Computer Provider Order Entry (CPOE) in Hospital Systems to reduce post surgical adverse outcomes

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CPOE

- Computer
- Provider
- Order
- Entry
ARRA

- The *American Recovery and Reinvestment Act* of 2009 distributes the $787 billion
- Health Information Technology for Economic and Clinical Health Act (HiTech Act)
- The Center for Medicare and Medicaid Services (CMS) released their 864-page final rule on July 13, 2010 which defines **“meaningful use”** of an EHR
- Office National Coordinator (ONC) “certifies” EHR
SEED MONEY

- **2011 Phase 1** - Incentive payments
- **2013 Phase 2** - Incentive payments
- **2015 Phase 3** - Incentive payments
- **2016 and beyond** – reduced payments

» This will be the disincentive program if you have not implemented a certified EHR and with meaningful use
Stage 1 Core Objectives for Professionals

- CPOE
  - for medication orders
- Drug-Drug, Drug-Allergy checks
- Accurate problem list
- E-prescribing
- Active medication list
- Medication allergy list
- Patient demographics recorded
- Vital signs and BMI recorded
- Smoking status recorded
- After Visit Summary
- Quality measures reported to CMS
- Clinical decision support
- Electronic copy of health information
- Exchange clinical information electronically
- Protect electronic health information
Meaningful use

- Is not the end
- It is the beginning
• Electronic Health Record
  » Certified
  » Implementation
  » Transformation
  » Sustained support
  » Optimization
  » Use in Meaningful Manner
  » Increase Safety and Quality
  » Optimize Best Practices
  » Highlight key weaknesses/issues
Healthcare needs to:

- **Evaluate business models**
  - UPS, McDonalds, Amazon are good examples
  - Healthcare is way behind

- **Electronic Health Records should be like:**
  - Travelocity for patient scheduling
  - iTunes for patient education
  - Banking for patient security/privacy
Unfortunately

- We are not there yet
- We have a long way to go
- We have to adopt EHR and CPOE
U.S. health system must embrace technology to:
- overcome ever increasing costs
- decreasing resources
- decreasing reimbursement
- increasing co morbidities of our patients
- increasing drug resistant bacteria
- increasing regulation
- increasing quality measures
US Healthcare

- Is extremely complicated
- Intricate workflows
- Many best of breed systems
- (those CPOE, EHR systems built for one specific niche)
  - Which do not work together
  - Which do not talk to each other
  - Which only work well as stand alone systems
  - Many only do one thing: CPOE, Coding, Document
We must work smarter to deliver safer more cost effective patient-centered care
We must use technology to get back to the bedside
We must use EHR to:

- Let physicians and Surgeons do what they do best. Take care of patients
- Make our processes easier
CPOE

• Utilizing CPOE in the peri-operative area:
  » Electronic order sets
    » Give opportunity to have literature based, evidence based, knowledge based, best practice based orders
    » If it is absolutely the right thing to do in San Francisco then it is the right thing to do in Saint Louis.
CPOE

- Allows clear practice parameters
- To identify exactly who is responsible for what, when and where.
- To avoid duplicate orders/overlap.
  » Surgeon and Anesthesia
  » Pre Operative outpatient testing
  » PreOp area
  » Intra operative
  » Post operative/recovery
  » Floor Orders
CPOE

- Meeting Meaningful use of a certified EHR requires
  - Drug-Drug, Drug-Allergy checks
  - This ability will require CPOE
Creating a Culture for Success

- **Patient-first mentality**
- **Patient safety is everyone's responsibility**
  - Clinicians: Nurses, Allied Health and Physicians
  - Admissions and HIM
  - The Patient
  - Patient’s family and friends
  - Executive leadership

- **Electronic Health Records offer great potential**
  - CPOE
  - Allergy, Drug/Drug, Formulary checks
Facts of Life with Electronic Health Record

- Physicians procrastinate.
- Physicians are way too busy.
- Physicians want to know only the facts.
- Physicians are concerned with: “How does this affect me?”
- Physicians are resistant to change.
- Healthcare is stretched too thin already
- The EHR learning curve will slow down everything
- The EHR touches all processes, shows secrets/problems
- CPOE adds work to the physician
Timeline and Project Plan

- Pre-EHR/CPOE involvement and communications
- Financials
- Leadership commitment
- Clear project plan
- Clear scope
- Design, build and test hardware and software
- Training
- Implementation
- Transformation
- Fix, support and maintenance
- Optimization
- meeting ARRA, HiTech and Meaningful USE
- ROI
EHR/CPOE isn’t the panacea to fix problems

- It will not solve all issues
- In fact it will highlight present ones
- EHR touches everything
- No more hiding issues
- Everyone in EHR now practices transparently
- Will take Physician’s time
Alleviating fears and frustrations

- Anxiety and rumors are our enemies
- Deal with facts
- Deal with Key personality, power and politics
Adopter Types

<table>
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<th>Category</th>
<th>I. Innovators</th>
<th>II. Early adopters</th>
<th>III. Early majority</th>
<th>IV. Late majority</th>
<th>V. Laggards</th>
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<td>Percentage</td>
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<td>13.5%</td>
<td>34%</td>
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Number of adopters over time.
Attitudes

Disruptive  poor  reasonable  good  exceptional
Attitude is the KEY

- Those with good attitude:
  - Learn quickly
  - Adopt this technology quickly
  - Are helpful in implementing and optimizing
Implementation
5 Keys

1) Attitude is KEY
2) Basic computer skills
3) Best communication method for them
4) Rumor control
5) Use local support structure & resources
The time is Right

- Computer Provider Order Entry (CPOE) in Hospital Systems to reduce post surgical adverse outcomes
CPOE

- To Reduce Post Surgical Adverse issues
  - SCIP
  - DVT/PE
  - VAP
  - PUD prophylaxis
  - Protocols to perfect patient care/prevent complications
  - Medication errors
    - Omission
    - Allergies
    - Drug Drug interactions
    - Timing: anticoagulation, antibiotics, PUD Prophylaxis
The Time is Right for Computer Provider Order Entry (CPOE) in Hospital Systems to reduce post surgical adverse outcomes

- To embrace technology
- To improve patient safety and quality
- To put patient at Center of Care
- To empower our Patients
- To improve patient outcomes
- To eliminate preventable complications
- To drive out unnecessary costs
- To decrease preventable morbidity/mortality
CPOE and EHR

- **Unprecedented Opportunity**
- **Health Information Technology**
  - We have fast enough computers
  - Computers, monitors, printers are now:
    - Relatively low cost
    - Stable
  - Software is improving
  - Other businesses successes can be used