Context and Vision: Patient Safety and Quality at Duke

5th Annual Patient Safety and Quality Conference
January 14, 2010
Overview

- Acknowledge history of excellence
- Review our framework to support improvement efforts in safety and quality
- Celebrate accomplishments and successes over the past 5 years across Duke Medicine
- Discuss future goals and priorities
Context for Patient Safety and Quality Care

• History of excellence, yet need for continued improvement in safety and quality

• Patient Safety
  – Identify and mitigate risk, to prevent harm
  – Requires a culture in which everyone is committed to and accountable for safety

• Quality
  – Degree to which health care services increase the likelihood of (patient’s) desired health outcomes and are consistent with current professional knowledge
Framework for Safe, High Quality Care at Duke Medicine

• Identify leaders at all levels of organization
  – DUHS Board of Directors, Senior leaders, Departments, CSU, Unit level
  – Provide necessary training and tools

• Develop robust risk identification and mitigation strategies
  – SRS, Safety Walkrounds, RASMAS

• Address systems issues (fix defects)
  – Highly complex system: standardize and simplify
  – IT systems to enhance safety
    • CPOE, EHR, Barcoding, Surveillance

• Create a culture to enhance safety and quality
  – Human Factors, Teamwork and Communication, Accountability and Behavioral Choices, Patient Centric
Leadership and Attributes of the Right Stuff

- Organizations highly successful in safety were also generally successful in operational performance
- Engagement at all levels of the organization
- Understand crucial aspects of human performance
- To continuously improve performance and achieve superior results the organizational culture must change – meaning behavioral change
- They address and align the behaviors of everyone

Krause – Leading with Safety 2005
Safety Leadership Training

• Senior Leaders
  – PSCQ Committee of BoD, Executive Partnerships
  – Physician Leaders, Managers, PSO Training

• Graduate Medical Education
  – Program Directors, Senior Residents, Fellows
  – 1st Fellow, ACR Safety and Quality Fellowship

• Health Professions Schools
  – Core content in patient safety and quality
  – Interdisciplinary teamwork training (SoN and SoM)
  – IHI Open School Chapter
    – Recognized at National IHI Forum
    – Hosting first NC Regional IHI Forum
Risk Identification and Mitigation

• Safety Walkrounds
  – Hospitals
  – Outlying Clinics
  – Home Health

• RASMAS
  – Computerized alert system
  – Nearly 3,000 alerts yearly
  – Drugs, equipment, devices
  – Senior Recall and Response Team

• Computerized Safety Reporting System
  – Over 1,200 reports per month
Risk Identification and Mitigation
SRS: Falls – Injury level and location

Falls by Injury Level and Location

Incident Date Range: On or after Apr 16, 2009 12:00 AM.
SRS: Falls – Type and Severity

**Type of Injury**

Incident Date Range: On or after Apr 16, 2009 12:00 AM,

- Increased Pain: 69
- Hematoma: 17
- Fracture/Dislocation: 13
- Edema: 13
- Damaged Teeth: 4
- Contusion: 13
- Consciousness Change: 12
- Blood Loss: 9
- Abrasion / Laceration / Contusion: 2
- Abrasion / Laceration: 17
- None: 5
- Other: 95
- Significant Lab: 1
- Vital sign change: 8

**Falls by NDNQI Severity Level**

Incident Date Range: On or after Apr 16, 2009 12:00 AM,

- None: 189
- Minor: 21
- Moderate: 81
- Major: 14
Durham Regional Hospital

Patient Falls With Injury per 1000 Pt Days

Better

Actual

Current Target

Trend
Risk Identification and Mitigation:
SRS: Medication Events

Top 10 Medication Categories

- Cardiac Drugs: 39
- Opiate Agonists: 36
- Anticoagulants: 29
- Replacement Preparations: 26
- Insulins: 25
- Diuretics: 22
- Miscellaneous Antibiotics: 21
- Immunosuppressants: 16
- Hypotensive Agents: 11
- Misc GI Drugs: 11

Top 10 Medication Categories that injured patients

Injury is defined as a Severity classification of 3 or higher by medication safety pharmacists and peer reviewers.

- Opiate Agonists: 7
- Anticoagulants: 4
- Cardiac Drugs: 3
- Insulins: 3
- Misc. Anticoagulants: 3
- Antidepressants: 2
- Benzodiazepines: 2
- Replacement Preparations: 2
- Antihistamines: 3
- Antihistamines: 3
Med Safety: Total Preventable ADEs With SI > 2 as a % of Total ADEs

- Actual
- Current Target
- Trend
Systems Issues

- Implement IT safety systems
  - Computerized SRS
  - CPOE, EHR
  - Automated Surveillance
  - Bar Coding, Smart Pumps
  - Patient Portal

- Standardize, simplify, learn from defects
  - Implement best practices
  - Use of checklists
    - CA-BSI Bundle

Why we need checklists
Duke University Hospital

Infection Control: Catheter Associated Bloodstream Infections

Better

Actual
Current Target
Trend
Culture: Teamwork, Communication and Behavioral Choices

• National training site for TeamSTEPPS
  – Nearly 100 Master Trainers at Duke
  – Master Trainers from 44 institutions in 20 states
  – Effective communication; Environment of mutual respect

• Safe Choices
  – DUH: 1,700 staff and faculty have participated
  – 2010: spread across DUHS

• Just Culture
  – 25 Trainers
  – Standard algorithm used during event review
    • Focus on accountability but avoid blame

• Transparency and Disclosure
Patient Centered Culture

• Patient Advocacy Council
  – Created in 2006
  – 14 members, >1000 hours service

• Activities
  – Patient portal
  – Condition H
  – TeamSTEPPS for patients and families
  – Patient-centered care for students and trainees
Measuring our Progress: CMS Publically Reported Measures

Duke University Health System
EBCS Progress by DUHS Fiscal Year

Focus Area

AMI  CABG  HF  HKR  PNE  SCIP

DUHS FY04  DUHS FY05  DUHS FY06  DUHS FY07*  DUHS FY08  DUHS FY09
Diabetes “Perfect Care”

DPC: DM Perfect Care
A1C<7, LDL<100, Non-Smoker, Aspirin, BP<130/80

- Aug 2007 - March 2008 Collaborative w/ Cincinnati Children's
- 2008 NCQA Certification Obtained

DM Collaborative Learning Session - Shaping an Action Plan
Implementation of DM Nursing Process
Transition registry to MJM
Patient Safety & Quality Summary Report - DUH Critical Success Factor Trends

- **Med Safety: Total Preventable ADEs With SI = 2 as a % of Total ADEs**
  - Graph showing trends from 2007-03 to 2009-09 with actual, current target, and trend lines.
  - Trend indicates improvement.

- **Patient Falls With Injury per 1000 Pt Days**
  - Graph showing trends from 2007-03 to 2009-09 with actual, current target, and trend lines.
  - Trend indicates improvement.

- **Infection Control: Catheter Associated Bloodstream Infections**
  - Graph showing trends from 2007-03 to 2009-09 with actual, current target, and trend lines.
  - Trend indicates improvement.

- **Infection Control: Nosocomial Infection Rate Per 1000 Inpatient Days (MRSA)**
  - Graph showing trends from 2007-03 to 2009-09 with actual, current target, and trend lines.
  - Trend indicates improvement.

- **Patient Satisfaction: Inpatient Mean Score**
  - Graph showing trends from 2007-03 to 2009-09 with actual, current target, and trend lines.
  - Trend indicates improvement.
Duke Medicine Quality & Safety Web Site dukehealth.org/quality

- 22,921 pageviews (Jan-Oct 2009)
- 85% increase in traffic in 10 months
- Silver Award for "Best Quality & Safety Communication," 2009 eHealthcare Leadership Awards
Leading in safety and quality

- IOM Committees
- NPSF Board of Directors
- TJC Pediatric Patient Safety Panel
- NQF Panel for PSO Common Formats
- Josie King Foundation Board of Directors
- IHI Faculty
- DoD, AHRQ National Training Site
- ACR First Annual PSQ Fellowship
- DUH 2009 AHA - McKesson Quest for Quality Citation of Merit
- Award winning abstracts from DUHS!
Looking to the Future: Duke Patient Safety Center

- To help individuals, clinical areas, hospitals, ambulatory centers and others who want to improve quality and patient safety. We aim to:
  - Spread best practices inside and outside Duke University Health System
  - Generate new knowledge
  - Bring joy back to work
- We work to develop and support quality and safety related roles, committees, training, tools, research, strategies, data and other resources through our interdisciplinary team. We strive to balance the clinical, administrative, psychological, spiritual and service needs of our organization, our frontline workers and the patients that we serve.
  - www.dukepatientsafetycenter.com