ATI Real Life Student Packet
N202 Advanced Concepts of Nursing
2025

Student Name: __Lillian Cook_____

ATI Scenario: _MI_____

To Be Completed Before the Simulation

*****Blue boxes should be completed using textbook information. What do you expect to find? This information should be collected before you start the ATI simulation*

Medical Diagnosis: _MI_____

NCLEX IV *(8)*: Physiological Integrity/Physiological Adaptation

Anatomy and Physiology

Normal Structures

The heart is a 4 chambered hollow muscular organ. It lies within the thorax, in the mediastinal space that separates the right and left pleural cavities. The heart is composed of 3 layers: the endocardium, myocardium, and pericardium. The pericardium covers the heart and consists of two layers the visceral and parietal layer. Around 15 mLs of pericardial fluid lubricates the space between the pericardial layers and prevents friction as the heart contracts. The septum vertically divides the heart. The interatrial septum creates a right and left atrium, the interventricular septum creates a right and left ventricle. The cusps of the mitral and tricuspid valves are attached to thin strands of fibrous tissue called chordae tendineae, preventing the eversion of the valve leaflets into the atria during ventricular contraction. The pulmonary and aortic valves prevent blood from regurgitating back into the ventricles at the end of each ventricular contraction. The conduction system consists of specialized tissue that creates and transports electrical impulse, or action potential. Depolarization triggers mechanical activity. Systole is the contraction of the heart and diastole is the relaxation of the heart. Cardiac output is the amount of blood pumped by each ventricle in 1 min. The 3 major types of blood vessels are arteries, veins, and capillaries. Arteries carry oxygenated blood away from the heart. Veins carry deoxygenated blood towards the heart.

NCLEX IV *(7)*: Reduction of Risk

Pathophysiology of Disease

CAD is a type of blood vessel disorder in the general category of atherosclerosis. Atherosclerosis begins as soft deposits of fats that harden with age, this can happen in any artery in the body. When atheromas form in the coronary arteries it is classified as CAD. Atherosclerosis is characterized by lipid deposits within the intima. A layer of endothelial cells lines the intima to provide a barrier between blood and the arterial wall. Endothelial injury and inflam play a key role in developing atherosclerosis. CRP is a nonspecific marker of inflam made by the liver. Lipoprotein is a type of LDL attached to a protein called apo. Homocysteine is made by the breakdown of the essential amino acid methionine. By the time, the pt is symptomatic the disorder is normally advanced. The stages of development in atherosclerosis are fatty streak, fibrous plaque, and complicated lesion. Normally some arterial anastomoses or connections called collateral circulation exist within the coronary circulation. Two factors that contribute to this are inherited predisposition to develop new blood vessels and presence of chronic ischemia. When blockages in the coronary arteries occur slowly over a long time there is a greater risk for collateral circulation. Angina is a symptom of CAD and is chronic and progressive. This happens when the oxygen demand is greater than the supply, leading to myocardial ischemia. Occurring when arteries are 50-70% blocked. Stable angina is intermittent and occurs over a long period of time. It has the same patterns, duration, and intensity each time. ST segment depression and/or T wave inversion is present on a 12 lead EKG. The pain can be present in the arm, jaw, neck, chest, epigastric, or back.

		Unstable angina is new onset, occurring at rest, and has an increase in frequency and duration. This pain last longer than 10 minutes and is often under-recognized in women. There are two different types of unstable angina, ST elevation and non-ST elevation. A STEMI is an occlusive thrombus and an NSTEMI is a non-occlusive thrombus. A myocardial infarction is severe chest pain that is not relieved by rest, position change or nitrate administration. There may not be pain present if the pt has cardiac neuropathy. If the pt has a STEMI they need to be in the cath lab within 90 minutes to prevent extensive cardiac cell death. Within 24 hrs the leukocytes infiltrate the area of cell death to start the healing process. The heart is very vulnerable to dysrhythmias during this time period. Ventricular remodeling occurs when the heart cannot pump effectively and can lead to HF.

To Be Completed Before the Simulation

Anticipated Patient Problem: Decreased CO

Goal 1: SpO2 will remain greater or equal to 93% during my time of care.

Relevant Assessments (Prework) What assessments pertain to your patient's problem? Include timeframes	**Multidisciplinary Team Intervention** (Prework) What will you do if your assessment is abnormal?
Assess capillary refill q 8 hr and prn	Administer beta blocker as ordered
Assess apical pulse q 4 hr and prn	Administer aspirin PO as ordered
Assess LOC q 4 hr and prn	Keep NPO for procedure prn
Assess for S3, S4, and new heart murmurs q 8 hr	Provide continuous cardiac monitoring
Assess urine output q 4 hr	Insert indwelling catheter as ordered
Assess for dizziness, fatigue, and syncope q 12 hrs and prn	Provide bedrest prn and as ordered

Goal 2:EKG will show no signs of ST elevation by the end of my time of care.

To Be Completed Before the Simulation

Anticipated Patient Problem: Acute pain

Goal 1: Chest pain will be a 0/10 by the end of my time of care.

Relevant Assessments (Prework) What assessments pertain to your patient's problem? Include timeframes	**Multidisciplinary Team Intervention** (Prework) What will you do if your assessment is abnormal?
Assess current pain level q 2 hr and prn after medication administration	Administer nitroglycerin SL, 1 tab prn as ordered
Assess HR, BP, and RR q 4 hr and prn	Administer morphine IVP for unrelieved pain as ordered
Assess for prior medication treatments on admission	Obtain a past medical and medication history
Assess serum troponin and BNP levels	Administer O2 via non-rebreather 100% on 15L continuously
Assess pain characteristics q 2 hr and prn	Elevate HOB to high fowler's q 4 hr and prn
Assess pain goal q 12 hr	Encourage distraction and rest q 4 hr and prn

Goal 2: Pt will verbalize the importance of continuing nitroglycerin prn when having chest pain after leaving for no more than 3 times before seeking help.

To Be Completed During the Simulation:

Actual Patient Problem: Decreased CO

Clinical Reasoning: STEMI, BP 100/66, HR 106, 8/10 chest pain, CVP monitoring, Arterial line BP 88/54, MAP 54
Goal: MAP will be greater than or equal to 60 during my time of care. Met: ☐ Unmet:☐
Goal: Chest pain/tightness will be a 0/10 by the end of my time of care. Met: ☐ Unmet:☐

Actual Patient Problem: Deficient knowledge
Clinical Reasoning: Allergy to contrast dye, STEMI, PCI with stent performed, obesity, hx of HTN, hx of CAD with angina, started taking lisinopril and clopidogrel
Goal: Pt will verbalize understanding of telling providers of allergy to contrast media. Met: ☐ Unmet

Goal: Pt will verbalize a breakfast food with sodium of less than 1,500 mg by the end of my care. Met: ☐ Unmet:☐

Additional Patient Problems: Impaired skin integrity, R/f bleeding, acute pain, ineffective airway clearance, r/f adverse reaction to iodinated contrast media

Below will be your notes, add more lines as needed. **Relevant Assessments:** Indicate pertinent assessment findings. **Multidisciplinary Team Intervention:** What interventions were done in response to your abnormal assessments? **Reassessment/Evaluation:** What was your patient's response to the intervention?

Patient Problem	Time	Relevant Assessments	Time	Multidisciplinary Team Intervention	Time	Reassessment/ Evaluation
Acute pain/ Decreased CO	1655	Chest tightness, chest pain	1655	Wife administered 3 doses of nitroglycerin SL	1715	Chest pain 8/10
Decreased CO	1655	Constant chest pain, tightness	1715	Wife administered 325 mg of aspirin PO	1720	ST elevation present on EKG
Decreased CO/ acute pain	1720	"feels like chest is being squeezed", dizzy	1720	Applied continuous cardiac monitoring	1725	HR 106, RR 24, BP 100/66, 8/10 pain, 96% on 4 L NC
Decreased CO	1725	HR 106, RR 24, BP 100/66, 8/10 pain, 96% on 4 L NC	1725	Obtained 12 lead EKG	1730	ST elevation present on EKG
Deficient knowledge	1730	STEMI present on EKG, chest pain 8/10, "squeezing"	1735	Doctor educated on cardiac catheterization process	1737	"Anything to get relief from this squeezing pain"
Deficient knowledge	1738	Caretaker and pt asking for additional information about PCI	1740	Nurse provided additional handouts	1741	Pamphlets seen at bedside
Decreased CO	1900	CVP monitoring, A-line, indwelling foley, IV fluids	1900	Transferred to cath lab. Received report from cath	1905	Transferred back to ICU. Chest pain 0/10. Incision site

		running, 2 L NC, vascular closure device on insertion site		lab nurse		clean, dry and intact
Deficient knowledge. R/f bleeding	1905	Chest squeezing no longer present. Chest pain 0/10	1910	Educated on importance of laying flat and not flexing legs. Checked groin site for bleeding.	1930	No bleeding noted on incision site. Laying flat in bed with legs straight
r/f adverse reaction to iodinated contrast media	2000	“I am feeling itchy over my arm and chest”	2005	Questioned allergies. Reached out to provider.	2040	Previous allergy to shrimp that was not stated prior
r/f adverse reaction to iodinated contrast media/ Ineffective airway clearance	2100	“Nose is stuffy, can’t quite catch my breath” Nonproductive coughing	2110	Nurse listened to lung sounds. Administered 25 mg Diphenhydramine IVP	2115	Auscultated high pitched wheezing
r/f adverse reaction to iodinated contrast media	2105	Ashen skin color, dusky nail beds, stridor, difficulty swallowing	2110	Applied non-rebreather at 15 L/min. Called RRT	2115	87% on non-rebreather at 15 mL/min
r/f adverse reaction to iodinated contrast media/ Ineffective airway clearance	2125	Ashen skin color, dusky nail beds, stridor, difficulty swallowing	2130	Administered epinephrine 0.3 mg IM	2140	SpO2 100% on non-rebreather at 15 mL/min
Deficient knowledge/ r/f adverse reaction to iodinated contrast media	2145	Hx of allergic reaction with stridor and difficulty swallowing	2150	Educated on importance of telling providers of allergy to contrast dye	2155	“I’ll make sure I remember that”
Impaired skin integrity/ r/f bleeding	2205	3 inch hematoma at puncture site, gauze saturated with bright red blood	2210	Nurse applied pressure to the right of the groin site.	2230	Bleeding stopped. Pressure dressing applied. Hematoma 6 inches in diameter
Impaired skin integrity/r/f bleeding	2225	Hematoma on right groin incision site, 6 inches in diameter	2230	Outlined hematoma site with marker	2240	Hematoma 6 inches in diameter
R/f electrolyte imbalance	1100	K 3.2	1100	Contacted provider. Administered	1600	Sinus tachycardia with PVCs. K 3.4

				Potassium 20 meEq PO		
Deficient knowledge	1140	“I walk at work”, “I eat fast food 4 times a week”, “I did stop smoking about a month ago”	1145	Educated on modifiable risk factors	1150	Information pamphlet left at bedside
Decreased CO	1145	MAP 54, agitated, restless, arterial BP 88/54, urine output 48mL/hr, tachycardia with PVCs on EKG	1200	Increased O2 to 3L NC. IV NSS 250 mL/hr. Started dobutamine IV 16.5 mL/hr in 250 mL in D5W	1400	Weaned and discontinued dobutamine gtt. SpO2 96% on 2L
Decreased CO	2010	HR 58, BP 78/56, Sinus bradycardia on EKG, arterial BP 78/56	2020	Administered norepinephrine 0.5 mcg/min titrated	2040	“not as dizzy or sweating anymore”, HR 64, arterial BP 96/56, CVP 9
Deficient knowledge	2050	Hx of STEMI, HTN, angina	2055	Educated on lifestyle changes. Handed out pamphlets. Educated on clopidogrel. Educated on lisinopril for HTN	2058	“I will reduce my sodium intake to 1,500 mg a day”, Pt picked a ¾ cup of shredded wheat to eat for breakfast. Notify a persistent dry cough if taking lisinopril.

To Be Completed After the Simulation

The orange boxes should be filled out with your simulation patient's actual results, assessments, medications, and recommendations

NCLEX IV *(7)*: Reduction of Risk

Actual Labs/ Diagnostics

X-ray
MRI
12 lead EKG/continuous EKG monitoring
Troponin level, cardiac enzymes, lactic acid, CMP, aPTT, PT, INR, CBC
UA
Blood glucose
ABGs
Creatinine, BUN, CK

NCLEX II *(3)*: Health Promotion and Maintenance

Signs and Symptoms

Chest pain, tightness, 8/10 pain, HR 106, RR24, BP 100/66, STEMI on EKG, high pitched wheezing b/l, "can't catch my breath", ashen skin color, dusky nail beds, stridor, difficulty swallowing, SpO2 87% on non-rebreather, 3 inch hematoma with gauze saturated in bright red blood, hematoma 6 inches in diameter, MAP 54, agitated, restless, arterial BP 88/54, urine output 48 mL/hr, tachycardia with PVCs on EKG, HR 58, BP 78/56, CVP 9,

NCLEX II *(3)*: Health Promotion and Maintenance

Contributing Risk Factors

Obesity
HTN
CAD with angina
Asthma
Past allergy with shrimp

Therapeutic Procedures

Non-surgical
CVP monitoring
Arterial line

Surgical

PCI with stent

NCLEX IV *(7)*: Reduction of Risk

Prevention of Complications

(Any complications associated with the client's disease process? If not what are some complications you anticipate)

Hematoma formation
Cardiogenic shock
Anaphylaxis

NCLEX IV *(6)*: Pharmacological and Parenteral Therapies

Medication Management

Aspirin
Nitroglycerin
Morphine
Norepinephrine
Dobutamine
Epinephrine
Diphenhydramine
Potassium
Clopidogrel
Lisinopril

NCLEX IV *(5)*: Basic Care and Comfort

Non-Pharmacologic Care Measures

Active listening
Oxygen via NC
Education on lifestyle changes
Education on medications
Cardiac monitoring
Education on allergy to contrast

NCLEX III *(4)*: Psychosocial/Holistic Care Needs

Stressors the client experienced?

Anxiety
Financial burden

Client/Family Education

Document 3 teaching topics specific for this client.

•Educated on reducing modifiable risk factors, such as diet and reducing salt intake.
• Educated to report a persistent dry cough when taking lisinopril.
•Educated on importance of lying flat with legs straight immediately after PCI.

NCLEX I *(1)*: Safe and Effective Care Environment

Multidisciplinary Team Involvement

(Which other disciplines were involved in caring for this client?)

Nursing, Provider, Cath lab team, social worker, radiology, RRT, lab, pharmacist, Intensivist, charge nurse, cardiologist

Patient Resources
Pamphlets handed out at bedside, cardiac rehab, social worker

Reflection Questions

Directions: Write reflection including the following:

1. What was your biggest “take away” from participating in the care of this client?
   _____My biggest take away from participating in the care of this client was that complications can arise quickly and at any moment, so it is important to keep track of labs and prior assessments. Reassessing the patient is crucial to catch any complications that may start occurring.
   _____
   _____
   _____

2. What was something that surprised you in the care of this patient?
   _____Something that surprised me was when patient went into anaphylaxis due to contrast dye. I was not expecting the contrast dye to cause a reaction during the post-operative period.
   _____
   _____

3. What is something you would do differently with the care of this client?
   _____Something I would do differently with the care of this client was check under client after he came back from the cath lab. He stated that he felt something wet under him, but nobody log rolled him to ensure that there wasn’t blood pooling underneath him.
   _____
   _____

4. How will this simulation experience impact your nursing practice?
   _____This simulation experience will impact my nursing practice because it has shown me to look thoroughly through the chart for any key details that could potentially show complications. Watching for minor details is essential while monitoring for complications that may arise.
   _____
   _____