HEART FAILURE

Estimated Time: 30 minutes • Debriefing Time: 30 minutes

Scan to Begin

Patient Name: Hector Fernandez

SCENARIO OVERVIEW

Hector Fernandez is a 62-year-old male patient with chronic stable heart failure. He was just admitted to the skilled nursing facility from home yesterday for rehabilitation due to increasing weakness that has caused several recent falls. Students will perform an overall assessment including heart, lung and edema assessments; communicate with Hector therapeutically; and initiate a basic nursing plan of care.

LEARNING OBJECTIVES

1. Perform a physical assessment on a patient with chronic heart failure
2. Recognize and report deviation from norms
3. Develop a nursing plan of care for a patient newly admitted to a skilled nursing facility
4. Accurately document findings
5. Communicate therapeutically with a patient newly admitted to a skilled nursing facility

CURRICULUM MAPPING

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

BASIC SKILLS

- Obtain a health history
- Perform a general survey assessment
- Measure blood pressure and other vital signs

- Perform a basic respiratory assessment
- Perform a basic cardiovascular assessment

NURSING FUNDAMENTALS

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

SIMULATION LEARNING ENVIRONMENT & SET-UP

PATIENT PROFILE

Name: Hector Fernandez

DOB: 09/06/19XX

Age: 62

MR#: 41219

Gender: Male

Height: 175 cm (5 ft 10 in)

Weight: 86.4 kg (190 lbs)

Allergies: Penicillin (Hives)

Code Status: Full code

Ethnicity: Hispanic

Spiritual Practice: Catholic

Primary Language: English

EQUIPMENT/SUPPLIES/SETTINGS

Environment

- Skilled nursing facility room

Patient

- Street clothes: sweatpants, white t-shirt
- QR codes in various anatomical locations on chest and on leg

Monitor Settings

- Vitals: BP 158/100, HR 58, RR 18, Temp 37.5 C, O2 sat 95%, Pain 0

Supplies

- Equipment to obtain vitals including pulse oximetry

Medications

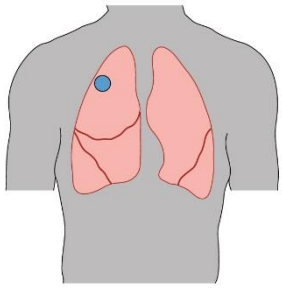
- None

QR CODES

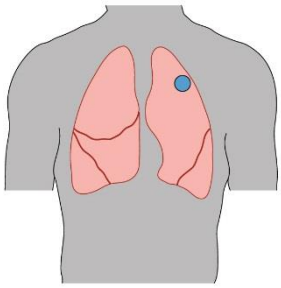
REPORT	PATIENT	LEG	HEART
FACILITATOR			

CHEST QR CODES

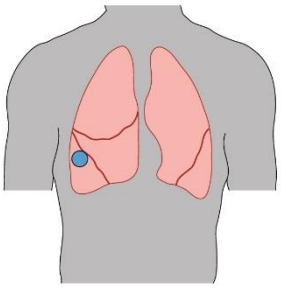
Cut along the dotted lines to create a folded QR code for each anatomical location. Fold each section along the solid line to create a bi-fold of the diagram and QR code, and then apply to the simulator in the appropriate anatomical location.



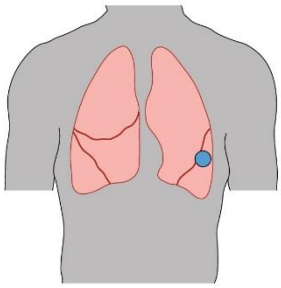
ANTERIOR 2



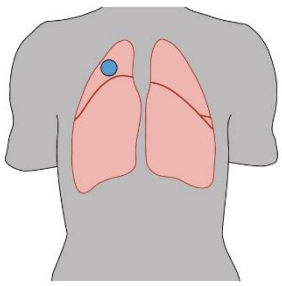
ANTERIOR 3



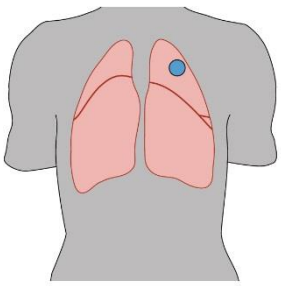
ANTERIOR 6



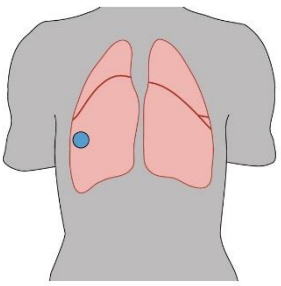
ANTERIOR 7



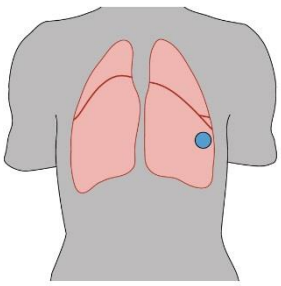
POSTERIOR 0



POSTERIOR 1



POSTERIOR 4



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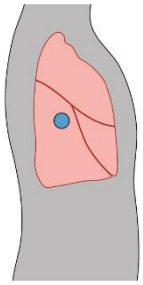	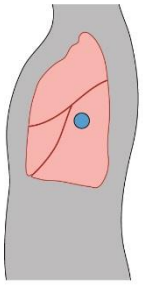
RIGHT AXILLARY 1	LEFT AXILLARY 1

TEACHING PLAN

PREBRIEF

The facilitator should lead this portion of the simulation. The following steps will guide you through Prebrief.

- Scan the **QR Code: "Scan to Begin"** while students are in Prebrief.
- "Meet Your Patient" (on iPad) and explain how the iPad works in the simulated learning environment including:
    - Explain how to use the iPad scanner and QR codes. Remind students that there are multiple QR codes in the simulation, but they should only scan them if they think it will provide data necessary for their assessment and evaluation of the patient.
    - Describe how a QR Code sound will work in the scenario. For the most authentic sound experience, student should use ear buds or the ARISE "stethoscope" for all QR Codes with the following symbol: . Example: **QR Code: Chest Anterior 1**
    - Medication Hyperlinks – Medications are underlined and hyperlinked to DailyMed, which is a medication reference housed by the National Library of Medicine. Students can click on these links during the simulation for up-to-date medication content, labels, and package insert information.
- Discuss the simulation "Learning Objective(s)" (on iPad) as well as any other Prebrief materials
- Get "Report" on iPad
    - Possible Facilitator Question
        - What are your clinical concerns when you hear that a patient has heart failure?
- Play the "Patient" video on iPad
    - Possible Facilitator Question
        - Based the patient's subjective history, what focused assessments do you plan to perform?
        - What is an H&P? What clinically important information is found in an H&P?

- Review initial tabbed content

HISTORY AND PHYSICAL

See H&P in Appendix A

ORDERS

Provider Orders

Date	Time	Order
Yesterday	1430	Admit to Virtual Skilled Nursing Facility
		CBC, Chem 7 and every 3 months
		Administer O2 via nasal cannula to maintain pulse oximetry 95% or greater
		Notify MD if O2 sat < 90% with oxygen
		Cardiac diet: 2g sodium, low cholesterol, low fat
		Weight on admission and weekly weights
		Physical therapy consult
		Aspirin enteric coated 81mg one tab PO every day
		Digoxin 0.25 mg PO daily
		Furosemide 40mg PO every 12 hours
		Metoprolol 12.5 mg PO daily
		Lisinopril 10mg PO daily
		Atorvastatin 40 mg PO daily
		Acetaminophen 500 mg PO 2 tabs every 4 hours for pain or fever PRN
		TED hose on while awake
		Elevate legs three times daily
		---- Dr. M. Cordoba, M.D

MAR

Medication Administration Record

Scheduled		
Aspirin enteric coated 81 mg PO once daily	**Scheduled Time**	**Last Given**
	0800	
Digoxin 0.25 mg PO once daily	**Scheduled Time**	**Last Given**
	0800	
Furosemide 40 mg PO once daily	**Scheduled Time**	**Last Given**
	0800	
Metoprolol 12.5 mg PO once daily	**Scheduled Time**	**Last Given**
	0800	
Lisinopril 10 mg PO once daily	**Scheduled Time**	**Last Given**
	0800	
Atorvastatin 40 mg PO once daily	**Scheduled Time**	**Last Given**
	2100	
PRN		
Acetaminophen 500 mg PO 2 tabs every 4 hours for pain or fever PRN		**Last Given**

VITAL SIGNS

- Screen is open for entry
- Entries are verified against the following values (+/- 5): HR 74, RR 16, BP 109/68, Temp 37, O2 Sat 100% on RA, Pain 0/10

PROGRESS NOTES

Progress Notes

Date/Time	Note
Yesterday/ 1630 Nursing Note	Patient admitted from home in stable condition as a direct admit from primary care physician. See admitting H&P and new orders. Home medications were reconciled and information sent to pharmacy. Maria, his wife, reports that he has had frequent falls at home over the past month and often reports that his "legs go out from under him." Vital signs: BP 149/88, HR 72, RR 18, Temp 37.5 C, O2 sats 98%. Patient and wife oriented to facility and both verbalize understanding of safety precautions for fall prevention. Admitting nurse to complete a full assessment tomorrow morning and develop a nursing plan of care. ---------- Nancy Smith, RN

LAB/DIAGNOSTICS

No reports available.

LEVEL

The State level is displayed.

SCANNER

Students tap this tab to scan various QR codes within the scenario.

EXIT

The iPad reads, "Are you sure you want to exit? All data will be lost."

- If "No" is selected, the iPad will return to the tabbed content.
- If "Yes" is selected, the iPad will let the student(s) exit and prompt them to complete an embedded 3-5 minute survey.

STATE 1

PATIENT ASSESSMENT

- Patient Overview
    - Patient was just admitted to skilled nursing facility yesterday due to weakness with several falls at home. He is discouraged with his symptoms of fatigue and dyspnea, and does not want to be in the nursing home. He does not like to wear his TED hose.
- Expected Student Behaviors
    - Introduce themselves to the patient
    - Verify patient identity with name and date of birth
    - Communicate therapeutically regarding patient concerns
    - Obtain vital signs and accurately enter them accurately in iPad
    - Perform a general survey assessment on primary concerns
    - Perform a focused respiratory physical assessment by scanning **QR Code: Chest** at various anatomical locations on anterior, medial and posterior chest.
        - Facilitator note: Fine Crackles are heard in the posterior lower lobes. Lung sounds are clear in other lobes.
    - Perform a focused cardiac assessment by scanning **QR Code: Heart**
        - Facilitator note: A S3 sound is auscultated. The sound is best heard with earphones.
    - Perform a focused lower extremity assessment for edema by scanning **QR Code: Leg**
        - Facilitator note: Pitting edema is present in his legs
    - Document findings accurately
    - Develop a basic nursing plan of care including, but not limited to: Risk for injury: falls, Activity intolerance, Impaired Gas Exchange
- Technician Prompts
    - Patient is feeling discouraged and does not like being in the “old folks home.” He has been falling frequently at home, has a “hard time catching

his breath", and does not like wearing the "tight socks." He wants to go home.

    - Initial patient responses can include:
        - "Why am I tired all the time?"
        - "I have fallen a lot at home. That's why my wife wanted me to come here."
        - "When I walk to the bathroom, I have to stop to catch my breath."
        - "My legs get swollen by the end of the day."
        - "I don't like wearing those "tight socks."
        - "How long will I have to be in the nursing home?"
        - "When is my wife coming?"
        - "I just want to go home."

- Suggested Facilitator Questions:
    - What information from the H&P is relevant to your nursing care?
    - Describe your assessment findings.
    - What are Mr. Fernandez's risk factors for falls?
    - What nursing problems have you identified during your assessment?
    - Outline planned nursing interventions for the nursing problems you have identified.
    - Relate medications listed on orders to patient's condition
- Tabbed iPad Prompts & Content Changes
    - Students may exit after they have scanned the **QR codes: Facilitator** indicating they have performed the Expected Behaviors

DEBRIEF

SUGGESTED QUESTIONS

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 learning objectives: Perform an assessment of a patient with chronic heart failure and Recognize and report deviation from norms
    a. What did you discover on your assessment that was outside of normal range?
    b. What symptoms/signs are correlated with chronic heart failure?
3. Review understanding of learning objective: Develop a basic plan of care for patient newly admitted to a skilled nursing facility
    a. What nursing problems did you identify?
4. Review understanding of learning objective: Accurately document findings
    a. Ask students to create a narrative note outlining their assessment findings and interventions for Mr. Fernandez and then compare and create an "overall best response" as a group.
5. Review understanding of learning objective: Communicate therapeutically with a patient newly admitted to a skilled nursing facility
    a. What "cues" did you notice that indicated Mr. Fernandez was having difficulty adjusting to the skilled nursing facility?
    b. How did you address Mr. Fernandez's concerns? Was this effective?
    c. If you could "do over," is there anything you would have said or done differently while communicating with Mr. Fernandez?
6. Tie the scenario to the nursing process in a large group discussion. Concept mapping can be used to facilitate discussion.
    a. Identify three priority nursing problems you identified.
    b. Create a patient centered goal for each nursing problem you identified.
    c. Discuss focused assessments for each nursing problem.
    d. Discuss 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?

7. Summarize/Take away Points: “In this scenario you assessed a patient with chronic heart failure who was just admitted to a skilled nursing facility. 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 from what the other students share.)

NOTE: Debriefing technique is based on INASCL Standard 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.

SURVEY

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

APPENDIX A: H&P

Patient Name	DOB	MR#
Hector Fernandez	*9/06/19XX*	*41219*
Allergies	**Height (cm)**	**Admission Weight (kg)**
Penicillin	*180*	*109*

History and Physical

DATE: Yesterday

ADMITTED TO: Virtual Skilled Nursing Facility

CHIEF COMPLAINT: Weakness and frequent falls at home

HISTORY OF PRESENT ILLNESS: Mr. Hernandez is a 62 y/o male is being admitted to the skilled nursing facility for strengthening and rehabilitation. He was diagnosed with heart failure 10 years ago that has been managed with his current medications. Currently he is classified as NYHA Class II. However, his wife reports he has had several falls at home due to increasing fatigue and weakness.

Mr. Hernandez describes no other associated symptoms during these episodes of weakness, including chest pain, dizziness, or palpitations.

PAST MEDICAL/SURGICAL HISTORY: Diagnosed with a long-standing history of heart failure, hyperlipidemia, and hypertension.

ER/HOSPITALIZATIONS IN THE LAST 12 MONTHS: None

MEDICATIONS: Current medications at home include: Aspirin 81 mg daily, Digoxin 0.25 mg daily, Lisinopril 10 mg daily, Metoprolol 12.5 mg daily, Atorvastatin 40 mg daily, Furosemide 40 mg twice daily and Tylenol as needed for pain.

ALLERGIES: No known allergies

SOCIAL HISTORY: Mr. Hernandez is a pleasant 62-year-old gentleman who has lived with his 75-year-old wife in his home for the past 55 years. He is a retired veteran who served in the Army for 30 years. He remains active with cooking, gardening, and doing other activities. He and his wife do not have any children. His religious preference is non-denominational and he occasionally attends services at Christ's Community Church in Eau Claire.

Mr. Hernandez denies any history of tobacco use. Mr. Hernandez also states that he occasionally has a glass of beer with dinner and otherwise drinks alcohol socially on rare occasion. He denies illegal drug use and occasionally takes OTC acetaminophen for arthritic pain.

REVIEW OF SYSTEMS:

GENERAL: Has had increased weakness and fatigue over past several months to the point where he cannot complete his normal daily activities and has experienced several falls.

HEENT: Wears reading glasses and otherwise unremarkable. No complaints of headache change in vision, nose or ear problems, or sore throat.

Respiratory: Denies increased shortness of breath. Reports occasional cough of clear sputum.

Cardiovascular: Denies chest pain. Has chronic edema in both feet and legs for which he occasionally wears TED hose at home.

Peripheral Vascular: Denies claudication, leg cramps, parasthesias or edema.

Gastrointestinal: No complaints of nausea, vomiting or diarrhea. No complaints of dysphagia, nausea, vomiting, or change in stool pattern, consistency, or color.

Genitourinal: No complaints of dysuria, hematuria. Does have difficulty starting stream with some dribbling. Generally has nocturia x 3.

Musculoskeletal: He complains of lower back pain after working in his garden and daily joint pain, which worsens before it rains. This pain is usually relieved with Tylenol. He complains of no other muscle aches or pains. He complains of increasing fatigue and weakness that has prevented him from gardening over the past few months, and has fallen five times at home without major injury. He states when he falls “my legs just go out from under me.”

Neurological: Denies numbness and tingling in extremities.

PHYSICAL EXAM:

Vital signs: Blood Pressure: 158/100, Pulse: 58, Respirations: 18, Temperature: 37.5 degrees Celsius, O2 sat 95%

Height= 185 cm (6’2), weight= 109 kg
Pain Scale 2/10

General Appearance: 62-year-old male who appears stated age and is well developed, well hydrated, and well nourished. Maintains eye contact and interacts appropriately. Is alert and oriented x 3 and cooperative but fatigued.

HEENT: Pupils equally round, 4mm, reactive to light and accommodation, sclera and conjunctiva normal. Fundoscopic examination reveals normal vessels without hemorrhage.

Tympanic membranes and external auditory canals within normal limits.

Oral pharynx without erythema or exudates. Tongue and gums are within normal limits.

Neck is easily movable without resistance. No abnormal adenopathy in the cervical or supraclavicular areas. Trachea is midline and thyroid gland is without masses. No carotid bruit auscultated.

Integument: Normal turgor. Skin is warm and dry with no cyanosis present.

Respiratory/Chest: Fine crackles are auscultated bilaterally in posterior bases. No accessory muscle use. Minimal effort. No cyanosis or clubbing.

Cardiovascular: Normal S1S2 without extra sounds. PMI is in the 6th inter-costal space at the lateral line.

Vascular/extremities: Posterior tibial pulses – L 1/4 / R 1/4 Capillary refill less than three seconds. Extremities warm and pink. Lower extremity pedal edema 3+ bilaterally.

Gastrointestinal/abdomen: The abdomen is symmetrical without distention; bowel sounds are normal in quality and intensity in all areas. No masses or splenomegaly are noted.

Genitourinary: No CVA tenderness.

Neurological: Cranial nerves II – XII are within normal limits. Motor ability, sensation and reflexes of the upper and lower extremities are within normal limits. Gait is wide based but otherwise steady.

ASSESSMENT/PLAN:

1. Admit to Skilled Nursing Facility for physical therapy and strengthening.

2. Administer O2 via nasal cannula PRN to maintain pulse oximetry at 95% or greater (notify health care provider if cannot maintain O2 sat >90%)

3. Continue current home medications as listed above.

4. Physical therapy consult for strengthening.

5. Cardiac Diet: 2 g sodium, low fat, low cholesterol

6. TED hose on while awake; elevate legs three times daily

7. CBC, Chem 7 now and every 3 months.

8. Weight on admission and weekly weights.

Electronically signed by: Dr. M. Cordoba, M.D.

CREDITS

Medication information from National Library of Medicine: Daily Med at http://dailymed.nlm.nih.gov/dailymed/

Heart and lung sounds from Thinklabs Medical, LLC, Centennial, CO at http://www.thinklabs.com/lung-sounds

Picture of edema from Wikipedia at https://en.wikipedia.org/wiki/Edema

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