N311 Care Plan #3

Lakeview College of Nursing

Ruva Mutopo

Demographics (5 points)

Date of Admission 12/07/2020	Patient Initials R.D.	Age 11/15/1966 Age 54	Gender Male
Race/Ethnicity African American	**Occupation** Engineer	**Marital Status** Married	**Allergies** Penicillin, Peanuts, Sulfa, Shrimp, Heart Dye
Code Status Full Code	**Height** 66 in	**Weight** 242 lb.	

Medical History (5 Points)

Past Medical History: Hypertension @ age 45, Coronary Artery Disease with Angina @ age 48, Asthma @ age 15

Past Surgical History: Client reports no history of surgeries

Family History: Maternal: Hypertension & Diabetes in mom and both grandparents

Paternal – Father: Hypertension, Chronic Bronchitis – Grandfather: COPD – Grandmother: Hypertension

Social History (tobacco/alcohol/drugs): Client quit smoking 1 month ago and occasionally chews tobacco, rarely drinks alcohol and does not use recreational drugs.

Admission Assessment

Chief Complaint (2 points): Tight chest pain

History of present Illness (10 points): Onset: Monday at 16:55, client was experiencing a tight chest after shoveling the snow. He took 3 doses of nitroglycerin sublingual tablets and the pain was not relieved, so he was admitted into the ED at 17:25.

Location: Client rubs the center of his chest

Duration: His pain is consistent throughout the day

Characteristic: Feels like chest is being squeezed in the middle of his chest

Associating: Dizziness, and sick to his stomach

Relieving: Nothing has made his pain any better

Treatment: 3 dose of nitroglycerin sublingual tablets

Primary Diagnosis

Primary Diagnosis on Admission (3 points): Myocardial Infarction

Secondary Diagnosis (if applicable): n/a

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

Myocardial infarction, also known as a heart attack, it is an acute coronary syndrome (ACS) that occurs in the heart tissue. The heart suffers from prolong ischemia which ultimately results in cell death due to a lack of oxygen. MIs are usually separated into two categories according to ECG, STEMI or NSTEMI. A STEMI indicate that the infarction is completely through the heart wall. While a NSTEMI indicates that MIs are subendocardial and not completely though the heart wall unlike a STEMI (Caprotti & Frizzell, 2016). My client had a NSTEMI according to his 12 lead ECG, which categorically better than a STEMI.

MIs occur due to an obstruction in the coronary arteries commonly made of fat or cholesterol buildup. This obstruction stops the blood flow from carrying oxygen to the myocardium. Causing a dead area of muscle and can certainly be fatal if not treated. Each year about 1.5 million Americans suffer from MI and 500,000 die from it. The damage actually comes down to, if the needed oxygen is either not arriving to the cells or there is an insufficient amount of blood. The chance of survival is influenced by the location or intensity of obscuring in the coronary artery, the amount of time that the coronary artery has been blocked, and the hearts

availability of collateral circulation (Mayo Clinic, 2018). If ischemia persists longer than 30 minutes, that is enough for irreversible cellular damage and necrosis (Caprotti & Frizzell, 2016). Thankfully my client was at the 30-minute mark, since he felt it at 16:55 and got admitted at 17:25. Any longer and some serious damage could have arisen in his heart.

Signs and symptoms of a MI include pressure, tightness, or squeezing pain in the chest which result in Levine's sign, nausea, dyspnea, fatigue, and light headiness. Each person who experiences heart attacks are not the same, the severity of symptoms differs across the spectrum. Some have mild while others have severe pain, sudden cardiac arrest, or warning signs. The earliest warning sign can be recurrent chest pain that is triggered by exertion (Mayo Clinic, 2018). My client was shoveling the snow which is a very strenuous activity and it caused angina. Angina is caused by a temporary decrease in blood flow to the heart, hence the heart attack.

Risk factors of a myocardial infarction include men who are age 45 and over, smoking tobacco, high blood pressure, obesity, family history, and many more. My client is at high risk because of his age, previous smoking, hypertension and family history. He is 54, quit smoking a month ago, became hypertensive 9 years ago, and has a high-risk family history. Decreasing risk of a MI means taking preventive steps like medication, exercise, healthy diet and managing stress (Mayo Clinic, 2018). I think it would be important to educate my client, so he can go home and implement that into his daily life. MI can lead to complications like abnormal heart rhythms, heart failure and sudden cardiac arrest.

Along with preventive steps, its important to focus on restoring blood flow to help prevent heart damage. Ways to do that is taking medicine like thrombolytics, those are clot busters that help dissolve a blood clot (Mayo Clinic, 2018). Surgeries like a coronary angioplasty

and stenting, which is what was performed on my client through his femoral artery. Typically, they turn out well and help client, live and lead a better life.

Pathophysiology References (2) (APA):

Mayo Clinic. (2018) *Heart Attack.* (2018, May 30) https://www.mayoclinic.org/diseases-conditions/heart-attack/symptoms-causes/syc-20373106

Capriotti, T., & Frizzell, J. P. (2016). *Pathophysiology: Introductory concepts and clinical perspectives.* Philadelphia: F.A. Davis Company.

Laboratory Data (20 points)
If laboratory data is unavailable, values will be assigned by the clinical instructor

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	**3.90 - 4.98 million/mm^3**	**5.2 (SI units)**		**Low amount of oxygen in the blood**
Hgb	**12 -15.5 g/dL**	**15.9 g/dL**		**High hgb means low tissue oxygen and there is a need for more oxygen**
Hct	**35-45%**	**54%**		**Indicate dehydration, heart disease, and production of too many RBCs**
Platelets	**140-400**	**220,000/**		

	Thousand/mm³	**mm³**		
WBC	**4,000 – 9,000/ mm³**	**6,000/ mm³**		
Neutrophils		**N/A**		
Lymphocytes		**N/A**		
Monocytes		**N/A**		
Eosinophils		**N/A**		
Bands		**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-	**135 – 145 mEq/L**	**140 mEq/L**		
K+	**3.5 – 5.1 mEq/L**	**3.6 mEq/L**		
Cl-	**98 -107 mEq/L**	**104 mEq/L**		
CO2	**21 - 32**	**24 mEq/L**		
Glucose	**70 – 99 mg/dL**	<mark>**122 mg/dL**</mark>		**Caused by the stress of the myocardial infarction**
BUN	**6 – 20 mg/dL**	**18 mg/dL**		
Creatinine	**0.50 – 1.00 mg/dL**	**0.8 mg/dL**		
Albumin	**3.5 – 5.2 mg/dL**	**3.6 g/dL**		
Calcium	**8.4 – 10.5 mg/dL**	**10.2 mg/dL**		
Mag	**1.6 – 2.6**	**1.6 mEq/L**		
Phosphate		**N/A**		
Bilirubin	**0 - 1.2**	**0.8 mg/dL**		

Alk Phos	20- 140	68 units/L		

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	Yellow & Clear	Yellow and Clear		
pH	4.5 - 8	6.8		
Specific Gravity	1.003 – 1.005	<mark>1.030</mark>		Due to dehydration or an extra substance like glucose
Glucose	Negative	Negative		
Protein	Negative	4 mg/dL		
Ketones	Negative	Negative		
WBC	Negative	2		
RBC	Negative	Negative		
Leukoesterase	Negative	Negative		

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		N/A		
Blood Culture		N/A		
Sputum Culture		N/A		

Stool Culture		N/A		

Lab Correlations Reference (APA):

Lakeview College of Nursing. (n.d.) *Diagnostic Lab.* PDF

Diagnostic Imaging

All Other Diagnostic Tests (10 points): Chest X-Ray @ 17:50

Demonstrates no fluid or pneumothorax. Heart is situated in the anterior chest under the sternum with no enlarged heart shadows. No rib fractures or tumors. The aorta and aortic arch have calcification and appears intact with no dilation of the artery

Current Medications (10 points, 2 points per completed med)
5 <u>different</u> medications must be completed

Medications (5 required)

Brand/Generic	Lisinopril	Aspirin	Clopidogrel	Potassium	Morphine
Dose	10 mg	325 mg	75 mg	20 mEq	2mg
Frequency	daily	Daily	Daily	BID	PRN
Route	PO	PO	PO	PO	IV
Classification	Angiotensin converting enzyme (ACE) inhibitor	Salicylate	$P2Y_{12}$ platelet inhibitor	Electrolyte cation	Opioid
Mechanism of Action	Reduce blood pressure by inhibiting conversion of angiotensin I to angiotensin II	Blocks activity of swelling, pain and platelet aggregation	Binds to and blocks ADP receptors of activated platelets	Acts as the major cation in intracellular fluid	Binds with and activates opioid receptors to produce analgesia and euphoria

Reason Client Taking	Hypertension regulation	Clot buster to prevent heart attack	Keeps blood from coagulating to prevent heart attack	Promote good heart function	Pain relief
Contraindications (2)	Hypersensitivity to lisinopril within 36 hrs. or concurrent aliskiren use in client with diabetes	Active bleeding or coagulation disorders	Active pathological bleeding and hypersensitivity to clopidogrel	Acute dehydration and Addison's disease	Acute or sever bronchial asthma and acute abdominal disorders
Side Effects/Adverse Reactions (2)	Arrhythmias and hypotension	Gi bleeding and hepatotoxicity	Hypotension and acute liver failure	Arrhythmias and cardiac arrest	Coma and seizures

Medications Reference (APA):

2020 Nurse's Drug Handbook. 19th ed., Jones & Bartlett Learning, 2020.

Assessment

Physical Exam (18 points)

GENERAL: Alertness: Orientation: Distress: Overall appearance:	Alert and Oriented x3 Client appears to be in distress due to pain Well-groomed appearance
INTEGUMENTARY: Skin color: Character: Temperature: Turgor: Rashes: Bruises: Wounds: . Braden Score:	Normal Brown Ashen Warm +2 None None None. Puncture site on groin intact, no drainage. 23

Drains present: Y☐ N ☒ **Type:**	
HEENT: **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	Symmetrical, no bumps or lesions. Trachea is midline. Lymph nodes are nonpalpable No bumps or lesions, no discharge, healthy cerumen and TM is a pearly grey No abnormalities seen in lids, sclera, conjunctiva and cornea. PERRLA. Normal EOM, and vision with glasses No deviation or abnormalities and sinuses are not tender No lesions or bumps. Mouth is pink and
CARDIOVASCULAR: **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:** **Capillary refill:** **Neck Vein Distention: Y ☐ N ☒** **Edema Y ☐ N ☒** **Location of Edema:**	Normal S1 and S2 sound Slightly fast but normal cardiac rhythm Strong pulses Cap refill of 4 seconds
RESPIRATORY: **Accessory muscle use: Y☐ N ☒** **Breath Sounds: Location, character**	Abnormal lung sounds, wheezes present

GASTROINTESTINAL:
Diet at home:
Current Diet
Height:
Weight:
Auscultation Bowel sounds:
Last BM:
Palpation: Pain, Mass etc.:
Inspection:
  Distention:
  Incisions:
  Scars:
  Drains:
	DASH diet – whole grains, fruits, vegetables and low-fat dairy products
	66 in
	242 lb.
	Normal clicks and gurgles hear in each quadrant
	8:00 this morning
	No abnormalities, pain or tenderness palpated or seen

Wounds: **Ostomy:** Y ☐ N ☒ **Nasogastric:** Y ☐ N ☒ **Size:** **Feeding tubes/PEG tube** Y ☐ N ☒ **Type:**	
GENITOURINARY: **Color:** **Character:** **Quantity of urine:** **Pain with urination:** Y ☐ N ☒ **Dialysis:** Y ☐ N ☒ **Inspection of genitals:** **Catheter:** Y ☒ N ☐ **Type: Indwelling Catheter** **Size: 14 FR**	Yellow Clear 650 mL via catheter Genitals are normal
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** ☐	Normal ROM No supportive devices needed Strength in upper and lower extremities
NEUROLOGICAL: **MAEW:** Y ☒ N☐ **PERLA:** Y ☒ N☐ **Strength Equal:** Y ☒ N ☐ if no - **Legs** ☐ **Arms** ☐ **Both** ☐ **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	Oriented to person, place, time Grieving death of his wife Normal speech patterns Alert and oriented x 4 No loss of consciousness
PSYCHOSOCIAL/CULTURAL: **Coping method(s):** **Developmental level:** **Religion & what it means to pt.:** **Personal/Family Data (Think about home**	Wife and friends Matured and fully developed Baptist Lives with wife in home

environment, family structure, and available family support):	

Vital Signs, 1 set (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
21:00	96 Radially	112/66 Brachial	14	96.8 Temporally	98% 2 L/min per nasal canula

Pain Assessment, 1 set (5 points)

Time	Scale	Location	Severity	Characteristics	Interventions
17:25	Numeric	Over Heart	8/10	Squeezing	Administer 2mg Morphine

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
100 mL @ 2400 via IV D/C	75 mL urine @ 2400 via Catheter
100 mL @ 0100 water	75 mL urine @ 0100 via Catheter
50 mL @ 0400 water	150 mL urine@ 0400 via Catheter
150 mL @ 0600 water	50 mL urine @ 0600 via Catheter
Total = 900 mL	Total = 650 mL

Nursing Diagnosis (15 points)

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Must be NANDA approved nursing diagnosis

Nursing Diagnosis • Include full nursing diagnosis with "related to" and "as evidenced by" components	Rational • Explain why the nursing diagnosis was chosen	Intervention (2 per dx)	Evaluation • How did the patient/family respond to the nurse's actions? • Client response, status of goals and outcomes, modifications to plan.
1. **Acute Pain**	**Related to MI as evidence by client rating pain an 8/10 and positive Levine's sign**	**1. Administer 2mg of Morphine PRN** **2. Instruct client to practice deep and slow breathing, distracting behaviors or guided imagery**	**Goal no met because client is still visibly in distress and pain is rated a 7/10**
2. **Risk for Decreased Cardiac Tissue Perfusion**	**Related to MI as evidence by abnormal RBC, Hgb and Hct values**	**1. Inspect for pallor, cyanosis, mottling, or cool and clammy skin** **2. Administer medications like anticoagulants to break up**	**Goal partially met; clients skin becomes ashen but O2 becomes 98% via nasal cannula at 2 L**

Other References (APA):

Concept Map (20 Points):

Subjective Data

Client was experiencing a tight and squeezing chest after shoveling the snow. Rates pain an 8/10. He took 3 doses of nitroglycerin sublingual tablets and the pain was not relieved.

Feels dizziness and sick to his stomach along with the pain.

Nursing Diagnosis/Outcomes

Acute Pain related to MI as evidence by client rating pain an 8/10 and positive Levine's sign.

Outcomes: Goal no met because client is still visibly in distress and pain is rated a 7/10

Risk for Decreased Cardiac Tissue Perfusion related to MI as evidence by abnormal RBC, Hgb and Hct values

Outcomes: Goal partially met; clients skin becomes ashen but O2 becomes 98% via nasal cannula at 2 L

Objective Data

Client is showing physical face grimacing. Diagnosed with Myocardial Infarction CBC shows abnormal levels Hgb, RBC, and Hct

Pulse: 96 bpm radially
BP: 112/ 66 Brachially
Respirations: 14
Temp: 96.8 Temporally
O2: 98% via nasal canula

Patient Information

Client was shoveling the snow and reported tight, squeezing chest pain. Took 3 tabs of Nitroglycerin with no avail.
Health hx: hypertension, asthma and coronary artery disease with angina.

Nursing Interventions

1. Administer 2mg of Morphine PRN

2. Instruct client to practice deep and slow breathing, distracting behaviors or guided imagery

1. Inspect for pallor, cyanosis, mottling, or cool and clammy skin

2. Administer medications like anticoagulants to break up

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