



## The Basics of Patient Safety

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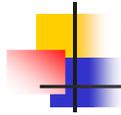
How You Can Improve the Safety  
of Patient Care



## The Patient Safety Imperative

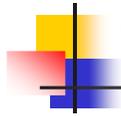
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- Recent studies suggest that:
  - Medical errors occur in 2.9% to 3.7% of hospital admissions.
  - 8.8% to 13.6% of errors lead to death.
  - As many as 98,000 hospital deaths may occur each year as a result of medical errors.



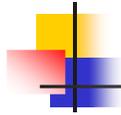
## The Patient Safety Imperative

- 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



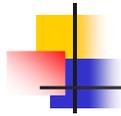
## The Public Is Concerned

- 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

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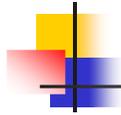
- Studies of adverse patient incidents have heightened our awareness of the need to redesign processes to prevent human errors.
- It's time for organizations to use *cognitive ergonomics* or *human factors* analysis to make health care services safer for patients.



## How Can Safety be Improved?

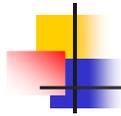
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- Human errors occur because of:
  - Inattention
  - Memory lapse
  - Failure to communicate
  - Poorly designed equipment
  - Exhaustion
  - Ignorance
  - Noisy working conditions
  - A number of other personal and environmental factors



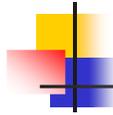
## Process Redesign Solutions

- 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?



## Process Redesign Solutions

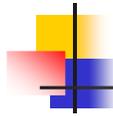
- Design safer processes
  - Barriers or safeguards can prevent untoward events
    - X-ray confirmation of tube placement
    - Mandatory repeat-backs
    - Door alarms
    - Surgical site confirmation
  
- ➡ Can you think of other barriers or safeguards?



## Process Redesign Solutions

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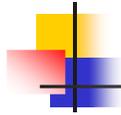
- Reduce harm caused by mistakes
  - People must be able to quickly recognize the adverse event and take action
    - Human interventions
    - Response teams
    - Backups
    - Automation
  
- ➔ Can you think of other methods for reducing patient harm?



## Where to Start

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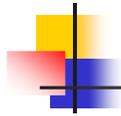
- Consider safety improvement recommendations made by external groups
- Share safety improvement ideas



## Where are Patients at Risk?

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- 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

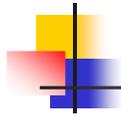
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- Employees and Physicians
- Management
- Administrative and Medical Staff Leaders



## 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

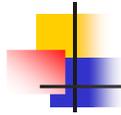
- A reactive (after-the-fact) activity

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.

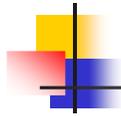
Results of the analysis:

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

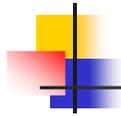
- Lack of staff orientation/training
- Communication failure
- Medication storage/access problems
- Important information not available to caregivers
- Staff competency/credentialing problems
- Inadequate supervision
- Inadequate/improper labeling
- Staff distraction



## Proactive Safety Improvement

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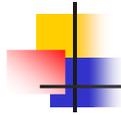
- Gather and analyze information about risk-prone processes
- Redesign high-risk processes to reduce the chance of patient harm



## Examining the Safety of Processes

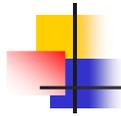
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- Failure mode, effects and criticality analysis (FMECA)
  - What could go wrong?
  - How badly might it go wrong?
  - What needs to be done to prevent failures?



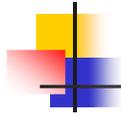
## FMECA Steps

- 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



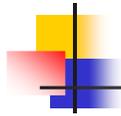
## Redesign the Process

- 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



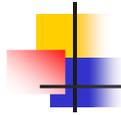
## Test the Redesigned Process

- Conduct another FMECA
- Perform stress testing
- Pilot test the process



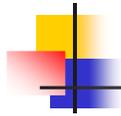
## Implement New Process

- Document the process
- Train people
- Monitor continuing safety of the process



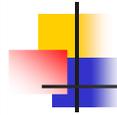
## Steps to Improve Safety

- 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 Sweitzer



What can you do to improve patient safety?