ATI Real Life Student Packet
N202 Advanced Concepts of Nursing
2024

Student Name: _Sheila Velasquez_____

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: __Myocardial Infarction_____

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

Anatomy and Physiology
Normal Structures

Myocardial infarction means the death of tissues of the myocardium (heart muscle) due to constricted blood flow. The heart muscle needs the oxygen that our blood delivers to keep functioning. A heart attack is a lack of oxygen. 4 chambered fist-sized muscular organs composed of 3 layers. These include the endocardium, myocardium, and epicardium. The heart consists of 2 atria, and 2 ventricles that are separated by 2 septum. The ventricular myocardium is thicker than the atrial myocardium, allowing the left ventricle to pump a great force of blood into systemic circulation. The myocardium of the heart has its own blood supply called the coronary circulation, where blood flows into 2 major coronary arteries. The left coronary artery supplies blood to the aorta and divides into the left anterior descending artery and the left circumflex artery. The right coronary artery also arises from the aorta, and its branches supply the right atrium and right ventricle and part of the posterior wall of the left ventricle. The AV node and bundle of his receives blood supply from the right coronary artery. The conduction system consists of special issue responsible for creating and transporting electrical impulses or action potential. Electrical impulse begins the in the SA node (pacemaker of heart and travel to the interatrial pathways depolarize the atria. resulting in a contraction. travels to the AV node and through the bundle of his and the left and right bundle branches. The left bundle branches

NCLEX IV *(7)*: Reduction of Risk

Pathophysiology of Disease

Coronary artery discase usually begins as atherosclerosis which these lipid deposits cause inflammation. An injury produces a fatty streak which is the first stage of CAD. Next the fatty streak turns into a fibrous plaque. The last stage of CAD is a complicated lesion which is the most dangerous stage where the plaque grows and becomes unstable. When chest pain from ischemia is prolonged and not immediately reversible, acute coronary syndrome may develop which is caused of the decline of a once-stable atherosclerotic plaque that ruptures producing either a partially blocked (NSTEMi) vessel with a thrombus, or totally blocked (STEMI).An abrupt stoppage of blood flow through a coronary artery with the thrombus caused by platelet aggregation. This cause irreversible myocardial cell death in the heart muscle beyond the blockage. Most MI's occur in the setting of a pre-existing coronary artery disease. A STEMI is caused by an occlusive thrombus, results in an ST elevation. A STEMI is an emergency period to limit the infarct size, the artery must be open within 90 minutes of presentation to restore blood and oxygen to the heart muscle and limit the infarct size. NSTEMI is caused by a non-occlusive thrombus, does not cause ST segment elevation. Most MRI's affect the left ventricle and are usually described based on the location of damage. The location of the MI in EKG changes correlate with the involved coronary artery. The degree of collateral circulation influences the severity of the MI.

deliver an impulse to the ventricles via purkinje fibers, generating a contraction te the heart.		

To Be Completed Before the Simulation

Anticipated Patient Problem: Decreased Cardiac Output (because of reduced preload, occluded artery)

Goal 1: Pt will have strong peripheral pulse, cap refill less than 3 secs, and HR between 60-100 bpm q shift.

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 HR (60-100 bpm) and BP (no greater than 140 systolic) q 4 hr	Administer fluids, betablockers/ ACE inhibitors as ordered in my care
Assess for any alterations in pt.'s level of conscious during my time of care	Notify provider of the alteration of LOC in my time of care
Assess how pt. is doing when performing tasks in my time of care	Encourage bed rest and activity restriction in my time of care
Assess skin color, temp, and moisture, edema q 4 hr	Notify provider if skin is cool/diaphoretic in my time of care and administer diuretics in my care
Assess risk factors during my shift	Provide resources about smoking cessation during my care
Assess RR (12-20 bpm) and lung sounds in my time of care	Administer 2L of O2 via NC in my time of care and PRN

Goal 2: Pt's SPO2 will be greater than 92% via 2L via NC in my time of care

To Be Completed Before the Simulation

Anticipated Patient Problem: Acute Pain: Chest

Goal 1: Pt will be able to demonstrate the relief of chest pain and rate it a 0/10 in 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 pain level using PQRST q 4 hr and PRN	Provide pain medication (ex: IV opioid (morphine)) nitroglycerin during my care and PRN
Assess HR (60-100 bpm) and BP (no greater than 140 systolic) q 4 hr	Administer betablockers/ ACE inhibitors as ordered in my care
Assess if is chest pain is angina/MI during my time of care	Teach s/sx of chest pain (occurs w/o warning sign, crushing pain in substernum, may radiate to jaw, back and left arm, unrelieved by rest/nitroglycerin)
Assess SPO2 (greater than 92%) q 4 hr during my time of care	Apply 2L of O2 via NC
Assess if pt. is doing nonpharmacologic pain techniques q shift	Encourage pt. to take deep breaths, watch the care channel, and change positions in my care
Assess facial grimaces q shift	Provide calm non-stimulating environment q shift

Goal 2: Pt's HR will be 60-100 bpm and have a NSR on EKG in my time of care

To Be Completed During the Simulation:

Actual Patient Problem: Decreased Cardiac Output

Clinical Reasoning: chest pain, MI, increased O2 demand, skin cold/clammy
Goal: Pt have a HR between 60-100 bpm q shift. Met: ☐ Unmet:☐

Goal: Pt's blood pressure will not be lower than 90 mm Hg systolic in my time of care.
Met: ☐ Unmet:☐
Actual Patient Problem: Impaired Gas exchange

Clinical Reasoning: allergic reaction, decreased cardiac output, chest pain
Goal: Pt's SPO2 will be greater than 92% on room air in my time of care Met: ☐ Unmet:☐

Goal: Pt's lung sound is going to be clear and breezy anterior and posterior side upon auscultation in my care. Met: ☐ Unmet:☐

Additional Patient Problems: 3) Acute Pain: Chest 4) Deficient Knowledge

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
1,2,3	16:55	"I don't feel well, my chest is squeezing and won't stop"	16:55	Wife administered 3 doses of Nitro and 325 mg of Aspirin	17:00	Pain still continued, 911 called
1,2,3	17:22	Stated "feels like my chest is being squeezed and it's hard to breathe" took nitro and pain did not go away, hx of blocked artery, 8/10 pain, RR: 26 BP: 96/56, HR: 106	17:23	Applied EKG leads and performed a 12 lead EKG, applied 4L of O2 via NC, troponin was draw, CXR performed	17: 25	EKG showed STEMI (ST elevation), 96 % of SPO2 on 4L of O2 via NC, Troponin T: 0.2, Troponin I 0.06, aorta shows calcification on chest Xray, tachycardia w/ PVC and nurse stated will be transported to cardiac Cath HR: 106, BP: 100/66, RR:24
1,3	17:35	Asked for pain med, wife asked	17:35	Dr. Patterson explained what	17:35	Was sent to the cardiac Cath lab

		about what cardiac Cath is		Cardiac Cath is and how it uses dye to assess blood supply and oxygen, if blockage present than will do percutaneous transluminal coronary angioplasty and use a stent		
1	17:55	Jean gave report to ICU nurse, had PTCA with stent placement, has central venous cath, arterial line, indwelling cath and on IV fluids, VS stable, on 2L of O2 via NC, vascular closure device (no bleeding/hematoma present)	17:55	Nurse carl encouraged Rodney to stay flat at least 2 hrs. and keep right leg in straight position, and if they want to cough to gently press on the puncture site dressing and encouraged to report any chest pain	17:55	Stated the chest pain he had earlier is gone
2	18:00	Began coughing, stated nurse is stuffy, and can't breathe, HR: 116, RR: 32, ashen skin, nail beds dusky, stridor heard upon auscultation, distressed, scant amount of red drainage around site, Signs of dyspnea, upon lung auscultation wheezes were heard	18:30	Administered 25 mg of Benadryl IV bolus, applied nonrebreather 15 mL/min and taught that it's going to cause him to be sleepy	18:30	Stated he started coughing and nose is stuffy and can't quite catch breath, Having allergic reaction from dye, on nonrebreather, 15L/min, intermittent stridor, SPO2: 87%, skin: ashen
2	18:35	Rapid response called to reverse anaphylaxis	18:35	Administered epinephrine IM	18:35	Feels much better, breathing better and doesn't itch anymore, SPO2: 100% via nonrebreather and switched to NC, Still has a nagging cough
1	22:05	6-inch hematoma	22:05	Encouraged to keep	22:30	Stated "I'll make

		present on R groin puncture site, dressing saturated with bright red drainage		right leg straight and apply pressure to groin area when coughing, Carl applied pressure to puncture site		sure I remember that" Bleeding stopped, hematoma area outlined, pressure dressing on
1	22:30	Potassium: 3.2	22:30	Administered 20 meq potassium PO	Next day. 0600	Potassium: 3.2 remained at the same value
1, 4	22:30	Carl at bedside talking about modifiable risk factors	22:30	Provided cardiac risk factors, information, modifiable risk factor (obesity) Encourage to eat food low in saturated fat and high in fiber, 4-6 servings of fruit/vegetables, replace red meat a couple of times a week with fish or chicken, control HTN with low sodium	22:30	Walks to work, occasionally walks, doesn't go to the gym, eats fast food 4x a wk, diets don't work for him, chews tobacco or trying e-cigarettes
1, 2	06:00	2 days since his procedure and not progressing well, damage portion of his left ventricular myocardium, starting symptoms of cardiogenic shock, Skin cool and clammy to touch, restless/agitated, MAP dropped around 54, systolic pressure has been less than 90 for the last 15 mins, UO dropped to 48mL/hr, has an BP: 64/42	06:30	Increased O2 to 3L via NC, going to initiate IV 0.9 NaCl at 200mL/hr, started a dobutamine drip at 16.5 mL/hr, administered norepinephrine 4 mg D5W at 1 mcg/min via central venous Cath and told him that it will increase his BP	08:00	Stated feeling less shaky and not dizzy, BP maintained, stated that if BP doesn't improve with dobutamine or fluids, norepinephrine should be started
1	08:10	BP: 96/56, looking much better, feels shaky and not as dizzy or sweating	08:10	Provided rest period	08:10	Will continue to monitor VS, looks much better, IV discontinued
1, 4	08:30	Wants to know	08:30	Nurse Carl taught	08:30	Stated "I will

		more information about lifestyle changes		lifestyle modification, diet, and medications		reduce my sodium intake to 1,500 mg/day
1, 4	09:00	Asked the nurse about ideas on how to reduce sodium	09:00	Encouraged to read all labels on processed food and told him to select food for breakfast	09:00	The nurse went over the Na content of the foods Rodney chose; Shredded wheat is low in sodium
1, 4	09:30	Wife noticed that Rodney's breakfast is above 1500 mg, asked how they can replace salt	09:30	Carl encouraged to put some vegetables in scrambled egg, cut sausage, eat yogurt for another breakfast, eat less red meat and eat more fish, fruit, and vegetables, replace salt with spices like cumin, garlic, chili powder	09:30	Stated "Maggie and I are going to try"
4	10:00	Day shift nurse is going to review medication, asked "can you tell me more about the blood thinner medication?"	10:00	Stated that clopidogrel is an antiplatelet and prevents clotting in stent, encourage to look for bruising/blood in stool, notify doctor if having surgery or dental work up, and to avoid stopping med abruptly	10:00	Wife asked if he is allowed to continue taking aspirin, ready to be discharged, understands the importance of starting an exercise program, modifying his diet, decreasing sodium intake and all meds prescribed

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

Cardiac Cath Lab, CXR, CMP, ABGs, creatine, Potassium, H&H, EKG (ST-elevation), percutaneous coronary angioplasty, troponin, creatine kinase, tele, MAP

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

Signs and Symptoms

Chest pain that doesn't relieve with nitro, Difficulty breathing, dizzy, SOB, nausea, tachypnea, itchy, congestions, dyspnea, HTN, tachycardia with PVC, nailbeds dusky, ashen skin, cough, skin cool/clammy, restless, agitated

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

Contributing Risk Factors

Hypertension
Coronary artery disease with angina and asthma
Obesity
Smoking
Diet

Therapeutic Procedures

Non-surgical

Surgical

Percutaneous transluminal coronary angioplasty 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)

Bleeding
Infection
Re-occlusion

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

Medication Management

Nitroglycerin
Clopidogrel
Aspirin
Epinephrine
Norepinephrine
Dobutamine
D5W (IV fluids)
Diphenhydramine
Oxygen (NC/nonrebreather)

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

Non-Pharmacologic Care Measures

Pressure on surgical site while coughing
Hold pressure on R groin puncture site

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

Stressors the client experienced?

Anxiety
Pain
Stress
SOB

Client/Family Education

Document 3 teaching topics specific for this client.

- Limit sodium intake to 1500 mg or less/day
- Exercise for at least 30min- 1 hr each day
- Watch for bleeding when taking clopidogrel

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

Multidisciplinary Team Involvement

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

Provider, Nurse, Wife, radiology, dietician, rapid response team

Patient Resources

Dietician, cardiologist

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 takeaway from participating in the care is that it's important to prepare for any occasion and take immediate action. For example, I did not expect Rodney to have an allergic reaction to the dye. The nurse promptly administered Benadryl and the symptoms were controlled. To prevent this, it's important for that to be assessed prior to the procedure. Later on, Rodney develop cardiogenic shock, in which the nurse acted immediately and prevented it from getting worse.

2. What was something that surprised you in the care of this patient?
   What surprised me the most in this care is that the patient develop an allergic reaction after the cardiac catherization. I feel like this would have not been a problem if the nurses would have checked Rodney's allergy prior. What also surprised me the most is that Rodney had little knowledge about the food he eats and how much sodium the food contains. It's important for Rodney to know how much sodium there is in the food to prevent further health complications.

3. What is something you would do differently with the care of this client?
   What I would have done differently in this care is that I would have assess Rodney's allergy prior to performing the cardiac cath. This would have prevented him from developing an allergic reaction and also assessed if he has an allergy to shellfish.

4. How will this simulation experience impact your nursing practice?
   This simulation experience will impact my nursing practice because it's going to remind me how important it is to assess a patient's allergy prior to doing a procedure or administering any medications. It's also important to look at the early signs of cardiogenic shock and treat it as fast as possible to prevent further complications. Lastly, it's important to provide teaching to the patients on the modifiable risk factors to prevent further complications and promote health and make sure they understand.