ATI Real Life Student Packet
N202 Advanced Concepts of Nursing
2024

Student Name: _Francesco Malone

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: STEMI

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

Anatomy and Physiology

Normal Structures

- 4 chambers: RA, RV, LA, LV (largest and strongest portion because it must pump the blood into circulation)
-4 valves: prevent backflow of blood. (tricuspid, pulmonic, mitral, aortic). Papillary muscles and chordae close the valves to prevent regurgitation of blood.
- blood flow through heart: blood enters the RA from SVC/IVC > tricuspid valve > RV > pulmonic valve > pulmonary artery > lungs > pulmonary vein > LA > mitral valve > LV > aortic valve > aorta
- 3 layers: endocardium (innermost), myocardium (muscle/middle), epicardium (outermost)
- pericardium: 2 layers visceral and parietal. Pericardial space contains 10-15ml of fluid. anchors heart, provides lubricate to decrease friction between heart contractions, helps prevent excess dilation of heart during diastole.
- coronary arteries perfuse the heart. LAD and Left circumflex supply blood to LA, LV, intraventricular septum, and part of the RV
- RCA supplies blood to RA, RV, and part of posterior LV

Heart conduction: SA node to interatrial pathways to atrial contraction to AV node to intermodal pathways to bundle of His to left and right bundle branches to Purkinje fibers to ventricular contraction

NCLEX IV *(7)*: Reduction of Risk

Pathophysiology of Disease

-Abrupt stoppage of blood flow through a coronary artery that causes irreversible myocardial cell death (necrosis)
- Most MIs occur in the setting of preexisting CAD
- STEMI: caused by occlusive thrombus resulting in an ST elevation in an ECG leads facing the area of infarction. This is an emergency, and a PCI will be performed to reopen the artery within 90mins of presentation. If no PCI/ cath lab then thrombolytics/ Fibrinolytics need to be administered within 30mins to dissolve the thrombus. Transmural = involves entire thickness of myocardium
- NSTEMI: nonocclusive thrombus, no ST elevation, need cath within 12-72hrs, thrombolytic therapy not indicated.

To Be Completed Before the Simulation

Anticipated Patient Problem: Acute Pain

Goal 1: Client will report a pain level of 0 on 0-10 pain scale by the time of discharge.

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 LOC q 4hr and prn	Administer/ titrate O2 via NC prn
Assess chest pain (quality, location, duration, radiates?) q4h and prn	Administer nitroglycerin as ordered prn
Assess VS (HR, BP, RR, SpO2) q 4hr and prn	Administer morphine IVP as ordered
Assess EKG rhythm q4h and prn	Administer amiodarone as ordered
Assess skin color/moisture q4h and prn	Educate that SNS stimulation released catecholamines which leads to sweating and cool/clammy skin prn
Assess anxiety level q 4h and prn	Educate on deep breathing exercises q shift

Goal 2:client HR will maintain a HR of 60-100bpm during my time of care.

To Be Completed Before the Simulation

Anticipated Patient Problem: activity intolerance

Goal 1: Client will identify the factor(s) that aggravate decreased tolerance to activity 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 cardiac markers (troponin) q shift	Maintain bed rest at all times
Monitor EKG for dysrhythmias prn	Administer beta blocker as ordered
Assess VS (BP, HR, RR, SpO2) q 4hr and prn	Administer ACE inhibitor as ordered
Assess knowledge on what is a healthy diet q shift	Educate on slowly incorporating activities back into daily routine q shift
Assess knowledge of medications q shift	Educated on s/sx of potential toxic reactions (digoxin toxicity) q shift
Assess expectations of recovery q shift	Educate on the potential complications of myocardial infarction q shift

Goal 2: the client will demonstrate methods of controlled breathing techniques to conserve energy during my time of care.

To Be Completed During the Simulation:

Actual Patient Problem: acute pain

Clinical Reasoning: STEMI, stated "crushing/squeezing pain 8/10 pain"
Goal: RD will report a pain score of 0/10 during my time of care. Met: ✓ Unmet:☐

Goal: RD will achieve a HR of 60-100bpm during my time of care. Met: ✓Unmet:☐

Actual Patient Problem: impaired gas exchange

Clinical Reasoning: anaphylactic rxn
Goal: RD will have a RR of 12-20 during my time of care Met: ✓ Unmet:☐

Goal: RD will have vesicular lung sounds by the time of discharge. Met: ✓ Unmet:☐

Additional Patient Problems: 3. decreased cardiac output: cardiogenic shock, 4. r/f infection, 5. Readiness for enhanced 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	1655	Squeezing Chest pain while shoveling snow, unrelieved by rest	1655	Wife gave 3 doses of nitroglycerin and 325mg of aspirin		911 called
1	1720	Still reports squeezing 8/10 pain, skin ashen, "dizzy, sick to my stomach". Wife stated "hx of blocked arteries"	1745	ECG leads attached. Administered	1720	100/68, HR 104, RR 24, SpO2 95% on 4L/min NC, ECG: prolonged P waves, PVCs, ST elevation
1	1745	Reported 8/10 squeezing chest pain. Troponin T 0.2, Troponin 0.06, Lactic acid 0.6, K 3.6, BUN 18, Cr 0.8, Mg 1.6, Cholesterol 324, ABGs: pH 7.35,	1745	Dr. Pattersson educated on STEMI and cardiac catheterization. CT administered morphine 2mg IV	1745	102/58, HR 100, RR 22, SpO2 96% on 4L/min NC

		PaO2 88, PaCO2 40, HCO3 26				
1,2,3	2100	Percutaneous transluminal coronary angioplasty with stent placement in LAD, central venous cath, A-line, foley. Stated “Chest pain Is gone. Feeling itchy over arms and chest. Ate shrimp one time and tongue swelled” HR 112, RR 32, SpO2 94% on 2L/min NC, Tachycardia with PVCs Auscultated wheezes and stridor in lungs Dressing CDI	2115	Nurse CJ administered IV bolus of Benadryl	2120	HR 116, RR 32, SpO2 87% non-rebreather mask, 155/98, tachycardia with PVCs. ad
2	2145	Auscultated wheezes and stridor in lungs	2150	Administered epinephrine 0.3mg IM	2200	108/74, RR14, HR 88, 92% SpO2 on 3L/min NC NSR with PVCs
4	2220	Developed hematoma, stated “feels like I’m sitting on something wet”	2230	Applied pressure to site. Educated to apply slight pressure to site when coughing	2245	Bleeding spotted. Outlined incision site.
3	2300	K 3.2	2300	Educated on heart healthy diet modifications, handed pamphlet	2300	112/72, HR 74, RR 12, SpO2 99% on 3L/min
3	Day 2 1940	Skin ashen, 80/52, HR 96, RR 12, SpO2 99% on 3L/min, tachycardia with PVCs, Troponin T 0.8, Troponin I 0.09, MAP 54,	2005	Administered 1L NS @ 250ml/hr. administered dobutamine 250mg in D5W 250ml initial rate of 2.5mcg/kg/ml (rate 16.5ml/hr)	2010	HR 58, RR 12, 84/66, SpO2 96% 4L/min NC, sinus brady with PVCs
2	2010	HR 58, 78/56, RR12, SpO2 96% on 4L/min NC, sinus brady	201-	Administered norepinephrine 4mg D5W 1L at 0.5 to 1 mcg/in, max dose	2040	96/56 HR 64, RR 14, SpO2 96% on 2L/min NC, sinus rhythm with PVCs

				30mcg/min		
2,3,4,5	Day 3 1700	T 36.8, HR 68, RR 12, 124/72, dressing CDI, sinus rhythm, 0/10 pain	1710	Educated on modifiable risk factors and medications, provided notes on how to reduce daily sodium intake	1715	Stated “I will reduce my sodium intake to 1500mg/day”

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
Troponin T 0.2
Troponin I 0.06
Cholesterol 324
K+ 3.6,3.2
ECG – ST elevation
CXR – aortic calcification

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

Signs and Symptoms
Crushing/squeezing chest pain

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

Contributing Risk Factors

Smoking, HTN, obesity, genetics, high cholesterol

NCLEX IV *(7)*: Reduction of Risk

Therapeutic Procedures
Non-surgical
O2

Surgical
PCI

Prevention of Complications
(Any complications associated with the client's disease process? If not what are some complications you anticipate)
Dysrhythmias, heart failure, cardiogenic shock

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

Medication Management
Nitro, O2, morphine, Aspirin, ACE inhibitor

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

Non-Pharmacologic Care Measures
Rest. Frequent VS checks, follow up labs (CBC, CMP, cardiac markers), continuous ECG monitoring

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

Stressors the client experienced?
Fear, pain, lifestyle choices

Client/Family Education

Document 3 teaching topics specific for this client.
•diet modifications
•new medication information and side effects
•incorporate exercise into daily routine

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

Multidisciplinary Team Involvement
(Which other disciplines were involved in caring for this client?)
Lab, cardiology, cath lab, pharmacy, ED, dietary, case manager

Patient Resources
Cardiac rehab, outpatient physical therapy, heart failure pamphlet

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 is to always review medication allergies/ adverse reactions for each of my patients. A patient may not know that a shellfish allergy correlates to an allergy to the contrast dye. This simulation stresses the importance of a thorough Past medical history/H&P.

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

   Something that surprised me was that the patient forgot to mention his allergy to shellfish while Dr. Patterson was informing RD and his wife about the cardiac catheterization.

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

   The one thing I would’ve done differently was that I would’ve liked to spend some more time with the patient to get a very thorough medical history.

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

   This simulation emphasized the importance of a thorough H&P, quick recognition of an anaphylactic allergic reaction and cardiogenic shock, and how to treat them. In my nursing practice I will inquire further about past allergies and their reactions. This would’ve been helpful in RD’s situation and his allergic reaction could have been avoided.