The Basics of Patient Safety

How You Can Improve the Safety of Patient Care

The Patient Safety Imperative

- Recent studies suggest that:
  - Medical errors occur in 2.9% to 3.7% of hospital admissions.
  - 8.8% to 13.6% of errors lead to death.
  - As many as 98,000 hospital deaths may occur each year as a result of medical errors.
The Patient Safety Imperative

- Recent study - 2% of hospital admissions have a preventable adverse drug event resulting in:
  - Increased LOS of 4.6 days
  - Increased hospital cost of $4,700 per admission

The Public Is Concerned

- 1997 survey of 1513 US adults:
  - More than four out of five adults (84%) have heard about a situation where a medical mistake was made
  - 42% said they have been involved in a situation where a medical mistake was made.
External Groups Involved

- Beginning in 1997, the Joint Commission added new patient safety improvement standards
- The Leapfrog Group (a payer consortium) is urging health care facilities to adopt safer patient care practices

Basics of Patient Safety

- **Patient Safety**: Actions undertaken by individuals and organizations to protect health care recipients from being harmed by the effects of health care services.
Traditional Methods of Protecting Patients From Harm

- Well structured systems
- Explicit processes
- Professional standards of practice
- Individual competence reviews

People Are Set-Up to Make Mistakes

Incompetent people are, at most, 1% of the problem. The other 99% are good people trying to do a good job who make very simple mistakes and it’s the processes that set them up to make these mistakes.

Dr. Lucian Leape, Harvard School of Public Health
Need to Increase Focus on the Human Factors

- Studies of adverse patient incidents have heightened our awareness of the need to redesign processes to prevent human errors.
- It’s time for organizations to use cognitive ergonomics or human factors analysis to make health care services safer for patients.

How Can Safety be Improved?

- Human errors occur because of:
  - Inattention
  - Memory lapse
  - Failure to communicate
  - Poorly designed equipment
  - Exhaustion
  - Ignorance
  - Noisy working conditions
  - A number of other personal and environmental factors
Process Redesign Solutions

- Make mistakes impossible
  - Auto-shut off heating devices
  - Circuit breakers
  - Ready-to-administer medications
  - Over-write protected computer disks

  Can you think of other mistake-proofing techniques?

- Design safer processes
  - Barriers or safeguards can prevent untoward events
    - X-ray confirmation of tube placement
    - Mandatory repeat-backs
    - Door alarms
    - Surgical site confirmation

  Can you think of other barriers or safeguards?
Process Redesign Solutions

- **Reduce harm caused by mistakes**
  - People must be able to quickly recognize the adverse event and take action
    - Human interventions
    - Response teams
    - Backups
    - Automation

Can you think of other methods for reducing patient harm?

Where to Start

- Consider safety improvement recommendations made by external groups
- Share safety improvement ideas
Where are Patients at Risk?

- Focus attention on high-risk processes
  - Incident reports and other information are used to identify risk-prone patient care processes
  - Your help is needed – report incidents and hazardous situations

Everyone Has a Role in Patient Safety

- Employees and Physicians
- Management
- Administrative and Medical Staff Leaders
Take Action to Reduce Risk

- Reactive: Investigate significant patient incidents (sentinel events).
- Proactive: Monitor patient safety and redesign high-risk processes to prevent a sentinel event from occurring.

Root Cause Analysis

- A reactive (after-the-fact) activity

Example of sentinel event:
An inpatient received 2 units of the incorrect type of blood. At the time the patient's blood was drawn for a type/cross match, the sample was mislabeled with another patient's name. The transfusion was given to the patient whose name appeared on the type/cross match lab report, not the patient whose blood was in the lab specimen vial.

Results of the analysis:
The root cause of the event was the poorly designed system for labeling laboratory specimens. If not corrected, this problem could cause other incidents.
Root Cause Analysis Steps

1. Gather the facts.
2. Choose team.
3. Determine sequence of events.
4. Identify contributing factors.
5. Select root causes.
6. Develop corrective actions & follow-up plan.

Common Causes of Medication Related Sentinel Events

- Lack of staff orientation/training
- Communication failure
- Medication storage/access problems
- Important information not available to caregivers
- Staff competency/credentialing problems
- Inadequate supervision
- Inadequate/improper labeling
- Staff distraction
Proactive Safety Improvement

- Gather and analyze information about risk-prone processes
- Redesign high-risk processes to reduce the chance of patient harm

Examining the Safety of Processes

- Failure mode, effects and criticality analysis (FMECA)
  - What could go wrong?
  - How badly might it go wrong?
  - What needs to be done to prevent failures?
FMECA Steps

- Flow chart the process
- Brainstorm potential failures at each step in the process
- Determine the criticality of each failure (frequency x severity x detectability)
- Discover what causes critical failures

Redesign the Process

- Consider recommendations from external groups
- Redesign the process
  - Eliminate the chance for failure
  - Make it easier for people to do the right thing
  - Identify/correct the failure before patient is significantly harmed
Test the Redesigned Process
- Conduct another FMECA
- Perform stress testing
- Pilot test the process

Implement New Process
- Document the process
- Train people
- Monitor continuing safety of the process
Steps to Improve Safety

- Basic Tenets of Human Error
  - Everyone commits errors.
  - Human error is generally the result of circumstances that are beyond the conscious control of those committing the errors.
  - Systems or processes that depend on perfect human performance are fatally flawed.

A Strategic Objective

- We must redesign our processes so that simple mistakes don’t end up harming patients
  - Eliminate opportunities for errors
  - Build better safeguards to catch and correct errors before they reach the patient
Your Personal Action Plan

“You first have to be the changes you want to see in the world.”

Albert Schweitzer

What can you do to improve patient safety?