# Developing a Four-Year Quality and Patient Safety Curriculum for Medical Students

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## Problem

- Despite calls for integration of patient safety training into undergraduate medical education, few comprehensive safety and quality improvement curricula are available for medical students.

## Objectives

1. To improve students´ understanding of the impact of preventable, adverse medical events on patients, physicians, and other medical professionals.
2. To prepare students to identify and participate in corrective strategies that improve quality and safety throughout their future careers.
3. To develop and nurture a culture of quality and safety at our institution that enhances patient satisfaction and quality of care outcomes.

## Description of Program

### Year 1

- **Quality and Safety Grand Rounds:** impact of medical errors on patients and families; impact on providers
- **Workshops:** impact of delayed diagnosis and treatment on patients; student observations of adverse events
- **Online Modules:** "Adverse Events"; " Introduction to Quality Improvement"

### Year 2

- **Ethics**: "The Tort System and Its Impact on QI" (lecture)
- **Ethics**: "The Hidden Patient Safety Curriculum: Gap Between Ideal and Reality" (Workshop IV)
- **Pathology**: "Improving Interdisciplinary Communication" (lecture)
- **Online Module III**: Introduction to Root Cause Analysis
- **Online Module IV**: "Introduction to Quality Improvement"
- **Workshop III**: Root Cause Analysis Exercise
- **Workshop IV**: Quality Improvement Concepts

### Year 3

- **Ambulatory Care**: Analysis of Critical/Near Miss Incidents (Dr. Hatch)
- **Pediatrics**: Medical Student Safety Presentations (Dr. Kelly)
- **Internal Medicine:** Systems Based Practice Elective. VA Patient Safety Rounds or Analysis of Critical Incident
- **Psychiatry**: Ethics/ Safety Clinical Conference
- Surgery:
- OB/Gyn:

### Year 4

- **Geriatrics : Fall Prevention, Polypharmacy**
- Simulation Exercises: Disclosing Error; Discussion of Errors on Rounds; Spot the Error in the O.R.
- Online Module V: Disclosing Errors to Patients
- Online Module VI: Anticipating Errors to Avert Harm
- Workshop VIII: Presentation of QI Project
- Workshop XI: Reflective Writing Review

- "Quality and Patient Safety (QPS) I, II, III, IV".
- 100+ hours of instruction integrated into existing pre-clinical and clerkship curricula.
- Goals and objectives developed by 11-member faculty, student, and administrator task force from Dec. 2007 – May 2008.
- Two course directors (Rosenberg, Wears) each with 0.15 FTE assigned to course.
- Specific Activities:
  - QPS I: Online modules introduce basic concepts; patient safety grand rounds and workshops emphasize patient and public concerns re: preventable adverse events.
  - QPS II: Introduction to root cause analysis, quality improvement, and medical malpractice tort system.
  - QPS III: Discussions of adverse events and "near miss" incidents throughout clerkships; workshops discuss root cause analysis, prevention of retained foreign bodies during surgery; methods to improve interprofessional communication in clinical settings.
  - QPS IV: Workshops discuss fall prevention and polypharmacy in the geriatric population; planned activities include training in error disclosure and simulation of adverse events in critical care settings; quality improvement projects.

## Findings

- Year I course officially inaugurated October 2008 with a presentation by the parents of a child who died at our institution as a result of a series of medication errors.
- Components of Year 2, 3, and 4 began in Fall 2008.
- Students are currently being evaluated by attendance at all required course activities, completion of clinical skills exercises, writing assignments, and eventual participation in collaborative quality improvement projects.

## Lessons Learned

- Enthusiastic support from senior administrative leadership was essential to ensure rapid development and initiation of the curriculum
- It was crucial for the course directors to build collaborative relationships with faculty already teaching about safety and quality to unify the curriculum
- It was important to designate specific course directors and establish a distinct identity for this integrated course.