“Quality and Patient Safety”

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Course Director
Associate Professor and Interim Chief
Division of Internal Medicine
UF Department of Medicine
November 18, 2010
“Quality and Patient Safety”

 An eight semester, required course for medical students

 Integrated into existing pre-clinical courses and clinical clerkships

 Content focused on:
  • The epidemiology of adverse medical events
  • The impact of adverse medical events on physicians and patients
  • The importance of organizational safety and quality improvement.
Course 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.
Sebastian Ferrero (2004 – 2007)

- Died from complications of metabolic acidosis and cerebral edema
- Received 10-fold overdose of arginine during outpatient growth hormone stimulation test
UF HSC Students Are Highly Aware of Safety Issues

- “my patient came into the ED for presyncope; she was getting Clonidine instead of Klonipin for her anxiety”

- “my patient told the team he was on the ‘same med list’ as before... we just recopied the old ones. He didn’t tell us that his cholesterol medication had been changed because he’d had rhabdomyolysis recently... he again developed rhabdomyolysis while on our service.”

- “75 year-old man with atrial fibrillation receiving chronic amiodarone. Cardiologist assumes primary care physician is monitoring PFTs, LFTs, TFTs for adverse reactions. Primary care physician assumes cardiologist was monitoring. No one monitors. Patient develops pulmonary fibrosis.”
UF COM Curriculum Committee
Patient Safety Subcommittee

- Lou Ann Cooper
- Rick Davidson
- Marvin Dewar
- Tim Flynn
- Laura Gruber
- Nancy Hardt
- Heather Harrell
- Omayra Marrero, MS-4
- Eric Rosenberg
- Amy Stevens
- Bob Wears
Faculty Learning Community: Patient Safety

The Faculty Learning Community is a group of Health Science Center faculty and staff committed to developing interprofessional curricula in patient safety. These educational efforts will better prepare University of Florida Health Professions Students to provide safe, effective, and high-quality care. Through sharing our resources and using up-to-date learning resources and methods of evaluation, we will implement these joint curricula in all the colleges of the Health Science Center. For any questions regarding the community, contact the Office of Interdisciplinary Education at 352-273-5322.

Facilitators: Rick Davidson; Diane Beck

College of Dentistry: Boyd Robinson
College of Medicine: Lou Ann Cooper, Marvin Dewar, Eric Rosenberg, Bob Wears
College of Nursing: Karen Reed, Bryan Weber
College of Pharmacy: Scott Blades, Sven Normann, Almut Winterstein
College of Public Health and Health Professions: Russell Bauer
What do we expect physicians to do in patient safety?

Traditional Work safety expectation:
- think about how we think
- and the possibility of communication, procedural, and cognitive errors

Clinical Work Environment safety expectation:
- expand our view beyond the traditional clinical gaze to the clinical work environment and to recognize safety problems

Clinical Work Environment

up stream

Patient Safety Practice

down stream

Traditional Physician Work

Monitor patient

History And Physical

Order appropriate tests

Exercise Clinical Judgment To Diagnose

Provide/Recommend treatments
Active Participation is Key to Meaningful Education and Adverse Event Reduction

- Reflection on root causes and preventive strategies for incidents in which we’re personally involved
- Inter-professional root cause analyses with nursing, pharmacy, medical faculty, residents, students
- Greater collaboration among departments and HSC colleges to solve clinical care problems and improve inefficiencies
<table>
<thead>
<tr>
<th>Potential Cause of Medical Error</th>
<th></th>
<th>Medical</th>
<th></th>
<th>Nursing (ABN)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre</td>
<td>Post</td>
<td>p₁-p₂</td>
<td>Pre</td>
<td>Post</td>
</tr>
<tr>
<td>Overwork, stress, or fatigue on the part of health professionals.</td>
<td>83.0</td>
<td>81.1</td>
<td>-1.9</td>
<td>74.1</td>
<td>59.3</td>
</tr>
<tr>
<td>Failure of health professionals to work together or communicate as part of a team.</td>
<td>64.2</td>
<td>69.8</td>
<td>5.7</td>
<td>44.4</td>
<td>37.0</td>
</tr>
<tr>
<td>Understaffing of nurses in hospitals.</td>
<td>54.7</td>
<td>58.5</td>
<td>3.8</td>
<td>59.3</td>
<td>85.2</td>
</tr>
<tr>
<td>Complexity of medical care.</td>
<td>43.4</td>
<td>30.2</td>
<td>-13.2</td>
<td>3.7</td>
<td>7.4</td>
</tr>
<tr>
<td>Insufficient time spent by doctors with patients.</td>
<td>32.1</td>
<td>13.2</td>
<td>-18.9*</td>
<td>18.5</td>
<td>14.8</td>
</tr>
<tr>
<td>Mistakes made by health professionals.</td>
<td>11.3</td>
<td>17.0</td>
<td>5.7</td>
<td>29.6</td>
<td>29.6</td>
</tr>
<tr>
<td>Poor training of health professionals.</td>
<td>7.5</td>
<td>1.9</td>
<td>-5.7</td>
<td>33.3</td>
<td>44.4</td>
</tr>
<tr>
<td>Poor supervision of health professionals.</td>
<td>1.9</td>
<td>1.9</td>
<td>0.0</td>
<td>3.8</td>
<td>0.0</td>
</tr>
<tr>
<td>Uncaring health professionals.</td>
<td>1.9</td>
<td>0.0</td>
<td>-1.9</td>
<td>14.8</td>
<td>0.0</td>
</tr>
<tr>
<td>Poor handwriting by health professionals.</td>
<td>0.0</td>
<td>26.4</td>
<td>26.4*</td>
<td>18.5</td>
<td>22.2</td>
</tr>
</tbody>
</table>

Rosenberg, Cooper, Harrell, Menzel, Davidson (2008).
Over 100 Hours by Over 30 HSC Faculty

Year 1

- Quality and Safety Grand Rounds: “The Impact of Adverse Events on Patients and Families”;
- Workshops: “The Impact of Delayed Diagnosis and Treatment on Patients”;
- Online Modules: “Adverse Events”; “Introduction to Quality Improvement”

Year 2

- Online Modules: “Introduction to Root Cause Analysis”

Year 3

- Ambulatory Care: “Analysis of Critical/Near Miss Incidents”
- Pediatrics: “Medical Student Safety Presentations”
- Internal Medicine: “Systems Based Practice Elective”; “VA Patient Safety Rounds Elective”; “Morbidity and Mortality Conference Series”
- Psychiatry: “Safety Clinical Conference”
- Obstetrics/Gynecology: “TeamSTEPPS Training”

Year 4

- Geriatrics: “Fall Prevention”; “Polypharmacy”
- Workshops: “Disclosing Errors”; “Spotting Intraoperative Team Errors”; “Critical Care Incident Simulation”
- Online Modules: “Disclosing Errors”; “Anticipating Errors”
New for 2010-11

Safety

- Yr I
  - “The Lewis Blackman Story” (EPC-1)
  - “Interprofessional Case Studies in Adverse Events” (Interdisciplinary Family Health)
- Yr II
  - “Interprofessional Shadowing” (EPC-4)
- Yr IV
  - “Bedside Procedure Simulation” (Internship 101)
  - “Patient Safety: Legal Aspects of the Healthcare Professional-Patient Relationship (Law School Joint Course)
“From Tears to Transparency”

The Story of Lewis Blackman Trailer

http://www.youtube.com/watch?v=Az1IOc-ZyNQ
Interdisciplinary Family Health at the University of Florida

You will need to complete a total of 8 online lessons as part of the Interdisciplinary Family Health course. Each lesson takes from 15 to 30 minutes to complete. There is an online quiz at the conclusion of each lesson; to pass, you must complete at least 75% of the questions correctly.

The first three lessons (PS 100: Introduction to Patient Safety) must be completed sometime during the first semester. Your scores will be collected and will contribute to your first semester grade.

The remaining lessons must be completed sometime prior to the January small group meeting which is scheduled for January 18, 2011. That small group meeting will be dedicated to discussing all the previous lessons and you will be provided with discussion questions in advance of the meeting. These are the lessons you must complete before the small group meeting:

PS 101: Fundamentals of Patient Safety - all four lessons

PS 103: Teamwork and Communication - Lesson 1 ONLY "Why are teamwork and communication important?"
(You do NOT have to complete Lessons 2, 3 and 4 at this time.)

Step 1: Register with IHI.org using the following organization:

Organization: University of Florida
Category: School
Location: Gainesville, Florida

Step 2: Select a Lesson to Begin

Click Here to Browse the Course Catalog
PS 100: Introduction to Patient Safety

Catalog: IHI Open School

No one embarks on a health care career intending to harm patients. But much too often, patients die or suffer injuries from the care they receive. In this course, you’ll learn why becoming a student of patient safety is critical for everyone involved in health care today. First, you’ll learn about the human and financial toll of medical error around the world. Next, you’ll learn the basics of the psychology of error and try your hand at identifying unsafe acts in real health care cases. Finally, you’ll learn the essential behaviors that any health care worker can adopt right away to improve the safety of patients.

Estimated Time of Completion: 1 hour 25 minutes
Type of Activity: Knowledge
Release Date: 11/27/2009
Review Date: 11/27/2012

Actions
- Create Certificate

Lessons

<table>
<thead>
<tr>
<th>Status</th>
<th>Lesson</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed</td>
<td>Lesson 1: Understanding Medical Error and Patient Safety</td>
<td>★★★★☆ (119)</td>
</tr>
<tr>
<td>Completed</td>
<td>Lesson 2: Understanding Unsafe Acts</td>
<td>★★★★☆ (65)</td>
</tr>
<tr>
<td>Completed</td>
<td>Lesson 3: A Call to Action—What YOU Can Do</td>
<td>★★★★☆ (33)</td>
</tr>
</tbody>
</table>

Course Objectives

After completing this course, you will be able to:

1. Summarize the scope of medical errors and unintended harm to patients that occur in health care.
2. Describe the impact of medical errors on patients, families, and practitioners.
3. Explain one classification system for medical errors and harm based on the work of James Reason.
4. Identify five behaviors that any practitioner can engage in to improve safety for patients in his or her direct care.
Lessons Learned

- Enthusiastic support from COM leadership was essential for rapid development and initiation of course
- Collaboration among course directors is crucial to find instructors/discussion leaders and unify content
- Integrated course avoided many counterproductive conflicts
Ongoing Challenges

- **Timing of Material**
  - Too soon → no perspective
  - Too late → not prepared for clinical environment

- **Clinical Role Modeling**

- **Perceived Importance** ("is this going to be on the boards?")

- **Interprofessional Training**

- **Evaluation & Outcomes** – what is meaningful?

- **Quality Improvement**
Our “Quality Journey”

**How we define ‘good’**
- To meet all required targets
- To be better than others, locally or nationally
- To be the best we can possibly be

**Source of motivation to deliver**
- From outside
  - Imposed
- From outside
  - Top-down
- From inside
  - Internal, personal

**Duration**
- Episodic
- Episodic
- Ongoing

**Compliance**

**Comparison**

**Culture**
How do we prepare students for lifelong participation and leadership in meaningful QI?

PART 2 Quality Improvement (QI) Plan: Target a Measure For Improvement

The measures you selected on the previous pages appear below. You should now decide which ONE of these measures will be the focus for this improvement cycle.

<table>
<thead>
<tr>
<th>Measures Selected from Preceding Pages</th>
<th>Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcomes of Care</td>
<td></td>
</tr>
<tr>
<td>Most recent blood pressure &lt;130/80</td>
<td>16%</td>
</tr>
<tr>
<td>Most recent hemoglobin A1C at goal, tested within 12 months of visit</td>
<td>20%</td>
</tr>
<tr>
<td>Processes of Care</td>
<td></td>
</tr>
<tr>
<td>Foot exam within 12 months of visit</td>
<td>48%</td>
</tr>
<tr>
<td>Test for urine protein compliant with guidelines</td>
<td>57%</td>
</tr>
<tr>
<td>Aspirin</td>
<td>18%</td>
</tr>
</tbody>
</table>
Is this the best way to teach QI to med students?

Because the VHA is such a massive system, pilot-testing a package of changes to reduce waiting times on a “small scale” involved a nice little sample of 134 clinics! At the beginning of the pilot phase, the median wait for an appointment for the 134 pilot clinics was 48 days. Six months later, the waiting time had fallen to 22 days – an improvement of 54 percent.

The pilot and implementation phases clearly demonstrated that Advanced Clinic Access could work in the VHA to significantly reduce waiting times. In just six months, waiting times were cut by more than half...without adding resources.

The next phase was spread: testing the new process in the remaining 1,800 clinics in the system.

Your Turn

In this lesson, while you learn about how the VHA used the Framework for Spread to plan and execute the spread of an innovation to 1,800 clinics, we’re going to ask you to use the Framework for Spread to develop your own plan to spread an innovation.

To get started, think of 1) an innovation you’d like to spread... and 2) a target population you’d like to spread it to.

This could be a clinical innovation, such as getting people to use alcohol-based gel to clean their hands, that you want to spread to everyone in a primary care clinic.

Or it could be an innovation in your non-clinical life, like establishing “quiet areas” (no cell phones) or “electronics-free” classrooms (no cell phones, no computers) at your school.

Take a minute to jot down some ideas for at least five innovations you might want to spread... and target populations you’d like to spread them to.
<table>
<thead>
<tr>
<th>Category</th>
<th>Work team Name</th>
<th>Objective</th>
<th>Methodology</th>
<th>Process Facilitator</th>
<th>Team Leader</th>
<th>Departments involved</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Ancillary Service Availability Team</td>
<td>Improve ancillary service availability to facilitate faster diagnoses, improved outcomes &amp; discharge</td>
<td>FADE2</td>
<td>Kati Hadlan</td>
<td>Dr. John Armstrong</td>
<td>Physicians, Nursing, Radiology, Quality, Rehab Services; Lab</td>
<td>Mobility program to ensure patients are up from bed and assisted in ambulation as ordered; Improved ordering process and efficiency in process of radiology specimens going to lab. Requesting additional endo equip., and staff to shift appropriate procedures to SEC to increase in-pat capacity.</td>
</tr>
<tr>
<td>5</td>
<td>CUSP</td>
<td>Reduce CLABSI rates</td>
<td>FHA Collaborative</td>
<td>Loretta Fauerbach/Infection Control Coords./Linda Allen</td>
<td>Dr. Lawrence Caruso</td>
<td>Physicians, Nursing, 4W, 4E, 7W, 42 Peds, Infection Control, Quality</td>
<td>2 year project with FHA to reduce CLABSI.</td>
</tr>
<tr>
<td>2</td>
<td>Discharge Process Team</td>
<td>Streamline the patient discharge process and ensure reliable handoff to the next level of care</td>
<td>FADE2</td>
<td>Judy Brownlee/Millie Ruskin</td>
<td>Dr. Dawn Girenko</td>
<td>Physicians, Nursing, Social Services, Quality</td>
<td>Instituted new model on hospitalist service with case management/nursing interface with MDs, and a new SMART Chart discharge instruction tool.</td>
</tr>
<tr>
<td>6</td>
<td>Door-to-Balloon Team</td>
<td>Improve time to Percutaneous Coronary Intervention (PCI) in AMI patients</td>
<td>FADE2</td>
<td>Millie Ruskin</td>
<td>Dr. David Anderson</td>
<td>Physicians, Cath Lab, ED, ACTU, Quality, Stat Nursing</td>
<td>Ongoing team - addresses STEMI alerts - Regular feedback to team regarding cases that do not meet the measure. Current emphasis - pre-hospital activation of STEMI with regional STEMI system.</td>
</tr>
<tr>
<td>2</td>
<td>ED Admission Process Team</td>
<td>Improve timeliness &amp; patient flow from the ED to the floor</td>
<td>FADE2</td>
<td>Keith Mc Kernan</td>
<td>Dr. Joseph Tyndall</td>
<td>ED, Quality</td>
<td></td>
</tr>
</tbody>
</table>
Students must be a part of our QI Journey

Our Quality Action Plan
August 6, 2010

In the May 20, 2010 edition of On the Same Page, I shared the main themes of our strategic plan. With respect to our clinical mission, the first and foremost goal is to strive for the highest-quality, safest experience for every patient. Put differently, UF&Shands must be built around the patient experience. Quality and safety are of critical importance. Unless we get this right, we will not reach our research, educational or financial goals.

We have set a five-year goal for top-10 status in quality and safety among hospitals participating in the University HealthSystem Consortium (UHC). Our strategies for achieving this goal include partnership between HSC faculty and Shands; alignment between clinical programs and facilities; and, most important, establishing a culture of quality and safety that extends to every member of our hospital and Health Science Center community, both in Gainesville and Jacksonville.

David S. Guzick, MD, PhD
Senior Vice President, Health Affairs
President, UF&Shands Health System