

NU4700 and 4702 Nursing Care of Clients with Complex Chronic Health Challenges
Cardiac Lab
Care of the Patient with Cardiac Disorders

Simulation One – Care of Patient with Acute Coronary Syndrome

Type of Learning Experience:

- Formative Summative
 Basic Intermediate Advanced

Unit Learning Objectives: *At the end of unit of instruction, the student will have the knowledge, skill, attitude or behavior to*

1. Conduct a focused physical assessment gathering data relevant to a cardiovascular examination.
2. Interpret signs and symptoms of acute angina and common dysrhythmias.
3. Develop and prioritize actions in response to patient situation.
4. Document on healthcare forms as completed within hospital setting: vital signs, MAR, progress note, physician orders, plan of care, and teaching record.
5. Communicate patient status to other healthcare providers using SBAR principles and check-back communication techniques.
6. Address concerns of patient with supportive statements.
7. Reflect on performance and develop plan for continued growth and development.

Student Preparation and Pre-BRIEFING

Preparatory Readings and Assignments prior to simulation day

1. Complete **guiding questions in preparation** for simulation
 - a. What are characteristics of NSR and ventricular ectopy?
 - b. What is the connection between ventricular ectopy and electrolyte imbalances?
 - c. What is the process for oxygen administration to treat dropping SpO₂?
 - d. Explain components of a focused CV assessment.
 - e. What is the difference between unstable and stable angina?
 - f. What is included for “usual” EBP anginal care?
 - g. What is a 12 lead ECG and how is this different from telemetry?
 - h. What is check back, how do you do, and why is this important? Here is video: Team communication: addition of check back
<https://www.ahrq.gov/teamsteps/instructor/fundamentals/module3/igcommunication.html#checkboxis>
Here is Video of check back in action within the context of a patient with sepsis.
<https://www.montgomerycollege.edu/academics/departments/nursing-tpss/nursing-simulation-scenario-library.html> (will watch in prebrief)

Prerequisite Skills: These are the skills students should have prior knowledge

1. Psychomotor Skills include:
 - a. IV infusion pump
 - b. Various oxygen delivery devices
 - c. IV medication calculation and administration



- d. SBAR and Check-back
2. Cognitive skills in these areas:
 - a. CV assessment
 - b. ECG interpretation
 - c. Care of patient with angina and heart failure
 - d. Pharmacology typical for patients with CV disease and electrolyte imbalances

Chart documents provided: (EHR) in SimChart. Access and review SimChart Preview prior to Simulation in SimChart. Click on the start pre-simulation or view in word documents. Stay in Phase 1.

1. Provider Charts:
 - a. Provider orders
 - b. History and physical
2. Patient charting
 - a. Special charts – SBAR from ED
 - b. IV
 - c. Lab
3. Vital signs
4. Order Results
5. Patient Card
6. MAR – open up inactive orders to see what has been given

SimChart documents students document in during simulation:

1. Vital Signs, pain assessment, systems assessment
2. MAR
3. SimChart documents that contain information
 - a. History and Physical
 - b. Home medications
 - c. Provider orders
 - d. Progress note (MD and RN)
 - e. Special Charts - SBAR
 - f. Order Results – labs
 - g. Patient Card

Backstory:

You are a staff RN in a 20 bed general cardiac telemetry care unit and are the RN assigned to care for Mr. Joe Mose. Refer to information on H&P, labs and shift report. It is 0745 in the morning.

SBAR Shift Report:

- **Situation:** New patient admit with angina, now resolved. It is now 0745.
- **Background:** Joe was admitted this morning via EMS from work with angina. He was treated in the ED with usual Rule Out MI protocol. He did have chest pain when first arrived. We followed the usual angina protocol with NTG and Morphine. BP 140/80, RR 18/min. SpO₂ 94% on 2L. Cardiac enzymes negative so far.
- **Assessment:** Angina free at present. Cardiologist, Dr. Heartache consulted and will see patient today. I have seen an increase in PVCs since getting into bed. Potassium just returned at 3.2. I have



not treated hypokalemia, orders are written. Mr. Mose says he is slightly nauseous. NSR with occasional PVC.

- **Recommendation:** Monitor for angina, treat K+. Wife (Jeri) went home but available for call. Had Morphine and NTG in ED. ASA in route to the ED. Resume home medications, ordered to begin at 0900.





History and Physical

Patient: Joe Mose

Physician: Dr. Heartache

Date of admission: [Wednesday]

CC: Angina

HPI: Patient is 57-year-old male who while at work developed with an onset of chest pressure. After 30 minutes his coworker called EMS to take him to the ER because he can no longer tolerate pain. Upon arrival to ER the pain level was 3/10. The patient was cold, clammy, diaphoretic and pale.

PMH: HTN, HF with reduced EF, MI 10 years ago

Medications:

Lisinopril 20 mg po every day

Metoprolol 25 mg po BID

HCTZ 12.5 mg po every day

ASA 81 mg every day

ROS: Denies change in LOC, headache or diplopia. Admits to intermittent chest pain and SOB with last episode 3 months ago. Occasional nonproductive cough. Nausea for past 2 days. No emesis

PE: Neuro: Alert and oriented to person, place and time. PERLLA, EOM intact, Cranial nerves II-XII intact. Moves all extremities with equal strength, 5/5. CV: S₁S₂ noted S₃, irregular. Resp: lungs with crackles to bases bilaterally. GI: Abdomen soft, ND. Extremities: +2/4 pretibial edema.

Assessment:

1. Acute coronary syndrome


Plan:

1. IV D₅.45NS @ 20ml/hr
2. Telemetry
3. Morphine 2-4 mg every 5 minutes up to 8 mg per hour for pain
4. Lisinopril 20 mg po every day
5. Metoprolol 25 mg po BID
6. ASA 81 mg po every day
7. Lasix 20 mg po BID
8. KCL 20 mEq po/IV prn for K⁺ 3.5-4.2
9. KCL 40 mEq po/IV prn for K⁺ 3-3.4
10. Magnesium 1 gm IV prn for Magnesium 1.6-2
11. Magnesium 2 gm IV prn for Magnesium 1.2-1.5
12. NTG .4 mg SL prn for angina or as directed
13. Oxygen to keep SpO₂ > 93%
14. Chairrest
15. 12 Lead ECG daily and prn with angina
16. Consult cardiology

Dr. Heartache



Physician Order Form

 Simulation Hospital		Last, First Name <u>Mose Joe</u> Medical Record Number <u>123-456</u> Date of birth <u>02/27/[57 years ago]</u> Sex <u>M</u>
Date	Time	Order
Day of Sim		IV D ₅ .45NS @ 20ml/hr If IV capped and intermittent IV medications necessary, may start a TKO IV
		Telemetry
		Morphine 2-4 mg every 5 minutes up to 8 mg per hour for pain
		Lisinopril 20 mg po every day
		Metoprolol 25 mg po BID
		ASA 81 mg po every day
		Lasix 20 mg po BID
		KCL 20 mEq po/IV prn for K ⁺ 3.5-4.2
		KCL 40 mEq po/IV prn for K ⁺ 3.0-3.4
		Magnesium 1 gm IV prn for Magnesium 1.6-2.0
		Magnesium 2 gm IV prn for Magnesium 1.2-1.5
		NTG 0.4 mg SL prn for angina or as directed
		Oxygen to keep SpO ₂ > 93%
		Chairrest
		12 lead ECG daily and prn with angina
		Consult cardiology
		<i>Dr. Heartache</i>
MD signature, date and time required within 24 hours for verbal and telephone orders		






LABS				
Patient:	Joe Mose			
Date:	[day of sim one]			
NA	145			
K	3.2			
Cl	100			
CO ₂				
BS	110			
BUN	20			
Creat.	1.2			
Calcium	9			
WBC	10,000			
Hemaglobin	11			
HCT	34			
Platelet count	150,000			
PT/INR				
PTT				
CPK [55-170 IU/L males] [30-135 IU/L females]	170 IU/L			
CPK-MB [0-6% of total CPK or 0.3 to 4.9 ng/mL]	1%			
Myoglobin [<70 ng/mL]	2 ng/mL			
Troponin T [<0.1 mcg/L]	0.1 mcg/L			
Magnesium	2.1			
BNP, brain-type natriuretic peptide [<pg/mL]	300 pg/mL			



Medication Administration Record (MAR)

				Name: Joe Mose Room # DOB 2/27/[57 years ago] Medical Record Number #123456			
Signature and Initials of individuals Administering Doses				RD – right deltoid RG right gluteal LD – left deltoid		IV –intravenous LG – left gluteal AB – abdomen	
Allergies: <u>Betadine</u> Schedule Medications from top MAR PRN Medications from bottom of MAR							
Order Date	Medication Route	Dose Frequency	Hours	Date: Simulation Day One	Date:	Date:	Date:
today	Lisinopril po	20 mg every day	0900				
today	Metoprolol po	25 mg BID	0800 2100				
today	ASA po	81 mg every day	0800	Per EMS			
today	Lasix po	20 mg BID	0800 1700				
today	D5.45NS at TKO			0700 JBP at 20 ml/hr			
PRN							
today	Oxygen	prn to keep SpO2 >93%		07-0745 @ 2L/NC			
today	Magnesium IV	1gm prn for Mg 1.6-2					
today	Magnesium IV	2gm prn for Mg 1.2-1.5					
today	Morphine IV	2-4 mg every 5 minutes up to 8 mg per hour for pain		0717/JBP 2 mg IV 0722/JBP 2 mg IV			
today	NTG SL	0.4 mg prn for angina or as directed		0715/JBP 0720/JBP			
today	KCL po/IV	40 mEq (for IV 2 bags of 20 mEq) prn for K+ 3.0-3.4					
today	KCL po/IV	20 mEq prn for K+ 3.5 – 4.2					

