Open RN Virtual Reality Scenario Plan

CARING FOR A CLIENT WITH ATYPICAL CHEST PAIN - LEVEL 2

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Scenario Overview

Millie is a 57-year-old female who presents to the emergency department with “heartburn,” “indigestion,” and “nausea” that she attributes to a sub sandwich she ate for lunch. Students perform a focused cardiovascular assessment, prioritize provider orders, and safely implement appropriate interventions.

Estimated Scenario Time: 30 minutes. Estimated Debriefing Time: 60 minutes

Learning Objectives

1. Accurately perform focused pain and cardiovascular assessments
2. Interpret lab results
3. Prioritize provider orders
4. Safely administer medications
5. Communicate therapeutically with a patient experiencing an acute health care crisis
6. Report complete, accurate, and pertinent information to the health care team

Curriculum Alignment

WTCS Nursing Program Outcomes

- Integrate professional nursing identity reflecting integrity, responsibility, and nursing standards
- Communicate comprehensive information using multiple sources in nursing practice
- Integrate theoretical knowledge to support decision making
- Integrate the nursing process into patient care across diverse populations
- Function as a healthcare team member to provide safe and effective care

Nursing Fundamentals Course Competencies

- Maintain a safe, effective care environment for adults of all ages
- Adapt nursing practice to meet the needs of diverse patients in a variety of settings
- Use appropriate communication techniques
- Use the nursing process
- Provide nursing care for patients with comfort alterations
- Provide nursing care for patients with alterations in oxygenation

Nursing Pharmacology Course Competencies

- Apply components of the nursing process to the administration of medications

Nursing Skills Course Competencies

- Perform general survey and focused assessments
- Analyze vital signs
- Perform mathematical calculations related to clinical practice
- Manage oxygen therapy
- Manage intravenous therapy

Nursing Health Alterations Course Competencies

- Plan nursing care for patients with alterations in the cardiovascular system

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Scenario Setup

Scene

Emergency Department Room

Patient Information

- Middle-aged, African American female
- Patient identification armband present
- Patient Name: Millie Franco
- DOB: 07/16/19XX
- Age: 57
- Height: 157 cm (62 inches)
- Weight: 72 kg (160 lbs)
- Allergies: Shellfish
- Code Status: Full code
- Primary Language: English

Initial Sim Manager Settings

See the Acadicus Sim Manager Tutorial for more information. Use default settings plus the following:

- Vitals: BP 145/95, P 115, RR 25, O2 93% on room air, T 37.5C, Pain: 9/10
- Animation: Talking; Pained Emotion; Position: Fowler's 45
- General Apparel and Equipment: Patient Gown; Blanket On; Side Rails Raised, Bed Lowered and Locked
- Circulatory: Heart sounds normal, 1+ pulses, 2+ capillary refill
- Respiratory: Labored breathing
- Digestion and Abdomen: Normal defaults
- Skin and Subcutaneous Tissue: Skin Tone pale, Perspiration Sweaty, 2+ bilateral pedal edema
- Nervous and Musculoskeletal: Normal defaults
- Cognition: Alert

Assets in VR Room

- WOW cart
- Vital signs equipment and monitor on
- IV in place
- Oxygenation devices available (nasal cannula, non-rebreather mask, etc.)
- ECG Stickers and Electrodes

Medications in WOW cart

- Famotidine 20 mg PO
- Aspirin 81 mg PO chewable x 4
- Nitroglycerin tablets 0.4 mg (1/150) sublingual tablets
- Acetaminophen 500 mg tablets PO

EMR Chart Forms

- History and Physical
- Provider Orders
- MAR
- Lab Results
- Diagnostic Results

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State 1

Millie is in pain 9/10, slightly short of breath, slightly sweaty and moderately anxious. She attributes her pain that feels like heartburn to a sandwich she ate for lunch. Students should perform focused assessments and appropriately implement provider orders while also communicating therapeutically to address Millie's concerns.

Events	Expected Student Behaviors	Prompts, Questions, Teaching Points
State 1: Assessment, Diagnosis, Planning, and Intervention **Scenario Settings** • Scenario time: 1320 • Initial Vitals: BP 145/95, P 115, RR 25, O2 93% on room air, T 37.5C, Pain: 9/10 • Facial skin tone: Gray and diaphoretic • Lung sounds: clear • Heart sounds: regular S1S2 with S4 present • Cardiac monitor showing occasional PVCs **Technician Prompts** If students don't introduce themselves or explain what they are doing, ask, "Who are you?" or "What are you doing?" Maria is moderately anxious about the chest pressure she is experiencing and continues to attribute it to the sub sandwich with onions she had for lunch. She is slightly short of breath. If students begin to assess the chest pressure, corresponding responses include: • Onset: "The indigestion started after I ate a sub sandwich." • Location: "It hurts above my belly button." • Duration: "The burning has been constant since I ate lunch." • Characteristics: "I feel like I'm going to throw up... I feel a little winded… I can't catch my breath. It feels like heartburn and hurts continuously." • Aggravating factors: "It felt worse when I walked to the bathroom." • Alleviating Factors: "It hurts less when I lay here and don't move." • Radiation: "It feels like it is moving to my back between my shoulder blades." • Treatment: "I took some TUMS but they didn't help." If students do not use appropriate therapeutic communication or administer medications appropriately, Maria becomes increasingly	• Perform hand hygiene • Introduce themselves to the patient • **Critical behavior:** Verify patient identity • Obtain and interpret vital signs • Communicate therapeutically regarding patient concerns • Perform focused cardiac and pain assessments • Analyze lab and diagnostic results • Prioritize and safely implement provider orders • Safely administer medications as indicated • Notify provider of STAT orders and unexpected findings using ISSBAR format	**Suggested Facilitator Questions:** **Questions Based on NCSBN CJMM:** **Recognizing Cues:** • What do you know about this patient? • How does the patient feel now? What is a priority to them? • What significant clinical cues did you recognize that require nurse follow-up? • What do your assessment findings mean in terms of physiological significance? • Is there any additional information you need to collect? Why? **Analyze Cues:** • What problem is most likely? • What problem is most important to manage first? • Is the patient at risk for developing any complications? **Prioritize Hypotheses and Generate Solutions:** • What are the priority nursing problems for this patient at this time? • Should any assessment findings be communicated to the provider? • Are any new provider orders anticipated/desired? • Create a SMART outcome (**s**pecific, **m**easurable, **a**chievable, **r**ealistic, with a **t**imeline) for this patient. • What interventions are indicated to achieve the desired outcomes? • Prioritize the provider orders. What should be accomplished first for safe and effective care? **Taking Action/Implementing Interventions** • What intervention(s) is/are needed immediately? • What intervention(s) can be safely delegated? (CNA/LPN) • What should be taught to the patient/family to promote health?

anxious about her chest pressure and her agitation continues to escalate until appropriate therapeutic techniques are used.		• What information should be included in an SBAR report to interprofessional team members or during the shift handoff report?

State 2: Evaluation

Events	Expected Student Behaviors	Prompts, Questions, Teaching Points

• If the oxygen was administered with nasal cannula and titrated appropriately: O2 sat 95%
• If nitroglycerin sublingual was administered, VS change to:
  ○ HR – 76 normal sinus rhythm
  ○ BP – 118/76
  ○ RR –18
• Patient responses include:
• "I am feeling better."
• "I feel less winded."
	• Reassess vital signs
	• Evaluate for any changes subjective complaints of chest pain and shortness of breath
	• (optional) Give SBAR Report to oncoming shift
	• (optional) Document assessments and interventions using institution's EMR
		Evaluate:
		• Were the desired SMART outcomes achieved? Why or why not?
		• What findings indicate the interventions were effective (or not effective)?
		• Did the patient respond as expected? If not, what happened and why?
		• What is the current nursing priority?
		• What nursing intervention is needed next?
		• How did teamwork/ interdisciplinary care help with the patient's status?
		• What were the critical decision-making points during this scenario?
		• When situations like this are encountered, you should first…then…then what next…?

Suggested Debriefing Questions

1. Encourage students to vent their emotional reactions: "How do you feel this scenario went?"
2. Use group discussion to facilitate the development of clinical judgment:9,12
    a. **Effective Noticing**
        i. **Focused observation:** What did you first notice about the client? What clinically significant cues did you recognize when you initially assessed the client?
        ii. **Recognizing deviations:** How was what you noticed different than expected?
        iii. **Seeking appropriate information:** What additional information did you need to know?
    b. **Effective Interpreting**
        i. **Prioritizing data:** What is the significance of the data you collected/noticed? What was this client's most important need? What priority nursing problems did you identify?
        ii. **Making sense of the data:** What issues are beginning to emerge? What evidence did you use to make a decision?
    c. **Effective Responding**
        i. What actions, if any, can be delegated to other health care team members?
        ii. What information should be communicated to the client?
        iii. What information should be communicated to the provider or other team members?
        iv. What nursing interventions should be implemented for this client?
        v. How should the client's response to interventions be monitored?
        vi. What nursing skills did you perform?
    d. **Effective Reflecting**
        i. Analyze your clinical performance. What decisions did you make? Why were those decisions made at that time? Were there alternative actions that should have been taken?
        ii. Were the nursing skills you performed accurate and efficient?
        iii. Identify strengths and weaknesses that occurred personally and among team members during this scenario. How do you plan on eliminating weaknesses to promote quality improvement?
3. Summarize/Identify Take away Points: "In this scenario you care for a patient with atypical chest pain."
    a. **Thinking-In-Action:** What were the critical decision points during this scenario?
    b. **Thinking-On-Action:** What would you do differently if you could repeat this scenario? Name 3 things you learned from this scenario that you will include in your future nursing practice.
    c. **Thinking-Beyond-Action:** How would you respond if Maria lost consciousness and became pulseless during this scenario? What nursing interventions would receive priority?

Survey

Please share this hyperlink with students or print this page and provide it to them.

Please complete a brief (2-3 minute) survey regarding your experience with this VR simulation. There are two options:

1. Copy and paste the following survey link into your browser: https://forms.gle/fM2HfhzyQ6qma2Mj8
2. Scan the QR code with your smartphone to access the survey

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Suggested Scenario Rubric *(based on Lasater's Clinical Judgment Rubric)*

Adapted from Tanner (2006), Lasater (2007), and Lasater (2011).8, 9, 10, 11, 12

Student Name: **Date:**

	4 (Exemplary)	3 (Accomplished)	2 (Developing)	1 (Beginner)
Effective Noticing Performs focused observation Recognizes deviation from expected patterns Seeks appropriate information	Focuses observation appropriately; regularly observes and monitors a wide variety of objective and subjective data to uncover any useful information. Recognizes subtle patterns and deviations from expected patterns in data and uses these to guide the assessment. Assertively seeks information to plan intervention; carefully collects useful subjective data from observing the client and from interacting with the client and family.	Regularly observes/monitors a variety of data, including both subjective and objective; most useful information is noticed but may miss the most subtle signs. Recognizes the most obvious patterns and deviations in data and uses these to continually assess. Actively seeks subjective information about the client's situation from the client and the family to support planning interventions; occasionally does not pursue important leads.	Attempts to monitor a variety of subjective and objective data, but is overwhelmed by the array of data; focuses on the most important data, missing some important information. Identifies obvious patterns and deviations, missing some important information; unsure how to continue the assessment. Makes limited efforts to seek additional information from the client/family; often seems not to know what information to seek and/or pursues unrelated information	Confused by the clinical situation and the amount/type of data; observation is not organized and important data is missed and/or assessment errors are made. Focuses on one thing at a time and misses most patterns/deviations from expectations; misses opportunities to refine the assessment. Is ineffective in seeking information; relies mostly on objective data; has difficulty interacting with the client and family and fails to collect important subjective data.
Effective Interpreting Prioritizes Data Makes Sense of Data	Focuses on the most relevant and important data useful for explaining the client's condition. Even when facing complex, conflicting, or confusing data, is able to (1) note and make sense of patterns in the client's data, (2) compare these with known patterns (from the nursing knowledge base, research, personal experience, and intuition), and 3) develop plans for interventions that can be justified in terms of their likelihood of success.	Generally focuses on the most important data and seeks further relevant information, but also may try to attend to less pertinent data. In most situations, interprets the client's data patterns and compares with known patterns to develop an intervention plan and accompanying rationale; the exceptions are rare or complicated cases where it is appropriate to seek the guidance of a specialist or more experienced nurse.	Makes an effort to prioritize data and focus on the most important, but also attends to less relevant/useful data. In simple or common/familiar situations, is able to compare the client's data patterns with those known and develop/explain intervention plans; has difficulty, however, with even moderately difficult data/situations that are within the expectations for students and inappropriately requires advice or assistance.	Has difficulty focusing and appears to not know which data are most important to the diagnosis; attempts to attend to all available data. Even in simple or familiar/common situations, has difficulty interpreting or making sense of data; has trouble distinguishing among competing explanations and appropriate interventions, requiring assistance both in diagnosing the problem and in developing the intervention.
Effective Responding Demonstrates a calm, confident manner Clearly communicates Performs well-planned interventions with flexibility Being Skillful	Assumes responsibility: delegates team assignments, assesses the client, and reassures them and their families. Communicates effectively; explains interventions; calms/reassures the clients and families; directs and involves team members, explaining and giving directions; checks for understanding. Tailors interventions for the individual client; monitors client progress closely and adjusts treatment as indicated by the client response. Shows mastery of necessary nursing skills.	Generally displays leadership and confidence, and is able to control/calm most situations; may show stress in particularly difficult or complex situations. Generally communicates well; explains carefully to clients, gives clear directions to the team; could be more effective in establishing rapport. Develops interventions based on relevant patient data; monitors progress regularly but does not expect to have to change treatments. Displays proficiency in most nursing skills; could improve speed or accuracy.	Is tentative in the leader role; reassures clients/families in routine and relatively simple situations, but becomes stressed and disorganized easily. Shows some communication ability (e.g., giving directions); communication with clients/families/team members is only partly successful; displays caring but not competence. Develops interventions based on the most obvious data; monitors progress, but is unable to make adjustments based on the patient response. Is hesitant or ineffective in using nursing skills.	Except in simple and routine situations, is stressed and disorganized, lacks control, making clients and families anxious/less able to cooperate. Has difficulty communicating; explanations are confusing, directions are unclear or contradictory, and clients/families are made confused/anxious, not reassured. Focuses on developing a single intervention addressing a likely solution, but it may be vague, confusing, and/or incomplete; some monitoring may occur. Is unable to select and/or perform nursing skills.
Effective Reflecting Evaluation/Self Analysis Commitment to Improvement	Independently evaluates/analyzes personal clinical performance, noting decision points, elaborating alternatives, and accurately evaluating choices against alternatives. Demonstrates commitment to ongoing improvement; reflects on and critically evaluates nursing experiences; accurately identifies strengths/weaknesses and develops specific plans to eliminate weaknesses.	Evaluates/analyzes personal clinical performance with minimal prompting, primarily major events/decisions; key decision points are identified and alternatives are considered. Demonstrates a desire to improve nursing performance; reflects on and evaluates experiences; identifies strengths/weaknesses; could be more systematic in evaluating weaknesses.	Even when prompted, briefly verbalizes the most obvious evaluations; has difficulty imagining alternative choices; is self-protective in evaluating personal choices. Demonstrates awareness of the need for ongoing improvement and makes some effort to learn from experience and improve performance but tends to states the obvious and needs external evaluation.	Even prompted evaluations are brief, cursory, and not used to improve performance; justifies personal decisions/choices without evaluating them. Appears uninterested in improving performance or unable to do so; rarely reflects; is uncritical of themself or overcritical (given level of development); is unable to see flaws or need for improvement.

References

1. Nursing Pharmacology 2e by Open RN is licensed under CC BY 4.0
2. Nursing Skills 2e by Open RN is licensed under CC BY 4.0
3. Nursing Fundamentals by Open RN is licensed under CC BY 4.0
4. Daily Med by U.S. National Library of Medicine is available in the public domain
5. Mehta, L. S, Beckie, T. M., DeVon, H. A., Grines, C. L., Krumholz, H. M, Johnson, M. N., Lindley, K. J., Vaccarino, V., Wang, T. Y., Watson, K. E., & Wenger, N. K.; on behalf of the American Heart Association Cardiovascular Disease in Women and Special Populations Committee of the Council on Clinical Cardiology, Council on Epidemiology and Prevention, Council on Cardiovascular and Stroke Nursing, and Council on Quality of Care and Outcomes Research. (2016). Acute myocardial infarction in women: A scientific statement from the American Heart Association. *Circulation, 133*(9), 916-947. https://doi.org/10.1161/CIR.0000000000000351
6. O'Gara, P. T., Kushner, F. G., Ascheim, D. D., Casey, D. E. Jr, Chung, M. K., deLemos, J. A., Ettinger, S. M., Fang, J. C., Fesmire, F. M., Franklin, B. A., Granger, C. B., Krumholz, H. M., Linderbaum, J. A., Morrow, D. A., Newby, L. K., Ornato, J. P., Ou, N., Radford, M. J., Tamis-Holland, J. E., Tommaso, C. L., Tracy, C. M., Woo, Y. J., & Zhao, D. X. (2013). ACCF/AHA guideline for the management of ST-elevation myocardial infarction: Executive summary: a report of the American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines. *Circulation, 127*(4), 529–555. https://doi.org/10.1161/CIR.0b013e3182742c84
7. National Council State Boards of Nursing (NCSBN). (n.d.). *Next Generation NCLEX Project*. https://www.ncsbn.org/next-generation-nclex.htm
8. Monagle, J. & Gonzalez, L. (2022). *Next Generation NCLEX® (NGN): Applications to educational settings*. Presentation at National Council State Boards of Nursing (NCSBN) 2022 Virtual NCLEX Conference.
9. Lasater, K. (2011). Clinical judgment: The last frontier for evaluation. *Nurse Education in Practice*, *11*(2), 86-92. https://doi.org/10.1016/j.nepr.2010.11.013
10. Lasater K. (2007). Clinical judgment development: Using simulation to create an assessment rubric. *The Journal of Nursing Education, 46*(11), 496–503. https://doi.org/10.3928/01484834-20071101-04
11. Tanner, C. A. (2006). Thinking like a nurse: A research-based model of clinical judgment in nursing. *Journal of Nursing Education*, *45*(6), 204-211. https://doi.org/10.3928/01484834-20060601-04
12. Gonzalez, L. (2018). Teaching clinical reasoning piece by piece: A clinical reasoning concept-based learning method. *Journal of Nursing Education*, *57*(12), 727-735. https://doi.org/10.3928/01484834-20181119-05
13. Reeder, G. S., Awtry, E. & Mahler, S. A. (2022). Initial evaluation and management of suspected acute coronary syndrome (myocardial infarction, unstable angina) in the emergency department. *UpToDate*. Retrieved October 29, 2022 from https://www.uptodate.com/
14. Hollander, J. E. & Chase, M. (2022). Evaluation of the adult with chest pain in the emergency department. *UpToDate.* Retrieved 10/29/2022 from https://www.uptodate.com/
15. Life in the Fastlane. (n.d.) *ECG references*. https://litfl.com/ecg-library/ecg-references/

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