N431 Care Plan 3

Lakeview College of Nursing

Hannah Glanzer

Demographics (3 points)

Date of Admission 12/07/2020	Patient Initials H.L.	Age 68	Gender Female
Race/Ethnicity Caucasian	Occupation Retired	Marital Status Married	Allergies No Known Allergies
Code Status FULL	Height 5'7"	Weight 221 lb	

Medical History (5 Points)

Past Medical History: asthma, cellulitis, diabetes mellitus, myocardial infarction, hypertension

Past Surgical History: No past surgical history

Family History: stroke (sister), hypertension (sister), myocardial infarction (father), cancer (mother), dementia (mother)

Social History (tobacco/alcohol/drugs): she has no smoking history, she drinks occasionally (3-4 drinks per occasion), and denies any previous drug use

Assistive Devices: no assistive devices

Living Situation: she lives in a condo next to her sister

Education Level: There are no educational barriers to patient teaching.

Admission Assessment

Chief Complaint (2 points): Chest Pain

History of present Illness (10 points): A 68 year old female was admitted to the unit with complaints of chest pain, diaphoresis, chills, and shortness of breath. She states that her pain began this morning and was not relieved with 3 rounds of nitro. She reported the pain as a 9/10 with "the same pain as my last heart attack." She claimed that lying down eased her pain slightly, but did enough to be comfortable. She was placed on a nitro drip to relieve chest pain. She

reports shortness of breath with no relief. She denies any coughing, fever, chills, nausea, or vomiting.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): Myocardial Infarction

Secondary Diagnosis (if applicable): n/a

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

A myocardial infarction is caused when blood supply to the heart is cut off, which results in the death of heart muscle (Luo, 2020). A myocardial infarction can also be called a heart attack. Heart attacks are very serious health conditions and are often fatal. Heart attacks are life-threatening because they result from a blockage in a coronary artery (Luo, 2020). Blockages are buildups made up of plaque, cholesterol, and cellular waste products (Luo, 2020). The two most common causes of heart attacks are atherosclerosis and blood clots (Luo, 2020). Atherosclerosis is when there is plaque buildup in an artery that prevents the blood from circulating through heart tissue (Luo, 2020).

Although the symptoms of a heart attack can differ between men and women, there are many that are common in both genders. Some common early warning signs of heart attacks are chest pain, diaphoresis, nausea, fatigue, dyspnea, lightheadedness, and dizziness (Luo, 2020). The most common sign of a heart attack is pressure, tightness, pain, or squeezing (Luo, 2020). This patient experienced diaphoresis, chills, shortness of breath, chest pain, tightening/squeezing, and weakness. Nonmodifiable risk factors for suffering a heart attack include being older than 65, being a male, having a family history of heart disease, hypertension, obesity, diabetes, and being african american (Luo, 2020). This patient is older than 65, has a family history of heart

problems, has a personal history of heart problems, has diabetes, and has hypertension. Modifiable risk factors for suffering a heart attack include smoking, high cholesterol, obesity, lack of exercise, alcohol consumption, and stress (Luo, 2020). This patient is overweight, which is a modifiable risk factor for suffering a heart attack.

One test that is done to diagnose a heart attack is an electrocardiogram (ECG), which monitors the electrical activity of the heart (Luo, 2020). A blood test of cardiac enzymes can detect levels of Troponin, which is an enzyme found after the heart muscle has been damaged (Luo, 2020). This patient had an ECG done and a cardiac enzyme test done, which both indicated that the patient had suffered a heart attack. One way to treat a heart attack is through medications. Some medications that are used to treat/relieve symptoms of a heart attack include aspirin, blood thinners, anticoagulant medications, nitroglycerin, pain medication, beta blockers, and ACE inhibitors (Mayo Clinic Staff, 2020). When it comes to more severe intervention, people who have suffered a heart attack may need a stent placed to treat any narrowed/blocked arteries (Mayo Clinic Staff, 2020). Following discharge, a patient who has suffered a heart attack will likely need some form of cardiac rehabilitation to treat and prevent further damage or even death (Mayo Clinic Staff, 2020).

Pathophysiology References (2) (APA):

Luo, E. (May 28, 2020). Heart attack. *Healthline*. https://www.healthline.com/health/heart-attack#diagnosis.

Mayo Clinic Staff. (2020). Heart attack. *Mayo clinic.* https://www.mayoclinic.org/diseases-conditions/heart-attack/diagnosis-treatment/drc-20373112.

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	3.80-5.30	2.64	4.09	decreased RBC could be due to anemia (Capricotti, 2016).
Hgb	12-15.8	5.7	13.0	decreased Hgb could be due to anemia (Capricotti, 2016).
Hct	36-47%	25.1	30.6	decreased Hct could be due to anemia (Capricotti, 2016).
Platelets	140-440	188	285	no abnormality
WBC	4-12	10.50	10.60	no abnormality
Neutrophils	47-73%	87.2	86.6	Increased neutrophil count is associated with heart attacks and tissue damage (Capricotti, 2016).
Lymphocytes	18-42%	6.7	7.8	Increased lymphocyte count is associated with heart attacks and tissue damage (Capricotti, 2016).
Monocytes	4-12%	5.5	4.3	no abnormality
Eosinophils	0.0-5.0%	0.3	0.5	no abnormality
Bands	0.0-5.0%	n/a	n/a	no abnormality

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-	133-144	140	139	no abnormalities noted
K+	3.5-5.1	4.35	4.65	no abnormalities noted
Cl-	98-107	99	101	no abnormalities noted
CO2	21-31	22	26	no abnormalities noted
Glucose	70-99	115	150	Glucose can be increased due to impaired production of insulin

				(Capricotti, 2016).
BUN	7-25	23	18	no abnormalities noted
Creatinine	0.50-1.20	0.67	0.69	no abnormalities noted
Albumin	3.5-5.7	3.7	3.2	no abnormalities noted
Calcium	8.6-10.3	8.0	8.5	no abnormalities noted
Mag	1.6-2.6	2.1	2.4	no abnormalities noted
Phosphate	3.4-4.5	4	3	no abnormalities noted
Bilirubin	0.0-1.2	0.0	0.0	no abnormalities noted
Alk Phos	34-104	86	90	no abnormalities noted
AST	13-39	35	18	no abnormalities noted
ALT	7-52	51	30	no abnormalities noted
Amylase	30-110	86	90	no abnormalities noted
Lipase	0-59	56	45	no abnormalities noted
Lactic Acid	0.36-1.25	1.0	0.45	no abnormalities noted
Troponin	0-0.4	1.0	0.5	Elevated Troponin is directly related to heart muscle damage and heart attacks (Capricotti, 2016).
CK-MB	3-5%	3%	3%	no abnormalities noted
Total CK	22-198	not done	not done	no abnormalities noted

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	0.9-1.1	1.2	2.1	Increased INR is related to heart damage (Capricotti, 2016).

PT	10.1-13.1 sec	13.5	n/a	Increased PT indicates an increased clotting time (Capricotti, 2016).
PTT	25-36 sec	36	37	Increased PTT indicates an increased clotting time (Capricotti, 2016).
D-Dimer	> .50 = (+) < .50 = (-)	(+)	(+)	A positive D-dimer indicates there may be a blood clot (Capricotti, 2016).
BNP	1-100	90	not tested	no abnormalities noted
HDL	>/= 40	41	not tested	no abnormalities noted
LDL	</= 100	170	not tested	High LDL indicates overconsumption of bad cholesterol (Capricotti, 2016).
Cholesterol	< 200	236	not tested	High cholesterol indicates overconsumption of cholesterol and poor diet (Capricotti, 2016).
Triglycerides	< 150	124	not tested	no abnormalities noted
Hgb A1c	4-5.6%	5.6	5.4	no abnormalities noted
TSH	0.5-5.0		not tested	no abnormalities noted

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

****URINALYSIS NOT DONE****

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
Color & Clarity	clear, yellow, colorless	not tested	not tested	no abnormalities noted
pH	5.0-9.0	not tested	not tested	no abnormalities noted
Specific Gravity	1.003-1.030	not tested	not tested	no abnormalities noted
Glucose	+/-	not tested	not tested	no abnormalities noted
Protein	+/-	not tested	not tested	no abnormalities noted
Ketones	+/-	not tested	not tested	no abnormalities noted
WBC	negative, 0-5	not tested	not tested	no abnormalities noted

RBC	negative, 0-2	not tested	not tested	no abnormalities noted
Leukoesterase	+/-	not tested	not tested	no abnormalities noted

Arterial Blood Gas Highlight All Abnormal Labs—Explanations must be in complete sentences and contain in-text citations in APA format.
****ABG NOT DONE****

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
pH	**7.35-7.45**	**test not done**	**test not done**	no abnormalities noted
PaO2	**80-100**	**test not done**	**test not done**	no abnormalities noted
PaCO2	**38-42**	**test not done**	**test not done**	no abnormalities noted
HCO3	**22-28**	**test not done**	**test not done**	no abnormalities noted
SaO2	**94-100%**	**test not done**	**test not done**	no abnormalities noted

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

****NO CULTURES DONE****

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
Urine Culture	+/-	**test not done**	**test not done**	no abnormalities noted
Blood Culture	+/-	**test not done**	**test not done**	no abnormalities noted
Sputum Culture	+/-	**test not done**	**test not done**	no abnormalities noted
Stool Culture	+/-	**test not done**	**test not done**	no abnormalities noted

Lab Correlations Reference (APA):

Capricotti, T., & Frizzell, J.P. (2016). *Pathophysiology: Introductory Concepts and Clinical Perspectives*. F.A. Davis Company.

Diagnostic Imaging

All Other Diagnostic Tests (5 points): Electrocardiogram (ECG)

Diagnostic Test Correlation (5 points): An electrocardiogram (ECG) is an important test that is done to determine whether or not someone has suffered a heart attack (Mayo Clinic Staff, 2020). ECGs measure the electrical activity of the heart, so when someone suffers a heart attack, their heart's electrical activity will be diminished (Mayo Clinic Staff, 2020). Injured heart muscle is not able to adequately perfuse and perform. Injured heart muscle will portray abnormal electrical impulses from a previous or current heart attack (Mayo Clinic Staff, 2020).

Diagnostic Test Reference (APA):

Mayo Clinic Staff. (2020). Heart attack. *Mayo clinic.* https://www.mayoclinic.org/diseases-conditions/heart-attack/diagnosis-treatment/drc-20373112.

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

Home Medications (5 required)

Brand/Generic	**atorvastatin (LIPITOR)**	**carvedilol (COREG)**	**metFORMIN (GLUCOPHAGE)**	**aspirin (ACETYLSALICYLIC ACID)**	**cefepime (MAXIPIME)**
Dose	**40 mg**	**3.125 mg**	**500 mg**	81 mg	2 gm
Frequency	**daily**	**daily**	**2 times daily**	daily	once
Route	**oral**	**oral**	**oral**	oral	IVP
Classification	**statin**	**alpha/beta blocker**	**biguanide**	chemical: salicylate	cephalosporin antibiotics

Mechanism of Action	**reduces plasma cholesterol and lipoprotein levels**	**binds to beta adrenergic receptors on cardiac myocytes**	**decreases hepatic glucose production**	blocks activity of cyclooxygenase	covalently binds enzymes that are responsible for the final step in transpeptidation
Reason Client Taking	**reduces amount of cholesterol made by the liver**	**treat high blood pressure and heart failure**	**controls high blood sugar**	blood thinner	treat bacterial infection
Contraindications (2)	**active hepatic disease, breastfeeding**	**sick sinus syndrome, severe bradycardia**	**creatinine less than 60 mL/min**	asthma, hemophilia	decreased prothrombin, seizures
Side Effects/Adverse Reactions (2)	**amnesia, hyperkinesia**	**lightheadedness, dizziness**	**heartburn, stomach pain**	confusion, hearing loss	bleeding gums, abdominal cramps
Nursing Considerations (2)	**use cautiously with alcohol consumption, expect to measure lipid levels frequently**	**monitor I/O and daily weight, assess routinely for fluid overload**	**assess serum electrolytes, check pH**	don't crush, ask about tinnitus	monitor for diarrhea, monitor for heartburn
Key Nursing Assessment(s)/Lab(s) Prior to Administration	**cholesterol, triglyceride**	**blood pressure, fluid status**	**kidney enzymes**	platelet levels	BUN, AST, ALT, WBC
Client Teaching needs (2)	**reduce cholesterol, avoid grapefruits**	**take with food, do not crush**	**do not crush, take with meals**	do not double-up on missed doses, do not break, crush, or chew ER tablets	must be given slowly, must be diluted

Hospital Medications (5 required)

Brand/Generic	**docusate sodium (COLACE)**	**insulin injection**	**pantoprazole (PROTONIX)**	**metoprolol (LOPRESSOR)**	**nitroglycerin (NITROSTAT)**
Dose	**100 mg**	**2-20 units**	**40 mg**	**50 mg**	**0.4 mg**
Frequency	**2 times daily**	**4 times daily**	**daily**	**BID**	**every 5 min PRN**
Route	**oral**	**subcutaneous**	**oral**	**oral**	**sublingual**
Classification	**laxative**	**insulins**	**proton pump inhibitor (PPI)**	**beta blocker**	**vasodilator**
Mechanism of Action	**acts as a surfactant that softens stool**	**binds to a glycoprotein receptor on the surface of the cell**	**binds to the pump to inhibit gastric acid and basal acid secretion**	**inhibits beta 2 adrenoceptors**	**forms free radical nitric oxide**
Reason Client Taking	**stool softener**	**lower blood glucose**	**prevent GERD**	**maintain BP**	**relieve chest pain**
Contraindications (2)	**fecal impaction, nausea**	**hypersensitivity, breastfeeding**	**inadequate B12, autoimmune disease**	**myasthenia gravis, complete heart block**	**allergy to medication, history of ICP**
Side Effects/Adverse Reactions (2)	**syncope, muscle weakness**	**initial weight gain, hypoglycemia**	**stomach pain, fever**	**dizziness, nausea**	**headache, dizziness**
Nursing Considerations (2)	**expect long time use to cause problems, assess for laxative abuse syndrome**	**monitor food intake, monitor sensory losses**	**assess routinely for abdominal pain, abnormal liver tests**	**do not dc abruptly, swallow whole**	**monitor blood pressure, store at room temp**
Key Nursing Assessment(s)/Lab(s) Prior to Administration	**fluid volume status**	**blood glucose**	**blood pressure, HR**	**blood pressure**	**blood pressure**
Client Teaching	**take at**	**monitor**	**educate on**	**take with**	**educate**

needs (2)	**same time each day, take with food**	**blood sugar, know normal ranges of blood sugar**	**injections, take with or without food**	**meal, take at same time each day**	**on chest pain symptoms, know normal BP**

Medications Reference (APA):

Jones & Bartlett Learning. (2019). *2019 Nurse's Drug Handbook.* Burlington, MA.

Assessment

Physical Exam (18 points)

GENERAL (1 point): **Alertness:** **Orientation:** **Distress:** **Overall appearance:**	 **alert and oriented to person, place, and time** ^^ **no apparent distress** **appears overall well-groomed**
INTEGUMENTARY (2 points): **Skin color:** **Character:** **Temperature:** **Turgor:** **Rashes:** **Bruises:** **Wounds:** . **Braden Score:** **Drains present: Y☐ N X** **Type:**	 **appropriate for race (white)** **clean, in-tact** **warm** **good turgot** **no rashed** **no bruises** **no wounds** **16** **no drains**
HEENT (1 point): **Head/Neck:** **Ears:** **Eyes:** **Nose:** **Teeth:**	 head is normocephalic, no lesions/lacerations no redness, drainage, or swelling no ocular drainage, redness, or irritation no drainage or redness intact, oral mucosa is pink and moist, normal dentition
CARDIOVASCULAR (2 points): **Heart sounds:** **S1, S2, S3, S4, murmur etc.** **Cardiac rhythm (if applicable):** **Peripheral Pulses:** **Capillary refill:** **Neck Vein Distention: Y ☐ N ☐**	 no abnormalities noted, S1 S2 heard, no murmurs, clicks, or gallops normal sinus rhythm (+) < 3 seconds no vein distention

Edema Y ☐ N ☐ **Location of Edema:**	no edema noted n/a.
RESPIRATORY (2 points): **Accessory muscle use: Y☐ N ☐** **Breath Sounds: Location, character**	 no accessory muscle use breath sounds are clear and equal bilaterally in all lung fields
GASTROINTESTINAL (2 points): **Diet at home:** **Current Diet** **Height:** **Weight:** **Auscultation Bowel sounds:** **Last BM:** **Palpation: Pain, Mass etc.:** **Inspection:** **Distention:** **Incisions:** **Scars:** **Drains:** **Wounds:** **Ostomy: Y ☐ N X** **Nasogastric: Y ☐ N X** **Size:** **Feeding tubes/PEG tube Y ☐ N X** **Type:**	 normal diet at home (no restrictions) heart healthy diet & low cholesterol 5'7" 221 lb bowel sounds are heard and equal in all 4 quadrants today 12/9/2020 no pain or masses on abdominal palpation no abnormalities noted no abdominal distention no incisions no scars no drains no wounds no ostomy no NG no feeding tubes
GENITOURINARY (2 Points): **Color:** **Character:** **Quantity of urine:** **Pain with urination: Y ☐ N X** **Dialysis: Y ☐ N X** **Inspection of genitals:** **Catheter: Y ☐ N X** **Type:** **Size:**	 pale yellow urine clear consistency 600 mL no pain with urination no dialysis well-maintained no catheter
MUSCULOSKELETAL (2 points): **Neurovascular status:** **ROM:** **Supportive devices:** **Strength:** **ADL Assistance: Y☐ N ☐X** **Fall Risk: Y X N☐** **Fall Score:**	 appropriate for situation--A&O x 3 ROM equal bilaterally n/a slightly weakened bilaterally does not require assistance with daily activities yes 23

Activity/Mobility Status: **Independent (up ad lib) ☐** **Needs assistance with equipment ☐** **Needs support to stand and walk☐**	moves easily with assistance 1-assist does not need assistance with equipment requires assistance for stability and because she is a fall risk
NEUROLOGICAL (2 points): **MAEW: Y X N☐** **PERLA: Y X N☐** **Strength Equal: Y X N ☐ if no - Legs ☐ Arms ☐ Both X** **Orientation:** **Mental Status:** **Speech:** **Sensory:** **LOC:**	moves all extremities well with some weakness/activity intolerance no abnormalities noted strength equally weakened bilaterally alert and oriented x 3 appropriate for developmental stage (no deficits) appropriate for developmental stage (no deficits) no sensory deficits appropriate for developmental stage
PSYCHOSOCIAL/CULTURAL (2 points): **Coping method(s):** **Developmental level:** **Religion & what it means to pt.:** **Personal/Family Data (Think about home environment, family structure, and available family support):**	No one is at bedside due to visiting restrictions appropriate for age (no deficits) does not attend church regularly; not very important

Vital Signs, 2 sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0700	88	106/66	18	99.0	96%
1100	89	116/89	18	98.9	98%

Vital Sign Trends: Vitals were regular throughout the day and did not change much besides a slight elevation in heart rate and blood pressure after morning medications were given.

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions

0700	numeric	lower back	2/10	sharp, aching	changed positions in bed
1100	numeric	n/a	0/10	no pain	none needed at this time

IV Assessment (2 Points)

IV Assessment	**Fluid Type/Rate or Saline Lock**
Size of IV:	24 gauge
Location of IV:	right lower arm
Date on IV:	12/08/2020
Patency of IV:	infusing without difficulty; saline lock present
Signs of erythema, drainage, etc.:	no erythema, drainage, etc.
IV dressing assessment:	clean, dry, intact

Intake and Output (2 points)

Intake (in mL)	**Output (in mL)**
2000 mL	**1600 mL**

Nursing Care

Summary of Care (2 points)

Overview of care: Vitals were done on the patient along with her glucose reading, which was within normal limits. She ordered breakfast herself and was unproblematic throughout the day. Her care was normal and she had no issues arise.

Procedures/testing done: the patient did not leave the floor for any procedures/testing today

Complaints/Issues: she did not have any complaints or issues.

Vital signs (stable/unstable): her vital signs were slightly low, but stable throughout the day. Her BP and HR were low.

Tolerating diet, activity, etc.: she is tolerating her diet well and understands the need for a low cholesterol, heart healthy diet.

Physician notifications: there are no physician notifications for today.

Future plans for patient: the patient is expected to discharge tomorrow or the following day.

Discharge Planning (2 points)

Discharge location: she will discharge home with home health consulted.

Home health needs (if applicable): she has a home health consult.

Equipment needs (if applicable): no equipment needs.

Follow up plan: she will follow up with home health before she goes home. She will have a follow-up appointment with her primary physician and her cardiologist in 2 weeks.

Education needs: education on heart-healthy diets and low cholesterol have been done. She may require further education on reducing modifiable risk factors for recurrent heart attacks.

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

Nursing Diagnosis	Rational	Intervention (2 per dx)	Evaluation
● Include full nursing diagnosis with "related to" and "as evidenced by" components	● Explain why the nursing diagnosis was chosen		● How did the patient/family respond to the nurse's actions? ● Client response, status of goals and outcomes, modifications to plan.

1. decreased cardiac output related to coronary artery disease as evidence by abnormal CBC values	not enough blood is being pumped by the heart to meet the metabolic demands of the body	1. monitor vitals Q4 2. auscultation of breath sounds and heart rhythm	the patient understands the importance of continuous monitoring of vitals and breath/heart sounds. Medication is given to hopefully increase cardiac output
2. activity intolerance related to hypertension as evidence by dyspnea	the patient was able to walk the distance of the hallway, but it took a while and she had to frequently stop to catch her breath	1. explain gradual exercise to improve endurance 2. evaluate degree of activity intolerance and when it occurs	the patient has been relaxing more and asking to get up less often to conserve energy for when she is asked to ambulate, she only walks as far as she is able to without complete exertion
3. risk for unstable glucose related to type 2 diabetes mellitus as evidence by abnormal glucose levels	the patient has diabetes; her 0700 glucose level was WNL and did not require insulin, her 1100 glucose required 10 units of insulin	1. assess blood glucose level before meals and at bedtime 2. assess the pattern of physical activity	the patient understands the concept of what foods raise her glucose level and how doing her PT exercises can lower her levels after eating
4. acute pain related to tissue ischemia as evidence by reports of chest pain	chest pain is very serious and needs to be dealt with immediately	1. evaluate pain Q4 2. administer pain medication PRN	the patient understands the dangers of chest pain and how important it is to consult her physician as soon as it is felt

Other References (APA):

Vera, M. (June 21, 2020). Nursing Care Plans. *Nurseslabs*. https://nurseslabs.com/7-myocardial-infarction-heart-attack-nursing-care-plans/.

Concept Map (20 Points):

Subjective Data **Nursing Diagnosis/Outcomes**