



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 be 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, and 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 on the website www. (Please send signed I.P. release forms to KT at kt@healthimpact.org)

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SECTION I: SCENARIO OVERVIEW

Scenario Title:	Management of High Regional Block in Obstetrics	
Original Scenario Developer(s):	Cleona Cash DNP, RN	
Date - original scenario	December 27,2016	
Validation:	KT Waxman DNP, RN, CNL, CHSE, CENP, FSSH, M.Miller, MA, RN, CHSE	
Revision Dates:		
Pilot testing:	2/27/2017	
QSEN revision:		
<u>Estimated Scenario Time:</u>	15-20 Minutes	<u>Debriefing time:</u> 30 – 40 Minutes
<u>Target group:</u> Inter-professional Obstetrics Team: Obstetrician, CRNA, OB RNs, Midwife, Unit secretary, CNA, Respiratory Therapist.		
<u>Core case:</u> Interprofessional team management of patient with high regional block complications		
<u>QSEN/IOM Competencies:</u>		
<u>Brief Summary of Case:</u> 33 y/o female admitted to the labor and delivery unit for induction of labor postdate, estimated delivery date of 12/01/16. On admission to unit the patient awake alert oriented x4, denies any complaints of pain or discomfort states she had an uncomplicated pregnancy. Primary RN in to conduct initial assessment.		

EVIDENCE BASE / REFERENCES (APA Format)

- | |
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| Dale, M. C., & Checketts, M. R. (2015). Complications of regional anesthesia. <i>Anaesthesia and Intensive Care Medicine</i> , 17, 175-178. |
| Kimber-Craig, S. A. (2016). Regional anaesthesia for caesarean section and what to do if it fails. <i>Anaesthesia and Intensive Care Medicine</i> , 17, 365-368. |
| Ulrich, B., & Manning Crider, N. (2017). Using teams to improve outcomes and performance. <i>Nephrology Nursing Journal</i> , 44, 141-152. |
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SECTION II: CURRICULUM INTEGRATION

A. SCENARIO LEARNING OBJECTIVES

Learning Outcomes
1. Evaluate patient assessment data and recognize signs and symptoms of high regional block
2. Initiate effective inter-professional team (IP) communication in emergent situation to safely care for and stabilize the patient
3. Distinguish between acute respiratory and conditions of fetal distress to safely care for both mother and baby
Specific Learning Objectives
1. Recognize emergency situation
2. Perform essential measures to treat the patient
3. Utilize the ACLS skills in code training
4. Define role in a code situation
5. Demonstrate proper utilization of teamwork
6. Demonstrate the ability to effectively hand-off communication to other healthcare team members using the SBAR tool.
7.
8.
9.
Critical Learner Actions
1. Conduct a focused assessment at the onset of respiratory distress
2. Call for assistance/ recognizes the need for additional help
3. Recognizes the probability of patient receiving high spinal anesthesia
4. Prioritize and delegate responsibilities
5. Function as a team to support and correct Respiratory distress
6. Communicate using SBAR tool
7. Reassess interventions
8.
9.

B. PRE-SCENARIO LEARNER ACTIVITIES

Prerequisite Competencies	
Knowledge	Skills/ Attitudes
<input type="checkbox"/> Collaborative management of sign and symptoms high regional block in obstetrics	<input type="checkbox"/> Early recognition of high regional block in the obstetric patient
<input type="checkbox"/> Pharmacology of basic blocking agents used in epidurals	<input type="checkbox"/> Safe administration and management of epidural medication/ Pitocin and vasoconstrictor medications
<input type="checkbox"/> Post interventional complications	<input type="checkbox"/> Interpretation of basic fetal heart monitoring
<input type="checkbox"/> QUSEN competency regarding team communication.	<input type="checkbox"/> Decision making regarding patient condition and treatment methods

SECTION III: SCENARIO SCRIPT

A. Case summary

A 33-year-old healthy female Gravida 2 Parity1 admitted for induction of labor for postdates pregnancy. Uncomplicated pregnancy, prenatal care from 5 weeks gestation, patient was admitted to the Labor and deliver unit after being sent to hospital by her obstetrician. Patient had a previous spontaneous, uneventful vaginal delivery in the past.

B. Key contextual details

Labor and Delivery Unit- AM change of shift (staff receiving report) all unit beds occupied

C. Scenario Cast

Patient/ Client	<input checked="" type="checkbox"/> High fidelity simulator - Sim Mom	
	<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 or Learner (L)
Anesthesia	CRNA/ Anesthesiologist	Learner
Midwife		Learner
Primary nurse	RNs	Learner
Help/Assistants	Unit Secretary/CNA	SP
Obstetrician		SP
OB Technician		Learner

D. Patient/Client Profile				
Last name:	Brown		First name:	Jennie
Gender: Male	Age: 33	Ht: 5' 7"	Wt: 67 Kg	Code Status: Full
Spiritual Practice: Christian		Ethnicity: Caucasian		Primary Language spoken: English
1. Past history				
None Known				
Primary Medical Diagnosis		Induction of labor post dates		

2. Review of Systems	
CNS	Alert Oriented to person place time and situation
Cardiovascular	Normal S ₁ S ₂
Pulmonary	Lungs Clear Bilaterally
Renal/Hepatic	Within normal limits (WNL)
Gastrointestinal	WNL
Endocrine	WNL
Heme/Coag	WNL
Musculoskeletal	Moving all extremities pulses palpable 2+
Integument	WNL
Developmental Hx	Normal
Psychiatric Hx	None Known
Social Hx	Lives with spouse and 4 year old daughter
Alternative/ Complementary Medicine Hx	No reports

Medication allergies:	No known drug allergy	Reaction:	
Food/other allergies:	None Known	Reaction:	

3. Current medications	Drug	Dose	Route	Frequency
	Prenatal vitamin	1 tab	po	daily
	Iron	325 mg	po	daily

4. Laboratory, Diagnostic Study Results					
Na:	K:	Cl:	HCO ₃ :	BUN:	Cr:
Ca:	Mg:	Phos:	Glucose: 110	HgA1C:	
Hgb: 11.4	Hct: 30.33	Plt:	WBC:	ABO Blood Type: O Positive	
PT	PTT: 23.3	INR 0.9	Troponin:	BNP:	
ABG-pH:	paO ₂ :	paCO ₂ :	HCO ₃ /BE:	SaO ₂ :	
VDRL: NR	GBS: Neg	Herpes:	HIV: NR	Cxr:	EKG:

E. Baseline Simulator/Standardized Patient State (This may vary from the baseline data provided to learners)						
1. Initial physical appearance						
Gender: Female		Attire: In hospital gown				
<u>Alterations in appearance (moulage):</u>						
X	ID band present, accurate		ID band present, inaccurate		ID band absent or not applicable	
	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		Monitor on, but no data displayed		Monitor on, standard display	
BP: 116/75 HR: 82 RR: 16 T: 36.8° C SpO ² : 100%						
CVP:		PAS:	PAD:	PCWP:	CO:	
AIRWAY:		ETCO ₂ :	FHR:	130 average variability		
Lungs: Sounds/mechanics		Left: Clear	Right: Clear			
Heart:		Sounds:		S ₁ S ₂		
		ECG rhythm:		Regular		
		Other:				
Bowel sounds:		Present X 4 quads			Other:	
3. Initial Intravenous line set up						
	Saline lock #1	Site:				IV patent (Y/N)
	IV #1	Site:	CVC	Fluid type:	Initial rate:	Y IV patent (Y/N)
	Main	LFA		NS 1 Liter	125 mls/hr	
	Piggyback					
	IV #2	Site:		Fluid type:	Initial rate:	IV patent (Y/N)
	Main					
	Piggyback					
4. Initial Non-invasive monitors set up						
	NIBP		ECG First lead:		ECG Second lead:	
	Pulse oximeter		Temp monitor/type		Other:	
5. Initial Hemodynamic monitors set up						
	A-line Site:		Catheter/tubing Patency (Y/N)		CVC 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)							
2. Equipment, supplies, monitors (In simulation action room or available in adjacent core storage rooms)							
	Bedpan/ Urinal		Foley catheter kit		Straight cath. kit		Incentive spirometer
X	IV Infusion pump		Feeding pump		Pressure bag	X	Wall suction
	Nasogastric tube	X	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 pump		Central line Kit		Dressing Δ equip
X	IV fluid Type: LR		IV fluid additives:		Blood products: _____	ABO Type: ____	# of units: __

X	Nasal cannula		Face tent		Simple Face Mask		Non-rebreather mask
X	BVM/Ambu bag		Nebulizer tx kit		Flowmeters (extra supply)		

4. Documentation and Order Forms							
X	Provider orders	X	Med Admin Record	X	Hx & Physical		Lab Results
X	Progress Notes		Graphic record		Anes/PACU record		ED Record
	Med Reconciliatn		Transfer orders		Standing orders		ICU flow sheet
X	Nurses' Notes		Dx test reports	X	Code Record		Prenatal record
	Actual medical record binder			X	Electronic Medical Record		

5. Medications (to be available in sim action room)								
#	Medication	Dosage	Route		#	Medication	Dosage	Route

CASE FLOW / TRIGGERS/ SCENARIO DEVELOPMENT STATES

Initiation of Scenario: A 33Yr old female admitted to the Labor and delivery unit for induction of labor for postdates. Primary RN admits the patient and reports off to receiving Midwife

The patient has no past medical history or history of surgery, no known allergies. The patient was examined by the midwife, fetal heart rate (FHR) category 1 tracing. Uterine contractions q 4-7 minutes, lasting 60 to 90 seconds, mild to palpation. Sterile vaginal exam (SVE) 3/50/-2 (3 cm dilated 50% effaced and -2 stationing), bag of water (BOW) intact, vertex presentation. Pitocin augmentation initiated at 2mu/min. Patient complains of pain 8/10 requested epidural, anesthesia notified. No changes noted in SVE. Patient receiving NS 125 ml/hr. Patient consented by anesthesia and prepared for epidural. Vital signs stable.

Patient receives epidural, FHR stable throughout procedure, patient VSS stable throughout procedure. Patient placed in semi-fowlers position after procedure. Patient immediately began complaining of difficulty breathing, nausea and becomes diaphoretic, and tachycardic with slurred speech. Patient blood pressure drops to 76/40 heart rate 150 bpm. NS 1 liter bolus up infusing Neosynephrine 100 mcg IVP given. Post Neo BP 80/50. Patient stops breathing.

The CRNA or Obstetrician will make a diagnosis and take over and manage resuscitative state. Recognize the need to call for additional assistance. Team members should perform skills that aligns with their training. Recognize high block anesthesia as a probable cause. (Fetal HR 60). Patient to OR for emergent C-section.

STATE / PATIENT STATUS	DESIRED LEARNER ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
<p>1. Baseline Patient lying in bed with head raised 20° Nurse enters the room introduces self, taking patient vital signs Midwife enters room introduces self, Cueing from patient: I would like the doctor to start an epidural for this pain, it's too much.</p>	<p>Operator: B/P 130/80 HR 92 RR 24 T.36.8° C Triggers: Nurse will need to complete 1-7 before moving to next frame.</p>	<p>Learner Actions</p> <ol style="list-style-type: none"> 1. Primary nurse introduces self & role, 2. Wash hands 3. Perform 60 sec environmental assessment 4. Identify patient using two patient identifiers 5. Read Patient orders 6. Assess current IV site, and medication dose and rate. 7. Primary nurse informs Midwife of patient's request for pain management. 	<p>Debriefing Points:</p> <ol style="list-style-type: none"> 1. components of Environmental assessment- situational awareness 2. Approaches for maintaining patient safety with IV medication infusion 3. Components of "hand-off" report to midwife

STATE / PATIENT STATUS	DESIRED ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
<p>3. Patient states: My heart is pounding, I am having difficulty breathing, I am feeling nauseated.</p>	<p>Operator: B/P 76/40 HR 150 RR 8 (shallow)</p> <p>FHR 84 The patient is diaphoretic</p> <p>Patient speech is slurred</p> <p>Triggers: After 1- 5 minutes Patient stops breathing</p>	<p>Learner Actions:</p> <ol style="list-style-type: none"> 1. CRNA places epidural 2. Primary nurse assesses vital sign & fetal heart tracing 3. Alerts team of change in status 4. Recognize need to call for help and calls for help 5. Apply oxygen to patient per standing orders 6. CRNA to administer neosynephrine IVP 7. CRNA or midwife notify obstetrician 8. Midwife to assess fetal heart tracing 	<p>Debriefing Points:</p> <ol style="list-style-type: none"> 1. Response to patient status after receiving epidural 2. Elements of post-procedure monitoring 3. Parameters indicating need to call for assistance 4. Elements of high regional block management 5. Elements of fetal assessment

STATE / PATIENT STATUS	DESIRED ACTIONS & TRIGGERS TO MOVE TO NEXT STATE		
<p>4. Patient stops breathing</p> <p>END Scenario</p>	<p>Operator: B/P 78/40 HR 160 RR "O"</p> <p>FHR 60</p> <p>Triggers:</p>	<p>Learner Actions:</p> <ol style="list-style-type: none"> 1. Primary nurse- sends for crash cart and assigns roles to additional staff RNS 2. Midwife reassess fetal monitoring 3. Midwife discontinues Pitocin 4. Midwife collaborates with team and makes the decision to take patient to OR 5. CRNA- to secure patient's airway using bag Mask Valve (BMV) 6. Patient taken to the OR for emergent C-Section 	<p>Debriefing Points:</p> <ol style="list-style-type: none"> 1. Recognizes respiratory arrest and emergent procedures necessary to resuscitate patient. 2. Indications for discontinuing Pitocin drip 3. Factors indicating need for emergent C-Section 4. Management of Respiratory status during procedure.
<p>Scenario End Point: Scenario ends when patient taken to the OR for emergent C-Section.</p>			
<p>Suggestions to <u>decrease</u> complexity:</p> <p>Suggestions to <u>increase</u> complexity:</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	X Group	<input type="checkbox"/> With Video	<input type="checkbox"/> Without Video
Debriefing Materials			
<input type="checkbox"/> Debriefing Guide	<input type="checkbox"/> Objectives	X Debriefing Points	X QSEN
QSEN Competencies to consider for debriefing scenarios			
<input type="checkbox"/> Patient Centered Care	X Teamwork/Collaboration	<input type="checkbox"/> Evidence-based Practice	
X 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:			