# N321 Care Plan #2

Lakeview College of Nursing

Angel Roby

## Demographics (3 points)

| **Date of Admission** 3/17/2020 | **Client Initials** R.O. | **Age** 54 years old | **Gender** Male |
|---|---|---|---|
| **Race/Ethnicity** Caucasian | **Occupation** Gas station attendant | **Marital Status** Divorced | **Allergies** PCN |
| **Code Status** Full code | **Height** 5'10" | **Weight** 220 lbs. | |

## Medical History (5 Points)

**Past Medical History:** Hypertension, hypercholesterolemia, obesity (BMI – 31.6)

**Past Surgical History:** Appendectomy (2017)

**Family History:** Mother (Diabetes) Father (MI s/p stent placement) Sister (Obesity)

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

Smoking – 1 pack/day and a smoker for 30 years, he also states that he drinks "a few beers on the weekends."

**Assistive Devices:** N/A

**Living Situation:** Lives at home alone

**Education Level:** High school diploma, no other education noted

## Admission Assessment

**Chief Complaint (2 points):** Substernal chest pain and nausea

**History of Present Illness – OLD CARTS (10 points):** The patient is a 54-year-old male who presented to the Emergency Department for substernal chest pain and nausea for 1 hour. An EKG was performed to reveal ST-elevation I, I, II, and AVF. He was taken to the cardiac cath lab where his right coronary artery was noted to have a 95% blockage. A stent was placed by Dr. Whapham and he was admitted to the cardiac unit at the hospital.

## Primary Diagnosis

**Primary Diagnosis on Admission (2 points):** ST-elevation myocardial infarction

**Secondary Diagnosis (if applicable):** N/A

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

Acute MI is an ACS that occurs when the heart tissue endures prolonged ischemia without recovery. Myocardial cells suffer irreversible damage because of hypoxia and die in a process referred to as infarction or ischemic necrosis (Capriotti, 2020). MIs are classified according to findings on an ECG such as STEMI or NSTEMI. In this case, the patient has an ST-elevation myocardial infarction called a STEMI. Frequently, acute MI occurs because a coronary artery is completely obstructed by atherosclerotic plaque or clot, and blood flow carrying oxygen to the myocardium is blocked (Capriotti, 2020). More commonly, a ruptured piece of atherosclerotic plaque breaks off and travels distally within a coronary artery to an area where it obstructs blood flow (Capriotti, 2020). The patient presented with 95% blockage in the right coronary artery, which led the patient to get a stent in the cath lab. Prolonged ischemia of longer than 30 minutes usually causes irreversible cellular damage and necrosis, leading to decreased contractile force and alteration of conduction in the myocardium. The necrotic cells are inactive electrically and their cell membranes rupture, releasing their cellular contents into the interstitial spaces (Capriotti, 2020). The location of the infarcted myocardium is essential in terms of recovery and potential complications. For instance, inferior wall infarctions usually occur from right coronary artery occlusions and can be associated with variable degrees of heart block. The AV node usually receives its blood supply from the same vessel that nourishes the inferior wall. Thus, alterations in AV nodal conduction would be seen in an inferior-wall acute MI (Capriotti, 2020). Smoking or tobacco use has been identified as a cardiac risk factor for many years. The free

radicals contained in the smoke cause endothelial injury, which kicks off the chain of events that lead to atherosclerosis. Nicotine in cigarettes causes arterial vasoconstriction.

The combination of atherosclerosis and the vasoconstriction of coronary arteries leads to myocardial ischemia; if ischemia is prolonged, MI results (Capriotti, 2020). During MI, if chest pain is ongoing, the patient may appear anxious, diaphoretic, and pale. Elevated blood cholesterol levels, in particular LDL, are associated with atherosclerosis and the occurrence of an MI. They also contribute to the development of angina pectoris, which can lead to MI (Capriotti, 2020). Tests performed to diagnose an MI include an ECG, which assists in identifying an MI in progress or documenting an MI that has already occurred (Capriotti, 2020). To confirm if the patient is suffering from acute MI, blood is examined for specific cardiac enzymes and cardiac proteins, particularly CPK-MB fraction, a cardiac enzyme, and troponin I, a cardiac protein (Capriotti, 2020). The main focus of treatment for an acute MI is to re-establish blood flow to the heart muscle to minimize damage. Patients must seek medical assistance as soon as possible for reperfusion to be achieved. An antiplatelet agent such as aspirin can be taken when the patient experiences chest pain. A non– enteric-coated chewed aspirin is advised, as chewing the aspirin hastens absorption (Capriotti, 2020). Unfractionated heparin or LMWH may also be prescribed along with platelet-inhibiting agents to prevent further clot formation (Hinkle et al., 2022). The patient with STEMI is taken directly to the cardiac catheterization laboratory for an immediate PCI. The procedure is used to open the occluded coronary artery and promote reperfusion to the area that has been deprived of oxygen. Compared to thrombolytic agents, superior outcomes have been reported with the use of PCI (Hinkle et al., 2022). The duration of oxygen deprivation determines the number of myocardial cells that die, so the time from the patient’s arrival in the ED to the time PCI is performed should be less than 60 minutes (Hinkle et al., 2022).

**Pathophysiology References (2) (APA):**

Capriotti, T.M. (2020). *David advantage for pathophysiology: Introductory concepts and clinical perspectives* (2nd ed.). F.A. Davis Company.

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

## 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** | 3.9 – 4.98 | N/A | N/A | N/A |
| **Hgb** | 13 – 17 g/dL | 13.1 | 13.1 | N/A |
| **Hct** | 38.1 – 48.9 (%) | N/A | N/A | N/A |
| **Platelets** | 149 – 393 K/ mcL | N/A | N/A | N/A |
| **WBC** | 4.0 – 11.7 K/ mcL | 6.3 | 6.3 | N/A |
| **Neutrophils** | 40 – 60 (%) | N/A | N/A | N/A |
| **Lymphocytes** | 12 – 44 (%) | N/A | N/A | N/A |
| **Monocytes** | 2 – 8 (%) | N/A | N/A | N/A |
| **Eosinophils** | 0 – 0.5 (%) | N/A | N/A | N/A |
| **Bands** | 10 – 16 (%) | N/A | N/A | N/A |

**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 mmol/L | 135 | 135 | N/A |

| | | | | |
|---|---|---|---|---|
| **K+** | 3.5 – 4.5 mmol/L | 3.6 | 3.6 | N/A |
| **Cl-** | 98 – 107 mmol/L | N/A | N/A | N/A |
| **CO2** | 21 – 31 mmol/L | N/A | N/A | N/A |
| **Glucose** | 74 – 109 mg/dL | 171 | 171 | Acute hyperglycemia is common in patients with ST- elevation myocardial infarction (STEMI) even in the absence of a history of type 2 diabetes mellitus (Badiger, 2019). Hyperglycemia is a reflection of relative insulinopenia, which is associated with increased lipolysis and free fatty acid generation, as well as diminished myocardial glucose uptake and a decrease in glycolytic substrate for myocardial energy needs in STEMI (Badiger, 2019). |
| **BUN** | 7 – 25 mg/dL | 10 | 10 | N/A |
| **Creatinine** | 0.7 – 1.30 mg/dL | 1.53 | 1.53 | Impaired renal function has been established as a significant and independent predictor of adverse cardiovascular events among patients admitted for ST- segment elevation myocardial infarction (Vinod et al., 2018). Cardiovascular morbidity and mortality is evident in early renal disease and in patients with CKD because of hemodynamic overload and several metabolic and endocrine imbalances (Vinod et al., 2018). |
| **Albumin** | 3.5 – 5.2 g/dL | N/A | N/A | N/A |
| **Calcium** | 8.6 – 10.3 mg/dL | N/A | N/A | N/A |
| **Mag** | 1.6 – 2.2 mg/dL | N/A | N/A | N/A |

| | | | | |
|---|---|---|---|---|
| **Phosphate** | 2.5 – 4.5 mg/dL | N/A | N/A | N/A |
| **Bilirubin** | 0.3 – 1.0 mg/dL | N/A | N/A | N/A |
| **Alk Phos** | 34 – 104 unnits/L | N/A | N/A | N/A |
| **AST** | 13 – 39 units/L | N/A | N/A | N/A |
| **ALT** | 7 – 52 units/ L | N/A | N/A | N/A |
| **Amylase** | 100 – 300 units/L | N/A | N/A | N/A |
| **Lipase** | 0 – 60 units/ L | N/A | N/A | N/A |
| **Lactic Acid** | 3 – 23 mg/dL | N/A | N/A | N/A |

**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** | < or = 1.1 | N/A | N/A | N/A |
| **PT** | 11 – 13.5 seconds | N/A | N/A | N/A |
| **PTT** | 60 – 70 seconds | N/A | N/A | N/A |
| **D-Dimer** | < 250 ng/mL | N/A | N/A | N/A |
| **BNP** | < 100 pg/mL | N/A | N/A | N/A |
| **HDL** | 23 – 92 mg/dL | N/A | N/A | N/A |
| **LDL** | < 100 mg/dL | N/A | N/A | N/A |
| **Cholesterol** | < 199 mg/dL | N/A | N/A | N/A |
| **Triglycerides** | 0 – 149 mg/dL | N/A | N/A | N/A |
| **Hgb A1c** | < or = 6.4 % | N/A | N/A | N/A |
| **TSH** | 0.45 – 5.33 | N/A | N/A | N/A |

| | | | | |
|---|---|---|---|---|
| | mlU/mL | | | |
| **Troponin** | < 0.04 ng/mL | 0.98 | 0.98 | An increase in the level of troponin in the serum can be detected within a few hours during acute MI. It remains elevated for a long period, often as long as 2 weeks, and it therefore can be used to detect recent myocardial damage (Hinkle et al., 2022).<br>It should be noted that cardiac troponin levels may rise during inflammation and other forms of mechanical stress on the myocardium. These include sepsis, heart failure, and respiratory failure (Hinkle et al., 2022). |
| **CKMB** | 3 – 5 % | 42 | 42 | CK-MB is the cardiac-specific isoenzyme; it is found mainly in cardiac cells and therefore increases when there has been damage to these cells. Elevated CK-MB is an indicator of acute MI; the level begins to increase within a few hours and peaks within 24 hours of an infarct (Hinkle et al., 2022). |
| | | | | |

**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** | Yellow, clear | N/A | N/A | N/A |
| **pH** | 5.0 – 9.0 | N/A | N/A | N/A |
| **Specific Gravity** | 1.005 – 1.025 | N/A | N/A | N/A |
| **Glucose** | Negative | N/A | N/A | N/A |
| **Protein** | Negative | N/A | N/A | N/A |
| **Ketones** | Negative | N/A | N/A | N/A |

| | | | | |
|---|---|---|---|---|
| **WBC** | 0 – 0.5 | N/A | N/A | N/A |
| **RBC** | 0 – 3.0 | N/A | N/A | N/A |
| **Leukoesterase** | Negative | N/A | N/A | N/A |

**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** | 10,000 colonies/mL | N/A | N/A | N/A |
| **Blood Culture** | Negative | N/A | N/A | N/A |
| **Sputum Culture** | Negative | N/A | N/A | N/A |
| **Stool Culture** | Negative | N/A | N/A | N/A |

**Lab Correlations Reference (1) (APA):**

Badiger, S. (2019). Hyperglycemia and myocardial infarction. *BJMP*, *12*(2), 2-3. https://www.bjmp.org/content/hyperglycaemia-and-myocardial-infarction

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

Vinod, P., Kann, T., Polaconda, S., Bello, A., Khayata, M., Munoz, F., Krishnappa, V., & Raina, R. (2018). The impact of admission serum creatinine on major adverse clinical events in ST-segment elevation myocardial infarction patients undergoing primary percutaneous coronary intervention. *Cardiology Research*, *9*(2), 94–98. https://doi.org/10.14740/cr689w

## Diagnostic Imaging

**All Other Diagnostic Tests (5 points):**

Chest x-ray - Negative for any acute abnormalities, cardiac silhouette is within normal limits

EKG – ST with ST-elevation in I, II, and AVF leads

Cardiac catheterization – 1 stent placed in the right coronary artery (RCA), blow flow resumed to RCA as noted under fluoroscopy, patient tolerated procedure well, 50 mcq Fentanyl 2.5 mg versed given during procedure

**Diagnostic Test Correlation (5 points):**

Chest x-ray – To see if there are any abnormalities in the size and shape of the heart

EKG - The 12-lead ECG provides information that assists in ruling out or diagnosing an acute MI. It should be obtained within 10 minutes from the time a patient reports pain or arrives in the ED. By monitoring serial ECG changes over time, the location, evolution, and resolution of an MI can be identified and monitored.

Cardiac catherization - The procedure is used to open the occluded coronary artery and promote reperfusion to the area that has been deprived of oxygen.

**Diagnostic Test Reference (1) (APA):**

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

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

**Home Medications (5 required)**

| | | | | | |
|---|---|---|---|---|---|
| **Brand/Generic** | Prinivil/Lisinopril | Lipitor/Atorvastatin | N/A | N/A | N/A |
| **Dose** | 10 mg | 20 mg | N/A | N/A | N/A |
| **Frequency** | BID | Daily | N/A | N/A | N/A |
| **Route** | PO | PO | N/A | N/A | N/A |
| **Classification** | Pharmacologic: ACE inhibitor<br>Therapeutic: Antihypertensive | Pharmacologic: HMG-CoA reductase inhibitor<br>Therapeutic: Antihyperlipidemic | N/A | N/A | N/A |
| **Mechanism of Action** | May reduce blood pressure by inhibiting conversion of angiotensin I to angiotensin II. | Reduces plasma cholesterol and lipoprotein levels by inhibiting HMG-CoA reductase and cholesterol synthesis in the liver and by increasing the number of LDL receptors on liver cells to enhance LDL uptake and breakdown | N/A | N/A | N/A |
| **Reason Client Taking** | Hypertension | Hypercholesterolemia | N/A | N/A | N/A |
| **Contraindications (2)** | Concurrent aliskiren use in patients with diabetes<br>Hypersensitivity to ACE inhibitors | Active hepatic disease<br>Hypersensitivity to atorvastatin or its components | N/A | N/A | N/A |
| **Side Effects/Adverse Reactions (2)** | Arrhythmias<br>Hepatitis | Hypoglycemia<br>Hepatic failure | N/A | N/A | N/A |
| **Nursing Considerations (2)** | Should not be given to a patient who is hemodynamically | Expect liver function tests to be performed before therapy starts and then thereafter as | N/A | N/A | N/A |

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|---|---|---|---|---|---|
| | unstable after an acute MI<br>Use lisinopril cautiously in patients with fluid volume deficit, heart failure, impaired renal function, or sodium depletion. | clinically necessary. Expect to measure lipid levels 2 to 4 weeks after therapy starts, to adjust dosage as directed, and to repeat periodically until lipid levels are within desired range. | | | |

**Hospital Medications (5 required)**

| **Brand/Generic** | Aspirin/Acetylsalicylic acid | Hepalean/ Heparin | Nitroglycerin /Glyceryl trinitrate | Zofran/Ondansetron | Tylenol/ Acetaminophen |
|---|---|---|---|---|---|
| **Dose** | 81 mg | 5,000 units | 0.4 mg | 4 mg | 650 mg |
| **Frequency** | Daily | BID | PRN for chest pain | Q6h, PRN for nausea | Q6h, PRN for pain/fever |
| **Route** | PO | SubQ | ODT | ODT | PO |
| **Classification** | Pharmacologic: Salicylate<br>Therapeutic: NSAID | Pharmacologic: Anticoagulant<br>Therapeutic: Anticoagulant | Pharmacolog ic: Nitrate<br>Therapeutic: Antianginal | Pharmacologic: 5-HT3<br>Therapeutic: Antiemetic | Pharmacologic: Nonsalicylate<br>Therapeutic: Antipyretic |
| **Mechanism of Action** | Blocks the activity of cyclooxygenase. Prostaglandins, cause local vasodilation with swelling and pain. Aspirin acts on the heat-regulating center in the | Binds with antithrombin III enhancing antithrombin III's inactivation of the coagulation enzymes | Reduces preload and afterload decreasing myocardial workload and oxygen | Blocks serotonin receptors centrally in the chemoreceptors trigger zone and peripherally at vagal nerve terminals in the intestine. | Acts directly on temperature regulating center in the hypothalamus inhibiting synthesis of |

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|---|---|---|---|---|---|
| | hypothalamus and causes peripheral vasodilation, diaphoresis, and heat loss. | thrombin and factors Xa and XIa. | demand. It also dilates coronary arteries increasing blood flow to the ischemic myocardial tissue. | | prostaglandin E2. |
| **Reason Client Taking** | To reduce the severity of or prevent acute MI | To prevent clots | Chest pain | Nausea | Fever |
| **Contraindications (2)** | Active bleeding or coagulation disorders.<br>GI bleed or ulcers. | History of heparin induced thrombocytopenia<br>Uncontrolled active bleeding | Acute MI<br>Cerebral hemorrhage | Concomitant use of apomorphine.<br>Hypersensitivity to medication and its properties. | Hepatic impairment<br>Severe active liver disease |
| **Side Effects/Adverse Reactions (2)** | CNS depression<br>GI bleeding | Thrombosis<br>Adrenal hemorrhage | Anxiety<br>Blurred vision | Serotonin syndrome<br>Edema | Stridor<br>Hypoglycemic coma |
| **Nursing Considerations (2)** | Don't crush timed-release or controlled release aspirin tablets unless directed.<br>Ask about tinnitus because this reaction usually occurs when blood aspirin levels reach or exceed maximum dosage for therapeutic effect. | Use heparin cautiously in alcoholics.<br>Alternate injection sites and watch for signs of bleeding or hematomas. | Plan a nitroglycerin free period of about 10 hours each day as prescribed to maintain therapeutic effects.<br>Place sublingual tablet underneath tongue and make sure it dissolves completely. | Know that if hypokalemia or hypomagnesaemia is present the imbalances should be corrected before the medication is administered.<br>Place disintegrating tablet immediately on patient's tongue because it dissolves in seconds. | Monitor renal function in patient on long term therapy.<br>Monitor liver function tests such as ALT, AST, bilirubin, and creatinine levels. |

**Medications Reference (1) (APA):**

Jones & Bartlett Learning. (2021). *2021 nurse's drug handbook* (20th ed.). Jones & Bartlett Learning.

**Assessment**

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

| | |
|---|---|
| **GENERAL:**<br>**Alertness:**<br>**Orientation:**<br>**Distress:**<br>**Overall appearance:** | The patient is A/O x4, and is oriented to time, place, and person. The patient is not in any distress, besides the pain in his chest. Patient's overall appearance is within expected range under the circumstances. |
| **INTEGUMENTARY:**<br>**Skin color:**<br>**Character:**<br>**Temperature:**<br>**Turgor:**<br>**Rashes:**<br>**Bruises:**<br>**Wounds:** .<br>**Braden Score:**<br>**Drains present: Y☐ N ☐**<br>**Type:** | Patient's skin is pink, warm, and dry. Patient's skin turgor is elastic and shows no signs of abnormality. The patient does not have any rashes, bruises, and wounds. The patient's Braden score is mild and does not show any signs of pressure ulcers. The patient does not have any drains present at this moment. |
| **HEENT:**<br>**Head/Neck:**<br>**Ears:**<br>**Eyes:**<br>**Nose:**<br>**Teeth:** | The patient is showing no signs of abnormality. Head/neck shows no sign of bruises, rashes, or wounds. Range of motion of head/neck are intact. The ears are showing no signs of excessive cerumen and patient does not complain of hearing loss or pain. The nose is equal bilaterally and is showing no signs of bleeding or excessive mucous. Nostrils are moist and patent. Patient's teeth are showing no signs of abnormality. No teeth are missing, and mucous membranes are moist, pink and intact. |
| **CARDIOVASCULAR:**<br>**Heart sounds:**<br>**S1, S2, S3, S4, murmur etc.**<br>**Cardiac rhythm (if applicable):**<br>**Peripheral Pulses:**<br>**Capillary refill:**<br>**Neck Vein Distention: Y ☐ N ☒**<br>**Edema Y ☐ N ☒**<br>**Location of Edema: N/A** | Radial pulses are 2+. The S1 and S2 are present with no signs of S3, S4, or murmurs. The peripheral pulses are all 3+ which is within expected range. The patient isn't showing any signs of neck vein distention and edema. |
| **RESPIRATORY:**<br>**Accessory muscle use: Y☐ N ☒** | Airway is patent with no signs of change in clinical course. Breathing is clear and equal |

| | |
|---|---|
| **Breath Sounds: Location, character** | bilaterally. |
| **GASTROINTESTINAL:**<br>**Diet at home:**<br>**Current Diet**<br>**Height:**<br>**Weight:**<br>**Auscultation Bowel sounds:**<br>**Last BM:**<br>**Palpation: Pain, Mass etc.:**<br>**Inspection:**<br>**Distention:**<br>**Incisions:**<br>**Scars:**<br>**Drains:**<br>**Wounds:**<br>**Ostomy: Y ☐ N ☒**<br>**Nasogastric: Y ☐ N ☒**<br>**Size:**<br>**Feeding tubes/PEG tube Y ☐ N ☒**<br>**Type:** | Diet at home is unknown.<br>Current diet has no change in course. Patient is receiving normal diet at this moment.<br>Patient's height is 5'10"<br>Patient's weight is 220 lbs.<br>Upon auscultation, bowel sounds are present and equal in all four quadrants.<br>Patient's last bowel movement is unknown.<br>Upon palpation, the abdomen is soft and non-tender.<br>No signs of distention, incision, wounds, or scars.<br>The patient does not have any drains present at his moment.<br>The patient does not have a NG tube, feeding tubes, or PEG tubes in place. |
| **GENITOURINARY:**<br>**Color:**<br>**Character:**<br>**Quantity of urine:**<br>**Pain with urination: Y ☐ N ☒**<br>**Dialysis: Y ☐ N ☒**<br>**Inspection of genitals:**<br>**Catheter: Y ☐ N ☒**<br>**Type:**<br>**Size:** | The patient's urine is within expected range. The patient does not have any pain urinating, and the patient is currently not on dialysis. Patient also does not have a catheter in place. |
| **MUSCULOSKELETAL:**<br>**Neurovascular status:**<br>**ROM:**<br>**Supportive devices:**<br>**Strength:**<br>**ADL Assistance: Y☐ N ☒**<br>**Fall Risk: Y ☐ N☒**<br>**Fall Score:**<br>**Activity/Mobility Status:**<br>**Independent (up ad lib) ☐**<br>**Needs assistance with equipment ☐**<br>**Needs support to stand and walk ☐** | Cardiac catheterization insertion is placed on the left femoral. Site has gauze and tegaderm in place. No bleeding is noted and dressing is clean, dry, and intact.<br>The patient's neurovascular status is within expected range.<br>The patient can move all extremities equally.<br>The patient does not have any supportive devices and his strength is within expected range.<br>The patient is not a fall risk and is able to ambulate independently. |
| **NEUROLOGICAL:** | The patient can move all extremities equally. |

| | |
|---|---|
| **MAEW: Y ☒ N☐**<br>**PERLA: Y ☒ N☐**<br>**Strength Equal: Y ☒ N ☐ if no -**<br>**Legs ☐ Arms ☐ Both ☐**<br>**Orientation:**<br>**Mental Status:**<br>**Speech:**<br>**Sensory:**<br>**LOC:** | The patient shows signs of PERLA.<br>The patient has strength in all his extremities.<br>The patient is A/O x4, denies any numbness or tingling.<br>The patient's speech is not affected and is within expected range. The patient has his sensory motor skills and consciousness intact. |
| **PSYCHOSOCIAL/CULTURAL:**<br>**Coping method(s):**<br>**Developmental level:**<br>**Religion & what it means to pt.:**<br>**Personal/Family Data (Think about home environment, family structure, and available family support):** | The patient does not state any coping methods.<br>The patient has acquired a high school diploma.<br>The patient lives alone at home. |

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

| Time | Pulse | B/P | Resp Rate | Temp | Oxygen |
|---|---|---|---|---|---|
| 0700 | 76 bpm | 163/76 mmHg | 16 breaths/min | 37.0 C | 98% (Room air) |
| 1100 | 69 bpm | 124/63 mmHg | 18 breaths/min | 36.9 C | 97% (Room air) |

**Pain Assessment, 2 sets (2 points)**

| Time | Scale | Location | Severity | Characteristics | Interventions |
|---|---|---|---|---|---|
| 0700 | 4/10 | Catheterization insertion site | Moderate | Generalized | Tylenol administered |
| 1100 | 1/10 | No specific location | Mild | Generalized | No intervention at this time |

**IV Assessment (2 Points)**

| IV Assessment | Fluid Type/Rate or Saline Lock |
|---|---|
| **Size of IV:** 18G<br>**Location of IV:** left antecubital, right antecubital<br>**Date on IV:** 3/16/2022<br>**Patency of IV:** Patent<br>**Signs of erythema, drainage, etc.:** N/A<br>**IV dressing assessment:** No complications, patent dressing clean/dry/intact, infusing without difficulty | NS at 125 mL/hr |

**Intake and Output (2 points)**

| Intake (in mL) | Output (in mL) |
|---|---|
| NS at 125 mL/hr x 4 hours<br><br>Water 300 mL with breakfast<br><br>Orange juice 120 mL with breakfast | Urine 800 mL total voided in 4 hours<br><br>Stool x1 |

**Nursing Care**

**Summary of Care (2 points)**

**Overview of care:** No noted discharge needs or case management concerns – Patient will be discharged home with new medication orders including Aspiring 81 mg daily. He may need additional education regarding the importance of taking this medication in relation to his stent placement. Further patient education should include starting a low-fat diet and smoking cessation. He is being referred to Dr. Nallamothu for cardiology services. He will make an appointment for 1 week from the day of discharge.

**Procedures/testing done:** Chest x-ray, EKG, cardiac catheterization, Hgb, WBC, Na, K, Glucose, BUN, Creatinine, Troponin, CKMB

**Complaints/Issues:** The patient was admitted with substernal pain. After the stent was placed, patient complained of pain at the catherization insertion site

**Vital signs (stable/unstable):** The only unstable vital sign was the blood pressure at 0700 which showed signs of hypertension. At 1100 vital signs were stable.

**Tolerating diet, activity, etc.:** The patient is tolerating the diet and activity well

**Physician notifications:** The patient is getting referred to Dr. Nallamothu for cardiology services.

**Future plans for client:** Before discharge, ensure that the patient is educated about their condition. Education should include a low-fat diet, smoking cessation, and the stent medication prescribed to the patient.

**Discharge Planning (2 points)**

**Discharge location:** No noted discharge needs or case management concerns

**Home health needs (if applicable):** N/A

**Equipment needs (if applicable):** N/A

**Follow up plan:** The patient will make an appointment 1 week after discharge

**Education needs:** Low-fat diet and smoking cessation

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

| **Nursing Diagnosis**<br>• Include full nursing diagnosis with "related to" and "as evidenced by" components<br>• Listed in order by priority – highest priority to lowest priority pertinent to this client | **Rationale**<br>• Explain why the nursing diagnosis was chosen | **Interventions (2 per dx)** | **Outcome Goal (1 per dx)** | **Evaluation**<br>• How did the client/family respond to the nurse's actions?<br>• Client response, status of goals and outcomes, modifications to plan. |
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| Risk for impaired cardiac function related to reduced coronary blood flow as evidenced by 95% blockage in the right coronary artery | The patient is experiencing a ST-elevated myocardial infarction and when the patient went to the cath lab, it showed a blockage in the right coronary artery | 1. Administer pain medication, acetaminophen, or aspirin<br>2. Ensure the patient is getting rest | Relief of chest pain/discomfort | The client is reporting relief of chest discomfort. Appears comfortable and is pain level has gone down to from a 4/10 to a 1/10 |
| Impaired peripheral tissue related to impaired cardiac output as evidenced by hypertension | The patient has a history of hypertension and has presented to the ED with hypertension which causes the blood vessels to constrict | 1. Assess the patient every 4 hours<br>2. Report to the provider if | Maintenance of adequate tissue perfusion | The patient's blood pressure has lowered from 163/76 mmHg to 124/63 mmHg. Patient is alert and oriented |

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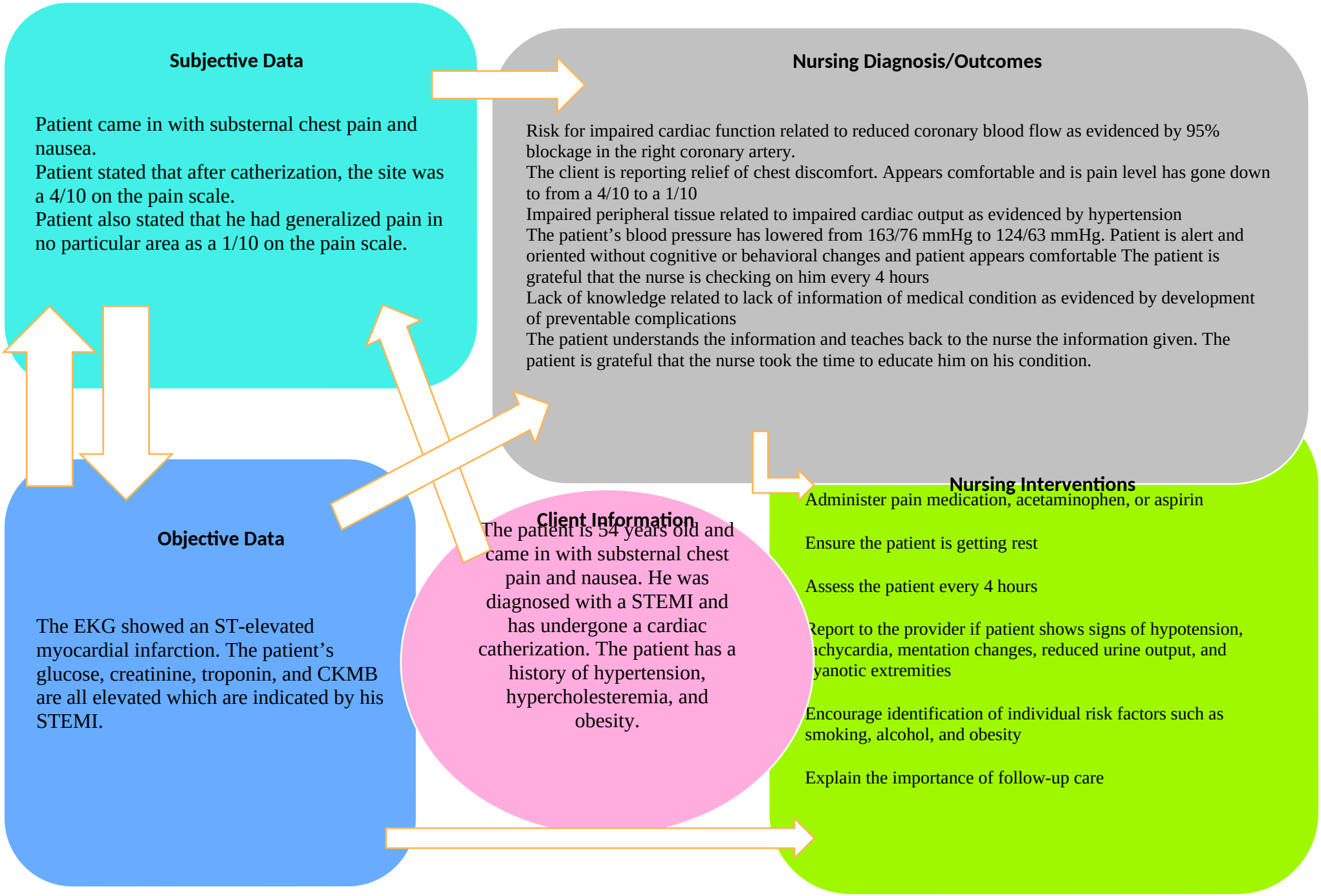
| | which puts him at risk | patient shows signs of hypotension, tachycardia, mentation changes, reduced urine output, and cyanotic extremities | | without cognitive or behavioral changes and patient appears comfortable<br>The patient is grateful that the nurse is checking on him every 4 hours |
| Lack of knowledge related to lack of information of medical condition as evidenced by development of preventable complications | The patient's lifestyle includes alcohol use and smoking despite being diagnosed with hypertension, hypercholesterolemia, and obesity. | 1. Encourage identification of individual risk factors such as smoking, alcohol, and obesity<br>2. Explain the importance of follow-up care | Patient verbalizes understanding of condition, potential complication, risk factors, and stent care. | The patient understands the information and teaches back to the nurse the information given.<br>The patient is grateful that the nurse took the time to educate him on his condition. |

**Other References (APA):**

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

**Concept Map (20 Points):**


Subjective Data
Patient came in with substernal chest pain and nausea.
Patient stated that after catherization, the site was a 4/10 on the pain scale.
Patient also stated that he had generalized pain in no particular area as a 1/10 on the pain scale.
Nursing Diagnosis/Outcomes
Risk for impaired cardiac function related to reduced coronary blood flow as evidenced by 95% blockage in the right coronary artery.
The client is reporting relief of chest discomfort. Appears comfortable and is pain level has gone down to from a 4/10 to a 1/10
Impaired peripheral tissue related to impaired cardiac output as evidenced by hypertension
The patient's blood pressure has lowered from 163/76 mmHg to 124/63 mmHg. Patient is alert and oriented without cognitive or behavioral changes and patient appears comfortable The patient is grateful that the nurse is checking on him every 4 hours
Lack of knowledge related to lack of information of medical condition as evidenced by development of preventable complications
The patient understands the information and teaches back to the nurse the information given. The patient is grateful that the nurse took the time to educate him on his condition.
Objective Data
The EKG showed an ST-elevated myocardial infarction. The patient's glucose, creatinine, troponin, and CKMB are all elevated which are indicated by his STEMI.
Client Information
The patient is 54 years old and came in with substernal chest pain and nausea. He was diagnosed with a STEMI and has undergone a cardiac catherization. The patient has a history of hypertension, hypercholesteremia, and obesity.
Nursing Interventions
Administer pain medication, acetaminophen, or aspirin
Ensure the patient is getting rest
Assess the patient every 4 hours
Report to the provider if patient shows signs of hypotension, achycardia, mentation changes, reduced urine output, and yanotic extremities
Encourage identification of individual risk factors such as smoking, alcohol, and obesity
Explain the importance of follow-up care