

**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**

**See Student directions for ULO, preparation, and documents.**

**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.  
**SMART:** Recognize relevant signs and symptoms from assessment that indicate acute cardiac status: VS, Pain, Heart Sounds, cardiac rhythm, Lung sounds
2. Interpret signs and symptoms of acute angina and common dysrhythmias.  
**SMART:** Evaluate assessment data and evaluate chest pain using either PQRST or OLD CARTs. Identify PVC's as occurring as potentially resulting from ischemia and/or electrolyte imbalance with hypokalemia
3. Develop and prioritize actions in response to patient situation.  
**SMART:** Administer morphine and nitroglycerin according to orders. Complete calls to order STAT ECG
4. Document on healthcare forms as completed within hospital setting: vital signs, MAR, progress note, physician orders, plan of care, and teaching record.  
**SMART:** Enter data in EHR (SimChart). Evaluate own documentation for accuracy and completeness
5. Communicate patient status to other healthcare providers using SBAR principles and check-back communication techniques.  
**SMART:** Demonstrate use of check back among group of nurses and other HCP. Complete a call to provider which includes relevant data and interpretation using SBAR
6. Address concerns of patient with supportive statements.  
**SMART:** Affirms patient's response to change in condition and uses techniques to calm patient and keep patient informed
7. Reflect on performance and develop plan for continued growth and development.

**Hours Allotted: 1 hour prep, 40 minutes for sim, and 30-40 minutes for debrief**

**Conduct Prebrief:**

1. Discuss purpose of simulation: safe place to learn/apply knowledge and skills
  - a. Mistakes will happen, learn from mistakes to improve
  - b. Desire to know the gaps in learning, so we can discuss
  - c. Talk aloud, so we understand thought process and help to reframe
2. Reinforce that simulation is not a real clinical environment but need to deliver patient care as in a clinical environment
3. Review confidentiality agreement with students regarding the scenario/client and regarding classmate's interactions/behaviors
4. Give scenario/client background story. SBAR report is recommended
5. Discuss simulation objectives and the desired learning by today's simulation and client situation



6. Review responses to prep/guiding questions that would help students understand the nursing care for the simulation and the clinical judgement needed. *Guiding questions are located in student guide.*
7. Review concepts/interventions that students might feel unsure including unfamiliar equipment (IV pump, CVL).
  - a. 4700/02: secondary IV administration, NTG administration, 12 lead ECG
8. Review importance of teamwork and explain skills involved in Teamwork:
  - a. Communication using checkback, SBAR & CUS
    - i. Resource for team skills:  
<https://www.ahrq.gov/hai/cusp/modules/implement/teamwork-notes.html>
    - ii. May show video displaying check back. Video (sepsis)  
<https://www.montgomerycollege.edu/academics/departments/nursing-tpss/nursing-simulation-scenario-library.html>
  - b. Concept of a team “huddle”: Once students call a “huddle”, Simulation scenario progression is paused. (included in AHRQ resource)
9. Orient to room, including equipment, supplies, medication cart, etc (often operator leads discussion)
10. Review resources available in sim room whether documents or other members of HC team
11. Assign student roles – dedicate one student to manage SimChart and another for medications. Other potential roles: primary RN, assessment nurse, documentation, medication nurse
12. Identify and discuss method of evaluation whether formative/summative.
13. Formative-performance not graded, prework & post work can be graded
14. Faculty and students complete CET as usual clinical day

## Faculty Scripts

### **Supplies Needed:**

1. LINK to video for check-back demonstration – Sepsis simulation  
<https://www.montgomerycollege.edu/academics/departments/nursing-tpss/nursing-simulation-scenario-library.html>
2. Simulation scenarios
3. 12 lead EKG
  - i. Normal Sinus Rhythm with Anterior wall ischemia changes (see 12 lead as pdf in faculty BOX. Same pdf in SimChart)
4. EKG Machine
5. See set-up in script for IV’s, etc.... Check that it matches student and SimChart version.
- 6. Set clock for 0745**
7. Roles
  - i. Faculty to play role of EKG tech
  - ii. Faculty to play role of Physician
  - iii. Faculty should use pager/phone...respond to students calls
  - iv. Faculty assume role as charge nurse to be able to resource students.



## Simulation One: Care of Patient experiencing acute coronary syndrome (ACS)

### Running Scenario:

Number of students: four, draw for roles 1). Nurse One, 2). Nurse Two, 3). Documenter (SimChart), 4). Observer/evaluator/resource

Initial Setting	Critical Actions/Performance Measures	Cues Provided
<p><i>Set Up for simulation:</i>  <u>SimChart:</u></p> <ul style="list-style-type: none"> <li>• MAR</li> <li>• H&amp;P</li> <li>• Order sheet with orders</li> <li>• Nursing Documentation form</li> <li>• Labs</li> <li>• Meds: NTG, morphine, KCL, D<sub>5</sub>.45NS, Primary tubing, secondary tubing, peripheral IV</li> <li>• Patient's Birthdate 2/27/(57 years ago) – have post-it note</li> </ul> <p><i>Initial Vital Signs:</i></p> <ol style="list-style-type: none"> <li>1. BP 140/80, HR NSR rate 80's RR 20, temp 98.9, SpO<sub>2</sub> on 2 liters – 94%</li> <li>2. Initial Assessment findings: Lung – clear; Bowel – diminished; Heart – normal</li> <li>3. IV infusion with volumetric pump in right arm D<sub>5</sub>.45NS @ 20ml/hr</li> <li>4. Change settings on SimMan “on the fly”</li> </ol> <p><i>Talk to Mr. Mose you would do when giving report from ED nurse who just transferred patient to unit. Faculty to read to students as a bedside report. Add in introducing yourself and introducing students to Mr. Mose.</i></p> <p><b>Model the AIDET (acknowledge, introduce, duration, explanation, thankyou) process as you give SBAR report.</b></p> <p><b>SBAR Report (adapt as fits your style)</b></p> <ul style="list-style-type: none"> <li>• <b>Situation:</b> New patient admit with angina, now resolved. It is now 0745.</li> <li>• <b>Background:</b> Joe was admitted this morning from via EMS 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. SpO<sub>2</sub> 94% on 2L. Cardiac enzymes negative so far.</li> <li>• <b>Assessment:</b> 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.</li> <li>• <b>Recommendation:</b> 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.</li> </ul>		
<b>EVENT: (Phase 1 in SimChart from beginning to end) Assessment and start of treatment for hypokalemia</b>	<b>Critical Actions/Performance Measures</b>	<b>Cues Provided</b>
Time 0745	1. Introduces self	Who are you?



<p><b>Time: 15 minutes.</b></p> <p>Increase in PVC's if potassium was not supplemented. Have patient c/o palpitations as a cue.</p> <p>Note, want to have students give as IV. That is why patient c/o nausea. Nausea can also be early sign of angina.</p>	<ol style="list-style-type: none"> <li>2. Wash hands</li> <li>3. Complete assessment: LOC, heart and lung sounds, peripheral pulses, uses correct techniques</li> <li>4. Assesses patient, checks BP, heart rate, SpO<sub>2</sub></li> <li>5. Safety checks: ID patient, checks IV, scans room for safety [ambu bag, siderails, call light]</li> <li>6. Notes increase in PVCs as possible relation to hypokalemia</li> <li>7. Notes need to administer IV potassium. Hangs KCL 20mEq over 1-2 hour secondary into IV. Notes need to give two bags in a row.</li> </ol>	<p>How does my heart sound? Where is the call light? I am somewhat nauseous (this is a cue that should trigger potential for angina). Note, sometime students want to give an antiemetic. Need to direct them away from this.</p> <p>My heart is beating funny. If needed prompt students by handing them the tele strip NSR with PVC's</p>
<p><b>EVENT: (stay in Phase 1) Angina, fear/anxiety</b></p>	<p><b>Critical Actions/Performance Measures</b></p>	<p><b>Cues Provided</b></p>
<p><b>Time: 20 minutes.</b></p> <p>May need to start phase two even if still working on supplementing potassium.</p> <p>Statements from SimMan: "Chest hurts", "I don't feel well", "I feel really bad", "Something for pain", "I have this pressure in my chest and my jaw and arm feels achy". Patient slightly diaphoretic [sign to indicate] "I feel sick to my stomach"</p> <p>Patient continues to c/o angina but decreases after each dose of NTG. If does not give NTG every 5 minutes, can escalate level of pain.</p> <p>Vary by student groups.</p> <ul style="list-style-type: none"> <li>• BP drops but remains &gt;100 so can continue with NTG</li> <li>• BP increases to 160/80</li> </ul> <p>VS: vary BP as above.</p>	<ol style="list-style-type: none"> <li>1. Assesses patient, checks BP, heart rate, SpO<sub>2</sub></li> <li>2. Adjusts oxygen if SpO<sub>2</sub> below 93%. Don't need to increase if above 93%.</li> <li>3. Asks questions – when did this start, have you ever felt this pain before, asks to rate on scale 0-10</li> <li>4. Notes medication available: NTG sublingual and/or Morphine IV</li> <li>5. Administers NTG SL every 5 minutes X3</li> <li>6. Can also try morphine 2-3 mg IV along with NTG</li> <li>7. Calls for EKG to order EKG</li> <li>8. Reassesses pain at least every 5 minutes along with BP check</li> <li>9. Documents on MAR</li> <li>10. Documents vital signs</li> <li>11. Uses check-back communication techniques.</li> <li>12. Makes phone call to MD: any of below are appropriate. When pain not resolved after 3 NTG, or if note ECG change on 12 lead, or if BP changes too much.</li> </ol>	<p>I feel so dizzy if dropping BP after NTG.</p>



<p>SpO2 keep between 92-95%. Aim for student to keep on NC.</p> <p>When call for 12 lead, faculty enter room to perform. Leave copy of 12 lead – should be AWTI. Copy of 12 lead in SimChart phase 2</p> <p><i>NOTE:</i> Pain is never resolved as patient should be transferred to cath lab.</p>		
<p><b>Fear/anxiety (concurrent with angina in phase 1)</b></p> <p>Patient is afraid/displays anxiety. Can intersperse this throughout scenario. Judge how much by level of student performance.</p> <p>EHR: If students call for EKG/enzymes: copy/result are in other departments folder and other forms.</p>	<ol style="list-style-type: none"> <li>1. Student explains to patient: example: Pain from lack of blood to the heart. Is a signal that heart isn't getting enough blood. NTG dilates the arteries to your heart to improve blood flow. If this pain reoccurs you need to let someone know immediately. It may be necessary to have further tests to see if there is some narrowing of your coronary arteries.</li> </ol>	<p>“What is happening?” “Why am I having this pain?” “What was that medication you gave me?” “What if this happens again?” “Am I having a heart attack?”</p>
<p><b>EVENT: (stay in Phase 1) Report to Cath Lab</b></p>	<p><b>Critical Actions/Performance Measures</b></p>	
<p><b>Time: 6 minutes.</b> When Dr. Heartache calls back, states</p> <ul style="list-style-type: none"> <li>• “I will plan to take him to the cath lab. Please give cath lab report and I will be here in 15 minutes.”</li> <li>• Is family around?</li> <li>• Start Heparin protocol for MI. Stat INR and PTT.</li> <li>• Clopidogrel 300 mg po once prior to sending to cath lab.</li> <li>• (end scenario after orders given before need to give heparin – no need to enter into Simchart order.</li> </ul>	<ol style="list-style-type: none"> <li>1. Students calls report to cath lab and provides SBAR report.</li> <li>2. Student explains what is happening to patient.</li> <li>3. Students call family member is patient asks</li> </ol>	<p>“what is going on?” “where is my wife?” “do you think my wife should come?”</p>

**Content Expert Review**



Name, date and role of content expert who reviewed \_R. Gillard 7/2020\_\_\_\_\_

## DEBRIEFING

Debriefing should be following simulation for 10-20 minutes.

1. Use the Debriefing for Meaningful Learning Technique [note need training for this]

**Specify topics from 2013 NCLEX test plan that this scenario covers.**

Use drop down menu to select categories. Option to select up to six categories

### Safe and Effective Care Environment

- *Management of Care:*

<b>Collaboration with Interdisciplinary Team</b>	Assignment, Delegation and Supervision	Establishing Priorities
Choose an item	Choose an item	Choose an item

- *Safety and Infection Control:*

Emergency Response Plan	Safe Use of Equipment	Choose an item.
Choose an item.	Choose an item.	Choose an item.

### Health Promotion and Maintenance

Health Promotion/ Disease Prevention	Techniques of Physical Assessment	Choose an item
Choose an item	Choose an item	Choose an item

### Psychosocial Integrity

Coping Mechanisms	Cultural Awareness/Cultural Influences on Health Diversity	End of Life Care
Family Dynamics	Support Systems	Therapeutic Communication

### Physiological Integrity

- *Basic Care and Comfort*

Elimination	Non-Pharmacological Comfort Interventions	Rest and Sleep
Choose an item.	Choose an item.	Choose an item.

- *Pharmacological and Parenteral Therapies:*

Central Venous Access Devices	Dosage Calculation	Expected Actions/Outcomes
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Medication Administration	Parental/Intravenous Therapies	Pharmacological Pain Management
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- *Reduction of Risk Potential:*

Diagnostic Tests	Laboratory Values	Potential for Alterations in Body System
Potential for Complications of Diagnostic Tests/Treatments/Procedures	System Specific Assessments	Choose an item.

- *Physiological Adaptation:*

Fluid and Electrolyte Imbalances	Hemodynamics	Medical Emergencies
Pathophysiology	Choose an item.	Choose an item.

### Content Expert Review

Name and role of content expert who reviewed Rich Gillard BSN

### References for SBL activity

INACSL (2013) Standards of Best Practice: Simulation

### References and Evidence-Based Practice Guidelines used in simulation development

- Albert, N., Eastwood, C., & Edwards, M. (2004). Evidence-based practice for acute decompensated heart failure. *Critical Care Nurse* 24 (6), p.14-29.
- Cunningham, C. (October, 2006). Managing hospitalized patients with heart failure. *American Nursing Today*, p. 44-50.
- ACC/AHA 2007 Guidelines for the management of patients with unstable angina/non-ST-elevation myocardial infarction: Executive summary. (2007). *Circulation*, 116(7), 803-877.
- Hunt, S. A., Abraham, W. T., Chin, M. H., Feldman, A. M., Francis, G. S., Ganiats, T. G., et al. (2009). Focused update incorporated into the ACC/AHA 2005 guidelines for the diagnosis and management of heart failure in adults. *Circulation*, 119(14), e391-479

