Keeping Quality and Patient Safety on the Forefront

Judy Murphy, RN, FACMI, FHIMSS, FAAN
Chief Nursing Officer,
IBM Healthcare Global Business Services

DISCLAIMER: The views and opinions expressed in this presentation are those of the author and do not necessarily represent official policy or position of HIMSS.
Objectives

• Review healthcare reform initiatives that focus on improving patient quality of care and safety.

• Discuss how technology can enable or inhibit compliance with quality and patient safety standards and data-based decision making.
What we will cover …

• Quality and Safety Groundwork laid with the ARRA/HITECH legislation and MU Program
• National Quality Strategy
• Quality Improvement Cycle
• The Learning Healthcare System
• ONC Health IT Patient Safety Action and Surveillance Plan
• Health IT Safety Center
• FDASIA Report
• SAFER Guides
American Recovery & Reinvestment Act of 2009 (HITECH Act / Stimulus Bill)

- 111th Congress
- $787 Billion
- Highly partisan vote
- Healthcare portion = $147.7 Billion
  - $87B for Medicaid
  - $25B for support for extending COBRA
  - $10B for NIH
  - $19-22B for HealthIT

HITECH = Health Information Technology for Economic and Clinical Health
Five Broad Goals for “Meaningful Use”

The vision for meaningful use is to enable significant and measurable improvements in population health through a transformed health care delivery system.

The 5 overarching goals are as follows:

1. Improve quality, safety and efficiency
2. Engage patients and their families
3. Improve care coordination
4. Improve population and public health and reduce disparities in care
5. Ensure privacy and security protections

Stages of Meaningful Use

- Stage 1: EHR Adoption
- Stage 2: Health Information Exchange
- Stage 3: Improved outcomes

Staging/Maturation of the Meaningful Use Measures
Overall Value of the HITECH Programs

• The EHR Incentive Program (Meaningful Use) has created a culture shift re: the automation of health care; a “tipping point” has been reached

• The health care world is different today because we now have a national infrastructure
  – People
  – Technical

• This national infrastructure has laid the groundwork to facilitate both care delivery reform and payment reform (ACA)

Next Steps ....
Meaningful Use as a Building Block

Stage 1 MU
- Basic EHR functionality, structured data
- Privacy & security protections

Stage 2 MU
- Care coordination
- Patient informed
- Structured data utilized
- Privacy & security protections

Stage 3 MU
- PCMH 3-Part Aim
- ACO’s “Stage 3 MU”
- Improved population health
- Enhanced access and continuity
- Patient self management
- Patient engaged, community resources
- Team based care, case management
- Registries to manage patient populations
- Privacy & security protections
- Registries for disease management
- Evidenced based medicine
- Privacy & security protections
- Data utilized to improve delivery and outcomes
- Data utilized to improve delivery and outcomes
- Patient centered care coordination
- Care coordination
- Privacy & security protections
- Access to information

Utilize technology
- Transform health care
- Patient informed
- Care coordination
- Privacy & security protections
- Structured data utilized
- Privacy & security protections
Our National Quality Strategy
(3 Part Aim)

Better Health for the Population

Better Care for Individuals

Lower Cost Through Improvement
Six Priorities of the National Quality Strategy

- Making care safer by reducing harm caused in the delivery of care.
- Ensuring that each person and family are engaged as partners in their care.
- Promoting effective communication and coordination of care.
- Promoting the most effective prevention and treatment practices for the leading causes of mortality, starting with cardiovascular disease.
- Working with communities to promote wide use of best practices to enable healthy living.
- Making quality care more affordable for individuals, families, employers, and governments by developing and spreading new health care delivery models.
Quality Improvement Cycle

Research
What’s ACTUALLY happening

Guidelines
What SHOULD happen

Clinical Decision Support
How to MAKE IT happen

Population Health

Clinical Quality Measures
What DID happen
Linking Measurement & Improvement

eCQM

+ CDS

Clinical Quality Improvement
The Learning Healthcare System

- Build evidence out of practice
- Leverage analytics to extract actionable knowledge
- Set standards based on clinical goals, and evidence-based practice
- Measure the impact of the change through outcomes analysis and research
- Leverage EHR to optimize workflow and support clinical decision making
- Develop reports to monitor the practice change
- Focus on “Making it Easy to do the Right Thing”
- Collaborate to foster knowledge translation
Best Care at Lower Cost

The Path to Continuously Learning Health Care in America

September 2012
The Vision
Continuous Learning, Best Care, Lower Cost
Health IT and Safety

Health IT makes new improvements in health care quality and safety possible, compared to paper records. Yet, if not designed and used correctly, it can also introduce new risks of harm. The Office of the National Coordinator (ONC) is taking actions on health IT and patient safety as described in our [Health IT Patient Safety Action and Surveillance Plan](http://www.healthit.gov/policy-researchers-implementers/health-it-and-safety) by Improving the safe use of health IT, Learning more about the impact of health IT on patient safety, and Leading to create a culture of shared responsibility among all users of health IT.

Over the past year, ONC has learned more about electronic health records’ (EHRs) positive impact on the quality and safety of patient care. This information is shared in the [Health IT Safety Report](http://www.healthit.gov/policy-researchers-implementers/health-it-and-safety) [PDF - 307 KB]. The report explains that we now have a better understanding of the types of safety events related to health IT and, more importantly, the interventions available to prevent unintended consequences of the use of health IT tools. Information can also be found in an [ONC Buzz Blog post](http://www.healthit.gov/policy-researchers-implementers/health-it-and-safety).

Slides from the NHT Week Safety Webinar [PDF - 4.1 MB] (September 19, 2014) are now available. This webinar provided insight on significant work in health IT safety this past year including how EHRs are making a positive impact on the quality and safety.

http://www.healthit.gov/policy-researchers-implementers/health-it-and-safety

CLINICAL INFORMATICS INSTITUTE
Original Plan (July 2013):

Update on the Plan (July 2014):

Health Information Technology Patient Safety Action & Surveillance Plan
July 2, 2013

2 GOALS
1. Ensure the safe use of Health IT
2. Promote the use of Health IT to improve patient safety
Health IT Safety Center

The HIT Safety Center will be a place to analyze data from different sources and disseminate best practices.

HIT Safety Center will need to provide value and improve safety at a national scale.

Value Proposition of the HIT Safety Center

HIT Safety Center will offer specific defined products.

HIT Safety Center will provide services that foster stakeholders in the healthcare system to feel a vested interest in HIT safety.
FDASIA

• Food and Drug Administration Safety Innovation Act (FDASIA)

• Report on an risk-based Health IT Regulatory Framework that promotes innovation, protects patient safety, and avoids regulatory duplication.

SAFER Guides: 9 guides to enable healthcare organizations to address EHR safety in a variety of areas

Clinical Process Guides
- Patient Identification
- Computerized Provider Order Entry with Decision Support
- Test Results Reporting and Follow-Up
- Clinician Communication

Foundational Guides
- High Priority Practices
- Organizational Responsibilities

Infrastructure Guides
- Contingency Planning
- System Configuration
- System Interfaces

http://www.healthit.gov/safer/
Thank you!

For more information, contact: murphyja@us.ibm.com
Keeping Quality & Patient Safety on the Forefront

Mary Beth Mitchell, MSN, RN, BC, CPHIMS
Chief Nursing Information Officer
Texas Health Resources
Objectives

• Explain a construct for identifying and managing safety issues impacting quality related to the electronic health record.

• Provide specific use cases for defining safety concerns in the electronic health record related to workflow, culture, technology, and social interactions.
Texas Health Resources

- 14 Wholly owned hospitals (25 hospitals total)
- 18 outpatient facilities and
- 250 other community access points
  - 3,100 Operational beds
  - 4,100 licensed hospital beds
  - 22,500 staff
  - 7,500 RN’s
  - 5,500 physicians
  - 557,785 annual emergency visits
  - 24,573 annual deliveries
  - More than 1.3 million inpatient & outpatient visits
- 5 Magnet Hospitals
- EMRAM Stage 7, Davies Award 2013
How Did We Get Here?
HITECH: Catalyst for Transformation

Background

Pre 2009
A system plagued by inefficiencies

2009
EHR Incentive Program and 60 Regional Extension Centers

2014
Widespread adoption and meaningful use of EHRs

Improved Quality, Safety and Efficiency:

- Better Communication and care coordination
- Safer Treatment via e-Prescribing
- Faster Delivery of information and results
- More efficient Coding and billing

Safety Advantages

• Well documented benefits of Electronic Health Record (EHR)
  – Legibility
  – Increased access to patient record
  – CPOE/Order Sets- evidenced based
  – ePrescribing
  – Data Analysis

• Clinical decision support delivered electronically within the medical record will provide decision makers with tools for best practice and safety improvements.

Hospital Information Technology Systems’ Impact on Nurses and Nursing Care

Waneka and Spetz, JONA, December 2010

• **Background:** review of the literature to determine the impact of health information technologies (HITs) on nurses and nursing care

• **Study:** Review of literature produced 564 references, of which 74 were selected for review to determine impact of HIT on nurses and Nursing Care

• **Results:** Findings suggest that
  • HIT improves the quality of nursing documentation;
  • HIT reduces medication administration errors;
  • Nurses are generally satisfied with HIT and have positive attitudes
  • Nurse involvement in all stages of HIT design and implementation, and effective leadership throughout these processes, can improve HIT.

• **Conclusion:** HIT has had positive influences on nurse satisfaction and patient care. Effective nursing leadership can positively influence the effective development, dissemination, and use of HIT.

Radice, Barbara, (February, 2011). Informatics and Quality Outcomes. HIMSS Presentation, Orlando Florida.
Patient Safety at THR

THR Core Measures ACS Scores
Q1 2007 - Q3 2010

36% Reduction in Medication Errors
62% Reduction in Cardiac Arrest

Safety Concerns with the EHR: Unintended Consequences of HIT

- Events that are neither anticipated nor the specific goals of the associated [CPOE] computer project implementation
- Includes both undesirable as well as desirable, positive, and beneficial consequences
- Major categories of unintended consequences identified
- May undermine patient safety practices, and cause delays, miscommunication, and even errors or harm to patients.
- Often blamed on the performance of the “newly introduced technology.”

Quality and Safety Related to Meaningful Use

• EHR implementation can improve care delivery. Many experts, however, believe that too many systems are being installed too fast into environments too complex to be easily computerized.

• In the frenzy to be eligible for federal EHR meaningful use incentive payments, and avoid reimbursement penalties starting in 2015, institutions may be setting themselves up for disastrous computer-induced medical errors

• Ratio of patient care benefits to potential safety issues introduced by HIT approximately 10:1

• Efforts being made to ensure that the implementation of HIT is done as safely as possible

• Majority of HIT related patient safety issues, when they occur, are related to preparation, training, and workflow changes

AMIA Health Policy Conference 2009

A Construct for Quality and Safety in the EHR

Several reasons identified for occurrence:

- Workflow
- Culture
- Technology
- Social Interactions

Workflow

• Order Management-
  – Orders not always discontinued, or modified-
  – Difficult to understand med dose, and IV rates.
  – Bad practices in placing order sets

• Blood Administration
• Medication Reconciliation
• Blood Glucose Management
Culture

• Ignoring Alerts
• Over-reliance on technology
• Verbal orders/Telephone orders
  – Increased volume
  – Error prone
  – Alerts for physicians do not fire for nursing?
  – Order modes- correct co-signatures
• Patient Hand-Offs/Communication
• Lack of standardization within Nursing
  – Variability in hospital size and complexity
  – Variability of services- ie: Wound Care
Technologies

• CPOE
• BMV- Barcode Medication Verification
• Hard to Tell the Patient Story
  – Documentation in multiple places
• Integration- with other systems
  – Device Integration
  – Disparate Systems
• Downtime Management
• Other technologies
  – Communication Devices
  – Fetal monitors
Social Interactions

• Lack of face-to-face communication
  – Physicians to nurses
  – Pharmacists to nurses

• Perceived decreased socialization
  – Access and location of computers

• Documenting at Nurses Stations
How Can We Improve……

- Governance
- Standardization
- Collaboration
- Training and retraining
- Workflow optimization
- Operational reports
- Front-line manager accountability
- Improved communication between providers
- Super Users, experts, commitment to support
- Ensure good build, strong workflows
Safe Clinician Use of EHRs

• Know your organization’s approach to reporting
• Promote a “just” culture for reporting of events to increase error reporting. Note: estimated that 1-5% of Health IT errors are actually reported
• Know available resources to you and your organizations related to reporting patient safety issues with your EHR
• Look for the trends in your events . . . these types of errors are more evident by their patterns than standing alone
• Create a culture of patient engagement / activation
Framework for Monitoring and Evaluating EHRs for Safety

1. Ability for practitioners and organizations to report patient safety events or potential hazards related to EHR use;

2. Enhanced EHR certification that includes specific assurances that good software development procedures have been followed along with evidence that previously reported adverse events and hazards have been addressed;

3. Self-assessment, attestation, testing, and reporting by both clinicians and health care organizations that all 8 dimensions of safe EHR use have been addressed;

4. Local, state, and national oversight in the form of an onsite, in-person accreditation of EHRs as implemented and used by clinicians in the health care setting; and

5. A national EHR-related adverse event investigation board that reviews incident reports and has the authority to investigate.

QUESTIONS