



University of Michigan Health System

# Training Faculty to do Patient Safety Assessment is Transformative

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## Background

**OBJECTIVES:** Assess baseline skills and knowledge related to ACGME competencies & patient safety principles important to UMHS (1).

**CONCEPTUAL BASIS:** Human factors and safety engineering, high reliability organization theory, and several years of curriculum development (2). Also requirements & recommendations for safety education by ACGME & JCAHO (1, 3)

**GOAL:** Inform and expedite residency program changes resulting in competent residents who will help change their "corner of the world"

**DEVELOPMENT:** Pragmatic aspects were pilot tested by several dozen residents at 4 programs (2007-8). When available, instruments from literature. With internal and external expert review, learning objectives and measurement tools were honed.

## Assessment Stations - Learning Objectives

### Detect & Fix Hazard Station

- Skill to detect hazardous design features that make confusion and adverse events more likely
- Attitude that adverse events reflect more than simply carelessness or training deficits
- Skill to develop re-designs to address safety hazards

### Handoff Station

- Skill to organize and communicate data in sign-out
- Skill to assert in a clear and constructive manner
- Knowledge of when they need to assert themselves
- Skill to probe & actively listen when handoff unclear

### Video-Prompted & MCQ Quiz

- Knowledge of features making some factors causal
- Knowledge of superficial vs. seeking deeper factors
- Knowledge of relative strength of safety fixes

### Teamwork Station

- Knowledge of "calling for help" resources
- Skill to survey team member competencies
- Ability to think aloud during key tasks
- Ability to professionally assert for help
- Attitude of calling for help early...
- Attitude that critical communications are explicitly confirmed

### Misdiagnosis Station

- Skill to use differential diagnosis
- Skill to use reflection on diagnoses list
- Knowledge of cognitive biases
- Knowledge of countermeasures



## Who and How Much

### Faculty Raters

Attendings N=36  
Chief Residents N=12  
Nurses (Teamwork) N=14

### Residents Assessed

2008 N=60  
2009 N=144  
2010 N=130  
2011 N=130+

### Residency Programs N=10

Int. Medicine, Med-Peds; OB-GYN; Surgery; Pathology; Family Medicine; Anesthesiology; Psychiatry; Pediatrics; Emergency Medicine

## Impact (examples)

	On-line Resources	Patient Safety Seminars	Teamwork Re-Assessment	Teamwork Training	Pt. Safety Projects
Pathology	IP	IP	UD	UD	UD
Pediatrics	IP	IP			
Psychiatry		UD	UD	UD	
OB-GYN		IP	IP	NF	
Medicine	IP	NF	IP	IP	NF

IP = In Place UD = Under Development NF = New Focus

## Online Resources (Examples)

### Online Faculty Development

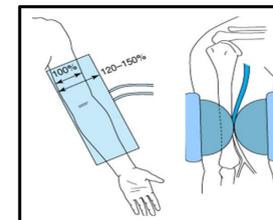
(For new instructors/raters & future teaching)



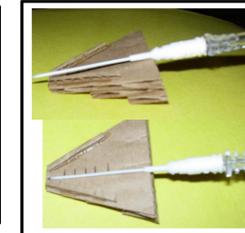
### Patient Safety Portals – Custom to Program

Online Powerpoints (e.g., VA pt. safety resident curriculum) [www.patientsafety.gov/curriculum/HFE/index.html#cm](http://www.patientsafety.gov/curriculum/HFE/index.html#cm)  
Online Courses (e.g., IHI Open School)  
AHRQ's Patient Safety Network (mega-site)

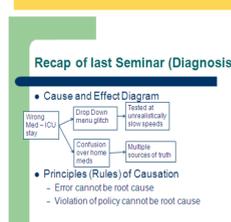
## Patient Safety Projects



### Teamwork Reassessment



### Patient Safety Seminars



## Conclusions

"Seeing" and Fixing Hazards takes **practice**



Residents AND Faculty Learning to Think Differently → **One-to-One Exercise**



## Next Steps

- Re-assessment of PGY-2s, with "Teeth" (In progress)
- MORE Raters & Instructors (Explicit or stealth faculty development)
- Strengthen Validity, Reliability, Standard Setting
- CAREFUL development of Online (games, avatar - sims)
- Integration and Expansion (pt. safety design competitions!)

## Acknowledgements

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Int. Medicine, Med-Peds, OB-GYN, Surgery, Psychiatry, Pathology, Family Medicine, Pediatrics, Anesthesiology, & Emer. Med Residencies (UMHS)  
GME, Dept. Med Education, Sim Center (UMSH)  
Biomed Engrg & Pharmacy Departments (UMHS)  
Nursing School, Clin Nurse Specialists (UMHS)  
Other universities and programs

- ACGME → Comm. on Innovation & Learning
- NBME → committee on pt safety MCQs)
- Mayo, Penn, Missouri, Florida, SUNY-Stony Brook, Case Western, VA NCPS

## References

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