



Open RN Virtual Reality Scenario Plan

ADMINISTERING CARDIAC MEDICATIONS TO A PATIENT WITH DEMENTIA

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Scenario Overview

Miles Johnson is an 87 year old resident of Shady Acres rehabilitation facility. He was admitted for daily physical therapy after undergoing surgery for a hip fracture. He has a past medical history of dementia, hypertension, atrial fibrillation, and chronic renal failure. He has no medication allergies. He experiences worsening dementia symptoms in the evening but is generally pleasant. He was a farmer for 63 years and is married with 4 children and many grandchildren. His wife visits him daily during lunch. He walks with the assistance of one with a walker and requires assistance with ADLs. During this scenario, students must perform appropriate assessments prior to safely administering cardiac medication while also communicating therapeutically with a patient with dementia.

Associated H5P activity

<https://cvtc.h5p.com/content/1291147520201847858>

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



Learning Objectives

1. Obtain vital signs and interpret findings
2. Administer cardiac medications safely
3. Communicate therapeutically with a patient with dementia

Curriculum Alignment

WTCS Nursing Program Outcomes

- Implement one's role as a nurse in ways that reflect integrity, responsibility, ethical practices, and an evolving professional identity as a nurse committed to evidence-based practice, caring, advocacy and quality care
- Demonstrate appropriate written, verbal, and nonverbal communication in a variety of clinical contexts
- Integrate social, mathematical, and physical sciences, pharmacology, and pathophysiology in clinical decision-making
- 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
- Lead the multidisciplinary health care team to provide effective patient care throughout the lifespan

- Use information and technology to communicate, manage data, mitigate error, and support decision-making

Nursing Fundamentals

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

Pharmacology

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

Skills

- Administer medications via the enteral route

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Scenario Setup

Scene

- Room in long term care center

Patient

- Elderly male
- Wearing street clothes
- ID band present
- No oxygen or IV in place

Settings

- Vitals: BP: 165/84, HR: 56, RR 18, Temp: 37.2 degrees C, O2 sat 95% on room air
- Lung sounds: Clear
- Heart sounds: Regular rhythm

Assets

- Patient ID band
- BP cuff, pulse oximeter, thermometer, stethoscope
- WOW cart with medication cups, drinking glass and straw

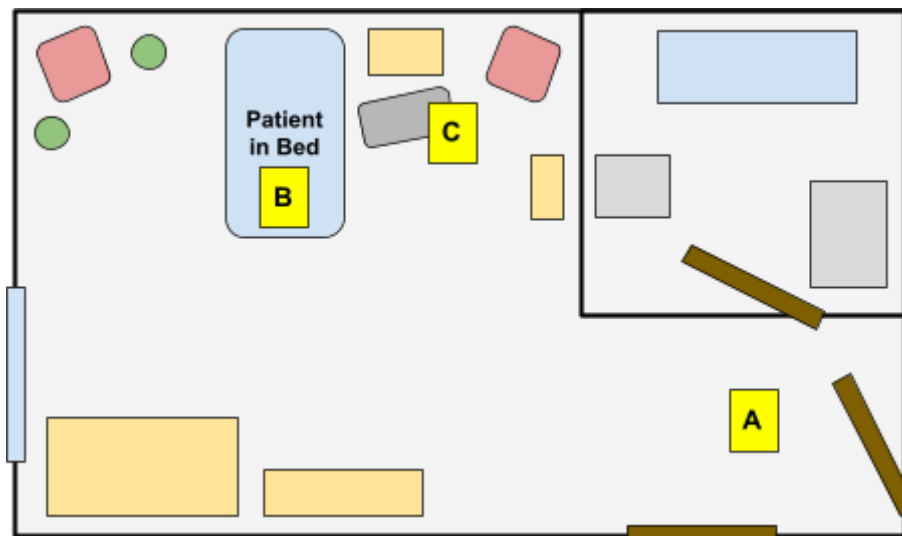
Medications

- Furosemide 40 mg tablet PO daily
- Metoprolol 12.5 mg tablet PO daily
- Cardizem LA 180 mg tablet PO daily
- Lisinopril 10 mg tablet PO daily
- Acetaminophen 500 mg PO 2 tabs every 4 hours PRN for pain or fever

EMR Chart Forms

- Orders
- [MAR](#)
- Lab Results

Scenario Map



A. Spawn point

Student begins the scenario here.

B. Patient (Miles Johnson)

The patient asset is programmed to remain in bed. The asset can be animated and changed through the Simulation Manager.

C. Workstation on Wheels

The screen asset is interactive, with arrow keys on both sides of the screen to flip through different charts. On top of the cart is a stethoscope and blood pressure cuff. Both assets can be manipulated, with snap points on the WoW as well as on the patient asset. The drawer of the cart can be opened and closed using the button next to the drawer handle. Medication assets in the drawer can be picked up and moved.

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State 1

Students should perform the appropriate pre-assessments before administering his morning cardiac medications while communicating therapeutically to address his concerns.

Events	Expected Student Behaviors	Prompts, Questions, Teaching Points
<p>Scenario Settings</p> <ul style="list-style-type: none"> • HR – 112 • BP – 165/90 RR – 18 • Temp – 37.2° C SpO2 - 95% on RA • Lung Sounds – Clear • Heart Sounds – Regular rhythm <p>Technician Prompts</p> <p>Patient is irritable. He does not want his BP taken and will not take his medications without encouragement that is tailored for a patient with dementia. If students do not communicate appropriately, he becomes agitated and his agitation continues to escalate until appropriate therapeutic techniques are used.</p> <p>Initial patient responses can include:</p> <ul style="list-style-type: none"> • “Who are you?” (annoyed face) • “What do you want?” • “No.” (look away, shake head) • “Where’s my wife?” (cross arms) <p>If students do not respond appropriately, his movements become more agitated and his responses can include:</p> <ul style="list-style-type: none"> • “Don’t touch me!” • “You’re hurting me!” • “Go away!” (shaking arms) 	<ul style="list-style-type: none"> • Introduce themselves to the patient • Verify patient identity with name and date of birth and medical record number on ID band • Obtain vital signs • Communicate therapeutically regarding patient concerns • Perform a focused cardiac assessment • Administer appropriate scheduled medications based on assessment • Notify provider of any abnormal findings using SBAR format • (optional) Give SBAR Report to oncoming shift • (optional) Document assessments and interventions using school’s EMR 	<ul style="list-style-type: none"> • Click on equipment and place on patient to obtain vital signs • Click on stethoscope and place on appropriate location on chest to hear heart sounds • Click on equipment again to remove and place back on WOW cart • Click on the WOW cart computer to view MAR and orders to display in larger format as a “poster” on the wall. • Click on drawer in WOW cart to view available medication <p>Suggested Facilitator Questions During State 1</p> <p>What information do you need to collect before administering medications? Why?</p> <ul style="list-style-type: none"> • Analyze your assessment findings. How does this affect your medication administration? • Should any assessment findings be communicated to the provider • What are helpful therapeutic techniques to use with patients with dementia who are becoming agitated? • Using SBAR format, what are your “recommendations” for the next shift?

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Scenario Debrief

- 1) Reaction: “How do you feel this scenario went?” (Allow students to vent their emotional reactions before delving into learning objectives.)
- 2) Review understanding of the learning objective: Safely administer cardiac medications.
 - a) What were your clinical concerns when you initially assessed Mr. Johnson?
 - b) How did you address your concerns?
- 3) Review understanding of learning objectives: Communicate therapeutically with a patient with dementia.
 - a) What therapeutic techniques did you use? Were they effective?
 - b) If you had to do this scenario over, how would have you communicated differently with Mr. Johnson?
- 4) Tie the scenario to the nursing process: Develop a nursing care plan.
 - a) Identify 3 priority nursing diagnoses for Mr. Johnson
 - b) Create a SMART outcome for each nursing diagnosis.
 - c) Plan nursing interventions for each nursing diagnosis.
 - d) Evaluate the care provided during the simulation according to the SMART outcomes. What was accomplished? What could be improved?
- 5) Summarize/Take away Points: “In this scenario you administered cardiac medications to a patient with dementia. What is one thing you learned from participating in this scenario that you will take into your nursing practice?” (Ask each student to share something unique compared to the other students.)

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Survey

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

Students, 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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Scenario Rubric & Feedback

Student Name

Date

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Patient Interaction Communicate therapeutically	Successfully utilizes therapeutic communication to address patient concerns and deescalates agitated behavior.	Mostly successful in utilizing therapeutic communication although the patient's agitation is not completely resolved resulting in some barriers to communication.	There is some struggle in utilizing therapeutic communication, with a lack of understanding of how to respond appropriately to increasing agitation.	Failure to communicate therapeutically with the patient results in escalation of agitated behaviors and a failure to complete all learning objectives of the scenario.
Patient Education Information is provided to the patient	Communicates relevant information to the patient in an accurate and timely manner. Patient understanding is verified appropriately.	Information is communicated to the patient but patient understanding is not verified.	Information is provided to the patient but key pieces are missing according to expectations for this level of learner.	Information is not communicated to the patient.
Assessment Appropriate focused assessments are obtained accurately	Accurately performs appropriate focused assessments	Most of the relevant focused assessments are performed accurately.	Some relevant focused assessments are performed but not all relevant data is gathered according to expectations for this level of learner.	Relevant data is either not collected or erroneously obtained.
Analysis Assessment findings are accurately analyzed and acted upon.	Analyzes and articulates relevant data indicating clear comprehension.	Most of the relevant data is analyzed accurately. Comprehension of the data findings is mostly articulated, although there may be small oversights that do not impact patient safety.	There are noticeable gaps in analyzing relevant data or articulation of assessment findings indicates incomplete comprehension according to expectations for this level of learner.	There is clear inability to accurately analyze relevant data or accurately articulate comprehension of findings according to expectations for this level of learner.
Implementation of Interventions Procedures and interventions are performed safely	Safely performs appropriate interventions, including medication administration, supported by accurate rationale.	Successfully completes the scenario objectives and administers appropriate medications safely, although some interventions may not be fully implemented or rationale for performing them cannot be fully articulated.	The learning objectives of the scenario are only partially completed or there are notable errors when implementing procedures.	Scenario objectives are not completed or there are significant lapses in patient safety.
Evaluation Patient responses are evaluated	Evaluates patient responses to interventions accurately and in a timely manner.	Some patient responses to interventions may not be fully evaluated.	There are significant gaps in evaluating patient responses to interventions.	Patient responses to interventions are not evaluated.

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References

1. [Nursing Pharmacology](#) by [Open RN](#) is licensed under [CC BY 4.0](#)
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