



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 (CVBSC), 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.cinhc.org/programs.

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:	Adult Med-Surg: Asthma	
Original Scenario Developer(s): (name and credentials)	KT Waxman, DNP, RN, CNL; W. Stiers, MD; C. O'Leary-Kelley RN, PhD	
Date - original scenario	02/2010	
Validation:	05/2010 M. Miller RN, MA	
Revision Dates:	07/2012	
Pilot testing:	05/2010 Samuel Merritt University	
QSEN revision:	07/2012 C. O'Leary-Kelley	
<u>Estimated Scenario Time:</u>	15-20 minutes	<u>Debriefing time:</u> 30-40 minutes
<u>Target group:</u> New grad RNs		
<u>Core case:</u> Asthma		
<u>QSEN Competencies:</u>		
<ul style="list-style-type: none"> • Patient-centered care • Safety • Teamwork & Collaboration 		
<u>Brief Summary of Case:</u>		
<p>A 46-yr-old male with a hx of tobacco use for the past 30 years is admitted to the medical-surgical/telemetry unit from the ED. He uses a metered dose inhaler on a prn basis. Presented to the Emergency Department with recent history of Upper Respiratory Infection symptoms and low grade fever, now with shortness of breath and wheezes unrelieved by his metered dose inhaler. Wife is at bedside and appears anxious. Patient was admitted after labs, CXR, and nebulizer, awaiting gram stain to start antibiotics.</p> <p>This scenario is appropriate for advanced medical-surgical students or new grads. Complexity can be increased by having the patient become increasingly confused or agitated or worsening to acute respiratory failure.</p>		

EVIDENCE BASE / REFERENCES (APA Format)

- Management of Asthma Working Group. VA/DoD clinical practice guideline for management of asthma in children and adults. Washington (DC): Department of Veteran Affairs, Department of Defense; 2009. Retrieved from <http://ngc.gov/content.aspx?id=15706&search=management+of+adult+asthma#top>
- Balter, M.S., Bell, A.D., Kaplan, A.G., Kim, H. & McIvor, R. A. (2009) Management of asthma in adults, *Canadian Medical Association Journal (CMAJ)*, 181:915-922. doi:10.1503/cmaj.080007. Retrieved from <http://www.cmaj.ca/content/181/12/915.full>
- Cronenwett, L., Sherwood, G., Barnsteiner, J. et al. (2007). Quality and safety education for nurses. *Nursing Outlook*, 55(3), 122-131. doi:10.1016/j.outlook.2007.02.006
- 2012 National Patient Safety Goals (Hospital) retrieved from: http://www.jointcommission.org/assets/1/6/2012_NPSG_HAP.pdf

SECTION II: CURRICULUM INTEGRATION

A. SCENARIO LEARNING OBJECTIVES	
Learning Outcomes	
1. Provide patient care that promotes safety and minimizes risk of error.	
2. Apply nursing process in clinical decision making for patients who require respiratory care.	
3. Integrate understanding of multiple dimensions of patient centered care.	
Specific Learning Objectives	
1. Apply principles of hand hygiene and infection control	
2. Correctly identify patients.	
3. Gather relevant patient, environmental and contextual data.	
4. Cluster relevant data to identify patient's primary problem(s).	
5. Perform timely nursing interventions to address urgent or primary problem(s).	
6. Evaluate effectiveness of interventions.	
7. Communicate patient needs, values and preferences to other members of health care team.	
8. Administer medications utilizing principles of safety.	
Critical Learner Actions	
1. Perform hand hygiene, introduce self and role, identify patient using two patient identifiers.	
2. Perform focused respiratory assessment	
3. Administer ordered medication(s) using the six rights of medication administration	
4. Apply oxygen per orders or agency protocol.	
5. Reassess relevant parameters.	
6. Report pertinent data to health care team using standardized communication tool. (SBAR)	

B. PRE-SCENARIO LEARNER ACTIVITIES	
Prerequisite Competencies	
Required prior to participating in the scenario	
Knowledge	Skills/ Attitudes
<input type="checkbox"/> Nursing Process	<input type="checkbox"/> General survey and focused respiratory assessment
<input type="checkbox"/> Respiratory system pathophysiology	<input type="checkbox"/> Nursing interventions for acute respiratory conditions including oxygen therapy
<input type="checkbox"/> Current National Patient Safety Goals	<input type="checkbox"/> Engage patients to promote health, safety, well-being and self-care management
<input type="checkbox"/> Structured communication tools (i.e, SBAR)	<input type="checkbox"/> Communication using SBAR
<input type="checkbox"/> Dimensions of patient centered care	<input type="checkbox"/> Value active patient participation in plan of care
<input type="checkbox"/> Six rights of medication administration	<input type="checkbox"/> Use of Metered Dose Inhaler

SECTION III: SCENARIO SCRIPT

A. Case summary

A 46-yr-old male with a 30-pack year history of tobacco use is admitted to the medical-surgical /telemetry unit from the ED. He has a history of asthma/COPD and he uses a metered dose inhaler on a prn basis. He presented to the ED with recent history of URI symptoms and low grade fever. He now has persistent dyspnea and wheezes unrelieved by his metered dose inhaler. Wife is at bedside and appears anxious. Patient was admitted after labs, CXR, and nebulizer treatment in ED. He has been admitted to the floor and will be started on IV antibiotic therapy.

B. Key contextual details

The patient has persistent coughing and dyspnea. His wife is very anxious, asking several questions while sitting at the patient's bedside. The learner is expected to contact the physician for additional orders as the patient has had a poor response to initial therapy. The learner must use SBAR when communicating with the physician and the respiratory therapist.

C. Scenario Cast

Patient/ Client	<input 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 (C) or Learner (L)
RN 1		Learner
RN 2	(assists RN 1; may omit this role)	Learner
Resp therapist		Learner or (C)
Wife		C
MD		C

D. Patient/Client Profile				
Last name:	Phillips		First name: Greg	
Gender: M	Age: 46	Ht: 6'	Wt: 180 #	Code Status: Full
Spiritual Practice: none stated		Ethnicity: Caucasian		Primary Language spoken: English
1. History of present illness				
Pt. admitted due to one-week history of URI symptoms, increased cough, sputum production, DYSPNEA. Low grade fever, VS stable. Admitted for treatment of COPD exacerbation. Cultures, CXR and nebulized meds in ED. Admit to floor for IV antibiotics.				
Primary Medical Diagnosis		R/O pneumonia		

2. Review of Systems	
CNS	A&O x 4; MAE; rib pain with coughing
Cardiovascular	12-lead WNL; S1 S2 RRR; no edema; normotensive
Pulmonary	Scattered wheezes throughout lung fields; dyspneic
Renal/Hepatic	No renal/hepatic abnormalities
Gastrointestinal	Abdomen soft, non-tender BS x4 quadrants
Endocrine	No endocrine abnormalities
Heme/Coag	No bleeding abnormalities
Musculoskeletal	MAE; joints move freely; ambulatory
Integument	Intact; no lesions
Developmental Hx	normal adult male
Psychiatric Hx	none
Social Hx	30 pack year history of tobacco; states has decreased to one pack / week; denies ETOH
Alternative/ Complementary Medicine Hx	

Medication allergies:	PCN	Reaction:	Skin Rash
Food/other allergies:		Reaction:	

3. Current medications	Drug	Dose	Route	Frequency
	Albuterol metered dose inhaler	2 puffs	inhaled	PRN breathlessness; q4h
Acetaminophen	650 mg	PO	Q 6h; PRN pain/ HA	

4. Laboratory, Diagnostic Study Results					
Na: 142	K: 4.4	Cl: 105	CO2: 22	BUN: 20	Cr: 0.8
Ca: 9.6	Mg: 2.0	Phos: 4.2	Glucose: 96	HgA1C:	
Hgb: 14.3	Hct: 42.9	Plt: 247	WBC: 9.8	ABO Blood Type:	
PT:	PTT:	INR:	Troponin:	BNP:	
Ammonia:	Amylase:	Lipase:	Albumin:	Lactate:	
ABG-pH: 7.35	paO2: 80	paCO2: 40	HCO3/BE: 26	SaO2: 94	
VDRL:	GBS:	Herpes:	HIV:		
CXR: diffuse infiltrates LLL		ECG: NSR rate 90 bpm			
CT:		MRI:			
Other:					

E. Baseline Simulator/Standardized Patient State (This may vary from the baseline data provided to learners)					
1. Initial physical appearance					
Gender: male		Attire: gown			
Alterations in appearance (moulage): Standard patient appearance; patient and wife not especially knowledgeable about his asthma or related care; Kleenex at bedside					
x	ID band present, accurate information		ID band present, inaccurate information		ID band absent or not applicable
x	Allergy band present, accurate information		Allergy band present, inaccurate information		Allergy band absent or not applicable

2. Initial Vital Signs Monitor display in simulation action room:					
	No monitor display	x	Monitor on, but no data displayed		Monitor on, standard display

BP: 140/90	HR: 98	RR: 24	T: 100 ⁰	SpO2: 93%
CVP:	PAS:	PAD:	PCWP:	CO:
AIRWAY:	ETCO2:	FHR:		
Lungs: Sounds/mechanics	Left: wheezes		Right: wheezes	
Heart:	Sounds: clear			
	ECG rhythm:	NSR		
	Other:			
Bowel sounds:	hypoactive		Other:	

3. Initial Intravenous line set up						
X	Saline lock #1	Site:	RA			IV patent (Y/N)
	IV #1	Site:		Fluid type:	Initial rate:	IV patent (Y/N)
	Main					
	Piggyback					
	IV #2	Site:		Fluid type:	Initial rate:	IV patent (Y/N)
	Main					
	Piggyback					
4. Initial Non-invasive monitors set up						
x	NIBP		ECG First lead:		ECG Second lead:	
x	Pulse oximeter		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:		
	Fetal Heart rate monitor/tocometer			Internal	External	
Environment, Equipment, Essential props						
Recommend standardized set ups for each commonly simulated environment						
1. Scenario setting: (example: patient room, home, ED, lobby)						
Patient room – medical surgical / telemetry unit						

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
	IV Infusion pump		Feeding pump		Pressure bag	Wall suction
	Nasogastric tube		ETT suction catheters	x	Oral suction catheters	Chest tube insertion kit
	Defibrillator		Code Cart		12-lead ECG	Chest tube equip
	PCA infusion pump		Epidural infusion pump		Central line Insertion Kit	Dressing Δ equipment
	IV fluid Type:				Tubes/drains Type:	Blood product ABO Type: # of units:

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

4. Documentation and Order Forms						
x	Health Care Provider orders		Med Admin Record	x	H & P	Lab Results
x	Progress Notes		Graphic record		Anesthesia/PACU record	x ED Record
	Medication reconciliation		Transfer orders		Standing (protocol) orders	ICU flow sheet
	Nurses' Notes		Dx test reports		Code Record	Prenatal record
x	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
1	Albuterol	2.5 mg	metered dose inhaler					
	Solumedrol	60 mg	IV					
	Cefazolin	1 gm	IVPB					

CASE FLOW / TRIGGERS/ SCENARIO DEVELOPMENT STATES			
<p>Initiation of Scenario : 46-yr-old male with a 30-pack year history of tobacco use is admitted to the medical-surgical /telemetry unit from the ED. He has a history of asthma/COPD and he uses an METERED DOSE INHALER on a prn basis at home. He presented to the ED with recent history of URI symptoms and low grade fever. He has persistent DYS/PNEA and wheezes unrelieved by his METERED DOSE INHALER. Wife is at bedside and appears anxious. Patient was admitted after labs, CXR, and nebulizer treatment in ED. He has been admitted to the floor and will be started on IV antibiotic therapy.</p>			
STATE / PATIENT STATUS	DESIRED LEARNER ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
<p>1. Baseline</p> <p>Patient is able to answer brief questions/cooperative Wife is anxious – asks several questions</p>	<p>Operator</p> <p>Wheezing; bilateral Temp 100⁰ F HR 110 RR 22 B/P 140/90 SpO2 93% on 2L/ NC</p> <p>Triggers: Learner Actions completed or 5 minutes has elapsed</p>	<p>Learner Actions</p> <ol style="list-style-type: none"> 1. Wash hands/intro self/ID pt 2. Focused respiratory assessment 3. Note vital signs/pulse ox 4. Note increased DYS/PNEA 5. Check O2 flow 6. Check chart for orders for metered dose inhaler 7. Assist patient with metered dose inhaler 8. Reassure patient & family 	<p>Debriefing Points:</p> <ul style="list-style-type: none"> • National Patient Safety Goals to prevent transmission of infection and minimize risk of error • Significance of vital sign deviations from normal • Opportunities for patient teaching r/t promoting self-care.

STATE / PATIENT STATUS	DESIRED ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
<p>Patient becomes increasingly dyspneic; poor response to METERED DOSE INHALER</p>	<p>Operator: Wheezing; coughing. "I'm having a lot of trouble breathing now..." HR 110 RR 24 B/P unchanged SpO2 92% on 2L</p> <p>Triggers: gives SBAR report to MD; requests assistance from RT</p>	<p>Learner Actions:</p> <ol style="list-style-type: none"> 1. Note worsening condition 2. Perform reassessment 3. Contact MD – give data using SBAR 4. Takes orders/ reads back 5. Contacts RT or delegates to Charge RN 	<p>Debriefing Points:</p> <ul style="list-style-type: none"> • Early recognition and indications of worsening status. • Clustering relevant data to identify urgent problem. • Reassessment to determine effectiveness of interventions. • Physiological responses to increased anxiety.

STATE / PATIENT STATUS	DESIRED ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
<p>3. RT enters room; IDs patient; assesses lungs. Prepares HHN medication, explains and administers to patient. Asks nurse if "OK to bump up O2?"</p> <p>Wife expresses concern about her husband's status.</p>	<p>Operator: Wheezing; coughing continue. "I can't breathe..." "Why am I not getting better?"</p> <p>HR 110 RR 24 B/P unchanged SpO2 90% on 2L</p> <p>Triggers: RT leaves; pt is holding HHN device</p>	<p>Learner Actions:</p> <ol style="list-style-type: none"> 1. Provides SBAR report to RT. 2. Communicates pertinent information to patient in calm, concise language. 3. Responds to patient concerns with sensitivity, respect and honesty. 4. Monitors hand held nebulizer after RT leaves. 	<p>Debriefing Points:</p> <ul style="list-style-type: none"> • Interprofessional teamwork, communication/collaboration • Structured communication tools in the clinical environment. • Nurses role in relieving all types and sources of patient distress. (suffering)

STATE / PATIENT STATUS	DESIRED ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
<p>4. MD enters room when RT leaves. Greets patient and wife. MD asks patient if he has “cut-down” on his cigarette smoking.</p> <p>MD is somewhat loud and hurried. Asks nurse about pt. condition and what orders have been completed.</p>	<p>Operator:</p> <p>Pt. converses with physician with brief, one-word answers. Continues with wheezes, but less dyspnea. HR 100 RR 20 BP 138/88 SpO2 93% on 4L</p> <p>Triggers: hand held nebulizer treatment is completed. MD leaves to write additional orders</p>	<p>Learner Actions:</p> <ol style="list-style-type: none"> 1. Provide current assessment data to MD 2. Clarify questions or concerns with MD 3. Continue to monitor and reassess patient and vital signs 	<p>Debriefing Points</p> <ul style="list-style-type: none"> • Review strategies for difficult communication situations • Discuss role of RN in continued reassessment and trending
<p>Scenario End Point: Transport arrives with guerny for transfer to radiology for repeat chest x-ray</p>			
<p>Suggestions to <u>decrease</u> complexity: decrease number of roles so there are fewer people for learner to interact with Suggestions to <u>increase</u> complexity: increase intensity of wife or MD interactions requiring additional communication skills/techniques; increase acuity of patient. The patient could become increasingly agitated, restless or develops acute respiratory failure requiring intubation or transfer to critical care unit.</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:			