

TYPICAL CHEST PAIN MALE

Estimated Time: 30 minutes • Debriefing Time: 30 minutes



Patient Name: Michael I. Milbourn

SCENARIO OVERVIEW

Michael L. Milbourn is a 69-year-old male who walks into an outpatient clinic with chest pain. He is immediately escorted to a private exam room. No provider is available so a student is called into the room to check on him and advise him regarding the use of his new prescription for Nitroglycerine. When his Nitroglycerine is not effective, the student must call 911. While waiting for the ambulance to arrive, Michael passes out and the students must use the AED and decide whether or not to provide CPR. When the ambulance arrives, the students must provide a handoff report to a paramedic.

CURRICULUM MAPPING

WTCS NURSING PROGRAM OUTCOMES:

- Demonstrate appropriate written, verbal, and nonverbal communication in a variety of clinical contexts
- Provide patient centered care by utilizing the nursing process across diverse populations and health care settings
- Minimize risk of harm to patients, members of the healthcare team and self through safe individual performance and participation in system effectiveness

PHARMACOLOGY

- Pharmacology: Apply components of the nursing process to the administration of cardiovascular drugs

NURSING FUNDAMENTALS

- Maintain a safe, effective care environment for adults of all ages. Use appropriate communication techniques

LEARNING OBJECTIVE(S)

1. Identify when, how and to whom cardiovascular system drugs may be administered
2. Identify special considerations associated with cardiovascular drug therapy
3. Utilize an AED appropriately and provide quality CPR if needed
4. Provide an interprofessional handoff report

QR CODE



Scan to begin

SIMULATION LEARNING ENVIRONMENT & SET-UP

ENVIRONMENT

Outpatient clinic exam room

Inside room: Patient is sitting in a chair

Inside or outside room: Hand sanitizer or sink

Outside room: AED (training device) & Resuscitation bag with mask

PATIENT PROFILE:

Name: Michael I. Milbourn

DOB: 09/18/19XX

Age: 69

MR#: 1720

Gender: Male

Height: 185 cm [6'1"]

Weight: 115 kg [253 #]

Code Status: Full

Spiritual Practice: Christian, Protestant

Ethnicity: African American

Primary Language spoken: English

EQUIPMENT/SUPPLIES/SETTINGS

Patient

- Wearing street clothes; has Nitroglycerine in pocket
- Moulage to appear slightly gray and diaphoretic
- No ID band

Monitor Settings

- No monitor; equipment to obtain vital signs
- Simulator Vitals: BP 170/96, P 120, RR 24, O2 91%, T 37.5C (99.5F), Pain: 8/10

Supplies

- General
 - Equipment to obtain vitals including oxygen saturation
 - Nasal cannula
 - Phone

- AED (training device)
- Resuscitation bag with mask

- Medications
 - Nitroglycerine 0.4 mg sublingual – in small brown glass bottle

QR CODES

<p>START</p> 	<p>PATIENT</p> 	<p>PATIENT ID</p> 
<p>REPORT</p> 		

STATE 1 – PREBRIEF, REPORT, ASSESSING CHIEF COMPLAINT & 911

- The facilitator should lead this portion of the simulation. The following steps will guide you through State 1.
- “Scan to Begin” using scenario start QR Code while students are in Prebrief.
- “Meet Your Patient” (on iPad) and explain how the iPad works in the simulated learning environment including the scanner/QR codes.
- Discuss the simulation “Learning Objective(s)” (on iPad) as well as any other Prebrief materials
- Get “Report” (on iPad)
 - Possible facilitator question
 - When you hear that someone is having chest pain, what are your immediate concerns?
- Play the “Patient” video (on iPad)
 - Possible facilitator question
 - Based the patient’ subjective complain, what are your specific clinical concerns?
- Advance to the “Patient Profile” screen (on iPad). This will act as a simulated patient chart.
- Given report, the student(s) should immediately enter the room.
- Patient Overview
 - Patient is in pain 9/10, slightly short of breath, slightly sweaty and slightly anxious. He is complaining of “heart burn” and “gas” that started about this morning that has now become “chest pain” like a “truck sitting on his chest.” He is asking if he should use his own supply of Nitroglycerine at this time as he has never used it before.
- Expected Student Behaviors
 - Introduce themselves
 - Assess chief complaint

- Recognize symptoms are congruent with angina and advise the patient to take his own Nitroglycerine five minutes apart x 3 doses
- May decide to obtain vitals before advising Nitroglycerine
- May decide to apply oxygen via nasal cannula if it is available
- When the pain is not relieved with Nitro, the students should call 911

- Technician Prompts
 - Patient is concerned and moderately anxious. He is unsure whether to take his Nitro.
 - Patient responses can include:
 - “It feels a little like indigestion. This indigestion or heart burn started this morning.”
 - “I feel sweaty and a little winded... can’t catch my breath.”
 - “This pain in my chest is 8/10... like a truck is sitting on my chest.”
 - “I’ve had chest pain before but it usually goes away after I sit and rest.”
 - “I have Nitro that I keep in my pocket, but have never taken it. Should I take it now?”
 - After he takes his Nitro, he should question the need to call 911: “Why do we have to call 911?”, “Why can’t my wife take me to the ER?”

- Facilitator Questions
 - What are your concerns based on your assessment findings?
 - Should he take his Nitroglycerine? Why or why not?
 - If he takes his Nitroglycerine, how should he take it?
 - Why is it important to call 911 and discourage the patient and his wife from driving to the Emergency Room?
 - What are the potential costs to the patient for ambulance transport?

- Tabbed iPad Content
 - Students can view the tabbed content on the iPad (see below) prior to entering the patient’s room and throughout the simulation.
 - After the patient takes his Nitroglycerine x 3 appropriately without relief, the student(s) should recognize the need to call 911. They call the technician and communicate their concerns professionally as the technician is roleplaying a dispatcher. (This action will allow the scenario to progress to State 2)
 - Technician prompt: “You’ve called 911 virtual reality. What is your emergency?” (After students complete their report, instruct the student to tap “Level Up.” The iPad will ask, “Have you called Virtual 911?” to which they should tap “Yes.”)

HISTORY AND PHYSICAL

No reports available.

ORDERS

No reports available.

MAR

Assist Michael in taking his own medication.

The bottle says:

Nitroglycerine 0.4mg, tablet, sublingual

- Place 1 tablet under tongue and let dissolve
- May repeat every 3-5 min
- 3 dose max

If symptoms persist, seek medical attention immediately.

VITALS

Not available (walked in to clinic)

PROGRESS NOTES

No reports available.

LAB/DIAGNOSTICS

No reports available.

IMAGING

None available

LEVEL UP

This tab is active.

When selected students are asked, “Have you called Virtual 911?”

Once they have selected “yes” (as outlined above), the following appears: “Ambulance is on its way” and “Give report to paramedic when ambulance arrives.” This is followed by a statement that reads, “Care for your patient until paramedics arrive.”

SCANNER

Used for students to scan QR codes during the simulation. It will not be used in this scenario.

STATE 2 – AWAITING AMBULANCE

- Patient Overview
 - While waiting for the ambulance to arrive, the patient loses consciousness. The students need to utilize the AED trainer and make a decision about whether or not to perform CPR
- Expected Student Behaviors
 - Establish non-responsiveness
 - Call for help and specifically direct someone to get the AED
 - Check carotid pulse
 - If no carotid pulse definitely felt in 10 seconds, start quality CPR: 30:2 at rate of at least 100/min, with depth of 2 inches, allowing full recoil with minimal interruptions
 - Team member applies AED pads (with minimal interruptions to CPR) and follow directions from AED
 - Team member may obtain vital signs
 - Team member may apply oxygen via ambubag
 - Change student providing compressions every cycle
 - Students provide handoff report to the paramedics
- Technician Prompts
 - Patient is nonresponsive
 - When “paramedics” arrive, technician should role play the part of the paramedic.
 - Responses can include:
 - “What is the patient’s name and date of birth?”
 - “What caused you to call 911?”
 - “What has happened since you called 911?”
 - “Did you obtain any vital signs?”
 - “Any allergies?”
 - “Has he taken any medications?”
- Facilitator Questions
 - Guide students through decision making in using AED, providing CPR
 - What is important to communicate during an interprofessional handoff report?
 - The facilitator has flexibility in how to guide the scenario:
 - Path A: patient is in cardiac arrest (with no vitals on the mannequin) and students use AED and provide CPR until paramedics arrive.
 - Path B: patient is hypotensive (from Nitroglycerine) but vitals are otherwise relatively stable. Students maintain patient in “recovery position” until paramedics arrive.

STATE 3 – DEBRIEF

Nothing needed from the iPad.

DEBRIEFING QUESTIONS

1. How did you feel this scenario went?
2. Review understanding of learning objectives: Identify when, how and to whom cardiovascular system drugs may be administered; and identify special considerations associated with cardiovascular drug therapy
 - a. What indicated that Mr. Milbourn needed to take his Nitroglycerine?
 - b. What are contraindications to using Nitroglycerine?
 - c. Did Mr. Milbourn take the Nitroglycerine properly?
 - d. Why was 911 called? Was the timing of the call appropriate?
 - e. Why do you think Mr. Milbourn lost consciousness?
3. Review understanding of learning objectives: Utilize an AED appropriately and determine if CPR is needed
 - a. What indicated the need to apply the AED?
 - b. How did you determine if CPR was needed?
 - c. How did you provide CPR? Was it effective CPR?
 - d. Did you call in any resources to help you when the patient became unresponsive?
 - e. If you could “do over,” how could have the CPR been improved?
4. Review understanding of learning objective: Provide an interprofessional handoff report
 - a. What information was important to communicate to the paramedic?
 - b. Should anything else have been communicated?
5. Tie the scenario back to the nursing process in a large group discussion. Concept mapping can be used to facilitate discussion.
 - a. Identify priority nursing problems you identified for Mr. Milbourn.
 - b. Create a patient centered goal for each nursing problem you identified.
 - c. Discuss potential focused assessments for each nursing problem.
 - d. Discuss priority nursing interventions for each nursing diagnosis.
 - e. Re-evaluate the simulation in terms of the nursing process; what was actually accomplished? What could be improved in the future?

6. Take Away Points:

- a. Ask each student to share one thing they learned from participating in this scenario that they will take with them into their nursing practice. (Each student must share something different from what the others' share.)

NOTE: Debriefing technique is based on INASCL Standards for Debriefing and NLN Theory-Based Debriefing by Dreifuerst.

SURVEY

Print this page and provide to students.

Students, please complete a brief (2-3 minute) survey regarding your experience with this ARISE simulation. There are two options:

1. Use QR Code: Survey
 - a. Note: You will need to download a QR Code reader/scanner onto your own device (smartphone or tablet). There are multiple free scanner apps available for both Android and Apple devices from the app store.
 - b. This QR Code will not work in the ARIS app.



2. Copy and paste the following survey link into your browser.
 - a. https://ircvtc.co1.qualtrics.com/SE/?SID=SV_6Mwfv98ShBfRnBX

REFERENCES

- Amsterdam EA, Wenger NK, Brindis RG, Casey DE Jr, Ganiats TG, Holmes DR Jr, Jaffe AS, Jneid H, Kelly RF, Kontos MC, Levine GN, Liebson PR, Mukherjee D, Peterson ED, Sabatine MS, Smalling RW, Zieman SJ (2014) ACC/AHA guideline for the management of patients with non–ST-elevation acute coronary syndromes: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines. *Circulation*, 2014;130:e344–e426. Doi: 10.1161/CIR.0000000000000134
- Benner, Patricia (2015). Curriculum wide debriefing and reflection are essential to learning how to think critically, improve performance, improve outcomes and integrate experiential learning. Retrieved from: <http://www.educatingnurses.com/curriculum-wide-debriefing-and-reflection-are-essential-to-learning-how-to-think-critically-improve-performance-improve-outcomes-and-integrate-experiential-learning/>
- Craven, R. F., & Hirnle, C. J. (2013). *Fundamentals of nursing: Human health and function*. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins.
- Dreifuerst, Kristina Thomas (2012). Using debriefing for meaningful learning to foster development of clinical reasoning in simulation. *Journal of Nursing Education*, 51(6), 326-333. <http://dx.doi.org/10.3928/01484834-20120409-02>
- Ignatavicius, D. and Workman, L. (2016). *Medical Surgical Nursing: Patient Centered Collaborative Care*, (8th ed.). St. Louis, MO: Elsevier.

International Nursing Association for Clinical Simulation and Learning. (2013). *Standards of best practice: simulation*. Retrieved from:

<http://www.inacsl.org/files/journal/Complete%202013%20Standards.pdf>

Jarvis, C. (2016). *Physical examination & health assessment*, (7th ed.) St. Louis, Mo: Saunders.

Medscape. (2015). *Drugs, OTCs, & herbals*. Retrieved from:

<http://reference.medscape.com/drugs>

Neumar RW, Shuster M, Callaway CW, Gent LM, Atkins DL, Bhanji F, Brooks SC, de Caen AR, Donnino MW, Ferrer JME, Kleinman ME, Kronick SL, Lavonas EJ, Link MS, Mancini ME, Morrison LJ, O'Connor RE, Sampson RA, Schexnayder SM, Singletary EM, Sinz EH, Travers AH, Wyckoff MH, Hazinski MF (2015). Part 1: Executive summary: 2015 American Heart Association Guidelines Update for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. *Circulation*, 132(suppl 2):S315–S367. doi: 10.1161/CIR.0000000000000252

Quality and Safety Education for Nurses (QSEN) (2014). Pre-licensure KSAS. Reprinted from Cronenwett, L., Sherwood, G., Barnsteiner J., Disch, J., Johnson, J., Mitchell, P., Sullivan, D., Warren, J. (2007). Quality and safety education for nurses. *Nursing Outlook*, 55(3)122-131. Retrieved from: <http://qsen.org/competencies/pre-licensure-ksas/>



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