Improving Safety: Developing Safety Metrics and Improving Error Reporting

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Learning Objectives

- List Prevalent patient safety issues reported within hospitals
- Identify Methods to effectively Target, Review and reduce errors
- Using an error-reduction event model, evaluate how to improve the workflow process within the hospital
- Describe how key Safety Metrics can be developed and used to improve processes

Background

- In late 1999, the Institute of Medicine (IOM) published the sentinel report, *To Err is Human: Building a Safer Health System*, that captured the US Nation's attention .
- The report highlighted the scope of medical errors and raised safety concerns

What's the Harm in healthcare?

Safety Issues	Number of cases/yr including deaths
Hospital-acquired infections (MRSA, VRE, C. Diff, VAP/pneumonia, UTI)	2.2 Million
Pressure Ulcers	257,000
Medication Errors	1.5 million
Falls and Fractures	100,000
Deep Vein Thrombosis	46,764
Surgical errors (wrong-site/wrong side, objects left behind)	2,892
Total	**4 Million**

1-in-3 hospital patients is accidentally harmed every year in U.S. hospitals.
100,000 deaths/ yr ~~ 10 jumbo jet crashes each wk

Adverse Event Capture

Audience Poll:

- What percentage of error-related event are reported at your institution?
  a. 90%
  b. 70%
  c. 50%
  d. 30%
  e. Not sure

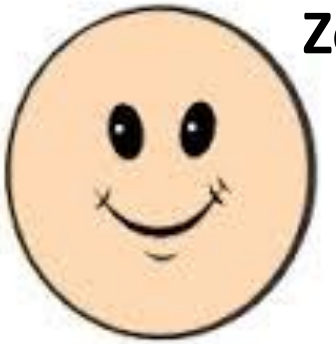
Improve Data Capture

- Psychological safety vs Accountability: what's the right point on a balance beam?

- Psychological safety: is a belief that one will not be punished or humiliated for speaking up with ideas, questions, concerns, or mistakes

- Staff education, non-punitive culture

Comfort Zone



Learning Zone

Motivation & Accountability

Apathy Zone

Anxiety Zone

Psychological Safety

Improve Data Capture

- Review Reporting Process including the reporting forum
- Proactive screening program:
  - Chart review: medications, labs, radiology
  - Adopt trigger tools: IHI Global tool for measuring Adverse Events

IHI Global trigger tool

- Captures adverse events related to active delivery of care
- **<u>Triggers:</u>**

- **Care related:** blood transfusion, code arrest; acute dialysis, positive blood culture, doppler for DVT, drop Hb or Hct by 25%, pt fall, PU, HAI, in-hospital stroke, restraints
- **Medication related:** PTT>100; INR>6; Glucose<50; Vit K admin; narcan admin; flumazenil admin

IHI Global trigger tool

- **Surgical related:** reoperation; post-op ICU transfer; PACU intubation; change in OR plan; intra/post-OP death
- **Intensive Care:** pneumonia; readmission to ICU; re-intubation
- **Perinatal related:** 3rd/4th degree laceration; platelet < 50,000; blood loss> 500ml for vaginal delivery
- **ED related:** readmission within 48hrs; time in ED> 6hrs
- 90 AE/ 1000 patient days or 40 AE/ 100 admissions

Improve Data Capture

- Define metrics and adopt a Safety Plan

- Encourage reporting: annual education:

  Hospital care is complex and depends on the interaction of so many disciplines

- Provide feedback
- Suggestion Box

Data Collection and Review

- System:
  - Build Standard data entry fields
  - Avoid free text
- Define who will review the Data:
  - Patient Safety Committee
  - P&T
  - PIC
  - Nursing Quality council

  **** Share the data ****

Reduce Events

- Look at trends:

  based on risk= consequence X likelihood
- Adopt a standard system for risk level and action requirements
- Leadership and management safety rounds: feedback; observations
- Adopt recommendations from Safety societies: ISMP, AHRQ

Error- Reduction Models

- FMEA: Failure mode effect analysis
- PDSA: Plan- Do- Study- Act

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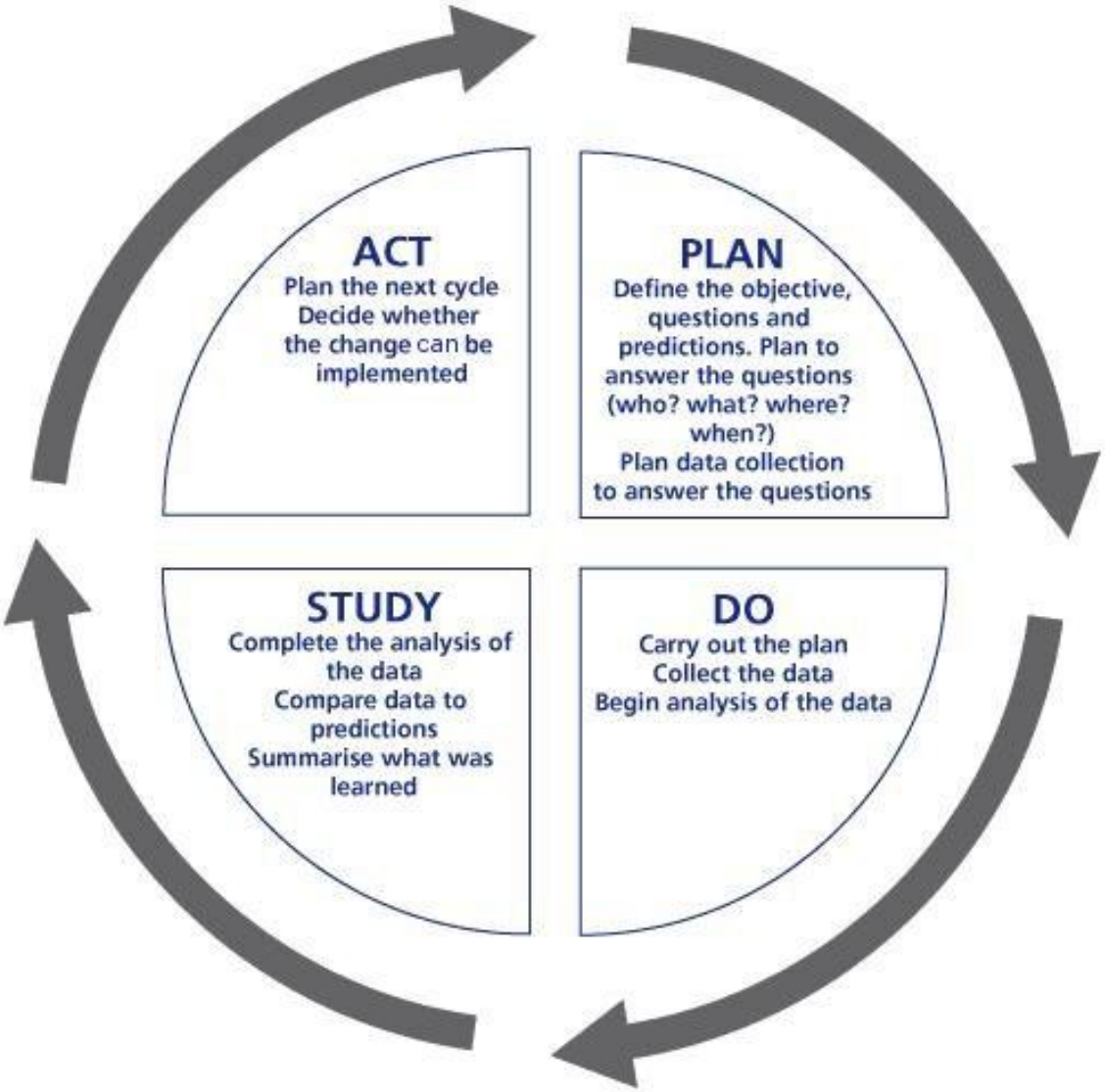
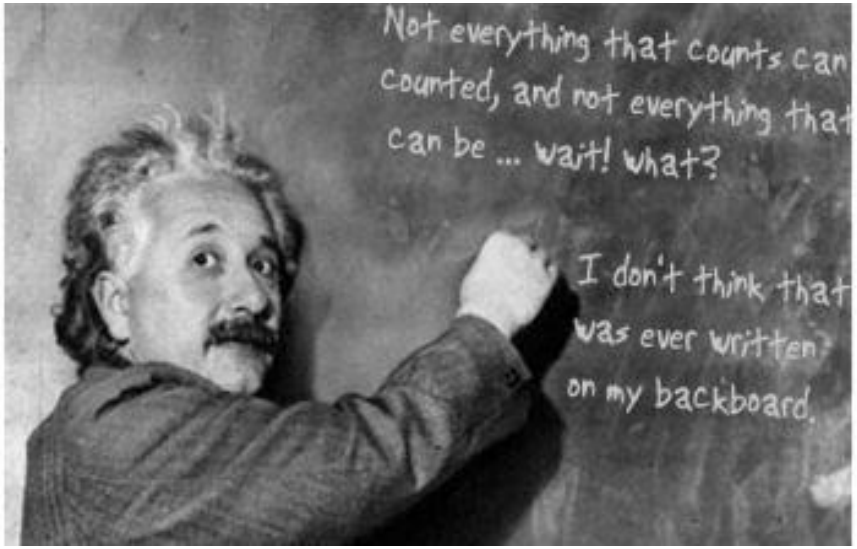


Measurements

"Not everything that can be counted counts.
Not everything that counts can be counted"



Joint Commission International Patient Safety Goals

1. Identify patients correctly	Patient identification before blood transfusion
	Patient identification before medication administration
2. Improve effective communication	Reporting of critical test results (read-back)
3. Improve the safety of high-alert medications	Pharmacy interventions in KCl orders
4. Ensure correct-site, correct-procedure, correct-patient surgery	Time out and skin marking
	Laterality documentation in the patient medical record
5. Reduce the risk of healthcare associated infections	Compliance with hand hygiene guidelines
	Surgical site infections in clean surgery
6. Reduce the risk of patient harm resulting from falls	Patient falls by unit
	Injury falls

Patient Identification

<u>Goal 1</u>:

Improve the accuracy of patient identification.

Use at least two patient identifiers when providing care, treatment and services.

Improve Communication

Goal 2:

Improve the effectiveness of communication among caregivers.

Report critical results of tests and diagnostic procedures on a timely basis.

Medication Safety

Goal 3:

Improve the safety of high-alert medication

Universal Protocol for Preventing Wrong Site, Wrong Procedure, Wrong Person Surgery

Goal 4:

- Conduct a pre-procedure verification process.

Mark the procedure site

A time-out is performed before the procedure.

Health Care-Associated Infections

Goal 5:

Reduce the risk of health care-associated infections.

Comply with either the current Centers for Disease Control and Prevention (CDC) hand hygiene guidelines or the current World Health Organization (WHO) hand hygiene guidelines

Reduce Falls

<u>Goal 6</u>:

Reduce the risk of patient harm resulting from falls.