



California Simulation Alliance (CSA) Simulation Scenario Template

The California Simulation Alliance (CSA) is comprised of simulation users from all disciplines from throughout the state. Several regional collaboratives have formed totaling 7 as of March, 2011: The Rural North Area Simulation Collaborative (RNASC), the Capital Area Simulation Collaborative (CASC), the Bay Area Simulation Collaborative (BASC), the Central Valley Simulation Collaborative (CVSC), the Southern California Simulation Collaborative (SCSC), the Inland Empire Simulation Collaborative (IESC), and the San Diego Simulation Collaborative (SDSC). The CINHC, a non-profit organization focused on workforce development in healthcare provides leadership for the CSA.

The purpose of the California Simulation Alliance (CSA) is to become a cohesive voice for simulation in healthcare education in the state, to provide for inter-organizational research on simulation, to disseminate information to stakeholders, to create a common language for simulation, and to provide simulation educational courses. The goals of the alliance will include providing a home within the CINHC for best practice identification, information sharing, faculty development, equipment/vendor pricing agreements, scenario development, sharing and partnership models. More information can be found on the CSA website at www.californiasimulationalliance.org

All scenarios have been validated by subject matter experts, pilot tested and approved by the CSA before they were published online. All scenarios are the property of the CINHC/CSA. The writers have agreed to release authorship and waive any and all of their individual intellectual property (I.P.) rights surrounding all scenarios. I.P. release forms can be found at www.bayareanrc.org/rsc and click documents. (Please send signed I.P. release forms to KT at kt@cinhc.org)

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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		
<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)

Ryland, P., Byrd MD, Mosenifar, Zab MD (2014). Respiratory Alkalosis Clinical Presentation. <i>Medscape</i> , Retrieved from http://emedicine.medscape.com/article
Berg, R.A., Hemphill, R., Abella, B. S., Aufderheide, T. P., Cave, D. M., Hazinski, M. F., Lerner, E. B., Rea, T. D., Sayre, M. R., and Swor, R. A. (2010). 2010 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science. <i>Circulation</i> , 2010; 122, pp. s685-s705.
Jneid, M., Anderson, J.L., Wright, R.S., Adams, C.D., Bridges, C. R., Casey, D. E., Jr., ...Zidar, J.P. (2012). ACC/AHA 2012 Focused Update of the Guidelines for the management of patients with unstable angina/non ST-elevation MI. A Report of the ACC/AHA Task Force on Practice Guidelines. <i>Circulation</i> , 2012; 126, pp876-910.
Dilansky M.A., Moore, S.M., (September 30, 2013) Quality and safety education for Nurses (QSEN) The Key is Systems Thinking. <i>Online Journal of Issues in Nursing</i> , 2013; Vol 18, No. 3, Manuscript 1.
Deglin, J.H. & Vallerand, A.H. (2011) Davis Drug Guide for Nurses. Philadelphia

SECTION II: CURRICULUM INTEGRATION**A. SCENARIO LEARNING OBJECTIVES**

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

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"/>

CSA REV template (12/15/08; 5/09; 12/09; 4/11, 12/14)

ALL DATA IN THIS SCENARIO IS FICTITIOUS

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)	Confederate/Actor (C/A) or Learner (L)
RN 1		L
RN 2		L
Wife		L or C/SP
Observer		L
Charge RN		L or C/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:	
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; costruction 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	HCO ₃ :	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:	paO ₂ :	paCO ₂ :	HCO ₃ /BE:	SaO ₂ :	
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:
	Main	RA		D5 1/2NS	125ml/hr
	Piggyback				X
	IV #2	Site:		Fluid type:	Initial rate:
	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
X	IV Infusion pump		Feeding pump		Pressure bag
	Nasogastric tube		ETT suction catheters		Oral suction catheters
X	Defibrillator	X	Code Cart	X	12-lead ECG
	PCA infusion pump		Epidural infusion pump		Central line Insertion Kit
	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	0.3 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</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"</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 <p>2L NC</p>	<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 0.3 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 -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: 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%</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 -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: Suggestions to <u>increase</u> complexity: Progress patient to full code. Have wife get hysterical.</p>			

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

<p>Insert digital photo here</p>	<p>Insert digital photo here</p>
<p>Insert digital photo here</p>	<p>Insert digital photo here</p>

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:			