

# Safety First!

## A Comprehensive Approach to Integrating Safety Curricula Across the Continuum

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## Disclosure

- We have no financial interests to disclose.

# Objectives



- Explore participant's local opportunities in existing safety educational programs for undergraduate, graduate, and faculty-level learners.
- Identify key stakeholders, target learners, current versus desired state, and timeline to implementation for safety curricula.
- Utilize novel frameworks and existing templates for development and implementation of the following:
  1. Patient Safety Morning Report,
  2. Inter-professional Morbidity, Mortality and Improvement (MM&I) Conference,
  3. Team-based In Situ Simulation Program leading to quality improvement initiatives.

# Background: Patient Safety



- 'To Err Is Human', IOM 1999
  - 44,000-98,000 deaths per year from medical error
- 'Free From Harm', NPSF 2015
  - "Scale of improvement...has been limited"
  - "Many interventions have proven effective...many more have been ineffective"
  - "...system continues to operate with a low degree of reliability"
  - Broadens scope beyond inpatient care, mortality

# Background: Education



- Providers at all levels need curricula on safety
- AAMC: 'Identify system failures and contribute to a culture of safety and improvement'
- ACGME: 'Work in inter-professional teams to enhance patient safety and improve patient care quality'
  - 2016 CLER Report: Lots of room for improvement
    - Safety education varied widely, most was didactic
    - Little exposure to multidisciplinary efforts
- MOC: Requires competency in safety, quality
- Joint Commission: National Patient Safety Goals

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# Outline for Today



- 3 groups (pick 2)
  - Patient Safety Morning Report
  - Inter-professional Morbidity, Mortality and Improvement (MM&I) Conference
  - Team-based In Situ Simulation Program
- Each will discuss
  - Our institution's curriculum (next slides)
  - How to implement a similar program at your institution

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# 1. Patient Safety Morning Report



- **Michele Beekman, MD, FAAP**

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# 1. Patient Safety Morning Report



- Designed an educational intervention and novel framework to analyze patient safety events during the M3 Pediatric Clerkship.

- **Objectives:**

- Teach learners to identify actual and potential lapses in safety
- Discuss the domains in which these safety breaches occurred using a conceptual framework
- Identify methods/solutions to overcome these patient safety issues
- Foster a safe and supportive learning environment

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# 1. Patient Safety Morning Report



- Can be adapted to
  - GME,
  - nurses,
  - any hospital medical staff
- Students reported that after the sessions they can better recognize a medical error or adverse event, and recognize the role of communication in preventing these errors.

# 1. Patient Safety Morning Report



- **SAFE Framework**
- **Safety Concern:**
  - Briefly describe the clinical situation with patient safety concern. 1) Start with a one line summary of why the patient was admitted to the hospital or seen in the clinic. 2) Describe the patient safety issue that occurred
- **Action:**
  - Outline the actions taken by the team to address the issue
- **Failure:**
  - Link the patient safety issue to one of the domains of patient safety that you feel contributed to the error. You can identify more than one domain.
- **Effects:**
  - Outline the brief effects of this patient safety issue on outcomes – patient care; cost; delivery outcomes (can choose any one of these or other outcomes)

Clinical Area of Care	Invasive Procedures	Infection Control	Medication Safety	Others
<b>Patient Safety Domains</b>				
1. Human Factors				
2. Systems Issues				
3. Team Work and Collaboration				
4. Communication				
5. Clinical Risk Management				
6. Engaging patients and care givers in patient care				

## 2. Morbidity, Mortality, & Improvement



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- Sara Zafar, DO, FAAP

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## 2. Morbidity, Mortality, & Improvement



- Multi- and Inter-disciplinary MM&I presentation and curriculum run within the department of Pediatrics
- Start 4 years ago
- Action Plan items developed into achievable initiatives with impact throughout the hospital
- Garnered support from hospital Quality and Safety department
- Have completed and implemented 11 projects with 7 currently in process

## 2. Morbidity, Mortality, & Improvement



- Mandatory Curriculum for PGY-3 Residents
  - Identify case
  - Outline events, research and review case involved parties
  - Apply MM&I tool to case using ACGME 6 core competencies
  - Identify Action plan and develop implementation outline

## 2. Morbidity, Mortality, & Improvement



MM&I Curriculum Goals include:

- To provide a safe venue for residents and staff to identify areas of improvement, and promote professionalism, ethical integrity and transparency in assessing and improving patient care.
- To foster a climate of openness and discussion about medical errors, medico legal issues and quality improvement for all levels of learners.
- Focus on recognition of system-wide areas of improvement eliciting input in non-confrontational manner.
- Use of standard interactive format with incorporation of ACGME core competencies to promote leadership, research, and scholarly activity.
- Providing a platform for long term Quality Improvement initiatives by development of action plans and task force.

### 3. In Situ Simulation



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- **Keith Hanson, MD, PHD, FAAP**

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### 3. In Situ Simulation





## 3. In Situ Simulation



- 10 year history, closet to Jump Simulation Center
- 40+ scenarios developed
  - Rapid response, call-based, 30 minute timeframe
  - Clinical and teamwork objectives
  - Neonate, infant, child mannequins
  - All units within children's hospital
  - Expansion to Radiology, Sedation unit, MRI, CT, ED and now regional affiliate EDs
  - Expansion from quarterly to 50+ simulations per year
- MD-RN co-debriefers

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## 3. In Situ Simulation



- Action items categorized for clinical/equipment/systems vulnerabilities
  - Use of Event Reporting System
- Quarterly reports to Quality and Safety Committee, annual Department of Pediatrics report.

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## References: Background



- Institute of Medicine. 2000. To Err Is Human: Building a Safer Health System. Washington, DC: The National Academies Press.
- Safety Improvement Fifteen Years After To Err Is Human. Boston, MA: National Patient Safety Foundation; 2015.
- ACGME Common Program Requirements 2016. Available at [www.acgme.org](http://www.acgme.org).
- CLER National Report of Findings 2016, Issue Brief No. 2, Patient Safety. Available at [www.acgme.org](http://www.acgme.org).
- American Board of Pediatrics Maintenance of Certification Program.  
<https://www.abp.org/content/maintenance-certification-moc>
- Joint Commission National Patient Safety Goals.  
[https://www.jointcommission.org/standards\\_information/npsgs.aspx](https://www.jointcommission.org/standards_information/npsgs.aspx)
- Curriculum Development for Medical Education: A Six-Step Approach. 3rd Ed. Thomas et al, editors. December 2015.

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## References: Safety Morning Report



- Core Entrustable Professional Activities for Entering Residency, Curriculum Developer's Guide, <https://www.mededportal.org/icollaborative/resource/887>, May 28, 2014
- Teigland C, Blasiak R, Wilson L, et al. Patient safety and quality improvement education: a cross-sectional study of medical students' preferences and attitudes. BMC Medical Education. 2013; 13:16
- Schultz K, McEwen L, Griffiths J. Applying Kolb's Learning Cycle to Competency-Based Residency Education. Acad Med. 2016; 91(2):284
- Institute for Healthcare Improvement (IHI) Modules  
<http://www.ihl.org/education/ihipenschool/Courses/Pages/default.aspx>

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## References: MMI



- Jill, J. Fussell, Henry C. Farrar, Richard T. Blaszk, Laura L. Sisterhen; Incorporating the ACGME Educational Competencies into Morbidity and Mortality Review Conferences; *Teaching and Learning in Medicine*, 2(3), 233-239
- Accreditation Council of Graduate Medical Education. ACGME Program requirements for Graduate Medical Education in Pediatrics [http://www.acgme.org/acgmeweb/Portals/0/PFAssets/2013-PR-FAQ-PIF/320\\_pediatrics\\_07012013.pdf](http://www.acgme.org/acgmeweb/Portals/0/PFAssets/2013-PR-FAQ-PIF/320_pediatrics_07012013.pdf)
- Shervin Rabizadeh, W. Adam Gower, Kurlen Payton, Kathryn Miller, Kimberly Vera and Janet R. Serwint. Restructuring the Morbidity and Mortality Conference in a Department of Pediatrics to Serve as a Vehicle for System Changes. *CLIN PEDIATR* 2012 51: 1079
- Erica L. Mitchell, MD, Dae Y. Lee, MD, Sonal Arora, MBBS, PhD, Pat Kenney-Moore, MS, PA-C, Timothy K. Liem, MD, Gregory J. Landry, MD, Gregory L. Moneta, MD, and Nick Sevdalis, PhD. Improving the Quality of the Surgical Morbidity and Mortality Conference: A Prospective Intervention Study. *Acad Med*. 2013;88:824-830.
- M L Bechtold, S Scott, K C Dellspenger, L W Hall, K Nelson, K R Cox. Educational quality improvement report: outcomes from a revised morbidity and mortality format that emphasised patient safety. *Postgrad Med J* 2008;84:211-216.
- John W. Bingham, M.H.A., Doris C. Quinn, Ph.D., Michael G. Richardson, M.D., Paul V. Miles, M.D., Steven G. Gabbe, M.D. Using a Healthcare Matrix to Assess Patient Care in Terms of Aims for Improvement and Core Competencies. *Journal on Quality and Patient Safety*. February 2005 Volume 31 Number 2.

## References: In Situ Simulation



- <https://www.ahrq.gov/professionals/quality-patient-safety/patient-safety-resources/resources/advancing-patient-safety/index.html>
- Reducing Patient Harm Through Interdisciplinary Team Training with In Situ Simulation. Stanley E. Davis MD et al. <https://cdn0.laerdal.com/cdn-4aae2b/globalassets/documents/research-pdf/in-situ-simulation/reducing-patient-harm-through-in-situ-simulation.pdf>
- Van Schaik, Sandrijn M., et al. "Interprofessional team training in pediatric resuscitation: a low-cost, in situ simulation program that enhances self-efficacy among participants." *Clinical pediatrics* 50.9 (2011): 807-815.
- Lighthall, Geoffrey K., Tzevan Poon, and T. Kyle Harrison. "Using in situ simulation to improve in-hospital cardiopulmonary resuscitation." *The Joint Commission Journal on Quality and Patient Safety* 36.5 (2010): 209-216.
- Muething, Stephen E., et al. "Quality improvement initiative to reduce serious safety events and improve patient safety culture." *Pediatrics* 130.2 (2012): e423-e431.
- Guise JM, Mladenovic J. In situ simulation: identification of systems issues. *Semin Perinatol*. 2013 Jun;37(3):161-5. doi: 10.1053/j.semperi.2013.02.007. Review. PubMed PMID: 23721772.
- Creating High Reliability Teams in Healthcare through In situ Simulation Training William Riley 1\*, Elizabeth Lownik 1, Carmen Parrotta 1, Kristi Miller RN 2 and Stan Davis Adm. Sci. 2011, 1, 14-31; doi:10.3390/admsci1010014
- In Situ Simulation: Challenges and Results. Mary D. Patterson, MD; George T. Blike, MD; Vinay M. Nadkarni, MD <https://cdn0.laerdal.com/cdn-4aaf4a/globalassets/documents/research-pdf/in-situ-simulation/in-situ-simulation-must-read-1-cincinatti-childrens-et-al.pdf>
- The use of in situ simulation to detect latent safety threats in pediatrics: a cross-sectional survey. Marc Auerbach et al., *BMJ STEL*, 2015
- Simulation to Improve Patient Safety in Pediatric Emergency Medicine. Stone, Kimberly P. et al. *Clinical Pediatric Emergency Medicine*, Volume 17, Issue 3, 185 - 192
- Cheng A, Grant V, Auerbach M. Using Simulation to Improve Patient Safety Dawn of a New Era. *JAMA Pediatr*. 2015;169(5):419-420.