

ATI Real Life Student Packet
N202 Advanced Concepts of Nursing
2025

Student Name: Rachel Dietz

ATI Scenario: MI (Myocardial Infarction)

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 four-chambered muscular organ that pumps blood through the body via the circulatory system. Right side handling pulmonary circulation and the Left side systemic circulation

R&L Atria

R&L Ventricle

Four valves ensure unidirectional blood flow:

tricuspid, Pulmonic, mitral, and aortic

Blood Flow through the Heart:

SVC/IVC→RA→TV→RV→PA→

PV→LA→MV→LV→AORTA

The heart wall: the outer epicardium, the middle myocardium (heart muscle), and the inner endocardium

Pericardium: sac that surrounds the heart

- The heart undergoes a coordinated cardiac cycle of alternating contraction (systole) and relaxation (diastole)
- Specialized muscle fibers, including the Purkinje fibers, help coordinate the timing of contractions
- The left ventricle generates significantly higher pressure than the right ventricle to pump blood throughout the systemic circulation

NCLEX IV (7): Reduction of Risk

Pathophysiology of Disease

Myocardial Infarction (MI) the heart muscles DIE “necrosis” from lack of oxygen. This occurs when there is a blockage of the coronary arteries, the “O2 tubes” feeding the heart oxygen.

Atherosclerosis:

The most common cause of MI.

Fatty deposits (plaques) build up in the coronary arteries that supply blood to the heart. When a plaque ruptures, a blood clot (thrombus) can form, blocking blood flow.

When blood flow to the heart muscle is reduced, it becomes deprived of oxygen and nutrients. This leads to:

- The heart muscle cells (myocytes) become injured and eventually die.
- Damaged myocytes release enzymes, such as troponin and creatine kinase, into the bloodstream.
- The electrical activity of the heart is affected, ST elevation on EKG

To Be Completed Before the Simulation

Anticipated Patient Problem: Decreased Cardiac Output

Goal 1: Pt will maintain Systole BP within 20mm Hg of base line 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 heart rate, blood pressure, and cardiac rhythm Q15min + PRN	Place on cardiac monitoring, administer anti-hypertensive meds as prescribed.
Assess breath and heart sounds Q1hr + PRN	Place in semi fowler, supine positioning, apply o2 THERAPY AS PRESCRIBED SPO2 <92%
Assess cholesterol levels Q6hr + PRN	Maintain restriction of fluid, low sodium and administer statins as prescribed.
Assess Bowel movement quality Q6hr + PRN	Request stool softener to prevent straining
Assess activity level Q6hr +PRN	Cluster care and allow time for rest to minimize myocardial workload
Monitor ECG for onset radiating chest pain Q1hr + PRN	Administer 1 tab of Nitroglycerin, morphine sulfate for pain as ordered

Goal 2: Pt HR maintain at 60-100 bpm during my time of care.

To Be Completed Before the Simulation

Anticipated Patient Problem: Acute Pain- Chest

Goal 1: Patient chest pain will reach 0/10 during my time of care.

Relevant Assessments	Multidisciplinary Team Intervention
(Prewrite) What assessments pertain to your patient's problem? Include timeframes	(Prewrite) What will you do if your assessment is abnormal?
Assess for participation in physical activity Q4hr + PRN	Administer oral Q6hr before activity (PT, OT, ambulation)
Assess support and positioning Q2hr + PRN	Adjust positioning in bed, elevate HOB
Assess the description of pain: quality, location, severity Q6hr + PRN	Administer nitroglycerin for chest pain as ordered.
Assess VS Q 5-10 min + PRN	Provide distraction and relaxation techniques, and rest periods
Assess chest for tenderness or tightness Q1hr + PRN	Administer Morphine if nitroglycerin doesn't have an effect as ordered
Assess pain during breathes Q1hr	Elevate HOB, encourage deep breaths, apply O2 as ordered

Goal 2: Patients VS will return to baseline range during my time of care.

To Be Completed During the Simulation:

(1) Actual Patient Problem: Decreased Cardiac Output

Clinical Reasoning:

MAP 54, tachycardia, ST elevation, Dx STEMI, Heart catheterization, hypotension

Goal: Pt MAP will be maintained ≥ 60 during my time of care Met: Unmet:

Goal: Pt UO $\geq 30\text{mL/hr}$ during my time of care Met: Unmet:

(2) Actual Patient Problem: Risk for Bleeding

Clinical Reasoning:

R femoral puncture site, 3in groin Hematoma R femoral site w/ dressing saturated in bright red blood, "Is that why it feels like I'm sitting on something wet."

Goal: Pt dressing will remain clean dry and intact during my time of care Met: Unmet:

Goal: Pt will splint when coughing during my time of care Met: Unmet:

Additional Patient Problems: (3) Acute pain- chest, (4) deficient knowledge- new Dx MI/ modifiable risk factors,

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
1,3,4	1720	HR: 104, RR: 26, BP: 96/56, SPO2: 94% 4L NC "Feels like chest is being squeezed and its hard to breathe" "I feel dizzy and sick to my stomach" Pain hasn't went away after 3 nitroglycerin tabs Pain 8/10 "I was shoveling snow" Wife at bedside	1725	Attached 12 lead EKG to chest. Educated on 12 lead EKG and steps for procedure in diagnosing chest pain Initiated IV access and flushed w/ NS 12mL Maintained O2 at 4L NC	1730	ST elevation noted on EKG – STEMI HR: 106, RR: 24, BP: 100/66, SPO2: 96% 4L NC
1,3,4	1730	"Anything to get relieve of this squeezing pain" Wife at bedside HR 102, RR 22, BP 98/60, SPO2 96% 4L NC 8/10 pain	1730	Provider explained the heart catheterization procedure Inserted 18g 1.5in angiocatheter IV bolus 300mL/hr to rt of NS	1730 1745	300 mL bolus infused Pre-op orders placed

1,3	1745	HR 100, RR 22, BP 102/58, Spo2 96% on 4L NC 8/10 pain Troponin T- 0.2 Troponin I 0.06	1745	Administered 2mg IV morphine Decreased NS to 100mL/hr Transferred to cath lab	2100	Heart Catheterization complete, transferred to ICU
1,2,4	2100	Foley catheter draining clear yellow urine, R neck CVP intact no drainage (cvp 10), L arterial line intact with no drainage T 96.8, HR 96, RR 14, BP 112/66, Spo2 98% 2L NC, R femoral dressing clean and dry with no bleeding or hematoma Pain 0/10 Irritating cough and congestion Tele- sinus rhythm w/ occasional PVC "I feel itchy over my arm and chest" "I ate shrimp one time, and my tongue swelled"	2100	Administered 250mL/hr of NS Educated on staying flat and keeping R leg straight, and cough technique Notified provider of shellfish allergy	2100	Diphenhydramine order placed
1	2110	"I feel itchy over my arm and chest" "I can't quite catch my breath" Wheezing breath sounds auscultated bilaterally anteriorly HOB 10 degrees	2110 2120 2145	Administered 25mg IV bolus of Diphenhydramine Applied nonrebreather face mask on 15L O2 Lab drawn for troponin and blood glucose	2145	Spo2 87% on nonrebreather face mask on 15L O2 Ashen skin, dusky nail beds, strider Troponin T 0.4 Troponin I 0.07 BG- 122
1	2130	HR118, RR36, BP 158/98, Spo2 89% on nonrebreather face mask on 15L O2 Ashen skin, dusky nail beds, strider Tele- Tachycardia w/ PVCs	2115 2130 2155	Called rapid response team and provider Administered 0.3mg epinephrine Applied O2 3L NC	2200	HR88, RR14, BP 108/74, Spo2 100% on 3L NC Tele RSR w/ PVCs
4	2200	"But I still have	2200	Reinstated	2200	Verbalized

		this cough”		education on coughing technique for splinting R Leg		understanding
1, 2	2205	HR88, RR14, BP 112/74, Spo2 100% on 3L NC 3in groin Hematoma at R femoral puncture site, dressing is saturated w/ bright red blood “Is that why it feels like I’m sitting on something wet.”	2215 2230	Applied pressure to groin Applied pressure dressing Notified provider Lab drawn	2230	HR 74, RR 12, BP 112/72, Spo2 99% on 3L NC R femoral Pressure dressing clean dry intact R groin bleeding stopped, hematoma 6in in diameter K+ 3.2
1, 2, 4	2300	K+ 3.2 HR 74, RR 12, BP 112/72, Spo2 99% on 3L NC “I woke at work, no time for gym” “Fast food 4 times a week” R femoral Pressure dressing clean dry intact	2300 2305	Notified provider of low K+ Administered potassium 20 mEq PO Educated on modifiable risk factors like diet, exercise and weight loss, provided written material	2305	Verbalized understanding
1, 2	(2 days later) 1930	Skin is cool and clammy, restless and agitated BP 88/56 HR 96 MAP 54, RR 14, Spo2 99% 4L NC, CVP 7 UO 48mL/hr R femoral dressing clean dry and intact K+ 3.2 Troponin T 0.8 Troponin I 0.09 BG 108	1930 1945 1950 2010	Provider notified Started 250mL/hr NS IV Administered Dobutamine 16.5mL/hr IV Administered 0.5mcg/min Norepinephrine Encouraged deep breaths	2010 2035	HR 58, RR12, BP 78/56, Spo2 96% on 4L NC Arousing easily HR 64, RR12, BP 98/56, Spo2 96% on 4L NC
1	2035	HR 64, RR12, BP 98/56, Spo2 96% on 4L NC “Im less shaky, and im not as dizzy or sweaty anymore”	2040	Titrated O2 to 2L NC	2040	HR 64, RR14, BP 96/56, Spo2 96% on 2L NC
4	2040	Wife at bed side, lying supine	2040	Educated on lifestyle changes and modifiable risk	2040	“I will reduce my sodium intake to 1500mg a day”

				factors		
--	--	--	--	---------	--	--

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
 Troponin T: 0.2, 0.4, 0.8
 Troponin I: 0.06, 0.07, 0.09
 Blood Glucose: 122, 109
 K+: 3.6, 3.2, 3.2
 EKG- ST elevation (STEMI)

NCLEX II (3): Health Promotion and Maintenance

Signs and Symptoms
 SOB, tachycardia, hypotension, crushing chest pain -
 Angina unrelieved with nitroglycerin, dizziness, nausea

NCLEX II (3): Health Promotion and Maintenance

Contributing Risk Factors
 Obesity
 CAD
 Hx smoking
 Sedentary lifestyle
 Poor eating habits (high sodium/cholesterol)

NCLEX IV (7): Reduction of Risk

Therapeutic Procedures
Non-surgical

Surgical
 Heart catheterization

Prevention of Complications
 (Any complications associated with the client's disease process? If not what are some complications you anticipate)
 Anticipate:
 Arrhythmias
 HF
 Cardiogenic shock
 stroke
 death

NCLEX IV (6): Pharmacological and Parenteral Therapies

Medication Management
 1L NS IV -250mL/hr
 3 tablets Nitroglycerin PO
 25mg Diphenhydramine IV
 0.3mg Epinephrine IV
 2mg Morphine IV
 0.5mcg/min Norepinephrine IV continuous
 16.5mL/hr Dobutamine IV Continuous
 20 mEq Potassium PO

NCLEX IV (5): Basic Care and Comfort

Non-Pharmacologic Care Measures
 -Provided O2 therapy using NC and non-rebreather face mask
 -applied pressure to bleeding wound
 -maintained R femoral dressing

NCLEX III (4): Psychosocial/Holistic Care Needs

Stressors the client experienced?
 -deficient knowledge (new Dx)
 -lifestyle changes
 -fear
 -anxiety

Client/Family Education

Document 3 teaching topics specific for this client.
 • Educate on staying flat and keeping R leg straight, and cough technique
 • Educate on modifiable risk factors for CAD, such as weight, exercise, and diet
 • Educate about shellfish allergy and connection to contrast dye. Notify provider of allergy.

NCLEX I (1): Safe and Effective Care Environment

Multidisciplinary Team Involvement
 (Which other disciplines were involved in caring for this client?)
 ER, rapid response, charge nurse, primary doctor, registered nurse, cardiology, Cath lab, CT

Patient Resources

Heart healthy diet and information of lifestyle changes to improve cardiac health

Reflection Questions

Directions: Write reflection including the following:

1. What was your biggest “take away” from participating in the care of this client?
Constantly reassessing your patient and knowing what their baseline is can make a huge difference in how you can take care of your patient. This patient could have been bleeding out for hours if he wasn't on hourly VS and dressing checks.
2. What was something that surprised you in the care of this patient?
What surprised me about this patient was how fast he started to decline. At first, I thought he was doing better and then it was one after another of declining information. It really shows how fast a patient can go from stable to unstable. Constant monitoring is a huge part of taking care of these patients. The hourly VS, UO and constantly check the dressing site made a big difference in his care.
3. What is something you would do differently with the care of this client?
Something I would have done differently, is ensuring I get a proper teach back in how to splint while coughing to ensure his puncture site doesn't open. The nurse had redacted a few times about this but did not get a proper teach back to really know if the patient had understood his teaching. This might have helped with prevent the femoral puncture site from bleeding.
4. How will this simulation experience impact your nursing practice?
This simulation will make me want to hone in on my organizational skills and ensure I have a proper tool to keep up on intervals for reassessments and even having a check list of what to look for in place. This simulation taught me to always be on your toes and don't assume your patient is out of the woods.