



**A Comprehensive Simulation-Based Curriculum
for Teaching Non-Interpretive ACGME Skills and
Evidence Based Concepts Relevant to Radiology
Resident Training**

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DISCLOSURES

The authors have no relevant disclosures



LEARNING OBJECTIVE

The purpose of this exhibit is to present a *comprehensive simulation curriculum* employed at our institution to teach the *ACGME non-interpretive skill requirements* as well as *clinical skills relevant to the training of diagnostic radiology residents*.



LOCATION

The Patients Safety Institute is an 1,100 square foot facility equipped with state of the art simulation and audiovisual / recording systems employed to educate trainees in evidence based medicine and team communication skills.

Our radiology department has utilized the resources of the center to create a simulation curriculum devised specifically for radiology residents.



WRITING THE CURRICULUM

Using a standardized simulation template, all sessions are carefully scripted with specific objectives in mind

Evidence-based debriefings are prepared in advance to highlight the most important teaching points and anticipate the areas of greatest strength / weakness



Staten Island University Hospital Campus

Course Name: Peri-procedural Event Management

Instructor name: Heidi Baer

SCENARIO TITLE: Decreased mental status in the post-procedural setting

OBJECTIVES	Please, list 4-5 objectives specific for this case
1	Appropriately perform initial evaluation (and identify decreased mental status)
2	Form differential for decreased mental status in context of clinical scenario
3	Know spectrum of supportive care and when to intervene pharmacologically
4	Understand how to reverse benzodiazepines and opiates
5	Operate appropriately as a team with good communication

TARGET AUDIENCE	Diagnostic Radiology residents and Interventional Radiology Staff
CASE NARRATIVE	
Patient Name	
DOB	
Gender	
Weight and Height	
Final Case Diagnosis	
Settings	
History of present complaint	47 y/o female status post percutaneous nephrostomy for hydronephrosis secondary to obstructing ureteral stone
	P/w Right flank pain 1 day prior to procedure, GFR dropped on AM labs so IR consulted for perc nephrostomy
Past Medical History	No clinically significant PMH or PSH
Medications	No clinically significant outpatient meds, but has been receiving opiates for pain control since admission
Allergies and reactions	NKDA
Plan for case	Rapid response called for patient "acting funny," not as responsive Careful questioning nurse reveals 2 key changes: decreased mental status from baseline (was A&O x3, now lethargic and slow to respond) + increasing oxygen requirements (was 100% on RA, now 91% on 3L NC)

SIMULATIONS

On a monthly basis, our residents engage in manikin-based simulation training on various topics including ACLS/BLS, contrast premedication, allergic contrast reactions, seizure management, and IR periprocedural sepsis and opiate overdose.

Each session includes groups of 4-5 residents that are placed into a simulated rapid response in which they must evaluate and manage a patient in distress.

After each scenario, an evidence based debriefing takes place with radiology and emergency department attendings, senior radiology residents, and simulation nurses.



SESSION EVALUATION

Following the debriefing which takes place at the end of each session, residents are asked to evaluate the session and provide feedback

Over the past 3 years, the curriculum has undergone massive improvement and continues to expand due to the input from the learners.

Buy-in from the target audience is critical to effective learning

						
Program Evaluation						
Title:		PSI Radiology Resident Simulation				
Date / Time:						
PLEASE PROVIDE FEEDBACK		NO		YES		
Today's simulation was relevant to me		1	2	3	4	5
Should we do this again?		1	2	3	4	5
Two things I learned today:		1)				
		2)				
PLEASE RATE YOUR INSTRUCTORS:		Poor		Outstanding		
Josh Greenstein, MD / Jerel Chacko, MD		1	2	3	4	5
Dan Shilo, MD		1	2	3	4	5
Greg Emmanuel, MD		1	2	3	4	5
IDENTIFY YOURSELF						
Medical Student / Resident			Level of Training (MS / PGY):			
HOW CAN WE MAKE THIS BETTER FOR YOU?						

RESULTS

Our residents (n=12, including R1-R4 trainees) were polled regarding the relevance and efficacy of the simulation program, grading responses between 1 (strongly disagree) and 5 (strongly agree):

Questionnaire Responses	
The simulation curriculum is relevant to my training:	4.42
I feel more comfortable handling a contrast reaction after simulation training:	4.42
ER involvement has improved the simulation experience:	4.50
I feel the curriculum should be continued in future years:	4.67

DISCUSSION

Clinical skills are becoming an increasingly important part of the practice of radiology

Our simulation program is a unique, comprehensive full year curriculum which effectively teaches important evidence based concepts relevant to radiology resident training.



THANK YOU

Questions?

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