



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 validate 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:	Acute Coronary Syndrome – Chest Pain Assessment - Case A		
Original Scenario Developer(s):	Anne Boulter Lucero, RN, MSN anlucero@cabrillo.edu		
Date - original scenario	7-08-07		
Validation:	B. Crouch, RN, CCRN & M. Miller, MA, RN		
Revision Dates:	1-15-07, 6-26-09, 2-15-10		
Pilot testing:	8-01-07		
QSEN revision:	10-05-11		
<u>Estimated Scenario Time:</u>	15-20 minutes	<u>Debriefing time:</u>	30-40 minutes
<u>Target group:</u> Advanced Medical Surgical Nursing students, new grads, new orientees to Telemetry Unit			
<u>Core case:</u> Acute Coronary Syndrome; Clinical Decision Making in an evolving case.			
<u>QSEN Competencies:</u>			
<ul style="list-style-type: none"> • Patient Safety • Patient Centered Care • Teamwork and Collaboration 			
<u>Brief Summary of Case:</u> 58 year old female admitted from the ED to telemetry for observation, with new onset chest pain and diagnosis of Acute Coronary Syndrome (ACS). NTG, ASA and O ² given in ED with relief of Chest pain. Lab, CXR, and EKG were completed and demonstrated no cardiac marker elevations or significant EKG changes. Scenario begins with patient admitted to a Tele room with nurses receiving report from the ED nurse. Learners are expected to connect the patient immediately to the monitor and O ² in the room, introduce themselves and identify the patient and begin the assessment. The patient experiences chest pain 5 minutes into the scenario. Learners expected to assess the chest pain, intervene and reassess the patient accurately as the pain resolves. They are expected to work together as a team, validate orders and decisions and communicate change of status using SBAR.			
This is the first of 4 unfolding scenarios using the same patient. It can be used as part of the unfolding case or as a stand-alone case.			

EVIDENCE BASE / REFERENCES (APA Format)

- | |
|---|
| American Heart Association, (2010) Handbook of Emergency Cardiovascular Care for Healthcare Providers |
| Black, J.M. & Hawks, J.H., (2009) Medical Surgical Nursing, Clinical Management for Positive Outcomes, Vol 2, 8th edition. St Louis: Elsevier Saunders. |
| Deglin, J.H. & Vallerand, A.H., (2011) Davis Drug Guide for Nurses, 10 th edition. Philadelphia |

SECTION II: CURRICULUM INTEGRATION

A. SCENARIO LEARNING OBJECTIVES	
Learning Outcomes	
1. Provide nursing care that promotes safety and minimizes risk of error.	
2. Apply clinical decision making skills in interpreting and analyzing data in evolving situations.	
3. Prioritize interventions based on accurate interpretation of assessment data	
4. Communicate effectively with members of the interprofessional team.	
Specific Learning Objectives	
1. Applies principles of hand hygiene, infection control and personal protection.	
2. Correctly identifies patient and introduces team.	
3. Demonstrates situational awareness and immediately applies monitor and O ² during patient admission.	
4. Gathers relevant patient and contextual data to identify patient's current problem.	
5. Recognizes acute changes in patient condition that warrants immediate intervention.	
6. Communicates effectively with patient to decrease anxiety and inform about care.	
7. Makes appropriate decisions regarding medication choices.	
8. Performs timely interventions to address urgent problems as they occur.	
9. Evaluate effectiveness of interventions.	
10. Communicates status to charge nurse using standardized SBAR tool.	
Critical Learner Actions	
1. Perform hand hygiene and identifies patient.	
2. Connects monitoring equipment and oxygen.	
3. Completes initial assessment, pausing to deal with evolving situation.	
4. Performs accurate pain assessment, assesses vital signs, O ² sats, IV patency and EKG rhythm.	
5. Administers nitroglycerin sub-lingually following 2 patient identifiers.	
6. Reassesses pain and blood pressure following nitroglycerin administration.	
7. Accurately assesses patient complaint of headache and explains rationale to patient.	
8. Makes appropriate choice of PRN medications for headache.	
9. Delivers accurate "hand-off" report using SBAR to relieving nurse.	

B. PRE-SCENARIO LEARNER ACTIVITIES	
Prerequisite Competencies	
Required prior to participating in the scenario	
Knowledge	Skills/ Attitudes
<input type="checkbox"/> Risk factors, pathophysiology and collaborative management of Acute Coronary Syndrome	<input type="checkbox"/> Assessment of Cardiovascular system
<input type="checkbox"/> Recognition of normal/abnormal cardiac rhythms.	<input type="checkbox"/> Basic introductory monitor placement skill
<input type="checkbox"/> Pharmacology of basic cardiac medications	<input type="checkbox"/> Interpretation of basic cardiac monitor rhythms
<input type="checkbox"/> Current National Patient Safety Goals	<input type="checkbox"/> Safe administration of medications, O ² admin.
<input type="checkbox"/> Structured communication tools (SBAR)	<input type="checkbox"/> Pain assessment (PQRST)
<input type="checkbox"/> Legalities (Continuous monitoring of Tele pts.)	<input type="checkbox"/> Therapeutic communication in acute situations

CSA REV template (12/15/08; 5/09; 12/09; 3/11, 1/15)

ALL DATA IN THIS SCENARIO IS FICTITIOUS

SECTION III: SCENARIO SCRIPT

A. Case summary

58 year old female admitted from the ED to telemetry for observation, with new onset chest pain and diagnosis of Acute Coronary Syndrome (ACS). NTG, ASA and O₂ relieved the Chest pain in the ED; Lab, Chest x-ray and EKG completed in the ED, demonstrating no elevation of cardiac markers or significant EKG changes.

Patient is comfortable at rest as she is admitted to a Tele room. Nurses receive report from the ED nurse and need to immediately connect the patient to the monitor and O₂ in the room, identify the patient, introduce themselves and their role.

After learners start the admission assessment the patient states that she is experiencing some chest pain like she had earlier today. The learner asks appropriate questions to determine the pain, check orders and intervenes appropriately, reassesses and deals accurately with side effect of headache. Reports episode to charge nurse using SBAR communication tool.

B. Key contextual details

Acute Care Community Hospital Telemetry Unit at beginning of shift. Patient has just been placed in the bed from the ED gurney. Brief report given by ED nurse. ED anticipating arrival of multiple patients from a trauma and nurse is rushed.

Head of bed is flat. Monitor and O₂ have not been attached. Nurses are starting their shift with this new admission. Unit is fully staffed.

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)	Actor/Confederate or Learner
Emergency Dept. Nurse	Gives hurried report at bedside	Actor
Staff Nurse	Assigned to newly admitted patient	Learner
Staff Nurse #2	Assigned to help with new admits	Learner

D. Patient/Client Profile				
Last name:	Jones		First name:	Barbara
Gender: Fe	Age: 58	Ht: 5'5"	Wt: 186#	Code Status: Full Code
Spiritual Practice: Christian		Ethnicity: Caucasian		Primary Language spoken: English
1. History of present illness				
No previous diagnosis of ACS was noted. She has not been under the care of any general physician. Risk factors include: overweight, smokes 1 pack per day. She is married; works full time outside the home as a bank manager, has three grown children and two grandchildren that she cares for on weekends.				
Primary Medical Diagnosis		Acute Coronary Syndrome		

2. Review of Systems	
CNS	Alert, oriented, cooperative
Cardiovascular	Regular sinus rhythm, no gallops, rubs or murmurs, apical clear, pulses +4
Pulmonary	Breath sounds clear, effortless, O ² sat 98% on room air
Renal/Hepatic	WNL
Gastrointestinal	Active bowel sounds X 4 quads
Endocrine	WNL
Heme/Coag	WNL, no active bleeding noted
Musculoskeletal	Moves all extremities equally and well, good muscle tone
Integument	intact, no bruises,
Developmental Hx	Middle age post-menopausal adult female
Psychiatric Hx	None reported
Social Hx	Married for 35 years to same man, mother of 3 grown children, professional, employed
Alternative/ Complementary Medicine Hx	Occasional visit to chiropractor for low back pain

Medication allergies:	None reported	Reaction:	
Food/other allergies:	NKDA	Reaction:	

3. Current medications	Drug	Dose	Route	Frequency	

4. Laboratory, Diagnostic Study Results					
Na: 136	K: 3.0	Cl: 102	HCO ₃ : 24	BUN: 15	Cr: 0.08
Ca: 9.0	Mg: 1.2	Phos:	Glucose: 101	HgA1C:	
Hgb: 12.4	Hct: 40	Plt: 320	WBC: 11.6	ABO Blood Type:	
PT: 13	PTT: 25	INR: 1.0	Troponin: 0.04	BNP:	
Ammonia:	Amylase:	Lipase:	Albumin:	Lactate:	
ABG-pH:	paO ₂ :	paCO ₂ :	HCO ₃ /BE:	SaO ₂ :	
VDRL:	GBS:	Herpes:	HIV:		
CXR: chest clear		ECG: 12 lead - regular sinus rhythm; no ST elevation			
CT:		MRI:			
Other:					

E. Baseline Simulator/Standardized Patient State (This may vary from the baseline data provided to learners)					
1. Initial physical appearance					
Gender: Fe		Attire: hospital gown			
Alterations in appearance (mouillage): Short brown, grey age appropriate wig; light makeup, lipstick, maybe dark circles under eyes					
x	ID band present, accurate information		ID band present, inaccurate information		ID band absent or not applicable
	Allergy band present, accurate information		Allergy band present, inaccurate information	x	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	<i>No data displayed until learners connect leads</i>

BP: 148/85	HR: 92	RR: 24	T: 99.2	SpO ₂ : 96%	
CVP:	PAS:	PAD:	PCWP:	CO:	
AIRWAY:	ETCO ₂ :	FHR:			
Lung sounds:	Left: clear		Right: clear		
Heart:	Sounds:	S ₁ S ₂ no murmurs			
	ECG rhythm:	Sinus			
	Other:				
Bowel sounds:	Active bowel sounds x 4		Other:		

3. Initial Intravenous line set up						
	Saline lock #1	Site:				IV patent (Y/N)
	IV #1	Site:		Fluid type:	Initial rate:	IV patent (Y/N)
x	Main	RA		Normal Saline	20 mL/hr	
	Piggyback					
	IV #2	Site:		Fluid type:	Initial rate:	IV patent (Y/N)
	Main					
	Piggyback					
4. Initial Non-invasive monitors set up						
x	NIBP	x	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	x	Infusion pump:	Pump settings: Primary	20 mL/hr	
	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)						
Monitored medical-surgical 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
x	IV Infusion pump		Feeding pump		Pressure bag	x Wall suction
	Nasogastric tube		ETT suction catheters	x	Oral suction catheters	Chest tube insertion kit
	Defibrillator	x	Code Cart	x	12-lead ECG	Chest tube equip
	PCA infusion pump		Epidural infusion pump		Central line Insertion Kit	Dressing Δ equipment
x	IV fluid Type:	Normal Saline	IV fluid additives:		IV medication	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	x	Lab Results
	Progress Notes	x	Graphic record		Anesthesia/PACU record	x	ED Record
x	Medication reconciliation		Transfer orders		Standing (protocol) orders		ICU flow sheet
x	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
6	Acetaminophen	325 mg	PO		2	Morphine	2 mg	IV
2	EC ASA	325 mg	PO		4	Saline flushes		
5	Nitroglycerin	0.4 mg	Sub-L		2	Morphine	4 mg	IV
2	Ativan	1 mg	PO		2	Colace	100 mg	PO

CASE FLOW / TRIGGERS/ SCENARIO DEVELOPMENT STATES

Initiation of Scenario : ED report upon arrival in the patient room, ED nurse gives report to three learners just inside the room

This is Ms. Barbara Jones. She came to the ED two hours ago from home after an episode of severe mid sternal chest pain that lasted at least 5 minutes. Her husband drove her to the hospital ED. We did routine workup for acute MI. There were no substantial EKG changes or elevated cardiac markers found. This is the patient's first episode of chest pain but it was severe enough to merit observation. She has not been followed by a physician She has some risk factors with her weight.

We're getting a major trauma in ... multiple car accident and I have to go back to the ED. I haven't hooked her up to the Oxygen on the wall or to the monitor. Can you do that for me please?

STATE / PATIENT STATUS	DESIRED LEARNER ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
<p>Baseline</p> <p>1. Patient lying in bed, flat, awake talking to the nurses, slightly restless, in a dressed in patient gown</p> <p>2. Patient asks "what are you nurses doing?"</p> <p>When EKG, O² and BP connected, start program of V/S: BP 148/84 HR 92 RR 24 Sat 97% Temp 99.2</p>	<p>Operator: As learners apply Monitor and BP cuff , Sat probe, please display on monitor in the room</p> <p>Triggers: Must complete #2,3,4,5 to progress to next scene</p> <p>If Learner Actions not complete after 3 minutes patient will cue. If still incomplete, nurse station can call room looking for the monitor transmission.</p>	<p>Learner Actions:</p> <ol style="list-style-type: none"> 1. Wash hands or gel in 2. Introduce self and role 3. Identify patient 4. Check O² sats. 5. Initiate O² at 2L/NC 6. Attach EKG leads, BP cuff 7. Begin Admission Assessment <p>If learners do not attach the O² and EKG pt will say " Is the O² still necessary? It makes my nose itch". Continue the assessment</p> <ol style="list-style-type: none"> 8. Read physician orders 9. Make patient comfortable in bed, orient to the room 	<p>Debriefing Points:</p> <ul style="list-style-type: none"> • Monitored patients must EKG observation at all times • Basis for treatment decisions, for the safety of the of the patient and liability issues • Important to check orders for "Now" orders on monitored patients • Critical factors to communicate in "hand off" reports • Strategies for filling gaps in "hand-off" reports

STATE / PATIENT STATUS	DESIRED LEARNER ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
<p>2. Patient states "I AM FEELING THAT CHEST FEELING I HAD EARLIER"</p> <p>BP 150/90 HR 108, RR 24,</p> <p>After NTG= BP 136/78</p>	<p>Operator: 1 min after the learner gives NTG SL, drop the BP to 136/78</p> <p>Triggers: 1 min after the learner gives NTG SL, drop the BP to 136/78</p> <p>Cue: If no treatment after 2 minutes, patient states anxiously "I still have this pain. What can you do right now for me?"</p>	<p>Learner Actions:</p> <ol style="list-style-type: none"> 1. Complete pain assessment PQRST (cause, quality, region, radiation, response, severity (1-10), duration. 2. Medicate with sublingual NTG 3. Check BP for drop due to vasodilatation 4. Reassess the pain level with calm, reassuring statements to patient. 5. Explain rationale for treatment in short, clear statements 	<p>Debriefing Points:</p> <ul style="list-style-type: none"> • Order variations: some physicians/protocols may call for 12 lead EKG prior to any treatment or after 3 nitro. Rationale? • What parts of MONA have already been done? What parts of MONA are repeated with each episode of chest pain? • Strategies for keeping calm in escalating situation • Rationale for keeping calm

STATE / PATIENT STATUS	DESIRED ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
<p>3.</p> <p>Patient states “ My chest feels better now but have a headache.”</p> <p>“What’s the matter with me? I don’t usually get headaches.”</p> <p>BP 136/78 HR 88 RR 20</p>	<p>Operator:</p> <p>No changes in VS from previous post-nitro VS.</p> <p>If learners do not give nitro or do not reassess BP, keep BP at pre-nitro level until they reassess</p> <p>Triggers:</p> <p>Must do #1-5 to move on</p>	<p>Learner Actions:</p> <ol style="list-style-type: none"> 1. Checks V/S 2. Assesses headache 3. Administers Tylenol PO 4. Documents chest pain episode 5. Communicates event to the charge nurse 6. Answer patient’s statement about headache with NTG. 7. Gives simple explanation of drug action and reason for side effect of headache. 	<p>Debriefing Points:</p> <ul style="list-style-type: none"> • Documentation • SBAR communication among team members and to charge nurse. • Patient safety: Reinforce rationale for Routine ASA vs. PRN Tylenol • Non-medicinal strategies for relieving NTG headache.

STATE / PATIENT STATUS	DESIRED ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
<p>4.</p> <p>Pt states “I am feeling OK now. I think if I rest, close my eyes it would help.”</p> <p>BP 136/78 HR 82 RR 16</p>	<p>Operator:</p> <p>Continue monitor, V/S</p> <p>After 2 minutes of assessment</p> <p>Call into room that #3A needs attentions of the nurse.</p> <p>Triggers:</p> <p>When learners all leave the room the scenario is complete</p> <p>If they do not all leave, cue that the nurse needs their assistance in 3A</p>	<p>Learner Actions:</p> <ol style="list-style-type: none"> 1. Reassesses patient status including V/S; both headache and chest pain 2. Resumes admission assessment if incomplete 3. Prior to leaving, assures patient that they will return within a few minutes to check on her. 4. Gives clear directions re: calling if any chest discomfort reoccurs 5. Assures that patient can use call bell. 6. Responds to patient needs in room #3A by leaving this room 	<p>Debriefing Points</p> <ul style="list-style-type: none"> • Prioritization of multiple patients • Need for clear communication to patient that you will return, and instructions of when to call you • Patient Safety as above • Clear communication with feedback
<p>Scenario End Point: Learners/ nurses are called on the intercom that patient in 3A needs their assistance. (Hopefully this will cue them to leave the room) If this does not get them out of the room, send charge nurse in to give them a break, ending with SBAR – “hand off” report.</p>			
<p>Suggestions to Increase or Decrease Scenario Complexity:</p> <ol style="list-style-type: none"> 1. Decrease complexity for level 1 and level 2 by extending the time before patient complains of chest pain. Objectives would be for them to connect equipment, assess & communicate with patient, recognize & assess the chest pain, administer O² & call for the primary nurse. Ends with SBAR indicating the change in status. 2. Increase complexity for level 4 by adding anxious family member, pain unrelieved until 2nd nitro followed by morphine. 			

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 checked="" type="checkbox"/> Group	<input type="checkbox"/> With Video	<input type="checkbox"/> Without Video
Debriefing Materials			
<input type="checkbox"/> Debriefing Guide	<input checked="" type="checkbox"/> Objectives	<input checked="" type="checkbox"/> Debriefing Points	<input checked="" type="checkbox"/> QSEN
QSEN Competencies to consider for debriefing scenarios			
<input checked="" type="checkbox"/> Patient Centered Care	<input checked="" type="checkbox"/> Teamwork/Collaboration	<input checked="" type="checkbox"/> Evidence-based Practice	
<input checked="" 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:			