

Simulation Family Medicine Style: Procedures, Competencies, Case Review, and Team-Based Care, Oh My!

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Simulation

“Simulation is a technique—not a technology – to replace or amplify real experiences with guided experiences that evoke or replicate substantial aspects of the real world in a fully interactive manner.”

David Gaba, Quality and Safety in Health Care 2004

Simulation

What is it?



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How did we end up here?

- Our institution built a SIM Center
- We were tasked with figuring out how to use it
- We have learned a lot



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What our Sim Center provides

- Sim Facilitation Training
- Sim staff and fellows
- Knowledge and experience



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The Upsides



- A great way to teach
 - it turns out you can teach anything this way
- They are FUN!
- Our institution is generous with Sim Center time & resources

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The Downsides

- Resource intensive
 - Planning
 - Staffing
 - Equipment
 - Financial



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How have we used our Sim Center?

- G1 orientation
- Sim Wednesdays
- G1 OSSE
- L and D Multidisciplinary Emergency Scenarios
- Elective opportunity



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Does it Work?

Compared to what?

It needs to be part of the whole educational program

Great for the experiential learner

Useful for rare, but important procedures

Poll Question

Do you have access to a high fidelity Simulation Center (or similar resource)?

- A. Yes
- B. No

Poll Question

Have you personally ever been a learner in a simulated learning environment?

- A. Yes
- B. No

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Poll Question

Do you currently use simulation as a teaching technique in your educational setting?

- A. Yes
- B. No

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Poll Question

What do you hope to get out of this session?

- A. How to use simulation without access to a Sim Center
- B. Educational topics amenable to simulation
- C. How to write a sim scenario

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Key Elements of Simulation

- Willing participants
- Prebrief
- Realistic scenario
- Observation
- Debrief



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Knowles' 4 Principles Of Adult Learning

1. Adults need to be involved in the planning and evaluation of their instruction.
2. Experience (including mistakes) provides the basis for the learning activities.
3. Adults are most interested in learning subjects that have immediate relevance and impact to their job or personal life.
4. Adult learning is problem-centered rather than content-oriented.



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What did we develop?

Sim Wednesdays: Three year curriculum with repeating skills stations and unique scenarios



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The Master Plan

SESSION	SIMULATION 1	SIMULATION 2	SKILLS STATION 1	SKILLS STATION 2	SKILLS STATION 3	SKILLS STATION 4
Summer Y1	Case-Based Learning	Case-Based Learning	Procedural Skills	Procedural Skills	Inter-disciplinary Teaching	Ultrasound Curriculum
Fall Y1						
Winter Y1						
Spring Y1 CLINIC						



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In-Situ Learning

Simulation where you take care of patients.

You can “sim” without a Sim Center.

Train as a team.



 Presence

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Case-Based Learning

- Real cases that went poorly
- Ways to explore new guidelines
- We build patients into our EMR “training environment” (EPIC).

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How we build a scenario

ISEC Simulation Scenario Template



Scenario Information	
Case Name/Topic ex. "Pediatric Sari 8/10/15", "PEA Arrest"	
Target Audience/Learners ex. Medical Students, Residents, RNs, etc.	
Date of Scenario Include date of "dry run" if applicable	
Authors/Points-of Contact Names, Emails, Affiliations What is the best way of contacting you?	

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Critical Action Checklist		
List the specific actions you want to see your learners perform and how you will know they performed them (eg. "Checks vital signs", "Explains situation to family", "Verbalizes diagnosis of pneumothorax when seen on X-ray")		
1.		Notes
2.		
3.		
4.		
5.		
6.	Add more rows if needed.	

Information Available to Learners	
Scene Intro	(given to learners prior to entering room-- eg "you are in a small, rural hospital...")
If learners ask for patient information, patient or confederate will tell them:	
Chief Complaint	
Triage note, EMS or Nursing Home report	
History of Present Illness	(given by patient, family, etc.)
Past Medical/Surgical History	
Medications	
Family/Social History	
Allergies	
Scenario conditions/resources	(rural hospital, small clinic, STAB room)
Initial Vitals	BP: HR: RR: SpO2: Temp:
Physical Exam	General, Neuro, HENT, Eyes, Chest/Pulm, CV, Abd, Ext, Skin

Scenario Branch Points

1. List ALL of the "Critical Actions" or "Triggers" (ie. changes in patient condition, interventions, patient's response to treatments, etc.) in order so that someone else can understand the flow of your scenario
2. Consider the patient AND confederate responses to whether or not each Critical Action was completed
3. Use progressive prompts so as to not give them too suggestive of a prompt early on.
4. How can you use the confederates / consultants to keep the scenario moving in the right direction?
5. Consider whether certain critical actions need to be completed within a certain timeframe (ie. If O2 not applied within 2 minutes, sats drop to 88%)

EXAMPLE of Expected Action: Asks for vitals	If yes →	Initial vitals show up on screen
	If no →	Confederate nurse thinks out loud, "I wonder if their oxygen levels are okay..."
	If still no →	Confederate nurse asks, "Do you think you'll want vital signs for this patient?"

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Interdisciplinary Learning

Demystifying how our team members help our patients.

Physical Therapy

- Use the expertise of others
- Build collegiality



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Procedural Teaching



- Teach procedures that are important, but rare
- Practice procedures that are sensitive

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Ultrasound Curriculum

It's the "latest and greatest".
We needed a place to teach it and it works
in a "hands on" teaching environment.



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Sim Center Learning



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Summary

You can use simulation as a technique, in any setting.

You can tailor it to meet your specific needs.



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Poll Question:

Enter your email address to be included in any follow-up communication from the presenter(s).

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Social Q & A

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Please...

Complete the session evaluation.



Thank you.





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