N441 Care Plan

Lakeview College of Nursing

Brandi Huson

Demographics (3 points)

Date of Admission 2-25-22	**Client Initials** JF	**Age** 81	**Gender** Male
Race/Ethnicity White	**Occupation** Retired	**Marital Status** Married	**Allergies** None
Code Status Full	**Height** 5'10	**Weight** 159	

Medical History (5 Points)

Past Medical History: Bowel obstruction, Benign prostatic hyperplasia (BPH), Diabetes Mellitus type 2, Erectile Dysfunction, Hypertension, Hyperlipidemia, Vitamin D insufficiency

Past Surgical History: Appendectomy, Biopsy of Urethra, Exploratory colon surgery, Cardiac catheterization.

Family History: Mother had heart disease and hypertension

Social History (tobacco/alcohol/drugs including frequency, quantity and duration of use): The patient denies tobacco, alcohol, or drug use.

Assistive Devices: Glasses, dentures, and cane.

Living Situation: The patient lives at home with his wife.

Education Level: High school graduate

Admission Assessment

Chief Complaint (2 points): Chest pain

History of Present Illness – OLD CARTS (10 points): Onset: On the morning of February 25 the patient woke up feeling "off". The patient felt weak and had shortness of breath. The patient told his wife his chest hurt and that he "just did not feel well". Location: The patient had shortness of breath, felt weak, and his chest hurt. Duration: The pain in his chest continued to

worsen throughout the day. Characteristic Symptoms: The patient has shortness of breath, weakness, and chest pain which increased during the day until he lost consciousness and collapsed in the kitchen. Associated and aggravating factors: The patient had a previous diagnosis of hypertension and hyperlipidemia which are contributing risk factors for myocardial infarction. The patient woke up “not feeling well” and was weak and had shortness of breath. Relieving: The patient was already on a daily aspirin regimen, so he took an aspirin that morning. He tried to rest but felt no relief from rest and by the afternoon he had increased chest pain and shortness of breath. The patient eventually lost consciousness and collapsed hitting his head on the kitchen table resulting in a significant jaw injury. Treatment and Timing: The patient’s wife called emergency medical services after the patient collapsed and he was transported to OSF Sacred Heart Hospital in Danville. The patient was unstable, ventilated, and prepped for cardiac catheterization. The patient had two full blockages which resulted in two stents being placed in his heart. The patient also suffered a fractured mandible from the fall and remained ventilated until he was stable enough for surgery.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Myocardial Infarction with ST elevation

Secondary Diagnosis (if applicable):

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

Myocardial infarction (MI) occurs when the heart tissue endures prolonged ischemia without recovery (Capriotti,2020). The myocardial cells are damaged or killed because they are not getting the needed oxygen to survive (Capriotti,2020). Myocardial infarction can occur in different ways and can be classified according to how the injury to the heart occurred (Capriotti,2020). One of the most frequent causes of MI is when a coronary artery becomes

obstructed by atherosclerotic plaque and blocks blood flow carrying oxygen to the myocardium (Capriotti,2020). Atherosclerotic plaque is built up in arteries caused by high blood pressure, high cholesterol, obesity, diabetes, and smoking (Capriotti.,2020). The patient had type 2 diabetes, high blood pressure, and hyperlipidemia, which contributes to plaque buildup and increases the risk of MI. Blood flow to the myocardium can also be obstructed when a piece of atherosclerotic plaque breaks off and travels within a coronary artery (Capriotti,2020). The extent of MI is influenced by the location of occlusion in the coronary artery, the length of time the artery was occluded, and the heart's availability of collateral circulation (Capriotti,2020). The signs and symptoms of MI can vary from patient to patient but include diaphoresis, dyspnea, extreme anxiety, Levine's sign, chest pain, and weak pulses (Capriotti,2020). The patient woke up on February 25th with shortness of breath, weakness, and chest pain. The patient could not relieve the chest pain with rest and eventually lost consciousness. Upon arrival to the hospital, the patient had an ECG which showed elevated ST segments. ST segments become elevated during an MI or after a MI occurs but cannot solely diagnose an MI (Capriotti,2020). Upon further testing, the patient's serum troponin, a cardiac protein, level was 0.88ng/ml. Troponin is only present in serum after myocardial cell death has occurred (Capriotti,2020). The patient also had decreased blood pH and bicarbonate levels and increased lactic acid level which indicated metabolic acidosis resulting from cardiogenic shock caused by MI (Pagana et al., 2021). The patient received a transthoracic echocardiogram which revealed blockages of two main arteries. Treatment of MI with persistent elevated ST segments includes Percutaneous Coronary Intervention (PCI) or pharmacological reperfusion via a thrombolytic agent (Capriotti,2020). The patient was immediately prepped for PCI and had two stints placed to reestablish perfusion. The

patient was also given dobutamine to increase cardiac output and furosemide to remove excess fluid from the body (Jones & Bartlett, 2020).

Pathophysiology References (2) (APA):

Capriotti, T. (2020) *Davis advantage for pathophysiology: introductory concepts and clinical perspectives.* (2nd Edition). Philadelphia: F.A. Davis. Company

Jones & Bartlett Learning. (2020). *2020 Nurse's Drug Handbook.* Burlington, MA

Pagana, K.D., Pagana, T. J., Pagana, T.N. (2021). *Mosby's diagnostic and laboratory test reference* (15th ed). Elsevier

Laboratory Data (15 points)

CBC Highlight All Abnormal Labs—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	F 4-5.5milliion M 4.5-6 million	2.66 million	3.22 million	Red blood cells decrease because of excessive bleeding (Pagana et al., 2021). The patient suffered an open jaw fracture that caused him to have excessive bleeding requiring blood transfusions.
Hgb	F 12-15g/dL M 14-16 g/dL	7.9g/dL	11.0g/dL	Hemoglobin is decreased when there is not an adequate amount of circulating red blood cells (Pagana et al., 2021). The open jaw fracture caused the patient to bleed excessively and require blood transfusions.
Hct	F 42-52% M 35-47%	24.6%	27%	Hematocrit is the measure of total blood volume that is made up by red blood cells which will decrease when the patient has excessive bleeding (Pagana et al., 2021).

Platelets	150,000-400,000 cells/ mm3	420 cells/ mm3	140 cells/ mm3	
WBC	4,500-11,000 cells/mm3	12.6 cells/ mm3	9.2 cells/ mm3	White blood cells will increase during times of stress, trauma, and inflammation (Pagana et al., 2021) The patient had severe stress and trauma caused from Myocardial Infarction (MI) and the open jaw fracture.
Neutrophils	45%-75%	45.7%	80%	Neutrophils can become elevated during blood transfusions which can indicate a blood transfusion reaction (Pagana et al., 2021).
Lymphocytes	20%-49%	47.4%	20.2%	
Monocytes	4%-6%	4.5%	6.0%	
Eosinophils	<7%	1.9%	2.0%	
Bands	0.0-3.0%	Not charted	Not charted	

Chemistry Highlight All Abnormal Labs—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-	135-145 mEq/L	139 mEq/L	142 mEq/L	
K+	3.5-5.0 mEq/L	4.1 mEq/L	2.8 mEq/L	Potassium levels decrease significantly when a patient is unable to eat (Pagana et al., 2021). The patient had been ventilated for a week, was unable to eat, and was not receiving parenteral nutrition which contributed to the drop in the potassium level (Pagana et al., 2021).

Cl-	97-107 mEq/L	110 mEq/L	112 mEq/L	Increased Chloride levels can result from acid-base imbalances such as metabolic acidosis (Pagana et al., 2021). Chloride levels can also increase because of excessive saline infusions (Pagana et al., 2021). The patient had decreased blood pH and bicarbonate levels which are indicative of metabolic acidosis which occurs during the acute stage of MI (Capriotti,2020).
CO2	21-31 mmol/L	21 mmol/L	22 mmol/L	
Glucose	70-100 mg/dL	287 mg/dL	111 mg/dL	Glucose levels increase during times of stress and trauma (Pagana et al., 2021). The patient experienced severe trauma from the MI and open jaw fracture. Glucose levels increase when blood sugar is uncontrolled during diabetes (Pagana et al., 2021). The patient had a previous diagnosis of type 2 diabetes.
BUN	5-25 mg/dL	23 mg/dL	15 mg/dL	
Creatinine	.6-1.3 mg/dL	1.3 mg/dL	1.0 mg/dL	
Albumin	3.5-5.2 gm/dL	3.3 gm/dL	2.5 gm/dL	Albumin is a protein that is synthesized by the liver and is a measure of hepatic function (Capriotti,2020). Albumin can be decreased because of malnutrition, surgery, hepatic failure, and large volume IV infusions (Pagana et al., 2021). The patient could be suffering from liver failure and malnutrition.
Calcium	8.7-10.2 mg/dL	8.2 mg/dL	7.8 mg/dL	Calcium is levels decrease with vitamin D deficiency because vitamin D helps the body absorb calcium (Pagana et al., 2021). Calcium also decreases when albumin is decreased (Pagana et al., 2021). The patient had a previous diagnosis of vitamin D deficiency. The patient also takes

				spironolactone which can cause decreased calcium levels (Jones and Bartlett, 2020).
Mag	1.3/3.0 mg/dL	1.5 mg/dL	1.7 mg/ dL	
Phosphate	44-147 IU/L	Not charted	Not charted	
Bilirubin	.1-1.4 mg/dL	0.2 mg/dL	0.8 mg/ dL	
Alk Phos	40-120 U/L	44 U/L	58 U/L	
AST	10-30 U/L	30 U/L	145 U/L	AST exists within liver cells and increase during times of trauma (Pagana et al., 2021). The patient experienced significant trauma from MI and an open jaw fracture. Antihypertensive medication and aspirin can also cause increased AST levels (Pagana et al., 2021). The patient was taking captopril and aspirin. The patient was also receiving furosemide which can cause liver enzymes to be elevated (Jones & Bartlett, 2020).
ALT	10-40 U/L	16 U/L	356 U/L	ALT is predominantly found in the liver but exists in musculoskeletal tissue as well (Pagana et al., 2021). AST levels rise during times of injury (Pagana et al., 2021). The patient was also receiving furosemide which can cause liver enzymes to be elevated (Jones & Bartlett, 2020).
Amylase	30-110 U/L	Not charted	Not charted	
Lipase	0-160 U/L	Not charted	Not charted	
Lactic Acid	0.5-2.2 mmol/L	10.6 mmol/ L	0.8 mmol/L	Lactic acid builds up when oxygen to the tissues is diminished (Pagana et al., 2021). When the liver becomes hypoxic it cannot clear lactic acid (Pagana et al., 2021). The patient suffered an MI which reduced perfusion causing decreased blood and oxygen flow to vital

				organs such as the liver (Capriotti,2020).
Troponin	0.4ng/mL	0.88 ng/mL	Not charted	Troponin levels are highly specific to myocardial cell injury (Pagana et al., 2021). Troponin levels increase during MI (Pagana et al., 2021).
CK-MB	5-25 units/L	Not charted	Not charted	
Total CK	26-174 units/L	Not charted	Not charted	

Other Tests Highlight All Abnormal Labs—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	<1.1	Not charted	Not charted	
PT	M9.6-11.8 F9.5-11.3	Not charted	Not charted	
PTT	30-40 seconds	Not charted	Not charted	
D-Dimer	<250 ng/mL	Not charted	Not charted	
BNP	<100pg/mL	Not charted	Not charted	
HDL	<60 mg/dl	Not charted	Not charted	
LDL	<130 mg/dL	Not charted	Not charted	
Cholesterol	<200 mg/dL	Not charted	Not charted	
Triglycerides	150 mg/dL	Not charted	Not charted	
Hgb A1c	Diabetic <7% Nondiabetic 4-5.6%	5.8%	Not charted	
TSH	.4-1.4 mu/L	Not charted	Not charted	

Urinalysis Highlight All Abnormal Labs—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	Clear/yellow	Clear/ yellow	Clear/yellow	
pH	4.5-8	Not charted	Not charted	
Specific Gravity	1.010-1.25	Not charted	Not charted	
Glucose	Negative	Not charted	Not charted	
Protein	Negative	Not charted	Not charted	
Ketones	Negative	Not charted	Not charted	
WBC	None or rare	Not charted	Not charted	
RBC	None or rare	Not charted	Not charted	
Leukoesterase	None or rare	Not charted	Not charted	

Arterial Blood Gas Highlight All Abnormal Labs—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	7.0	7.45	Blood pH can decrease because of cardiogenic shock resulting from MI (Hinkle & Cheever, 2018). The patient had a massive MI because of blockage from two main arteries and as a result suffered from cardiogenic shock. The patient crashed twice during cardiac catheterization and CPR had to be performed to bring him back. Metabolic acidosis also occurs in the acute stages of MI (Hinkle &

				Cheever, 2018).
PaO2	80-100 mmHg	88 mmHg	80 mmHg	
PaCO2	35-45 mmHg	36 mmHg	37 mmHg	
HCO3	22-26 mEq/ L	8.9 mEq/L	22.9 mEq/ L	Blood bicarbonate levels decrease during the acute stages of MI and from cardiogenic shock (Hinkle & Cheever, 2018). The patient had a massive MI because of blockage from two main arteries and as a result suffered from cardiogenic shock. The patient crashed twice during cardiac catheterization and CPR had to be performed to bring him back.
SaO2	95%-100%	95%	96%	

Cultures Highlight All Abnormal Labs—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	Not charted	Not charted	
Blood Culture	Negative	Negative	Negative	
Sputum Culture	Negative	Not charted	Not charted	
Stool Culture	Negative	Not charted	Not charted	

Lab Correlations Reference (1) (APA):

Capriotti, T. (2020) *Davis advantage for pathophysiology: introductory concepts and clinical perspectives.* (2nd Edition). Philadelphia: F.A. Davis. Company

Hinkle, J. L., & Cheever, K. H. (2018). *Brunner & Suddarth's textbook of medical-surgical nursing* (14th ed.). Wolters Kluwer.

Jones & Bartlett Learning. (2020). *2020 Nurse's Drug Handbook.* Burlington, MA

Pagana, K.D., Pagana, T. J., Pagana, T.N. (2021). *Mosby's diagnostic and laboratory test reference* (15th ed). Elsevier

Diagnostic Imaging

All Other Diagnostic Tests and Correlations (5 points):

The patient received an x-ray of the head after he lost consciousness, fell, and hit his head on the kitchen table. An x-ray of the head is conducted to assess for fractures and mild to severe brain injuries (Radiologyinfo.org, 2021). The x-ray confirmed an open mandibular fracture.

A cervical spine x-ray is conducted to assess injuries sustained to the neck and cervical spine (Hinkle & Cheever, 2018). The patient received an x-ray of the cervical spine to assess for neck and back trauma resulting from the fall. The cervical spine x-ray also confirmed the open mandibular fracture.

Computed tomography of the spine is used to rule out of diagnose damage to the spinal column (Radiologyinfo.org, 2019). The patient suffered a fall after suffering an MI and losing consciousness, so this was performed to assess for any damage to the spine.

The patient had been ventilated and an orogastric tube was inserted to remove blood and gastric contents and aid in medication administration and feeding (Hinkle & Cheever, 2018). A chest x-ray was performed to confirm the placement of the orogastric tube (Hinkle & Cheever, 2018).

The patient presented to the emergency room with loss of consciousness and chest pain. An electrocardiogram (EKG) is used to assess heart rate and rhythm (Hinkle & Cheever, 2018). The EKG revealed elevated ST segments which is indicative of MI (Hinkle & Cheever, 2018).

Transthoracic echocardiogram is performed to obtain views of the heart chambers, valves, and blood vessels to assess for abnormalities or fluid buildup around the heart (Hinkle & Cheever, 2018). The patient suffered an MI so this was used to assess the function of the heart chambers and valves (Hinkle & Cheever, 2018).

Diagnostic Test Reference (1) (APA):

Hinkle, J. L., & Cheever, K. H. (2018). *Brunner & Suddarth's textbook of medical-surgical nursing* (14th ed.). Wolters Kluwer.

Radiologyinfo.org. (2019, May 15). *Computed Tomography (CT) – Spine.* *https://www.radiologyinfo.org/en/info/spinect*

Radiologyinfo.org. (2021, February 8). *Head Injury.* https://www.radiologyinfo.org/en/info/headinjury

Current Medications (10 points, 1 point per completed med)

10 <u>different</u> medications must be completed

Home Medications (5 required)

Brand/Generic	Lipitor/ Atorvastatin	Captopril/ Capoten	Latanoprost / Xalatan	Spironolactone/ Aldactone	Aspirin/ Acetylsalicylic acid
Dose	40mg	6.25 mg	0.005%/ 1 drop in each eye	25mg	81mg
Frequency	Nightly	Every 8 hours	Nightly	Daily	Daily
Route	Oral	Oral	Eye	Oral	Oral

Classification	HMG-CoA reductase inhibitor/ Antihyperlipidemic (Jones & Bartlett, 2020)	Angiotenis-converting enzyme (ACE) inhibitor/ Antihypertensive vasodilator (Jones & Bartlett, 2020)	Ophthalmic Solution (Jones & Bartlett, 2020)	Potassium sparring diuretic/diuretic (Jones & Bartlett, 2020)	Salicylate/ NSAID (Jones & Bartlett, 2020)
Mechanism of Action	Reduces cholesterol by inhibiting HMG-CoA reductase and cholesterol synthesis in the liver (Jones & Bartlett, 2020).	Blocks the conversion of angiotensin I to angiotensin II and prevents the degradation of vasodilatory prostaglandins, thereby inhibiting vasoconstriction and promoting systemic vasodilation (Jones & Bartlett, 2020).	Decreased intraocular pressure caused by ocular hypertension or open-angle glaucoma (Jones & Bartlett, 2020).	Antagonist of aldosterone that acts primarily through competitive binding of receptors at the aldosterone-dependent sodium-potassium exchange site in the distal convoluted renal tubule (Jones and Bartlett, 2020).	Non-selective and irreversibly inhibits both forms of COX-1 (Jones & Bartlett, 2020). Inhibits platelet aggregation by interfering with production of thromboxane A2 (Jones & Bartlett, 2020).
Reason Client Taking	The patient was taking this medication to reduce cholesterol (Jones & Bartlett, 2020).	The patient was taking this medication to reduce blood pressure (Jones and Bartlett, 2020).	To reduce pressure in the eye cause by glaucoma (Jones & Bartlett, 2020).	The patient was taking this medication to aid in blood pressure reduction and fluid accumulation (Jones & Bartlett, 2020).	To reduce the severity of or prevent MI (Jones & Bartlett, 2020).
Contraindicati	Liver disease	Concomitan	Inflammati	Acute renal	Active

ons (2)	and kidney failure (Jones & Bartlett, 2020).	t aliskiren use in patients with diabetes mellitus and hypersensitivity to captopril or other ACE inhibitors (Jones & Bartlett, 2020).	on of the iris and macular swelling (Jones & Bartlett, 2020).	insufficiency and Addison's disease (Jones & Bartlett, 2020).	bleeding and recent GI bleed (Jones & Bartlett, 2020).
Side Effects/Adverse Reactions (2)	Stomach ulcers and myopathy (Jones & Bartlett, 2020).	Cough and hyperkalemia (Jones & Bartlett, 2020).	Blurred vision and redness of the eye (Jones & Bartlett, 2020).	Hypotension and hypocalcemia (Jones & Bartlett, 2020).	Prolonged bleeding time, decreased blood iron levels, and tinnitus (Jones & Bartlett, 2020).
Nursing Considerations (2)	Use cautiously in patient's that consume large amounts of alcohol and monitor blood glucose levels especially in diabetics (Jones & Bartlett, 2020).	The patient's blood pressure should be closely monitored, and renal function should be closely monitored (Jones & Bartlett, 2020).	Latanoprost should be administered at night to reduce eye pressure during the day (Jones & Bartlett, 2020). The patient should keep their eye closed for two to three minutes after instilling the drop (Jones &	The nurse should assess effectiveness by monitoring blood pressure and assessing edema (Jones & Bartlett, 2020). The nurse can give this medication as oral suspension if the patient has trouble swallowing (Jones & Bartlett, 2020).	The nurse should ask about ringing in the ears or tinnitus because this could indicate a maximum aspirin level (Jones & Bartlett, 2020). For treatment of MI, immediate release aspirin should be used (Jones & Bartlett,

			Bartlett, 2020).		2020).
Key Nursing Assessment(s)/ Lab(s) Prior to Administration	The patient's lipid levels, liver enzymes, and glucose levels should be assessed prior to administration (Jones & Bartlett, 2020). This medication can cause liver dysfunction and affect glucose control (Jones & Bartlett, 2020).	BUN and Creatinine levels should be checked to assess kidney function (Jones & Bartlett, 2020). Blood pressure should be assessed prior to administration (Jones & Bartlett, 2020).	The patient should have their eyes assessed by an ophthalmologist to confirm glaucoma or increased intraocular pressure (Jones & Bartlett, 2020).	The patient's electrolytes such as potassium should be monitored prior to administration to prevent hyperkalemia (Jones & Bartlett, 2020). Renal and Hepatic function such as AST, ATL, BUN, and Creatinine should be assessed prior to administration due to the risk of adverse effects (Jones & Bartlett, 2020).	The patient should be assessed for bleeding prior to administration (Jones & Bartlett, 2020). The patient should be assessed for any hypersensitivity to aspirin or NSAIDS (Jones & Bartlett, 2020).
Client Teaching needs (2)	Educate the patient that this medication is not a substitute for a diet low in fat and cholesterol (Jones & Bartlett, 2020). Teach patient to take this medication at the same time every day to	Educate the patient to stand up slowly to decrease orthostatic hypotension (Jones & Bartlett, 2020). Educate the patient that this medication can cause photosensitivity so they	The patient should be taught to store unopened bottles in the refrigerator (Jones & Bartlett, 2020). Once opened his medication should be stored at room	Teach the patient to take this medication with food or milk to decrease GI upset (Jones & Bartlett, 2020). The patient should be educated on how to take their own blood pressure and to report reading of	Educate the patient not to take ibuprofen while taking aspirin because it will reduce the cardioprotective effects of aspirin (Jones & Bartlett, 2020). Teach the patient not to take

	maximize the effects (Jones & Bartlett, 2020).	should use caution when in the sun (Jones & Bartlett, 2020).	temperature and away from heat and light (Jones & Bartlett, 2020).	140/90 or higher (Jones & Bartlett, 2020).	aspirin if it has a strong vinegar like odor (Jones & Bartlett, 2020).

Hospital Medications (5 required)

Brand/Generic	Ticagrelor/ Brilinta	Heparin/ Heparin Sodium Injection	Dobutamine/ Dobutrex	Propofol/ Diprivan	Furosemide/ Lasix
Dose	90mg	5,000 units	500mg/250 mL	0.34-3.4 mg/ min	40mg
Frequency	Daily	Every 8 hours	Continuous	Continuous	Twice daily
Route	Oral	Subcutaneous Injection	IV	IV	Oral
Classification	PSY12 platelet inhibitor/ Antiplatelet	Anticoagulant / Anticoagulant	Sympathomimetic/ Inotropic	Phenol derivative/ Sedative hypnotic	Loop diuretic/ Antihypertensive/ diuretic
Mechanism of Action	Reversibly interacts with the platelet PSY12 ADP-receptor to prevent platelet activation (Jones &	Binds with antithrombin III, enhancing antithrombin III's inactivation of the coagulation enzymes (Jones & Bartlett, 2020).	Increases cardiac output by selectively augmenting stroke volume, and this is associated with a decrease in total peripheral vascular resistance that	Decreases cerebral blood flow, cerebral metabolic oxygen consumption, and intracranial pressure and increases cerebrovascular	Inhibits sodium and water reabsorption in the loop on Henle and increases urine formation and by reducing fluid volume blood

	Bartlett, 2020).		is mediated, in part, by reflex withdrawal of sympathetic tone to the vasculature (Jones & Bartlett, 2020).	resistance, which may play a role in its hypnotic effects (Jones & Bartlett, 2020).	pressure decreases and cardiac output eventually returns to normal (Jones & Bartlett, 2020).
Reason Client Taking	The patient had a MI and two stents placed so he was taking this medication to prevent stent thrombosis (Jones & Bartlett, 2020).	The patient was taking this to decrease the risk of deep vein thrombosis (Jones & Bartlett, 2020).	The patient was taking this medication to treat low cardiac output (Jones & Bartlett,2020).	The patient was sedated due to having a massive MI, open jaw fracture, and requiring mechanical ventilation (Jones & Bartlett, 2020).	The patient was taking furosemide to reduce edema and decrease cardiac workload (Jones & Bartlett, 2020).
Contraindications (2)	Severe hepatic impairment and active bleeding (Jones & Bartlett, 2020).	Uncontrolled active bleeding and severe thrombocytopenia (Jones & Bartlett, 2020).	Idiopathic hypertrophic subaortic stenosis and hypersensitivity to dobutamine (Jones & Bartlett, 2020).	Hypersensitivity to propofol, eggs, or soybeans (Jones & Bartlett, 2020).	Anuria and hypersensitivity to furosemide (Jones & Bartlett, 2020).
Side Effects/Adverse Reactions (2)	Hypotension and bradycardia (Jones & Bartlett, 2020).	Excessive bleeding and dyspnea (Jones & Bartlett, 2020).	Dyspnea and bradycardia (Jones & Bartlett, 2020).	Bradycardia and hypotension (Jones & Bartlett, 2020).	Elevated liver enzymes and hearing loss from rapid IV injection (Jones & Bartlett, 2020).

Nursing Considerations (2)	The patient should be monitored for bleeding and this medication should be discontinued for five days prior to surgery (Jones & Bartlett, 2020).	Heparin should only be administered by subcutaneous or IV routes (Jones & Bartlett, 2020). Heparin should be injected into the abdominal wall and the nurse should rotate injection sites (Jones & Bartlett, 2020).	Dobutamine should be given IV using an infusion pump and should be diluted with 50mL compatible IV solution (Jones & Bartlett, 2020).	Propofol should not be mixed with other drugs and should not be given in the same line as blood or plasma products (Jones & Bartlett, 2020).	Furosemide should be administered slowly through IV for 1-2 minutes to prevent ototoxicity (Jones & Bartlett, 2020). The patient should be weighed regularly to monitor fluid loss (Jones & Bartlett, 2020).
Key Nursing Assessment(s)/Lab(s) Prior to Administration	Vital signs such as respirator and heart rate should be assessed (Jones & Bartlett, 2020). The patient should be assessed for active bleeding (Jones & Bartlett, 2020).	The patient's PT, hematocrit and hemoglobin levels should be assessed prior to administration (Jones & Bartlett, 2020).	Blood pressure should be assessed prior to administration and monitored continuously during therapy (Jones & Bartlett, 2020). Cardiac output should be assessed prior to administration and during therapy (Jones & Bartlett, 2020). Electrolytes should be assessed to avoid	The patient's heart and respiratory rate should be assessed (Jones & Bartlett, 2020). The patient's blood pressure should be assessed (Jones & Bartlett 2020).	The nurse should check renal and hepatic function before administering (Jones & Bartlett, 2020). Electrolytes should be assessed prior to administering (Jones & Bartlett, 2020).

			hypokalemia (Jones & Bartlett, 2020).		
Client Teaching needs (2)	The patient should be educated on how to reduce the risk of bleeding by using an electric razor and soft bristle toothbrush (Jones & Bartlett, 2020). This medication can be crushed and mixed with water if the patient can not swallow it whole (Jones & Bartlett, 2020).	The patient should be educated that Heparin cannot be taken orally (Jones & Bartlett, 2020). The patient should be educated to wear or carry appropriate medical identification (Jones & Bartlett, 2020).	The nurse should educate on the importance of hemodynamic monitoring (Jones & Bartlett, 2020). Educate the patient that this medication is not intended for long term use (Jones & Bartlett, 2020).	The patient and family should be encouraged to voice any concerns prior to administration and reassure the patient that they will be monitored closely while on this medication (Jones & Bartlett, 2020).	The patient should be educated to take furosemide at the same time every day (Jones & Bartlett, 2020). The patient should take this medication in the morning, so sleep is not disrupted form bathroom use (Jones & Bartlett, 2020).

Medications Reference (1) (APA):

Jones & Bartlett Learning. (2020). *2020 Nurse's Drug Handbook.* Burlington, MA

Assessment

Physical Exam (18 points) – HIGHLIGHT ALL PERTINENT ABNORMAL FINDINGS

GENERAL: **Alertness:** **Orientation:** **Distress:** **Overall appearance:** The patient did not appear in distress.	The patient was sedated for most of the clinical day, so he was not alert and oriented to person, place, time, or situation. The patient did grimace when he was turned indicating pain and distress. The patient was slowly weaned off sedation at the end of the clinical day and was able to communicate by squeezing the nurse's hands.
INTEGUMENTARY: **Skin color:** Pink, warm, dry, and intact **Character:** Warm and dry upon palpation **Temperature:** Warm **Turgor:** Immediate recoil **Rashes:** **Bruises:** **Wounds:** . **Braden Score: 9** **Drains present: Y☒ N ☐** **Type:** The patient had an orogastric tube that was set at low intermittent suction.	The patient did not have any rashes but did have bruising on his arms and legs. The patient had a bruise on his right knee from the fall he sustained. The patient also had minor lacerations from the stent placement on the right and left groin area on his legs.
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	Head and neck are symmetrical. Trachea is midline without deviation. The patient had stitches on the right side of his lower jaw because he fractured his mandible when he lost consciousness and fell. Bilateral auricles pink and moist with no lesions noted. The patient was able to blink his eyes to communicate with the nurse when coming off of sedation. Septum is midline. The patient had poor dentition and also had an ET tube in place for mechanical ventilation. .
CARDIOVASCULAR: **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:** Weak **Capillary refill:** Less than 3 seconds **Neck Vein Distention: Y ☐ N ☒** **Edema Y ☒ N ☐** **Location of Edema:** The patient had	Clear SI and S2 sounds with no murmurs, gallops, or rubs noted. Normal rate and rhythm. The patient was on continuous telemetry that showed normal rate and rhythm throughout the day.

nonpitting edema in his arms and legs.	
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character** **ET Tube:** The patient did have an ET tube and was mechanically ventilated. **Size of tube:** 7.5 **Placement (cm to lip):** 23 cm to lip **Respiration rate:** 12 **FiO2:** 21 **Total volume (TV):** 500 **PEEP:** 5.0 **VAP prevention measures:** Oral care was performed every two hours and the patient was on low intermittent suctioning.	Lung sounds clear throughout bilaterally with no wheezes or crackles noted. Normal rate and rhythm. The patient was on a ventilator which was breathing for him.
GASTROINTESTINAL: **Diet at home:** Regular Diet **Current Diet:** NPO to prepare for repair of his open mandible fracture. **Height:** 5'10 **Weight:** 159lbs **Auscultation Bowel sounds:** **Last BM:** February 24th **Palpation: Pain, Mass etc.:** **Inspection:** **Distention:** **Incisions:** **Scars:** **Drains:** **Wounds:** **Ostomy: Y ☐ N ☒** **Nasogastric: Y ☐ N ☒** **Size:** **Feeding tubes/PEG tube Y ☐ N ☒** **Type:**	Abdomen is soft and nontender with no masses or organomegaly upon palpation of all four quadrants. Bowel sounds normoactive upon auscultation of all four quadrants. No distention, incisions, scars, drains, or wounds noted. The patient had an orogastric tube inserted.
GENITOURINARY: **Color:** Yellow **Character:** Clear **Quantity of urine:** 500mL **Pain with urination: Y ☐ N ☒** **Dialysis: Y ☐ N ☒** **Inspection of genitals:** Clean with no	

lesions noted. **Catheter: Y ☒ N ☐** **Type:** French **Size:** 16 **CAUTI prevention measures:** Sterile technique was used to perform catheter insertion, gloves were worn when assessing genitals and the catheter, drainage bag washed daily, and the tubing remained unkinked.	
MUSCULOSKELETAL: **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☒ N ☐** **Fall Risk: Y ☒ N☐** **Fall Score:** 90 **Activity/Mobility Status:** Bed Rest **Independent (up ad lib)** ☐ **Needs assistance with equipment** ☐ **Needs support to stand and walk** ☐	The patient was sedated for most of the duration of the clinical day. The patient did grimace when he was repositioned and turned. The patient was able to wiggle his toes after coming off sedation. The patient was also able to squeeze the nurse's hands after he woke up from sedation. The patient was on bed rest and did not get up independently. Prior to being ventilated the patient used a cane for support during ambulation.
NEUROLOGICAL: **MAEW: Y ☐ N☒** **PERLA: Y ☐ N☒** **Strength Equal: Y ☒ N ☐ if no - Legs ☐ Arms ☐ Both ☐** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	The patient was sedated and on mechanical ventilation. The patient was unable to speak at this time.
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):**	The patient lived at home with his wife. The patient's wife came to the hospital and visited him daily. The wife verbalized they were Christians.

Vital Signs, 2 sets (5 points) – HIGHLIGHT ALL ABNORMAL VITAL SIGNS

Time	Pulse	B/P	Resp Rate	Temp	Oxygen

0700	84	130/65	14 The patient was mechanically ventilated was able to breath over the ventilator.	98.1	95% Mechanical Ventilation
1100	87	125/66	15 The patient was mechanically ventilated was able to breath over the ventilator.	98.4	96% Mechanical Ventilation

Vital Sign Trends/Correlation:

The patient's blood pressure did decrease slightly during the day. The patient received a prescribed dose of spironolactone and captopril which will decrease blood pressure. The patient's vital signs were stable throughout the day.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0700	0-10	The patient was unable to state where the pain was.	The patient was sedated but grimaced when being turned.	The patient was unable to identify the characteristics of pain.	The patient was turned to prevent skin breakdown and relieve pain.
1100	0-10	The patient was weaned off sedation and asked if he was in	The patient did not indicate pain.	The patient did not indicate pain.	The patient was turned again and did not grimace or indicate pain.

		pain. The patient squeezed the nurse's hand to indicate if he was in pain. When asked he squeezed her hand indicating he was not in pain.			

IV Assessment (2 Points)

IV Assessment	**Fluid Type/Rate or Saline Lock**
Size of IV: The patient had four 20-gauge IV's. **Location of IV:** Right and Left antecubital and Right and Left forearm **Date on IV:** Left Forearm and antecubital dated 2-25-22 and Right and Left forearm dated 2-26-2022 **Patency of IV:** Patent **Signs of erythema, drainage, etc.:** No signs of erythema or drainage. **IV dressing assessment:** Clean, dry, and 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:**	The patient did not have a PICC line, but an order was placed for PICC line insertion later that day.

Intake and Output (2 points)

Intake (in mL)	**Output (in mL)**
The patient was NPO so he had not eaten	500mL

during the clinical day. He did have a continuous infusion of sodium chloride, dobutamine, and propofol. The patient also received an infusion of potassium chloride. The total amount of input calculates to 1050mL.	

Nursing Care

Summary of Care (2 points)

Overview of care: The patient was admitted to OSF Heart of Mary Medical center on February 26th after being transferred from OSF Sacred Heart Medical Center in Danville. The patient was ventilated and sedated. The patient required strict oral care every two hours. The patient was also turned every two hours. The patient was weaned off sedation later in the clinical day and a PICC line insertion was pending. The patient was NPO awaiting surgery to repair an open mandible fracture.

Procedures/testing done: PICC line insertion was pending.

Complaints/Issues: The patient was weaned off sedation and was able to communicate that he was not in pain.

Vital signs (stable/unstable): The patient's vital signs were stable throughout the clinical day.

Tolerating diet, activity, etc.: The patient had a foley catheter inserted, turned every two hours, and was on bedrest.

Physician notifications: The physician ordered a PICC line insertion and was notified when the patient was weaned off sedation.

Future plans for client: The patient was scheduled to have surgery to repair his jaw fracture pending neurological status once weaned off sedation.

Discharge Planning (2 points)

Discharge location: Discharge plans and location were not available at this time because the patient had pending surgical procedures.

Home health needs (if applicable): N/A

Equipment needs (if applicable): N/A

Follow up plan: The patient was pending fracture repair surgery. The patient did not have discharge plans in place at this time. The patient would eventually have to follow up with his primary care provider.

Education needs: The patient would need education on how to care for his jaw following surgical repair. The patient needed education on a heart healthy diet.

Nursing Diagnosis (15 points)

Must be NANDA approved nursing diagnosis and listed in order of priority

Nursing Diagnosis • Include full nursing diagnosis with "related to" and "as evidenced by" components • Listed in order by priority – highest	**Rationale** • Explain why the nursing diagnosis was chosen	**Interventions (2 per dx)**	**Outcome Goal (1 per dx)**	**Evaluation** • How did the client/family respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.

priority to lowest priority pertinent to this client				
1. Ineffective peripheral tissue perfusion related to MI as evidenced by weak peripheral pulses.	During the physical assessment the patient had weak peripheral pulses after suffering a MI.	**1.**Keep legs below the level of the heart to promote collateral blood flow**.** **2.**Perform passive range of motion exercises.	**1.** Peripheral perfusion will improve with positioning and passive range of motion exercises.	At first the patient grimaced when being turned and repositioned but as the day went on, he tolerated turning and passive range of motion exercises of the arms and legs. The patient was able to lift his legs up and down, squeeze the nurse's hands, and wiggle his fingers and toes.
2. Increased risk for infection related to an open mandible fracture and mechanical ventilation as evidenced by exposure to bacteria.	The patient suffered an MI, mechanically ventilated, and had an open jaw fracture. The open would was bleeding and required strict care. The patient is at greater risk of infection due to having an open wound and being ventilated.	1. Strict oral care every two hours. 2.Maintain strict hand hygiene before and after performing care.	1. The patient will remain infection free throughout treatment by providing strict oral care and hand hygiene.	The nurse performed hand hygiene and wore gloves when performing oral and patient care.
3. Delayed wound healing related to fractured mandible	The patient had type 2 diabetes that was uncontrolled at this type	1. Assess blood glucose levels. 2.Take antidiabetic	**1.** The patient will have his blood glucose levels assessed and receive antidiabetic medication as	The patient did not have his blood glucose levels assessed during the clinical day. The patient needs to

as evidenced by increased glucose levels.	which decreases wound healing.	medication as prescribed.	prescribed.	have glucose checked and given the appropriate medication to keep blood glucose in a normal range to promote proper wound healing.
4. Acute pain related to jaw fracture as evidenced by grimacing during oral care and position changes.	The patient grimaced in the morning when the nurse performed oral care and repositioned him which indicated he was in pain.	1.Take pain medication as prescribed. 2. Reposition the patient to promote comfort.	**1.** The patient will have pain reduced by taking pain medication and positioning in a way to promote optimal pain relief.	The patient was given Tylenol and turned to his left side later in the day. Upon arousal from sedation, the patient did not report pain when in this position.
5. Decreased cardiac output related to MI as evidenced by edema in the arms and legs.	The patient was given Lasix during the clinical day because he had volume overload due to damage sustained during MI.	1.Take Lasix as prescribed. 2.Measure and record intake and output.	**1.** The patient was given Lasix and had a foley catheter inserted. By following these measures fluid volume will decreased and the patient's edema will improve.	The patient was given Lasix as prescribed, and intake and output were strictly measured. The patient was on continuous fluids but was maintaining optimal output.

Other References (APA):

Swearingen, P.L. (2019). *All-in-One nursing care planning resource medical surgical, pediatric, maternity, and psychiatric-mental health.* Elsevier.

Concept Map (20 Points):

Subjective Data

The patient was transported to the hospital via EMS after suffering a MI, losing consciousness, and breaking his jaw. The patient underwent PCI and had two stents placed. The patient was sedated and plans to surgically repair his jaw were pending.

Nursing Diagnosis/Outcomes

1. Ineffective peripheral tissue perfusion related to MI as evidenced by weak peripheral pulses. Peripheral perfusion will improve with positioning and passive range of motion exercises.
2. Increased risk for infection related to an open mandible fracture and mechanical ventilation as evidenced by exposure to bacteria. The patient will remain infection free throughout treatment by providing strict oral care and hand hygiene.
3. Delayed wound healing related to fractured mandible as evidenced by increased glucose levels. The patient will have blood glucose checked, take prescribed medication, and blood glucose will be within normal limits.
4. Acute pain related to jaw fracture as evidenced by grimacing during oral care and position changes. The patient's pain was reduced following repositioning and receiving pain medication.
5. Decreased cardiac output related to MI as evidenced by edema in the arms and legs. The patient was given Lasix and had a foley catheter inserted. By following these measures fluid volume will decreased and the patient's edema will improve.

Objective Data

5'10
159lbs
Pulse 87
BP 125/66
Temp 98.4
Respirations 15 on ventilator
Oxygen 95%
Blood glucose 287 and 111
Troponin 0.88ng/mL

Client Information

JF
81 years old
Retired
Married
Male
White
Type 2 Diabetes Mellitus
BPH
Hypertension
Hyperlipidemia
Vitamin D insufficiency

Nursing Interventions

1.Passive range of motion exercises were performed.
2.The patient's legs were kept below heart level.
3. Oral care was performed every two hours.
4.Strict hand hygiene was maintained during patient care.
5. The patient received pain medication.
6.The patient was repositioned to promote comfort.
7. The patient took Lasix as prescribed.
8. A foley catheter was inserted and intake and output were measured.
9. Assess blood glucose levels.
10. Take diabetic medication as prescribed.