

ATI Real Life Student Packet
N202 Advanced Concepts of Nursing
2022

Student Name: Drew Morris

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 muscular organ that functions to pump blood through a network of arteries and veins to make up the cardiovascular system. It is covered by a membranous sac called the pericardium,. This is encapsulated with pericardial fluid so each contract can occur without friction. The heart has four chambers: the right atrium, the left atrium, the left ventricle and the right ventricle. Each chamber is separated by a septal wall. Right side of the heart receives unoxygenated blood via the superior and inferior vena cavas and transfers the blood to the pulmonary artery, and then to the lungs where it will become oxygenated. The left side of the heart receives oxygenated blood from the pulmonary vein and circulates it to the aorta where it is delivered to the rest of the body. On the right side of the heart, the right atrium and the right ventricle are separated by the tricuspid valve, while the right ventricle and the pulmonary artery are separated by the pulmonic valve. On the left side of the heart, the left atrium and the left ventricle are separated by the mitral valve, while the left ventricle and the aorta are separated by the aortic valve. The heart contracts by sending electrical impulses to the sinoatrial node located in the right atrium which controls the upper left and right chambers. That impulse travels into the atrioventricular node where the lower left and right chambers are conducted to contract. This is a continual cycle necessary to meet the demands of the body and adequately profuse our organs.

NCLEX IV (7): Reduction of Risk

Pathophysiology of Disease

A myocardial infarction occurs where there is a blockage of blood flow to the cardiac muscle resulting in a loss of oxygen delivery to the heart. This is seen in patients who have coronary artery disease and have a build of atherosclerotic plaque within the vessels and the coronary arteries. The plaque builds up overtime, resulting in a complete blockage of blood flow and oxygen to the heart. An MI is a result from sustained ischemia of the heart lasting longer than 20 minutes where cell death occurs, and EKG changes (ST segment elevation) changes are evident. Necrosis of the entire myocardium occurs in 4-6 hours. A STEMI occurs from a ruptured plaque that completely blocks a major coronary artery. An NSTEMI is a blockage that causes partial obstruction within a coronary artery.

Anticipated Patient Problems, Goals, & Interventions Based on Medical Diagnosis

** This worksheet should be completed before you begin the ATI simulation.

Problem #1: Decreased cardiac output

Patient Goals:

1. Pt will maintain a blood pressure of 120/80 and HR between 60-100 during my time of care.
2. Pt will have a urinary output of at least 30mL/hour during my time of care.

Assessments:

- Assess BP, respiratory rate, SpO2, and HR/apical pulse q 15-30 mins, assess heart sounds for ventricular and/or atrial gallops q 4 hours, assess EKG changes continuously, and monitor electrolyte status and troponins prn.

Interventions (In priority order):

1. Administer supplemental oxygen prn.
2. Ensure cath lab procedure is implemented within 90 minutes or thrombolytics initiated within 30 minutes during my time of care.
3. Administer morphine as prescribed during my time of care.
4. Administer aspirin as prescribed during my time of care.
5. Administer beta blocker or ACE inhibitor as prescribed during my time of care.
6. Educate importance of lifestyle changes and modifiable risk factors during my time of care.

Problem #2: Acute pain: Chest

Patient Goals:

1. Pt's pain will be 0 out of 10 during my time of care.
2. Pt's respiratory rate will be between 12-20, HR will be between 60-120 during my time of care, and BP will be 120/80 during my time of care.

Assessments:

- Assess BP, HR, and RR q 4 hours, assess pain level q 4 hours, and assess pain relief to pain interventions prn.

Interventions (In priority order):

1. Administer morphine as prescribed.

2. Administer nitroglycerin SL q 5 mins up to three times prn.
3. Provide supplemental oxygen prn.
4. Provide a low stimuli and quiet environment continuously.
5. Promote rest periods between activities and participation with PT/OT during my time of care.

To Be Completed During the Simulation

Nursing Notes

Time	I Or E	Notes	Specify Problem #
1655	E	Walks inside after shoveling snow, short of breath, collapses on stairs, complains of chest tightness and squeezing pain. Takes 1 tablet of nitroglycerin.	1, 3
1725	E	EMT transfers R.D. to the ER. He is 54 and arrives with chest pain that started at 1655. Three doses of nitroglycerin and 325 mg of aspirin was administered. BP = 100/66, HR= 106, RR= 24, O2 sats= 96% on 4 L NC. Pain= 8.	1,2,3
1730	E	Reports continued chest tightness and pain of 8/10.	3
1730	I	Educated about reason for EKG.	1,3
1730	E	Verbalized understanding.	1,3
1730	E	Provider reviewed EKG and stated that R.D. is having a STEMI. Explained reason and how a cardiac catheterization is performed. ST segment elevation and PVC's noted on EKG.	1,3
1740	I	Prepared for cath lab and provided cardiac cath procedure information.	1,3
1755	E	Troponin= 0.2, potassium= 3.6, and creatinine= 0.8. CXR shows no enlarged shadows, no rib fractures or tumors, but the aorta and aortic arch has calcification and appears intact with no dilation of the artery.	1,3
1755	I	Instructed that the cath lab was ready and admission to the ICU will occur after procedure.	1,2
1945	E	PCTA with left stent placed in in left anterior descending coronary artery. Central venous catheter, arterial line, indwelling urinary catheter, and IV fluids per an IV pump. Hx of HTN, CAD with angina and asthma. Allergies: Penicillin, peanuts, and sulfa. VS were stable throughout the procedure and receiving oxygen 2 L per NC. No bleeding or hematoma present.	1,2,3, and 5
2000	I	Educated reason for frequent checks on vitals signs, insertion site, and circulation to lower extremity. Educated importance of staying flat and applying pressure to insertion site if coughing.	1,5
2000	E	Verbalizes understanding. No pain at this time. States "I am feeling itchy over my arm and chest." States that he is allergic to shrimp.	3

2010	I	Requested prescription for diphenhydramine.	
2010	I	Administered diphenhydramine 25 mg IVP and educated about side effects.	
2010	E	SOB noted, coughing and wheezing and stridor heard on auscultation. Pulse ox 87% and skin is ashen and nail beds are dusky. HR= 116, RR= 32, O2 sats= 87% on non-rebreather mask, BP= 155/98, CVP= 10, tachycardia with PVCs and right femoral dressing is clean and dry.	2
2015	I	Applied non-rebreather mask and administer epi 0.3 mg IM.	2
2100	E	Anaphylaxis response reversed. O2 sats= 100%. Itching has subsided. BP= 156/96, breath sounds clear on auscultation. Nagging cough remains.	2
2105	E	States "Feels like I'm sitting in something wet." BP= 112/74, HR= 88, RR= 14, and SpO2= 100% on 3L/min NC.	1,2, 5
2105	I	Applied pressure to the puncture site.	5
2115	E	Bleeding has stopped and flushed IV site.	5
2150	E	Potassium 3.2.	1
2155	I	Administered oral potassium 20 mEq. Educated reason for administration.	1
2158	E	Verbalized understanding.	1
2210	I	Educated importance of a healthy diet and exercising.	1
2213	E	States that he eats fast food 4x a week and that diets never work.	1
2215	I	Reiterated importance of changing diet and provided information pamphlet.	1
2300	E	Damage to a portion of his left ventricular myocardium. May be experiencing signs of cardiogenic shock. MAP of 54, agitation and restlessness noted, arterial BP 88/54. Skin is cold and clammy. UO of 48mL/hour.	1, 4
2311	I	Started normal saline at 250ml/hour, dobutamine at 16.5ml/hour and norepi IV drip 4 mg titrated to maintain MAP greater than 100. Educated reason for medications.	1,2
2320	E	BP= 78/56, HR= 58, RR=12 and O2 sats= 96% on 4L/min NC. Pain= 0.	1,2,3
0730	E	Blood pressure looking much better since the start of medication. States "I am less shaky and not as dizzy or sweating anymore.	1
1905	I	Educated that R.D. is being moved to the cardiac step down unit. Provided information for lifestyle modifications to improve condition.	1
1910	E	Verbalized understanding, states "I will reduce my sodium intake to 1500mg a day.	1
1915	I	Educated about reading dietary labels and provided notes from the dietician.	1
1920	E	Wife Maggie asked for more of an explanation on his blood thinner medications.	1,5
1925	I	Educated about importance for notifying provider if any bruising or blood in your stools occur and notify doctor if surgery or dental work is	1, 5

		scheduled.	
1930	E	Verbalized understanding.	1,5

Initials/ Signature _____

Actual Patient Problems & Goals

** This worksheet should be completed after you complete the ATI simulation.

Problem #1: Decreased cardiac output.

Patient Goals:

1. R.D will have a HR between 60-100 during my time of care. Met
Unmet
2. R.D. will maintain a urinary output of 30 ml/hour during my time of care. Met
Unmet

Problem #2: Impaired gas exchange.

Patient Goals:

1. R.D. will maintain an SpO2 of 93% or greater on room air during my time of care. Met
Unmet
2. R.D. will have clear breath sounds and be absent of any adventitious breath sounds during my time of care. Met
Unmet

Problem #3: Acute pain

Patient Goals:

1. R.D. will report a chest pain of 0/10 during my time of care. Met
Unmet
2. R.D.'s HR will be between 60-100, RR between 12-20, and BP around 120/80 during my time of care. Met
Unmet

Problem #4: Excess fluid volume

Patient Goals:

1. R.D.'s CVP will be between 2-6 during my time of care. Met
Unmet
2. R.D. will have clear breath sounds with no sign of fluid in lungs during my time of care. Met
Unmet

Problem #5: Risk for bleeding

Patient Goals:

1. R.D. will not demonstrate any episodes of bleeding during my time of care. Met
Unmet
2. R.D. will verbalize bleeding precautions such as notifying his provider when any dental or surgical procedures are occurring during my time of care. Met
Unmet

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Patient Resources: Cardiologist, dietician, primary care provider.

Patient Teaching: Importance of changing modifiable risk factors and reason for anti-platelet/clotting medications.

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

12 lead EKG (ST segment elevation)
CXR unremarkable
Troponin (0.2)
Potassium (3.2)

NCLEX II (3): Health Promotion and Maintenance

Signs and Symptoms

Chest pain 8 out of 10, feeling like "chest is getting squeezed"
SOB
Tachycardia with PVCs

NCLEX II (3): Health Promotion and Maintenance

Contributing Risk Factors

CAD
Hx of smoking
HTN

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)
Cardiogenic shock
Bleeding at insertion site

Therapeutic Procedures

Non-surgical

Surgical

PCTA
Stent placement

NCLEX IV (6): Pharmacological and Parenteral Therapies

Medication Management

Nitroglycerin SL
Morphine IVP
Aspirin PO
Epinephrine IM
Dobutamine IV
Normal saline IV

NCLEX IV (5): Basic Care and Comfort

Non-Pharmacologic Care Measures

Education
Bed rest following cath procedure

NCLEX III (4): Psychosocial/Holistic Care Needs

Stressors the client experienced?

Hospitalization
Uncontrolled pain or reoccurring pain

Client/Family Education

Document 3 teaching topics specific for this client.
• Educate modifiable risk factors such as smoking

NCLEX I (1): Safe and Effective Care Environment

Multidisciplinary Team Involvement

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

<p>cessation or increase in physical activity</p> <ul style="list-style-type: none">• Educate cardiac diet: Limiting sodium intake to 1500 mg per day.• Educate reason for anti-clotting medications.	<p>Dietician PCP</p>
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Directions: Write a 1-page reflection paper using Times New Roman, 12 pt. font and double-spaced. Include the following:

1. Describe an “Aha” moment you experienced during this learning experience.
2. What were the most important aspects of this simulation and what did you learn?
3. How will this simulation experience impact your nursing practice?

The myocardial infarction simulation on ATI was informative and required critical thinking from the staff and learner. Although I believe I got two answers wrong, I still enjoyed answering the questions and using my clinical judgement to take the right action in regard to my patient. My “AHA” moment was identifying the signs and symptoms of cardiogenic shock. I assumed pitting edema would be a symptom because if the heart was not able to pump properly, then it would have a direct effect on the entire cardiovascular system. I also mixed up the sign and symptoms of cardiogenic shock with cardiac tamponade; cardiac tamponade being when the heart gets surrounded by excess fluid and essentially is suffocating and compressing the cardiac muscle.

The most important aspect of this simulation was recognizing that R.D. was having an allergic reaction to the contrast dye during the cardiac cath. It goes to show you how easy previous healthcare providers for your patient overlook allergies to shellfish and missing the correlation between shellfish and contrast dye. This was a potentially fatal interaction that could’ve ended a lot worse had the nurse not acted as quickly as he did. This goes to show you that as a critical care nurse, it is especially vital to know your baseline assessments, and to continuously complete assessments to look for any abnormalities from the patient’s baseline.

This simulation experience has impacted my nursing practice because it has shown me how fast tragic conditions can occur with the cardiogenic shock and the allergic reaction situation. As I said previously, continuous assessments throughout a nurse’s shift and knowing the patient’s baseline is vital to catching a weird sign and symptom that could alert the healthcare provider that something extremely detrimental is about to happen or is already currently happening. Throughout this semester, I have enjoyed learning about all of the critical aspects of nursing and the fact that I have been precepting in the emergency room has shown me what major signs to look out for when a complication may occur.

