

Development and Implementation of Simulation-Based Curricula

Simulation Scenario Development Worksheet

Goals & Objectives

Broad **goal(s)** of scenario:

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Specific measurable **objectives** of scenario:

After completing this curriculum, the learner will be able to:
1.
2.
3.

Scenario Details

Simulation method(s):

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Prerequisite Learning. What do students need to do before the simulation case?

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Narrative case description – what does the patient look like? Age, sex, appearance, vital signs, physical exam findings, etc.

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Critical actions for learners:

Learner Action	Simulator Response

Case progression and termination – what happens as the case goes on, and when/how does the simulation end?

See Scenario Set up form below (Appendix 1)

Debriefing plan – Method of debriefing (Delta/Plus, Advocacy/Inquiry/ Rapid Cycle Deliberate Practice.
Debriefing Pearls

Logistics

Number of learners? _____

Group size? _____

How many educators? _____

How much time is allotted? _____

What simulation equipment is needed? _____

What personnel are needed in the scenario? Do they need a script? (See Appendix II for a sample script for a confederate ?) _____

Supply list (disposables, props, costumes, etc) _____

What physical space will be used for the scenario? _____

Does the space need to be modified to support this curriculum? If so, how

Evaluation and Assessment

What will success look like?

How will you measure learner satisfaction and/or self-perception?

How will you measure attainment of learning objectives?

Are there other ways to measure the impact of this curriculum?

Facilitator Guide:

Resources for facilitator to review before activity such as a relevant review article
Debriefing pearls

Appendix I

Case Scenario Set up Form: Case PE/Hypotension.

STATE NAME	VITAL SIGNS	EXAM/ADDL MANIKIN INFO	ACTIONS DESIRED
Presenting State	Temp: 37.2 HR: 130 BP: 99/60 RR: 40 SpO2:88% RA	Dyspneic. 3 word sentences, reporting fatigue. Cyanosis	A,B,C IV, 2 Liters NS bolus rapid O2-NC Monitor AMPLE history CXR
TRANSITIONS: Go to increased dyspnea after 2 minutes			
Increased SOB	HR: 160 BP: 79/45 RR:45 SPO2: 76%	More confused, unable to answer many questions.	Increase oxygen Bedside sono- Identification of right sided heart strain Request for STAT CTA, CT head Anticoagulation with heparin Interventional Radiology Cx
TRANSITIONS: If patient is not anti-coagulated within 5 minutes			
Peri-code	HR: 160 BP: 75/45 RR: 46 SPO2: 70% RA	Eyes Closed, ashen, not communicating well.	Intubate STAT CTA/CT Head STAT Interventional Radiology for clot busters. Post intubation CXR
TRANSITIONS: When Intubated and received anti-coagulation (Heparin or tPA) go to Stabilized			
Stabilized	HR: 160 BP: 160/110 RR: (per vent) SPO2: 92%		Admit ICU

Appendix II

Confederate Sample Guide:

Confederate Template

CASE NAME:	Wide Complex Tachycardia
PATIENT SPECS	NAME: Mr. Jones
DIAGNOSIS	WCT after STEMI
CASE OBJECTIVES:	See Wide Complex Tachycardia case
Brief Case Summary	Mid aged man arriving with lightheadedness. No past medical history but is a smoker with family history of "heart disease."

History of Present Illness:	Acute onset dizziness, lightheadedness. Has been feeling some chest pressure since yesterday.
Previous Medical History	None
Allergies:	NKDA
Medications	None
Family History:	"Heart disease"

Required Actions (Be prepared to do these if learner asks but do not suggest or perform them automatically)	Place patient on monitor, apply oxygen, obtain crash cart, airway box, deliver medications, call for consultations and respiratory as needed. Repeat observations (as instructed by case facilitator) back to learners. (Please note: You will be provided with an ear piece to dictate live dynamics of the case as needed).
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Appendix III: Debriefing Cheat Sheet

Debriefing Technique Cheat Sheet:

How is everyone feeling?

Advocacy/ Inquiry

1. I observed “ _____ ” (an action)
2. I would have done “ _____ ” (your personal feeling/opinion about how to manage situation)
3. Your thoughts on this?

PLUS/DELTA

1. What went well?
2. What could have been improved upon ?
3. What/How can we do this differently to make this better in future?

Take home points

Rapid Cycle Deliberate Practice

1. Guideline or Best Practice based (example ACLS/BLS/ATLS).
2. Objective: Mastery or muscle memory of a handful of critical procedures and behaviors and not critical thinking.
3. Steps:
Start Simulation
Pause if incorrect or sub-optimal management noted.
Mini-debrief on performance (specific attention to adherence to guidelines).
Repeat until mastery.

Appendix IV: Repertoire of Simulation Cases

Online Resources:

CORD Oral board and Simulation case library:

<http://www.cordem.org/i4a/pages/index.cfm?pageid=3487>

EM Sim Cases Online

<https://emsimcases.com/>

MedEDPortal

<https://www.mededportal.org/>

Books

SimWars Case Book Emergency Medicine:

Jacobson, L., Okuda, Y., & Godwin, S. (Eds.). (2015). *SimWars Simulation Case Book: Emergency Medicine*. Cambridge: Cambridge University Press.

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