What is Driving Hospitals’ Patient Safety Efforts?

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“Contrary to all these reports on doctor errors, Mr. Johnson, your surgery was performed competently and punctually, as my watch clearly indicates.”
What is Patient Safety?

In its simplest form, patient safety is freedom from accidental injury while receiving healthcare services.

The objective – to splice safety into the genome of all health care systems at all levels
Institute of Medicine November 1999

- The patient safety problem is large
- It (usually) isn’t the fault of healthcare workers
- Most patient injuries are due to system Team Training
- We must change the way we train our future clinicians
- **Simulation and team training**
Impact of Medical Errors

- 44,000-98,000 annual deaths as result of errors
- Medical errors are the leading cause followed by surgical mistakes and complications
- More Americans die from medical errors than from breast cancer, AIDS or car accidents
- Two percent (2%) of admission to the hospital experience an adverse drug event that results in an increased stay and nearly $4700 added cost per event
- 7% of hospital patients experience a serious medication error
- Total national cost is estimated to be between $8.5 billion to $29 billion
How hazardous is health care?

- **DANGEROUS** (>1/1000): Health Care
- **REGULATED**
  - Driving
  - Chemical Manufacturing
  - Chartered Flights
- **ULTRA-SAFE** (<1/100K)
  - Scheduled Airlines
  - European Railroads
  - Nuclear Power

**Note:** both dimensions are logarithmic scales
Institute of Medicine

*Chasm* Report

“Americans can have a health care system of the quality they need, want, and deserve... This level of quality cannot be achieved by further stressing current systems of care.

The current care systems cannot do the job. Trying harder will not work. Changing systems of care will.”

IOM 2001
6 Dimensions of Care Quality

- Safe
- Patient Centered-customer value and expectations
- Effective-Evidence based practices and outcomes
- Timely
- Efficient
- Equitable

The deceased succumbed during his transplant....

The tragedy is compounded by the fact that he was only visiting...
What is Driving Hospital Patient Safety Efforts?

• What are hospitals’ major patient safety initiatives and how far along are they?
• What facilitates and impedes hospitals’ progress in patient safety
• What impact have patient safety efforts had on hospitals
Major JCAHO Policies 2000-2004

- Sentinel Event Policy
  - RCA
  - FMEA
- Patient Safety Standards
  - Creating a culture of safety
    - Surveys
    - Walk rounds
    - Non-punitive
  - Truth telling
    - Disclosure and confidentiality
- Patient Safety Goals
  - Improve accuracy of patient indentification
  - Safety of High Alert medications
  - Eliminate wrong site-, patient, procedure surgery
  - Safety of infusion pumps
  - Clinical alarm systems
Leapfrog Group

- Computerized drug entry systems
- Intensivists
- Evidence based hospital referral
Information Technology

- Electronic Medical Records
- Drug order entry systems
- Automated dispensing
- Bar-coding
IT SAYS HERE THAT THE RATE OF MEDICAL ERRORS IS STUNNINGLY HIGH.

THAT EXPLAINS MY HYSteroCYMO.
Barriers To Safety

- Absence of strong local incentives
- Cost
- IT infrastructure
- Commitment
- Structure
- Resources
- Failure to buy-in
- Malpractice liability

“We can’t change the human condition, but we can change the conditions under which humans work”

James Reason, 1999
Human Factors Principles

- Avoid reliance on memory
- Simplify and Standardize
- Use constraints and forcing functions
- Use protocols and checklists
- Improve access to information
- Decrease reliance on vigilance
- Reduce hand-offs
- Careful automation
- Work conditions—i.e., sleep hours
Reason - Complex Systems
Motivational Theories: Behavior Change

General Beliefs
Culture & Norms
Personality
General Values

Self-Efficacy
Control
Barriers
Intentions

Knowledge
Attitudes
Plans

BEHAVIOR
Near Miss Reporting: Remains Underutilized

Designed to look below the waterline

Kaplan, et al., 2004
A Model of Incident Causation

Van Vuuren, 1998
Examination of Effective non-medical Near Miss Reporting Systems

- Indicates that the following factors are important in determining the quality of incident reports and the success of incident reporting systems:
  - Immunity (as far as practical);
  - Confidentiality or data de-identification (making data untraceable to caregivers, patients, institutions, time)
  - Independent outsourcing of report collection and analysis by peer experts
  - Rapid meaningful feedback to reporters and all interested parties
  - Ease of reporting
  - Critical and sustained leadership support
  - Visible system change

And that it be:
- Philanthropic-reporters identify with injured patients and other healthcare providers that could benefit from data,
- Therapeutic-(reporters learn from reporting about adverse events
Benefits of Near Misses Reporting

- High frequency allows quantitative and qualitative analysis
- 3-300 time more common than adverse events
- Fewer barriers to data collection
- Limited to no liability or shame
- No hindsight bias
- Provides incentives for voluntary reporting
- Bolsters accountability

Barach. Journal of Legal Medicine, 2003
“Mistakes are a fact of life. It’s the response to the error that counts”

- Nikki Giovanni
HOSPITAL BOARD OF DIRECTORS

CHAIRPERSON

CHIEF EXECUTIVE OFFICER

CHIEF FINANCIAL OFFICER

ACCOUNTING

QUALITY CONTROL

ADMITTING

INSURANCE

MEDICAL-ERRORS REDUCTION
Actively Develop a Learning Organization

- Do you have a serious continuous improvement program?
- How are task groups organized?
- How is information shared?
- How are new ideas processed?
- Entropy: Newton’s 4th law
Safety Curriculum
Core Content Areas

- Knowledge of the needs and preferences of those we serve (‘‘customer knowledge’’)
- Health care as a process, system
- Variation and measurement
- Human Factors
- Team training
- Developing new locally useful knowledge
- Social context & accountability
- Professional subject matter

Barach et al., Medical Education, in press
Quality isn’t something you lay on top of subjects and objects like tinsel on a tree …it is the core from which the tree must start.”

Zen and the Art of Motorcycle Maintenance