Complete Immersion Simulation In Radiology

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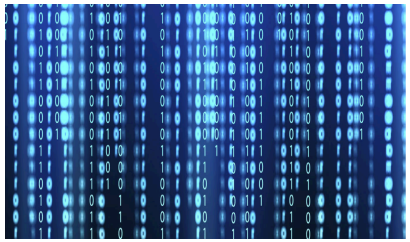
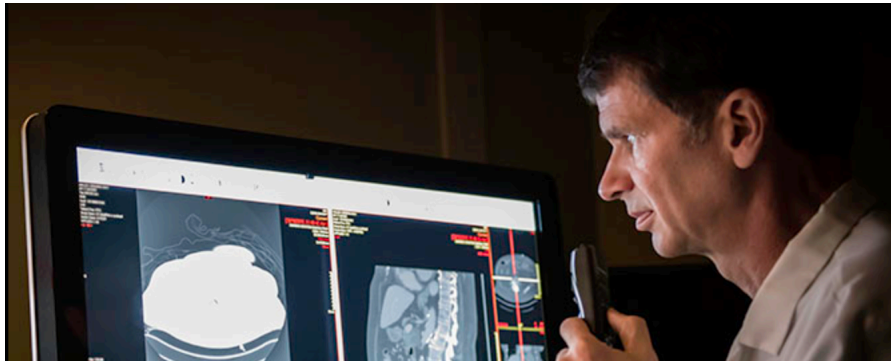
No Financial Disclosures



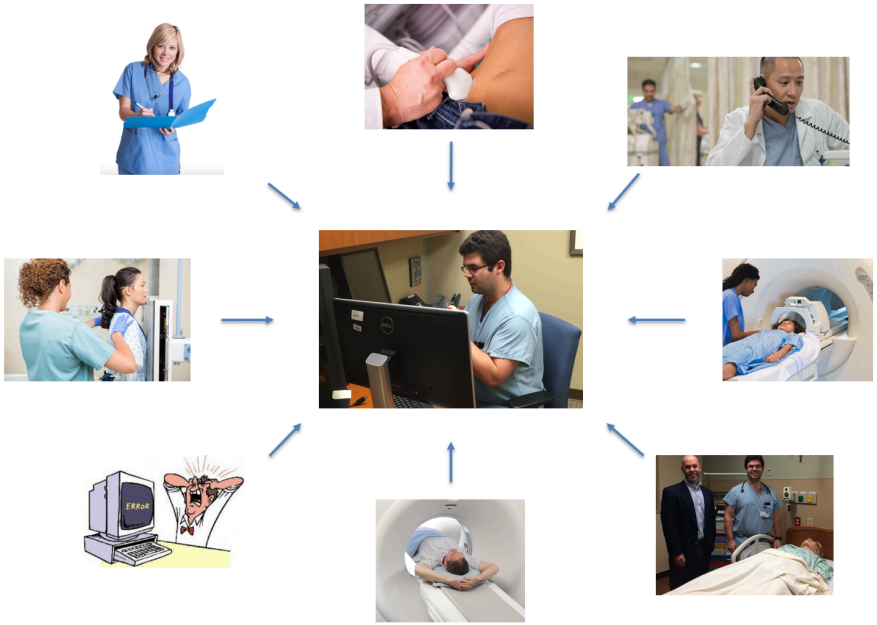


Unlike other specialties, diagnostic radiology patient encounters are digital and uniquely suited to complete immersion simulation.

Simulated reading room

Mannequin simulation

Complete Immersion Simulation



Unique Features

Case mix – Reflects actual cases from a random day

Choreographed – Timing of exams reflects actual workload

Distractors – Typical interruptions and phone calls as well as a mannequin with a contrast reaction included in simulation

Complete Immersion Simulation Evaluation and Scoring

- Diagnostic Skill
  - Detection
  - Knowledge
  - Information integration
  - Medical management
- Communication
  - Report clarity
  - Report editing errors
  - Critical results
  - Documentation
- Professionalism
  - Team management
  - Leadership
  - Compassion
- Service
  - Start time
  - Team effort
  - Yes
  - Completion of work
  - TAT

Sample simulation and scoring

Minutes	Event	Information	Score
	Start	Start on time (2 points) Start early (5 points)	5 (Service)
0	CT AP (RLQ pain)	Negative	1 (Diagnostic skill)
0	CXR (SOB)	Negative	1 (Diagnostic skill)
2	Ankle X-ray (Fall)	Fracture	1 (Diagnostic skill)
5	CT CAP (assault)	Rib fractures, pneumatocele	1 (Diagnostic skill)
11	Phone call from tech	CT technologist contrast question	2 (Team management) 2 (Medical management)
11	CXR (CP)	Nothing acute, calcified granuloma	1 (Diagnostic skill)
14	Head CT (HA)	Negative	1 (Diagnostic skill)

Sample simulation and scoring

Minutes	Event	Information	Score
17	CT AP (RLQ pain)	Right sided diverticulitis	2 (Diagnostic skill) 2 (Report clarity) 2 (Report editing)
21	Contrast reaction	Laryngeal edema after IV contrast Management per ACR guidelines	7 (Medical management) 3 (Team Management) 2 (Leadership) 2 (Documentation)
24	Head MRI (R/O stroke)	Nothing acute	1 (Diagnostic skill)
29	CT Chest (RO PE)	Incidental nodule (1 point) Follow Fleischner criteria (2 points)	1 (Detection) 2 (Knowledge)
30	CXR (SOB)	Tension pneumothorax	1 (Detection) 2 (Call critical results)

Sample simulation and scoring

Minutes	Event	Information	Score
37	Wrist X-ray (pain)	DJD	1 (Diagnostic skill)
41	Hand X-ray (trauma)	Negative	1 (Diagnostic skill)
41	CXR (CP)	Nothing acute	1 (Diagnostic skill)
Etc…	…	…	…
	End	Complete all assigned work	5 (Team effort)
	TAT	TAT less than 30 min	5 (Turn around time)

Total final scores given for:
- Diagnostic skill
- Communication
- Professionalism
- Service

Complete Immersion Simulation In Radiology

We have created a novel approach of complete immersion simulation in radiology. This provides a unique opportunity to train and evaluate many aspects of radiology including diagnostic skill, communication, professionalism and service.