every 12 hours

MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y** ☐ **N** ☐ **Fall Risk: Y** ☒ **N** ☐ **Fall Score:** **Activity/Mobility Status:** **Independent (up ad lib)** ☐ **Needs assistance with equipment** ☐ **Needs support to stand and walk** ☐	Neurovascular status: Limited assessment d/t intubation sedation ROM: Active in all 4 extremities Supportive devices: None Strength: 3 in all 4 extremities ADL assistance: Patient is bedrest and requires complete care Fall score: 50 Activity/mobility status: Patient is bedrest and requires complete care, mobility is moderate
NEUROLOGICAL: **MAEW: Y** ☒ **N** ☐ **PERLA: Y** ☒ **N** ☐ **Strength Equal: Y** ☐ **N** ☐ **if no -** **Legs** ☐ **Arms** ☐ **Both** ☐ **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	Strength was not able to be fully assessed d/t sedation. Patient is able to squeeze hands on command but strength was decreased. Orientation: Unable to assess d/t sedation Mental status: Unable to assess d/t sedation Speech: Unable to assess d/t sedation Sensory: Unable to assess d/t sedation LOC: Lethargic
PSYCHOSOCIAL/CULTURAL: **Coping method(s):** **Developmental level:** **Religion & what it means to pt.:** **Personal/Family Data (Think about home environment, family structure, and available family support):**	Coping methods: Smoking Developmental level: 8th grade education level Religion: Patient is not religious Persona/family data: Patient lives at home with his spouse. Patient's daughter, son-in-law, and grandson were present in the room during assessment

Vital Signs, 2 sets (5 points) – <mark>HIGHLIGHT ALL ABNORMAL VITAL SIGNS</mark>

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0800	<mark>106 bpm</mark>	<mark>92/51</mark>	19 bpm	37.9 C	99%

		mmHg			
1000	109 bpm	93/55 mmHg	16 bpm	37.4 C	93%

Vital Sign Trends/Correlation:

Vitals remained relatively stable from the first measurement at 0800 to the second measurement at 1000. Pulse was slightly elevated and BP was slightly decreased at both times. The patient was on multiple medications that can decrease blood pressure. All other vitals were WNL.

0800: 99% ventilator, 35% FiO2, PEEP 8

1000: 93% ventilator, 25% FiO2, PEEP 8

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0900	FLACC	N/A – pt unable to communicate	0	N/A – pt unable to communicate	Fentanyl
1030	FLACC	N/A – pt unable to communicate	0	N/A – pt unable to communicate	Fentanyl

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: **Location of IV:** **Date on IV:**	Size: 18 g Location: Right wrist Date: 9/19/2022

Patency of IV: Signs of erythema, drainage, etc.: IV dressing assessment:	IV patent No signs of erythema, drainage Transparent dressing dry, intact
Other Lines (PICC, Port, central line, etc.)	
Type: Size: Location: Date of insertion: Patency: Signs of erythema, drainage, etc.: Dressing assessment: Date on dressing: CUROS caps in place: Y ☒ N ☐ CLABSI prevention measures:	Type: PICC Size: 5 Fr Location: Triple left upper arm Date of insertion: 9/9/2022 Patent No signs of erythema, drainage Saline lock Transparent dressing dry, intact Date on dressing: 9/19/2022 CLABSI prevention measures: Hand hygiene, hubs cleaned properly before use, CUROS caps left in place

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
Fentanyl 75 mL	35 mL urine
Norepinephrine 219.9 mL	40 mL urine
Amiodarone 125.25 mL	
Propofol 121.5 mL	
NS 7 mL	

Nursing Care

Summary of Care (2 points)

 Overview of care: Patient received oral care once during the clinical shift and was

suctioned as needed. Patients norepinephrine was titrated down as his blood pressure readings

were stable and MAP was above 60 mm. Patient tolerated new rate well as MAP remained above

60 mm.

Procedures/testing done: N/A

Complaints/Issues: N/A d/t intubation and sedation

Vital signs (stable/unstable): Vitals remained stable throughout the shift.

Tolerating diet, activity, etc.: Patient was NPO and bedrest. Patient was tolerating

orders well.

Physician notifications: N/A

Future plans for client: Wean off the ventilator as soon as possible. Will advance diet to

clear liquids as soon as possible.

Discharge Planning (2 points)

Discharge location: Patient will be discharged home with spouse

Home health needs (if applicable): N/A

Equipment needs (if applicable): N/A

Follow up plan: Patient will follow up with cardiology following discharge.

Education needs: Patient will require education on any new medication prescribed. The

patient can also be educated on lifestyle changes he can incorporate to reduce his risk factors,

including obesity, hypertension, hyperlipidemia, and physical inactivity.

Nursing Diagnosis (15 points)
Must be NANDA approved nursing diagnosis and listed in order of priority

Nursing Diagnosis	Rationale	Interventions (2 per dx)	Outcome Goal (1 per dx)	Evaluation
• Include full nursing diagnosis with "related to" and "as evidenced by" components • Listed in order by priority – highest priority to lowest priority pertinent to this client	• Explain why the nursing diagnosis was chosen			• How did the client/family respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.
1. Impaired gas exchange related to ventilation-perfusion imbalance as evidenced by abnormal arterial pH	This nursing diagnosis was chosen because the patient's arterial blood gases were abnormal.	1.Assess and record pulmonary status every 4 hours or more frequently if patient's condition is unstable and provide suctioning as ordered. 2.Monitor vital signs, heart rhythm, and ABG levels and notify provider immediately if any drastic changes occur, such as PaO2 or arterial oxygen saturation drops or PaCO2 rises.	1. Patient's respiratory rate will remain WNL and breath sounds will be clear.	The patient was suctioned as needed. The patient responded well to suctioning, as SaO2 increased after suctioning. Patient's respiratory rate remained WNL.
2. Risk for decreased	This nursing diagnosis was	1.Assess hemodynami	1. Patient will remain	The patient's vitals were

cardiac tissue perfusion related to poor cardiovascular status as evidenced by past medical history	chosen because of the patient's past medical history including MI, CAD, PAD, hypertension, and hyperlipidemia.	c status, including blood pressure, heart rate, oxygen saturation, and respiratory rate. 2. Monitor cardiac rhythm for any irregularities.	hemodynamically stable and will maintain normal cardiac rhythm.	monitored regularly and the patient responded well. The patient remained hemodynamically stable throughout the shift.
3. Risk for decreased cardiac output related to altered heart rhythm and rate as evidenced by history of ventricular fibrillation and elevated heart rate.	This nursing diagnosis was chosen because of the patient's arrhythmia and his heart rate was elevated upon both vital sign measurements.	1. Monitor and record LOC, heart rate and rhythm, and blood pressure and report any abnormal findings. 2. Monitor patient for dyspnea, crackles in the lungs, jugular venous distention, and chest pain.	1. Patient's pulse and blood pressure will remain WNL and will not exhibit any arrhythmias.	The patient's vitals were monitored regularly and the patient responded well. The patient's EKG did not exhibit any arrhythmias.
4. Risk for impaired skin integrity related to inactivity and poor nutrition as evidenced	This nursing diagnosis was chosen because the patient is at risk for skin breakdown and	1. Use preventive skin care devices, as needed, such as a foam mattress,	1. Patient's skin will not exhibit skin breakdown and patient will maintain adequate skin circulation.	The patient's skin was inspected upon assessment and patient was repositioned in bed using

| by bedrest and NPO status | pressure ulcers due to being bedrest. | alternating pressure mattress, sheepskin, pillows, and padding and protect bony prominences.

2. Lift patient's body when moving the patient, using a lifting sheet, if needed and avoid shearing force. | | Hercules sheet to avoid shearing forces. Patient responded well and indicated he was more comfortable following adjustment. |
|---|---|---|---|---|
| 5. Imbalanced nutrition: Less than body requirements related to lack of nutrients as evidenced by current diet | This nursing diagnosis was chosen due to the patient's NPO status. | 1.Monitor electrolyte levels and report abnormal values.

2.Monitor intake and output. | 1. Patient will remain at or above a specified weight and will not experience any adverse complications | All serum electrolyte values and intake and output was monitored. The patient did not experience any significant adverse effects during the shift. |

Other References (APA):

Phelps, L. (2020). *Sparks & Taylor's nursing diagnosis reference manual*. Wolters Kluwer.

Concept Map (20 Points):

Subjective Data

Patient reports "pressure-like" chest pain
Patient reports shortness of breath and nausea

Nursing Diagnosis/Outcomes

1. Impaired gas exchange related to ventilation-perfusion imbalance as evidenced by abnormal arterial pH
   a. Outcome: Patient's respiratory rate will remain WNL and breath sounds will be clear
2. Risk for decreased cardiac tissue perfusion related to poor cardiovascular status as evidenced by past medical history
   a. Outcome: Patient will remain hemodynamically stable and will maintain normal cardiac rhythm
3. Risk for decreased cardiac output related to altered heart rhythm and rate as evidenced by history of ventricular fibrillation and elevated heart rate
   a. Outcome: Patient's pulse and blood pressure will remain WNL and will not exhibit any arrhythmias
4. Risk for impaired skin integrity related to inactivity and poor nutrition as evidenced by bedrest and NPO status
   a. Outcome: Patient's skin will not exhibit skin breakdown and patient will maintain adequate skin circulation
5. Imbalanced nutrition: Less than body requirements related to lack of nutrients as evidenced by current diet
   a. Outcome: Patient will remain at or above a specified weight and will not experience any adverse complications

Objective Data

0800: HR- 106 bpm, BP: 92/51 mmHg
1000: HR- 109 bpm, BP: 93/55 mmHg

Dorsalis pedis and radial pulses 2+ bilaterally

Elevated troponin
ABG pH, PaO2, PaCO2, HCO3 not WNL

Client Information

Patient is a 66-year-old male who presented to the ED with chest pain. Patient stated the pain began that morning (9/18/2022) after drinking his morning coffee. Patient described the pain as "pressure-like" in the center of his chest. Patient also reports mild SOB and nausea. Patient was given aspirin and nitroglycerin but stated they did not alleviate his symptoms. Patient just had a stent placed the week prior.

Nursing Interventions

1. Assess and record pulmonary status every 4 hours or more frequently if patient's condition is unstable and provide suctioning as ordered.
2. Monitor vital signs, heart rhythm, and ABG levels and notify provider immediately if any drastic changes occur, such as PaO2 or arterial oxygen saturation
3. Assess hemodynamic status, including blood pressure, heart rate, oxygen saturation, and respiratory rate.
4. Monitor cardiac rhythm for any irregularities.
5. Monitor and record LOC, heart rate and rhythm, and blood pressure and report any abnormal findings.
6. Monitor patient for dyspnea, crackles in the lungs, jugular venous distention, and chest pain.
7. Use preventive skin care devices, as needed, such as a foam mattress, alternating pressure mattress, sheepskin, pillows, and padding and protect bony prominences.
8. Lift patient's body when moving the patient, using a lifting sheet, if needed and avoid shearing force.
9. Monitor electrolyte levels and report abnormal values.
10. Monitor intake and output.