Meaningful Use of Health IT
The Quest for Quality and Safety

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Building Bridges to Nursing Research Practice
May 9, 2014
Goals

Share a story of patient engagement
Briefly describe the Federal Health IT plan
Describe meaningful use and 2014 quality measures
Discuss the role of nursing and informatics to assure quality and patient safety
Describe examples of practice transformation using health IT and meaningful use
Mr. Smith

A retired engineer
Multiple providers- not all in system
Lack of trust in system ability to track important information- keeps a personal shadow chart
Actively using and checking “My chart”
Facing a significant procedure
Key learnings

- Know the personal story
- Listen and understand requests
- Follow up promptly
- Include patients on design teams
- We have significant work to do!
Best Care at a Lower Cost

IOM report estimates the cost to US Healthcare is 340 Billion annually for unnecessary or inefficient services

Federal Health IT Strategic Plan

www.healthit.gov

Improve adoption of Health IT through meaningful use
Improve Care- population health
Improve Trust
Empower Individuals
Achieve Rapid learning and advancements
Health IT.gov- Strategic plan

Impacts of Federal Health IT Initiatives on Marketplace and Healthcare System

Federal Health IT Initiatives:
- Health IT Product Certification
- Provider Adoption Support
- Workforce Training
- Consumer eHealth
- Patient Safety
- Reform Demonstrations
- Clinical Quality Improvement
- Medicare & Medicaid Incentives
- State Health Information Exchange
- Standards & Interoperability
- Privacy & Security
- Public Health
- Research Collaboratives
- Development Challenges
- State & Community

Health IT Marketplace Impacts:
- Adoption of Health IT

Meaningful Use of Health IT:
- Exchange of Health Information

Impacts on U.S. Health Care System:
- Improved Individual and Population Health Outcomes
- Increased Transparency and Efficiency
- Improved Ability to Study and Improve Care Delivery

Alignment with Plan Goals:
- Goal I
- Goal II
- Goal III
- Goal IV
- Goal V

Research and Innovation to Enhance Health IT
Approach

CQI and higher targets over time
Carrot and Stick
Major dollars at risk
Data and Information
Constantly evolving
Innovation
It’s an evolving experiment

Healthcare is under the microscope
2014 will be a transformative year.

It may be scary, he said, but it's well worthwhile. ICD-10 will be the "foundation for greater interoperability and ease of transmitting electronic data, better quality measurement and reporting of clinical outcomes data, and lower costs and operational efficiencies and administrative simplification"
Adoption of EHR approaching 90%

Meaningful Use- 27 billion dollar investment

Big moves

- Less fee for service
- Payment for quality
- More public reporting
- Increased Data Sharing and Interoperability

“Advancing models of care for innovative change”

Delivery System Reform
ONC, CMS may align mandates, incentives

ONC is not alone is making clarification efforts.

ORLANDO | February 24, 2014

This is not going to be easy: ONC and CMS officials are talking about aligning incentives at some point in the future.

On Monday during a town hall session, an attendee representing a Kentucky regional extension center asked top officials of the Office of the National Coordinator for Health Information Technology whether they are doing anything to tie a number of issues together, including meaningful use, ICD-10, accountable care, value-based payments and health information exchange.

“Yes, HMS is working to harmonize its various programs to create a more seamless and streamlined way to capture the info necessary for value-based payment and ACO,” said national coordinator Karen DeSalvo. “We’ll get closer to it as we move along.”

ONC has been working to develop materials that explain those initiatives, said Mat Kendall, director of ONC’s Office of Policy and Planning, because they’re important issues and can “seem overwhelming” to providers.

ONC is not alone is making clarification efforts. Robert Tagalicod, director of the Centers for Medicare & Medicaid Services’ Office of e-Health Standards and Services said in a Monday interview with HIMSS Media that CMS is unveiling the eHealth University here at HIMSS14, essentially delivering what it promised last year at HIMSS13.

In addition to initiatives in accountable care, meaningful use, ICD-10 and value-based purchasing, the eHealth University rubric also includes provider-centric resources for administrative simplification and physician quality reporting.

“These are the things we look at when we talk about alignment,” Tagalicod said. “At this point are they aligned? No, but
# What’s at Risk

Source: Studergroup.com

## Value-Based Purchasing Roadmap

CMs quality-based payment initiatives will put more than 11% of payment at risk.

<table>
<thead>
<tr>
<th>Year</th>
<th>Reporting Hospital Quality Data for Annual Payment Update</th>
<th>Value-Based Purchasing</th>
<th>Readmissions</th>
<th>Hospital-Acquired Conditions</th>
<th>Meaningful Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>2% of APU</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td>1.25%</td>
<td>2%</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>2012</td>
<td></td>
<td>1.5%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td>1.75%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td>2%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td>2%</td>
<td>3%</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td>2%</td>
<td>3%</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td>2%</td>
<td>3%</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td>2%</td>
<td>3%</td>
<td>4%</td>
<td></td>
</tr>
</tbody>
</table>
Payment Reform

- Increased reliance on information reporting
Putting the Puzzle together: Documentation and coding are key

ICD 10

Acuity of Care

Quality Measures
Hi Tech Act – Federal Stimulus Funding

- Requires significant reporting
- Regulations are still evolving
- Regulations require interpretation
- Software will need frequent updates as regulations are released and revised
Meaningful Use Goals

- Improve quality, safety, efficiency and reduce health disparities
- Engage patient and families
- Improve care coordination
- Improve population health
- Ensure privacy and security protection
Stages of Meaningful Use

*Improving Outcomes*

Stage 1: Data capture and patient access

Stage 2: Information exchange and care coordination

Stage 2: 2014-15

Stage 3: 2016-17

Stage 3: Improved outcomes
Key Findings from progress report

- As of 4/2013, 74% of eligible professionals and 87% of hospitals have registered to participate in Meaningful Use.
- Hospital Electronic health record (EHR) adoption has tripled since 2009.
- 73% providers access to e-prescribing.
- Adoption of Health Information Exchanges (HIE).
- Success in improving health outcomes.
- Greater consumer access.
Health IT Dashboards

CMS Electronic Health Record Incentive Programs
Share of All U.S. MDs, PAs, and NPs paid under Medicare or Medicaid (2014-01)

National

Charts Updated Through: 01/31/2014

Summary and Citations
The Centers for Medicare and Medicaid Services (CMS) Medicare and Medicaid Electronic Health Record (EHR) Incentive Programs are being implemented to assist health care providers with the adoption and meaningful use of health information technology. The information displayed above derives from data published by CMS here http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/DataAndReports.html. The figures depict the number and distribution of payments to eligible health care providers. For more information, visit http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/index.html
National EHR Incentive Program Timeline

- First EHR’s certified by HHS ATCB’s
- Beginning of first available reporting period for hospitals
- EHR Incentive Payments Begin
- Last day for EP’s to register and attest to receive incentive payment for CY 2011
- Last year to receive EHR incentive payment
- Last year to initiate participation in Medicaid EHR Incentive Program
- Last year to receive Medicaid EHR incentive payment
- Medicare payment adjustments begin for EP’s and EH’s not Meaningful Uses of EHR technology
- 2017 Stage 3 begins

- Meaningful Use Final Rule Issued
- *Registration begins for hospitals and EP’s
- *Beginning of first available reporting period for EP’s
- *Last day for EH’s to register and attest to receive incentive payment for FFY 2011
- 2015
- 2016
- 2017
- 2021
## Objectives for EHs and EPs - Core

<table>
<thead>
<tr>
<th>Core Objective</th>
<th>EH</th>
<th>EP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computerized Physician Order Entry</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Drug-Drug and Drug-Allergy Checks</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Maintain an Up-to-Date problem list</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Maintain Active Medication List</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Maintain Active Medication Allergy List</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Record Demographics</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Record and Chart changes in vital signs, BMI and Growth Charts</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Record Smoking Status</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Report clinical quality measures</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Implement one (1) Decision Support Rule and have ability to track compliance</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Provide patients with an Electronic copy of their Health Information upon request</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Capability to Electronically Exchange information among providers of care</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Protect Electronic Health Information</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Provide patient with an Electronic copy of their discharge instructions</td>
<td>X</td>
<td>n/a</td>
</tr>
<tr>
<td>Generate and transmit permissible prescriptions electronically – e-prescribe</td>
<td>n/a</td>
<td>X</td>
</tr>
<tr>
<td>Provide Clinical summaries for patients for each office visit</td>
<td>n/a</td>
<td>X</td>
</tr>
</tbody>
</table>
Penalties for Non-Compliance

**Hospital Penalty**

- **2015** - 33.3% of three-quarters of the market basket reduced to zero
- **2016** - 66.7% of three-quarters of the market basket reduced to zero
- **2017+** - 100% of three-quarters of the market basket reduced to zero

**Physician Penalty**

- **2015** - 1% of Medicare fee schedule
- **2016** - 2% of Medicare fee schedule
- **2017+** - 3% of Medicare fee schedule
Clinical Quality Measures

- **General requirements**
  - *Clinical Quality Measures must come from the certified EHR*
    - Certified to create the measures
    - assure all data is captured in EHR as discrete data to make it possible for the resulting reports to be complete and accurate

- **Hospital requirements for 2014**
  Electronic reporting of 16/29 measures across 3 domains

- **EP* requirements**
  - 9/64 measures across three Domains
  - Can attest to the fact that the EP had no patients for the quality measure
Meaningful Use

GAO “hits” EHR incentive program in 2014
Identifies need for better strategy
Other issues
Use of registries
Use of clinical summaries and HIE
Decision support 5 in stage 2
Potentially 15 in stage 3
Recommends adding focus on Health disparities /outcomes
What is Informatics?

Clinical Informatics promotes understanding, integration, and application of information technology in healthcare settings. It ensures adequate support of clinician objectives and industry best practice.

Integrates clinical science, computer science, and information science to manage and communicate data, information, knowledge, and wisdom to optimize healthcare delivery and improve outcomes (HIMSS).
Role of informatics

Facilitate the integration of data, information and knowledge to support patients, nurses and other providers through the use of decision making in all roles and settings (Scope and Standards of Nursing Informatics Practice, published by the ANA in 2001)
Core Competencies of Informatics Leaders

1. Promotes quality of care and patient safety through oversight of the design and training of work processes using IT.

2. Accountable for the development and oversight of functional teams creating integrated clinical solutions for end users.

3. Demonstrates a good understanding of both the operational world of healthcare delivery and the technical world of HCIT. Serves as a liaison between IT and clinical leadership at the executive level.

4. Guides the design and oversees the implementation and management of the structure and strategies that support end-users’ use of information technology for safe, quality patient care.
Informatics - A bridge

IT

END USERS
How do we get there?

Riley and Saba’s nursing informatics education model
Movement to EHR
Building Expert Systems that promote quality and safe care
Examples of Issues

Sutter’s $1B EHR failure has nurses scrambling
The 24-hospital Sutter Health system was the talk of the town late August after a software glitch rendered its $1 billion electronic health record system inaccessible to nurses and clinical staff. Reflecting back, a Sutter nurse talks about what the health system should have done differently.

EHR software recalled after big glitch
UnitedHealth Group has voluntarily recalled its OptumInsight emergency department electronic health record software after a glitch resulted in physician notes failing to appear in the records.

Kaiser Permanente sends out breach letters after email gaffe
Health giant Kaiser Permanente is notifying patients of a HIPAA privacy breach after an emailed attachment containing the protected health information of patients was sent to a recipient outside the Kaiser network.
Opportunities to Build a Safer System

Health IT

Features of Health IT
- Workflow
- Usability
- Balanced customization
- Interoperability

Design and Development
- Software requirements and development
- User interface design
- Testing
- Deployment
- Maintenance and upgrade

Implementation
- Planning and goal setting
- Deployment
- Stabilization
- Optimization
- Transformation

Safer Systems for Health IT

Health Professionals, Health Care Organizations, Vendors
Key areas

Planning and prioritization for IT
Selection
Development and Implementation
Stabilization
Optimization
Transformation
Inspire

- Communicate Vision & Value
- Consistency
- Have Fun

Innovate

- Workforce Planning
- New Processes
- New Policies
- New Workflows

Interact

- Staff
- Super Users
- Readiness Owners
- Implementation Team
Health IT

Safer guides

From

http://www.healthit.gov/safer/safer-guides
Using technology to improve the medication management process

- E prescribing
- Clinical decision support
- CPOE
- Medication reconciliation
- Pharmacy dispensing - pharmacy robotic systems
- Administration - bar coding to prevent administration errors
- Use of smart pumps
- Software for diversion identification
- Billing and inventory management
- Outcome monitoring
EHRs may help save lives from sepsis

March 21, 2014

Here’s another reason why those multi-million dollar electronic health record systems might be finally paying off, in terms of lives potentially saved.

According to new research, EHRs can be used to predict the early stages of sepsis, one of the leading causes of death in the U.S., responsible for killing some 210,000 people each year.

Researchers at UC Davis have found that routine health data — blood pressure, respiratory rate, temperature and white blood cell count — from the EHRs of hospitalized patients can detect the illness earlier in its infancy and help pinpoint what patients are at high risk of developing the disease.

[See also: QUEST hospitals report big numbers]

After analyzing the EHRs of some 741 sepsis patients, researchers were also able to determine that just three measures — lactate level, blood pressure and respiratory rate — can pinpoint the likelihood a patient will die from the disease.

Patients are rarely screened for blood lactate levels because sepsis is difficult to distinguish in its early stages, researchers say. The blood test also lacks specificity, as if a patient were shown to have elevated lactate levels, this would not necessarily mean they had sepsis.
Transforming Care
Significant opportunities

Leverage technology to improve outcomes
All nurses need to enhance informatics competencies
Focus on Quality and Safety
It’s all about care redesign and transformation
Contact

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