

SECTION I: SCENARIO OVERVIEW

Scenario Title:	Chest Pain management – Case A-New Onset		
Original Scenario Developer(s):	C. O’Leary-Kelley; K. Bawel-Brinkley		
Date - original scenario	4/7/08		
Validation:	10/08		
Pilot testing:	10/08		
Revisions:	08/10, 12/14 M. Punnoose, MSN, RN-BC, CHSE; H. Traxler, MSN, CHSE, 04/18 Heidi Traxler MSN, RN, CHSE, mm		
<u>Estimated Scenario Time:</u>	20 minutes	<u>Debriefing time:</u>	40 minutes
<u>Target group:</u> Pre-licensure nursing students; new graduates			
<u>Core case:</u> New onset chest pain in patient admitted with cellulitis			
<u>Brief Summary of Case:</u> 50 year old male patient was admitted this morning with fever and chills. He is a construction worker and stepped on a nail at work 2-days ago. He woke this morning with left leg and ankle pain. His left foot was swollen, and he was unable to get his foot into his shoe. Complains of 4/10 foot pain, unable bear weight on left foot, wife brought patient to hospital this morning.			
<u>QSEN Competencies</u>			
X Patient Centered Care			
X Patient Safety			
<input type="checkbox"/> Quality Improvement			
X Teamwork and Collaboration			

EVIDENCE BASE / REFERENCES (APA Format)
Harding, M.H. (2017). Fluid, Electrolyte, and Acid-Base Imbalances. In Lewis, S., Bucher, L., McLean, M., and Harding, M.(Eds.), Medical-surgical nursing: Assessment and management of clinical problems (10 th ed. pp.270-299). St. Louis, Missouri: Elsevier.
Kleinman, M.E., Goldberger, Z.D., Rea, T., Swor, R.A., Bobrow B.J., Brennan E.E., Terry, M., Hemphill R., Gazmuri R.J., Hazinski, M.F., Travers, A.H. (2017). 2017 American Heart Association Focused Update on Adult Basic Life Support and Cardiopulmonary Resuscitation Quality: An Updated on the AHA Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. <i>Circulation</i> . 2017;136:00-00. DOI: 10.1161/CIR.0000000000000539.
Levine, G.N., et al. (2015). ACC/AHA/SCAI 2015 Focused Update on primary percutaneous coronary intervention for patients with ST-elevation myocardial infarction: An update of the 2011 ACCF/AHA/SCAI guideline for percutaneous coronary intervention and the 2013 ACCF/AHA/guideline for the management of ST-elevation myocardial infarction: A report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines and the Society of Cardiovascular Angiography and Interventions. <i>Catheter Cardiovascular Intervention</i> , 2016 May;87(6): 1001-19.
Dilansky M.A., Moore, S.M., (September 30, 2013) Quality and safety education for Nurses (QSEN) The Key is Systems Thinking. Online Journal of Issues in Nursing, 2013; Vol 18, No. 3, Manuscript 1.

SECTION II: CURRICULUM INTEGRATION

A. SCENARIO LEARNING OBJECTIVES

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Learning Outcomes
1. Utilize nursing process skills to problem solve a patient care management issue
2. Prioritize interventions based on interpretation of assessment data
3. Communicate effectively with team and patient/family
Specific Learning Objectives
1. Perform a focused assessment
2. Recognize change in patient condition
3. Assess patients pain to include character, severity, location, radiation, exacerbating or alleviating factors (PQRST)
4. Prioritize nursing interventions appropriately
5. Evaluate patient response to treatment
5. Awareness of side effects of NTG and teaching and monitoring of patient to help prevent.
5. Evaluate effectiveness of interventions in a timely matter and reassess as needed
6. Communicate effectively and clearly patients status using SBAR to team, patient/family and MD
Critical Learner Actions
1. Wash hands/introduce self/ identify patient
2. Complete assessment and document vital signs
3. Recognize change in condition and assessment of chest pain using PQRST
4. Call for help early
5. Administer medications appropriately as ordered by MD
6. Primary RN delegates specific tasks to specific team members as they arrive in room; requesting “call outs”, closed loop communication and continuous situation monitoring
7. Utilize SBAR and RAV communication formats with call to primary care provider regarding patient status.
8. Assess interventions of oxygen, NTG, morphine and ASA by continuously assessing VS and patient status.
9. Continue to reassure family member and answer questions regarding patient.

B. PRE-SCENARIO LEARNER ACTIVITIES

B. PRE-SCENARIO LEARNER ACTIVITIES	
Prerequisite Competencies	
Knowledge	Skills/ Attitudes
<input type="checkbox"/> Focused assessment skills	<input type="checkbox"/> Pathophysiology / clinical manifestations / risk factors of ACS
<input type="checkbox"/> CPR according to current guidelines	<input type="checkbox"/> Collaborative interventions for management of ACS
<input type="checkbox"/> Chest pain protocols	<input type="checkbox"/> Knowledge of SBAR communication tool
<input type="checkbox"/> Cardiopulmonary/pain assessment	<input type="checkbox"/> Interprofessional communication
<input type="checkbox"/> Team steps; teamwork and collaboration	<input type="checkbox"/> Communication strategies for patient/family in escalating situations
<input type="checkbox"/> Safe medication and oxygen administration	<input type="checkbox"/> Communication skills in taking telephone offers: read back and verify (RAV)
<input type="checkbox"/> Priority setting and clinical decision making	<input type="checkbox"/>

SECTION III: SCENARIO SCRIPT

A. Case summary

50 yr old male patient was admitted this morning with fever and chills. He is a construction worker and stepped on a nail at work 2-days ago. He woke this morning with left leg and ankle pain. His left foot was swollen, and he was unable to get his foot into his shoe. Complains of 4/10 foot pain, unable bear weight on left foot, wife brought patient to hospital this morning.

B. Key contextual details

The patient was admitted to the medical-surgical floor this afternoon after being seen in the ED this morning. He just finished eating his lunch tray.

C. Scenario Cast

Patient/ Client	<input checked="" type="checkbox"/> High fidelity simulator	
	<input type="checkbox"/> Mid-level simulator	
	<input type="checkbox"/> Task trainer	
	<input type="checkbox"/> Hybrid (Blended simulator)	
	<input type="checkbox"/> Standardized patient	
Role	Brief Descriptor (Optional)	Standardized Participant (SP) or Learner (L)
RN 1		L
RN 2		L
Wife		SP
Observer		L
Charge RN		SP

D. Patient/Client Profile			
Last name:	Phillips	First name:	Greg
Gender: Male	Age: 49	Ht: 6'	Wt: 220lbs
Code Status:			
Spiritual Practice: Protestant	Ethnicity: Caucasian	Primary Language spoken: English	
1. Past history			
Admitted this morning with fever and chills. He is a construction worker and stepped on a nail at work 2-days ago. He woke this morning with left leg and ankle pain/tenderness. His left foot was swollen, red and he was unable to get foot into shoe. Complains of 4/10 foot pain, unable bare weight on left foot, wife brought patient to hospital this morning.			
PMH: HTN, Diabetic Type II x 10 yr, Renal Insufficiency, Stable Angina, Stress Test positive September 2007			
Primary Medical Diagnosis	Cellulitis - LLE		

2. Review of Systems	
CNS	Alert and oriented x 3
Cardiovascular	Stage 1 HTN; +stress test 9/07
Pulmonary	
Renal/Hepatic	Renal insufficiency
Gastrointestinal	
Endocrine	Type II DM
Heme/Coag	
Musculoskeletal	
Integument	Laceration to left foot from nail injury
Developmental Hx	
Psychiatric Hx	
Social Hx	Married; construction worker; 2 grown unemployed children living at home
Alternative/ Complementary Medicine Hx	

Medication allergies:	NKDA	Reaction:	
Food/other allergies:		Reaction:	

3. Current medications	Drug	Dose	Route	Frequency
	Glyburide	5 mg	PO	Daily
	Norvasc	5 mg	PO	Daily
	Hydrochlorothiazide	12.5 mg	PO	Daily

4. Laboratory, Diagnostic Study Results					
Na: 138	K: 3.8	Cl: 95	HCO3:	BUN: 14	Cr: 1.0
Ca:	Mg:	Phos:	Glucose:	HgA1C:	
Hgb: 12	Hct: 36	Plt: 150	WBC: 16.0	ABO Blood Type:	
PT	PTT	INR	Troponin:	BNP:	
ABG-pH:	paO2:	paCO2:	HCO3/BE:	SaO2:	
VDRL:	GBS:	Herpes:	HIV:		
CXR: WNL	ECG: 12 lead				

E. Baseline Simulator/Standardized Patient State (This may vary from the baseline data provided to learners)			
1. Initial physical appearance			
Gender: male		Attire: hospital gown	
<u>Alterations in appearance (moulage):</u> Left ankle area is wrapped in kerlix dressing			
X	ID band present, accurate	ID band present, inaccurate	ID band absent or not applicable
X	Allergy band present, accurate	Allergy band inaccurate	Allergy band absent or N/A

2. Initial Vital Signs Monitor display in simulation action room:			
No monitor display		X Monitor on, but no data displayed	Monitor on, data displayed
BP: 140/80	HR: 110	RR:22	T:100.5 SpO ₂ : 93%
CVP:	PAS:	PAD:	PCWP: CO:
AIRWAY:	ETCO ₂ :	FHR:	
Lungs: Sounds/mechanics	Left: clear	Right: clear	
Heart:	Sounds: S1 S2	Blood and urine cultures done	
	ECG rhythm: sinus tach		
	Other:		
Bowel sounds:	hypoactive	Other:	

3. Initial Intravenous line set up						
	Saline lock #1	Site:			IV patent (Y/N)	
	IV #1	Site:		Fluid type:	Initial rate:	X IV patent (Y/N)
	Main	RA		.9NS	125ml/hr	
	Piggyback					
	IV #2	Site:		Fluid type:	Initial rate:	IV patent (Y/N)
	Main	RA				
	Piggyback					
4. Initial Non-invasive monitors set up						
X	NIBP			ECG First lead:		ECG Second lead:
X	Pulse oximeter	X		Temp monitor/type		Other:
5. Initial Hemodynamic monitors set up						
	A-line Site:			Catheter/tubing Patency (Y/N)	CVP Site:	PAC Site:
6. Other monitors/devices						
	Foley catheter		Amount:	Appearance of urine:		
	Epidural catheter			Infusion pump:	Pump settings:	
Environment, Equipment, Essential props						
1. Scenario setting: (example: patient room, home, ED, lobby)						
Med Surg Patient Room						

2. Equipment, supplies, monitors (In simulation action room or available in adjacent core storage rooms)							
X	Bedpan/ Urinal			Foley catheter kit		Straight cath. kit	Incentive spirometer
X	IV Infusion pump			Feeding pump		Pressure bag	Wall suction
	Nasogastric tube			ETT suction catheters		Oral suction catheters	Chest tube kit
X	Defibrillator	X		Code Cart	X	12-lead ECG	Chest tube equip
	PCA infusion pump			Epidural infusion pump		Central line Insertion Kit	Dressing Δ equipment
	IV fluid Type:			IV fluid additives:		IV Piggy back	Blood product ABO Type: # of units:

3. Respiratory therapy equipment/devices							
X	Nasal cannula		Face tent	x	Simple Face Mask	X	Non re-breather mask
X	BVM/Ambu bag		Nebulizer tx kit		Flowmeters (extra supply)		

4. Documentation and Order Forms							
X	Health Care Provider orders	X	Med Admin Record	X	H & P		Lab Results
X	Progress Notes	X	Graphic record		Anesthesia/PACU record		ED Record
X	Medication reconciliation		Transfer orders		Standing (protocol) orders		ICU flow sheet
X	Nurses' Notes		Dx test reports		Code Record		Prenatal record
	Actual medical record binder, constructed per institutional guidelines				Other Describe:		

5. Medications (to be available in sim action room)								
#	Medication	Dosage	Route		#	Medication	Dosage	Route
	NTG tablets	0.4 mg	SL prn cp MR q5 min x 3			ASA	325mg	po
	Tylenol	650 mg	PO prn temp >101.5					
	Ceftriaxone	1 gm q12hrs	IVPB					
	Morphine	2mg if pain not relieved by NTG	IV					

CASE FLOW / TRIGGERS/ SCENARIO DEVELOPMENT STATES

Initiation of Scenario :

Mr Greg Phillips is a 50 yr old male patient admitted this morning with fever and chills. He is a construction worker and stepped on a nail at work 2-days ago. He woke this morning with left leg and ankle pain. His left foot was swollen, and he was unable to get his foot into his shoe. Complains of 4/10 foot pain, unable bear weight on left foot, wife brought patient to hospital this morning.

He has a PMH of HTN, Diabetic Type II x 10 yr, Renal Insufficiency, Stable Angina, Stress Test positive last year. His last set of vital signs: 140/80, 110, 22, 100.5, 93%RA. He was given Tylenol 650 mg po upon arrival from ED. Wife is at bedside and patient just finished eating lunch about 30 minutes ago.

STATE / PATIENT STATUS	DESIRED LEARNER ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
<p>1. Baseline</p> <p>Patient complies with assessment; answers questions simply</p>	<p>Operator</p> <p>Do not reveal until learner assesses parameters: BP: 140/80 HR 110 ST RR 22, SP02 93% Temp 100.5 FSBS if checked 100</p> <p>Triggers: Pt complains of nausea after 3 minutes</p>	<p>-Wash hands/ introduce self / identify patient -assessment / vital signs (Touch monitor screen to elicit information) Provide patient/family teaching regarding plan while assessing</p>	<p>Debriefing Points:</p> <p>-Use a checklist to scan patient, environment, and equipment for embedded errors during hand-off report -Importance of patient / family teaching while performing assessment -Seek and include input from patient/family members regarding plan of care</p>

STATE / PATIENT STATUS	DESIRED ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
<p>2.</p> <p>Pt. C/O feeling slightly nauseated “It must have been what I ate at lunch” “I am not feeling so good.”</p> <p>Wife acts concerned “Can you do something for my husband?”</p>	<p>Operator:</p> <p>150/90 HR 120 RR 24 SpO2 90% on RA</p> <p>Triggers: 2-3 minutes pass while patient becomes increasingly uncomfortable</p>	<p>Learner Actions:</p> <ul style="list-style-type: none"> -Focused assessment -RN 1 delegates RN 2 to check chart -Call for charge nurse for assistance -Use SBAR to give information to charge nurse -Notice drop in spO2 – apply oxygen 2L NC 	<p>Debriefing Points:</p> <ul style="list-style-type: none"> -Investigate patient complaints -note risk factors for ACS -Delegate duties/ask nurse colleagues for help -Utilize resources available to help problem solve -Assess and respond to a change in patient condition/re-evaluate after intervention

STATE / PATIENT STATUS	DESIRED ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
<p>3.</p> <p>Wife becomes increasingly concerned about husband's condition Patient says "I really don't feel good at all." Begin vague c/o of chest tightness.</p>	<p>Operator:</p> <p>VS remain unchanged 150/90 HR 120 RR 24 SpO2 90% on 2L NC</p> <p>Triggers: Chest pain</p> <p>MD Orders:</p> <ul style="list-style-type: none"> • Nitroglycerine 0.4 mg sublingual now, may repeat every 5 minutes x 3 if no relief • Aspirin 325 mg PO now • Morphine 2 mg IV if pain not relieved by nitroglycerine • Oxygen 6 L/mask • Labs: Cardiac enzymes Q8hr x3 <p>Continue to monitor patient</p>	<p>Learner Actions:</p> <p>-Continue focused assessment utilizing PQRST to assess chest pain -Call or delegate to call RRT -Call MD and report patients change in condition utilizing SBAR communication. -RAV order for stat 12 lead EKG -SBAR report to RRT team -EKG results show ST elevation -Call MD reporting EKG results utilizing SBAR. RAV MD orders. -Delegate RN 2 to comfort and explain patient status.</p>	<p>Debriefing Points:</p> <p>-Relevance of nausea and chest pain in this patient -Assessment of chest pain utilizing PQRST</p> <p>-Role of information in decreasing anxious family -Interprofessional teamwork and collaboration</p>

STATE / PATIENT STATUS	DESIRED ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
<p>4.</p> <p>Wife “Will that make him feel better?” What is that medication? Pt. begins to c/o of HA</p>	<p>Operator:</p> <p>150/90 HR 120 RR 24 SpO2 90% on 2L NC</p> <p>Triggers: Medications are administered</p> <p>VS: BP: 136/70 HR 110 RR 20 SpO2 94% Relief of CP</p>	<p>Learner Actions:</p> <ul style="list-style-type: none"> -Safely administer of NTG/ASA and increase of O2 to 6L NC -Educate patient/family and assess for side effects of NTG -Assess and evaluate effectiveness of interventions -monitor patient response to medication -comfort and communicate with patient/family member <p>-Pt prepped and ready to go to cath lab</p>	<p>Debriefing Points</p> <ul style="list-style-type: none"> -Discuss components of teamwork and communication to assure all important assessments and interventions are completed. -MONA protocol for cardiac related chest pain -Prioritizing interventions and assessing response -Expected actions and side effects of NTG -Assess and respond to a change in patient condition/re-evaluate after intervention -SBAR/closed loop communication -Patient/family teaching
<p>Scenario End Point: Transport team arrives to take patient to cath lab.</p>			
<p>Suggestions to <u>decrease</u> complexity: Charge RN or RRT RN in room to assist with orders and order administration Suggestions to <u>increase</u> complexity: Progress patient to full code. Have wife get hysterical.</p>			

APPENDIX A: HEALTH CARE PROVIDER ORDERS

Patient Name: Greg Phillips DOB: Age: 49 y/o MR#: 123456	Diagnosis: LLE cellulitis
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† No Known Allergies

† Allergies & Sensitivities

Date	Time	HEALTH CARE PROVIDER ORDERS AND SIGNATURE
		Admit to med surg unit
		Dx: LLE cellulitis
		IV: .9NS at 125ml/hr
		CBC and chem 7 in a.m.
		Meds:
		Glyburide 5mg po daily
		Norvasc 5mg po daily
		Hydrochlorothiazide 12.5mg po daily
		Ceftriaxone 1gm q12hrs IVPB
		Tylenol 650mg po prn tem >101.5
		Routine VS
		Regular diet
		Up with assist only
Signature		

APPENDIX B: Digital images of manikin and/or scenario milieu

Insert digital photo here

Insert digital photo here

Insert digital photo here

Insert digital photo here

APPENDIX C: DEBRIEFING GUIDE

General Debriefing Plan			
<input type="checkbox"/> Individual	<input type="checkbox"/> Group	<input type="checkbox"/> With Video	<input type="checkbox"/> Without Video
Debriefing Materials			
<input type="checkbox"/> Debriefing Guide	<input type="checkbox"/> Objectives	<input type="checkbox"/> Debriefing Points	<input type="checkbox"/> QSEN
QSEN Competencies to consider for debriefing scenarios			
<input type="checkbox"/> Patient Centered Care	<input type="checkbox"/> Teamwork/Collaboration	<input type="checkbox"/> Evidence-based Practice	
<input type="checkbox"/> Safety	<input type="checkbox"/> Quality Improvement	<input type="checkbox"/> Informatics	
Sample Questions for Debriefing			
<ol style="list-style-type: none"> 1. How did the experience of caring for this patient feel for you and the team? 2. Did you have the knowledge and skills to meet the learning objectives of the scenario? 3. What GAPS did you identify in your own knowledge base and/or preparation for the simulation experience? 4. What RELEVANT information was missing from the scenario that impacted your performance? How did you attempt to fill in the GAP? 5. How would you handle the scenario differently if you could? 6. In what ways did you check feel the need to check ACCURACY of the data you were given? 7. In what ways did you perform well? 8. What communication strategies did you use to validate ACCURACY of your information or decisions with your team members? 9. What three factors were most SIGNIFICANT that you will transfer to the clinical setting? 10. At what points in the scenario were your nursing actions specifically directed toward PREVENTION of a negative outcome? 11. Discuss actual experiences with diverse patient populations. 12. Discuss roles and responsibilities during a crisis. 13. Discuss how current nursing practice continues to evolve in light of new evidence. 14. Consider potential safety risks and how to avoid them. 15. Discuss the nurses' role in design, implementation, and evaluation of information technologies to support patient care. 			
Notes for future sessions:			