ATI Real Life Student Packet
N202 Advanced Concepts of Nursing
2025

Student Name: _Courtney David _____

ATI Scenario: __MI Complications_____

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

The heart is an organ, made of cells and tissues which require their own blood supply. The hearts electrical conduction system-the heart can independently generate and transmit electrical signals to the myocardium to make it contract and pump the blood.
The hearts' function is to control rhythm and speed of your heart rate
Maintain blood pressure Your heart is in the front of your chest. It sits slightly behind and to the left of your sternum. The ribcage protects the heart. Heart consist of walls, chambers, valves, blood vessels and electrical conduction system, the heart has 3 layers, endocardium, myocardium, and epicardium. The heart has 4 chambers the right atrium, right ventricle, left atrium and left ventricle. Coronary arteries supply blood to the heart muscle, the heart muscle needs oxygen-rich blood to function. Whereas oxygen-depleted blood must be carried away. The coronary arteries wrap around the outside of the heart. Small branches dive into the heart muscle to bring it the blood. The electrical conduction system: each time your heart beats electrical signals cause different parts of your heart to expand or contract. The expansion and contraction control the blood that flows through your heart to the rest of the body.
Preload: ventricular filling-the volume of blood the ventricle can hold during diastole (the amount of blood the heart can pump out)
Afterload: the amount of work the heart must do to pump blood to the rest of the body

NCLEX IV *(7)*: Reduction of Risk

Pathophysiology of Disease

Myocardial Infarction also known as an MI is a sudden ischemic death of the myocardial tissue. An interruption of blood supply to part of the heart. Most are due to a thrombotic occlusion of one or many coronary arteries/vessels due to rupture of plaque. This eventually lead to irreversible damage and cell death in that region of the heart.
If the decreased blood flow last long enough, it can trigger ischemic cascade and this causes the heart muscle cells to die due to the hypoxic necrosis, in this region the dead muscle cells, collagen scar forms and this results in permanently portion of the heart being damaged. The scarring of the myocardium put the patient are high risk for cardiac arrhythmia. (most serious is ventricular fibrillation)

To Be Completed Before the Simulation

Anticipated Patient Problem: Decreased Cardiac Output

Goal 1: Maintain adequate cardiac output as evidence by no chest pain, HR 60-100bpm with a regular rhythm 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 chest pain, characteristics of pain level PRN	Administer Nitroglycerin Sublingual PRN
Assess O2 levels/ pulse ox Q4hr	Maintain Oxygen protocol of O2 > 92% PRN
Assess BP, HR Q4hr/ PRN	Administer Beta blockers (EX. Carvedilol) PO or Digoxin PO as ordered
Assess edema in LE daily	Encourage fluid restriction of 2,000ml/day
Assess urine output Q1hr	Encourage oral fluids as tolerated q1hr or administer IVF per order
Assess labs- platelet (cardiac markers as well- Troponin, BNP)	Administer heparin/ lovenox daily as ordered

Goal 2: Will have a urine output of 350ml during my time of care.

To Be Completed Before the Simulation

Anticipated Patient Problem: Deficient Knowledge

Goal 1: Will recall two signs and symptoms of heart attack 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 weight daily	Educated on importance of daily physical activity during my time of care.
Assess willingness to learn daily	Educate on modifiable risk factors to CAD, HTN, potential STEMI during my time of care.
Assess diet habits daily	Educate on low sodium diet for CAD, HTN during my time of care
Assess medication knowledge daily/PRN	Educate on medication side effects PRN/daily or at discharge.
Assess MI risks daily	Encourage smoking cessation during my time of care.
Assess CAD, HTN effects daily	Educate on potential complications of untreated HTN, CAD, and chest pain during my time of care.

Goal 2: Will recall healthy lifestyle changes to be made during my time of care.

To Be Completed During the Simulation:

Actual Patient Problem: 1. Decreased Cardiac Output

Clinical Reasoning: CAD, HTN, STEMI with stent placement, 8/10 chest pain,
Goal: Maintain adequate cardiac output as evidence by no chest pain, HR 60-100bpm, with a regular rhythm during my time of care.
Met: ☐ Unmet:☐
Goal: Will have urine output of 350ml during my time of care. Met: ☐ Unmet:☐

Actual Patient Problem: 2. Deficient Knowledge

Clinical Reasoning: Shoveling snow with no nitro, chest pain prior but never called EMS, CAD, HTN, fast food 4x per wk, no physical activity, 110kg
Goal: Will name two s/sx of heart attack and when to call 911 during my time of care. Met: ☐ Unmet:☐

Goal: will name lifestyle changes to improve HTN, CAD during my time of care. Met: ☐ Unmet:☐

Additional Patient Problems:

3. Ineffective tissue perfusion

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	Monday 1655	Chest tight, "squeezing wont go away" "tried to sit down", asked wife for nitro tablets	1658	Maggie (wife) gave nitroglycerin tablets to Mr.Davis	1725	Maggie called 911 after unrelieved pain after 3 does of nitro, VS, HR 104, RR 26, BP 96/56, 94% on 4L NC, 8/10 pain
1	1725	EMS report- VS hr 106, RR24, BP 100/66, 4 L NC 96%, 8/10 pain, EKG shows ST elevation, premature ventricular contractions and prolonged P wave, skin is ashen color, PMH of CAD, HTN, Asthma, occasionally chews tobacco.	1730	Attached to continuous tele monitor	1730	EKG strip shows ST Elevation indicating acute coronary event
1	1730	Provider at bedside, informs results of MI due to blockage of coronary arteries- STEMI, explains need for cardiac cath. Wife ask "can you explain this reopening"	1730	Explained procedure of percutaneous transluminal coronary angioplasty if blockage is seen and possible need for stent. Information packet given	1731	Wife Maggie at bedside reading packet for surgical information.
1	1731	Order for BP, pulse, and respiratory rate q5mins	1731	VS- HR 101, RR 22, BP 98/60	1735	VS- 104, RR 22, BP 102/68
	1755	30 minutes since arrival, cath lab called	1755	Transported to cath lab	1758	Gave report to ICU for post procedure transfer
1,2	2100	Cath lab report- stent placed in L Arterial Descending coronary artery, central venous catheter a line and foley present, 2L NC, vascular closed device on R femoral puncture site, foley draining clear, yellow urine	2100	Maintained hip/groin position post cath procedure	2110	No bleeding/hematoma present on R femoral puncture site

1,2	2110	R femoral puncture site post cath	2110	Educated on laying flat for 2hrs, keeping leg straight, if needing to cough put pressure on site, alert if any pain	2110	“no pain but itchy over my arm and chest”
2,3	2140	“itchy over arm and chest”	2141	Confirmed allergies peanuts “are you allergic to anything else”	2142	“I ate shrimp one time and my tongue swelled, never ate it again”
3	2145	“Itchy over arm and chest” “I ate shrimp one time and my tongue swelled”	2148	Inspect for rash over skin, contacted provider for IV Benadryl, documented shellfish allergy, administered 25mg of IV diphenhydramine	2150	Provider notified; chart updated
3	2148	“I feel like I can’t catch my breath”	2148	Auscultate lungs bilaterally	2149	Wheezing heard bilaterally
3	2150	Wheezing bilaterally, “Can’t catch my breath”	2150	Applied non-rebreather mask, increased O2 to 15L	2153	Pulse ox 87%, skin ashen, nail beds dusky, stridor present, distressed, tachycardia with PVC’s
1,3	2153	Pulse ox 87%, skin ashen, nail beds dusky, stridor present, distressed, tachycardia with PVC’s	2153	Called Rapid response	2154	Rapid response team at bedside
3	2200	Rapid response team at bedside, anaphylaxis confirmed	2230	Administered Epinephrine 0.3 IM	2235	Pulse ox 100% on non-rebreather, RR 18, BP 128/78, EKG-RSR with PVC’s
1,3	2230	Post cath assessment- hematoma present on R groin site, “ is that why it feels like im sitting on something wet”	2230	Applied pressure on R groin site	2233	Bleeding stopping, outline hematoma of 7.62 cm
3	2300	Lab results- K 3.2	2305	Administered 20 mEq of potassium PO	2305	pending lab redraw
2	2330	CAD, stent placed, HTN, WT 110kg	2330	Educated on modifiable risk factors such as obesity, smoking, sedentary lifestyle	2335	“I eat fast food 4x per wk, no gym, and I quit smoking but considered tobacco chewing or e-cigarettes”
1,3	2 days Post	Not progressing, damage to portion of LV myocardium, Left arterial descending coronary artery occuluded, and stented	2 days post	Manifestations of cardiogenic shock- map 54, agitated and restless, arterial BP 88/54	2 days post	Provider notified and on the way to bedside
1,3	2000	Nc 3L, aortic pressure of 54, systolic BP less than 90, urinary output decreased to 48ml/hr	2000	Administered NS 250ml/hr and Dobutamine drip at 16.5ml/hr	2010	Close monitor tele- no PVC or dysrhythmias
1,3	2010	No improvement, BP 78/56, RR 12, HR 58, sinus brady	2010	Administered 0.5mcg Norepinephrine through central venous catheter	2015	BP q2min then when stable q5min 2015- BP 88/58 HR 58 2023- BP 90/60 HR 58 2025- BP 92/60 HR 60 2028 BP 96/56 HR 62- sinus rhythm with PVC
2	2050	Discharge to stepdown, PMG of CAD, HTN, STEMI with stent placed	2051	Gave lifestyle changes packet such as diet changes- encouraged low sodium diet	2055	“I will decrease my sodium intake to 1500mg/day”
2	2050	PMH of HTN, stent placed	2055	Educated on Lisinopril SE	2058	“I will call the doctor if I have a dry cough that wont go away”

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
Chest X-ray
EKG

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

Signs and Symptoms

Chest pain, "squeezing of heart", not relieved with rest, unrelieved with 3 doses of nitro and aspirin

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

Contributing Risk Factors

Previous smoker
CAD
HTN
Obesity

Therapeutic Procedures

Non-surgical

Surgical
Percutaneous Transluminal 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- hematoma at groin site

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

Medication Management

Lisinopril- home with
In hospital- Fluids, Benadryl, Dobutamine, Norepinephrine, epinephrine
Oxygen

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

Non-Pharmacologic Care Measures

HOB elevated,

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

Stressors the client experienced?

Allergic reaction, bleeding at site

Client/Family Education

Document 3 teaching topics specific for this client.

- Smoking cessation
- Take nitro before physical activity
- When to start physical activity after STEMI/Stent placement- wait until you can climb 2 flights of steps before sexual activity

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

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

Cardiology
Cath lab
ICU
Step down
EMS
Dietary

Patient Resources

Home health, Meals on wheels, Cardiac rehab, support groups

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 caring for this client is nursing isn't always just one problem, you fix it and its better. This patient has multiple problems arise within the care provided and as a nurse you have to be prepared for the unexpected/expected and shift you care to the top priority at the time its presenting.
2. What was something that surprised you in the care of this patient?
   One thing that surprised me in the care of the client was the allergic reaction to the shellfish resulting In the use of contrast dye. Normally before contrast dye is used its made very clear if an allergy to shellfish is present so not asking specially for a shellfish allergy surprised me and could have prevented an allergic reaction for this patient.

3. What is something you would do differently with the care of this client?
   I would have sent them straight to the cath lab upon arrival because time is tissue and although we still got him into the cath lab within the time frame, he was having a STEMI so he should have bypassed the ER and straight to the cath lab. Also, I would have asked for a shellfish allergy knowing I'm using dye to prevent that reaction.

4. How will this simulation experience impact your nursing practice?
   This experience will impact my nursing practice because you have to be flexible in what you are prepared for and what really happens. You must be ready for anything especially with such critical patients, they can go from stable to unstable very quickly and just having those quick assessment skills very proficient will benefit my patients. Also knowing and trusting my gut when something just doesn't seem right and speaking up for the patients.

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