ATI Real Life Student Packet
N202 Advanced Concepts of Nursing
2024

Student Name: __Natali Ricks_____

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

4 chambered fist-sized muscular organ composed of 3 layers. These include the endocardium, myocardium, and epicardium. The heart consists of 2 atria, and 2 ventricles that are separated by a 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 his receives blood supply from the right coronary artery. The conduction system consists of special tissue 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 to 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 deliver an impulse to the ventricles via purkinje fibers, generating a contraction to the heart. Preload is the volume of blood stretching the ventricles at the end of diastole before the next contraction. Afterload is the peripheral resistance against which the left ventricle must pump. The ability to respond to these demands by altering CO is called cardiac reserve. Cardiac output is the amount of blood pumped by each ventricle in 1 min. and calculated by the amount of blood ejected from the ventricle with each heartbeat. Co = SV (stroke volume) x HR. Cardiac index is the CO divided by the body surface area.

NCLEX IV *(7)*: Reduction of Risk

Pathophysiology of Disease

Coronary artery disease usually begins as atherosclerosis which is characterized by lipid deposits within the intima of the arteries. These lipid deposits cause injury to the endothelium and produce 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 by the decline of a once-stable atherosclerotic plaque that ruptures, producing either a partially blocked (NSTEMI) vessel with a thrombus, or totally blocked (STEMI). A myocardial infarction occurs because of an abrupt stoppage of blood flow through the coronary artery with a thrombus caused by platelet aggregation. The acute MI process evolves overtime, from hours to a few days. The degree of collateral circulation influences the severity of the MI and are usually described based on the location of damage.

To Be Completed Before the Simulation

Anticipated Patient Problem: Decreased Cardiac Output

Goal 1: Pt will have urinary output of at least 30ml/hr 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 HR, RR, and BP, cap refill with tele continuously.	Administer fluids and apply O2 as ordered
Assess skin color, temperature, and moisture and edema q4hrs.	Administer diuretic as ordered. Apply warm blanket prn.
Assess UO q2hrs.	Encourage fluid intake of 2000ml/24hrs.
Assess weight daily	Educate on low sodium diet prn
Assess Spo2 q2hrs.	Administer oxygen as ordered.
Assess lung sounds q2hrs.	Encourage semi fowlers position q1hr.

Goal 2: Pt will strong peripheral pulses, cap refill less than 3 secs., and a HR between 60-100 bpm q shift.

To Be Completed Before the Simulation

Anticipated Patient Problem: Acute Pain: Chest

Goal 1: Pt will have a pain score of 0/10 on numeric pain scale by the end of my 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 pain score on numeric pain scale and PQRST of pain q4hrs	Administer Morphine as ordered Administer Nitro as ordered
Assess BP, RR, HR q4hrs	Provide distraction techniques prn
Assess facial grimacing qshift	Provide calm, non-stimulating environment qshift
Assess cardiac biomarkers such as troponin, BMP, CK-MB qshift/prn	Educate on need for lifestyle changes with diet and exercise prn
Assess clotting factors prn	Administer aspirin as ordered.
Assess knowledge of condition qshift	Educate on s/sx of MI and what to report qshift

Goal 2: Pt will report any change in pain on the numeric pain scale during my time of care.

To Be Completed During the Simulation:

Actual Patient Problem: Decreased Cardiac Output

Clinical Reasoning: MI, increased o2 demand, SOB, cool/clammy skin, UO dropping _
Goal: PT will have a UO of at least 30ml/hr during my time of care. Met: ☐ Unmet:✓

Goal: PT will have a HR between 60-100 bpm during my time of care. Met: ☐ Unmet:✓

Actual Patient Problem: Deficient Knowledge

Clinical Reasoning: unaware of diet, sodium intake, inactivity
Goal: PT will verbalize 2 interventions on how to improve diet during my time of care. Met: ☐ Unmet:✓

Goal: PT will participate in the learning process & ask questions during my time of care. Met: ✓ Unmet:☐

Additional Patient Problems: 3: Acute Pain

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	1655	"I don't feel well. My chest is squeezing and won't stop"	1655	Wife administered 3 doses of Nitro and 325mg of aspirin	1700	Pain continued, 911 called
2, 3	1722	"I just feel so dizzy, its hard to breath. I feel sick to my stomach" Wife states "He has h/o blocked arteries", pain 8/10, RR 26	1725	Applied 4L NC, performed EKG, troponin draw, applied tele, CXR performed	1730	ST elevation, 96% 4L NC, troponin T 0.2, Troponin I 0.06, aorta shows calcification on XR, tachycardia w/ PVCs
1	1735	4L NC, wife asks "can you tell me more about this reopening"	1735	Dr educated on PCI procedure	1735	No further questions, transported to cath lab
1	1755	Lying flat after procedure, stated "the chest squeezing is gone"	1755	Carl RN educated the importance of staying lying flat and keeping leg straight, holding pressure on	1755	Verbalized understanding, stated " I feel itchy all over my arm and chest, I ate shrimp once and

				puncture site when coughing		my tongue swelled”
1	1800	Began coughing, stated nose stuffy and can not breath, o2 87% on NC, BP 155/98, HR116, RR 32, ashen skin, nail beds dusky, stridor heard upon auscultation, distressed, scant amount of red drainage around site	1830	Administered 25mg diphenhydramine IV bolus, applied nonrebreather 15ml/min, administered dose epinephrine, called RR team	1830	Stated “I’m breathing much better and I don’t itch anymore, but I still have this nagging cough”
1	2205	6 inch hematoma present on R groin puncture site, dressing saturated with bright red drainage	2205	Carl RN removed dressing and applied pressure above puncture site, outlined site	2230	R groin stopped bleeding, pressure dressing applied
1,2	2230	Potassium 3.2, Stated “I occasionally go for walks. I eat fast food 4 times a week and diets never work for me. I stopped smoking a month ago”	2230	Administered 20 meq potassium PO, RN educated on modifiable risk factors for CAD	Next day, 0600	Potassium 3.2 meq
1	0600	Skin feels cool, clammy, restless & agitated, MAP 54, systolic BP less than 90, UO dropped to 48 ml/hr, BP 64/42	0630	Increased O2 NC 3L, started dobutamine drip and NS 250ml/hr, administered norepinephrine 4mg D5W at 1mcg/min	0800	Stated feeling less shaky and not dizzy, BP maintained
2	0900	Asked RN how to reduce sodium in diet	0900	RN educated on reading labels and foods to avoid high sodium intake	0900	Continued asking questions about diet and blood thinner meds, shows readiness to learn

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

CXR, CMP, ABGs, creatinine, potassium, H&H
EKG- ST elevation
Percutaneous coronary angioplasty
Troponin
Creatine kinase
Tele
MAP

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

Signs and Symptoms

Tight squeezing chest pain, dizzy, SOB, nausea, tachypnea, itchy, congestions, dyspnea, HTN, tachycardia w/ PVCs, nailbeds dusky, ashen skin, cough, skin cool/clammy, restless, agitated

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

Contributing Risk Factors

CAD
HTN
Smoking
Physical inactivity
Diet

Therapeutic Procedures

Non-surgical

Surgical
Percutaneous coronary angioplasty

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
Aspirin
Oxygen – NC, nonrebreather
Diphenhydramine
Epinephrine
Norepinephrine
D5W
Dobutamine

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

Non-Pharmacologic Care Measures

Held 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 prior to procedure and from pain
SOB during allergic rxn

Client/Family Education

Document 3 teaching topics specific for this client.

- Educated on controlling CAD modifiable risk factors
- Educated on low sodium diet
- Educated on holding pressure to incision site

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

Patient Resources

Dietician, Cardiology

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 this experience was how to take a patients subtle changes and complaints seriously. The patient knows their body best and can feel when something is off, many times before we can clinically see it. Its important to notice these subtle changes and act on them quickly.

2. What was something that surprised you in the care of this patient?

   Something that surprised me about this client was how little knowledge he had about the food he eats. It opened my eyes about how some clients aren’t aware of the amount of sodium, fat, and calories are in the food they eat and how this can greatly affect their health.

3. What is something you would do differently with the care of this client?

   Something I would do differently next time would probably be to verify allergies before the cardiac cath procedure and mention that an allergy to shellfish indicates an allergy to the contrast dye. This could have prevented his allergic reaction and provided safer patient care. I would additionally add this to his chart for future visits.

4. How will this simulation experience impact your nursing practice?

   This simulation will affect my nursing practice because it has shown me the specific s/sx to look for with a patient experiencing an MI and the common complaints they have. It also has shown me that the education part of the diagnosis is super important to prevent the MI from reoccurring and to provide better outcomes for the client.