

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

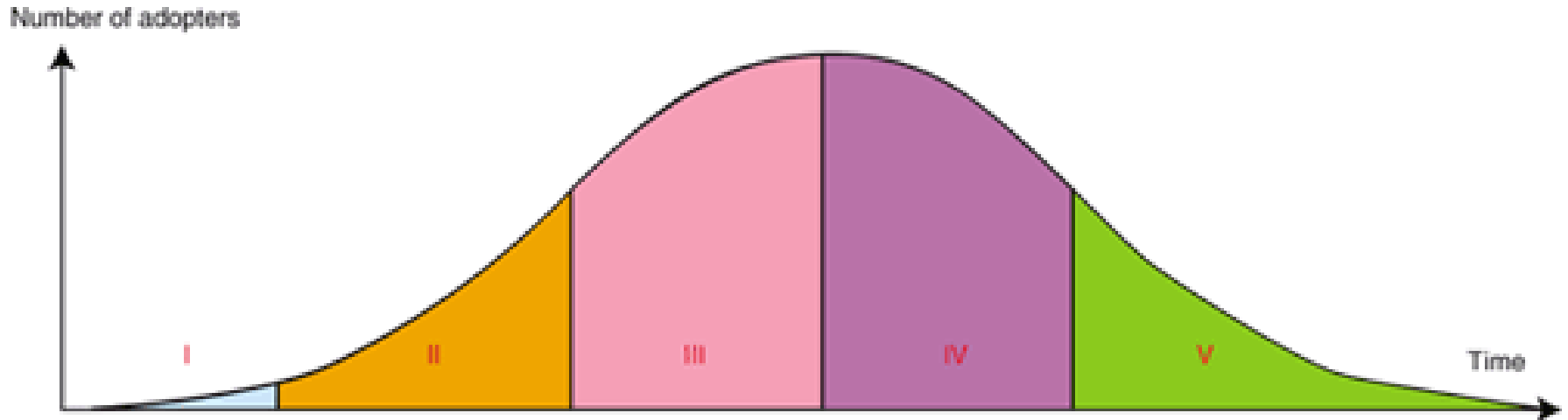
EHR/CPOE isn't the panacea to fix problems

- 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

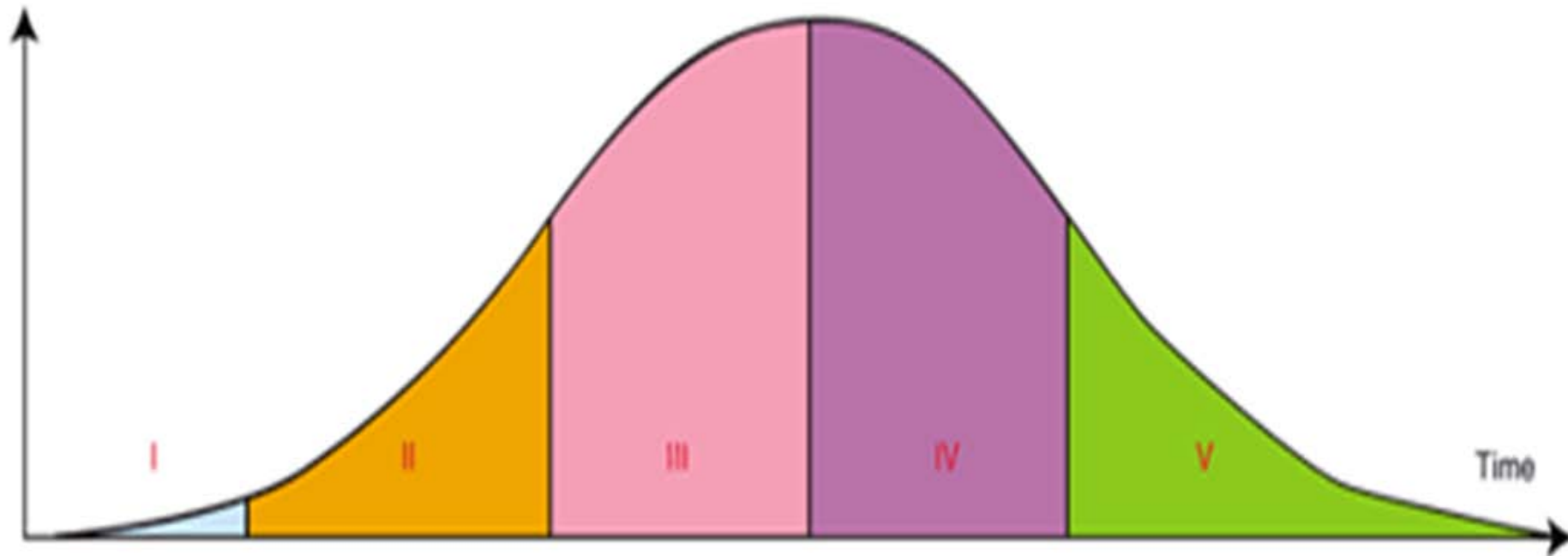
- Anxiety and rumors are our enemies
- Deal with facts
- Deal with Key personality, power and politics

Adopter Types



Category	I. Innovators	II. Early adopters	III. Early majority	IV. Late majority	V. Laggards
Percentage	2.5%	13.5%	34%	34%	16%
Characteristics	<ul style="list-style-type: none"> · Venturesome · Interested in new ideas 	<ul style="list-style-type: none"> · Convey ideas of innovations to others. · Greatest degree of opinion leadership 	<ul style="list-style-type: none"> · Deliberate · Adopt new innovations just before the average member of a system. 	<ul style="list-style-type: none"> · Skeptical · Adopt new ideas just after the average member of a system. 	<ul style="list-style-type: none"> · Traditional · Suspicious of innovations · Last to adopt an innovation · Not opinion leaders

Attitudes



Disruptive

poor

reasonable

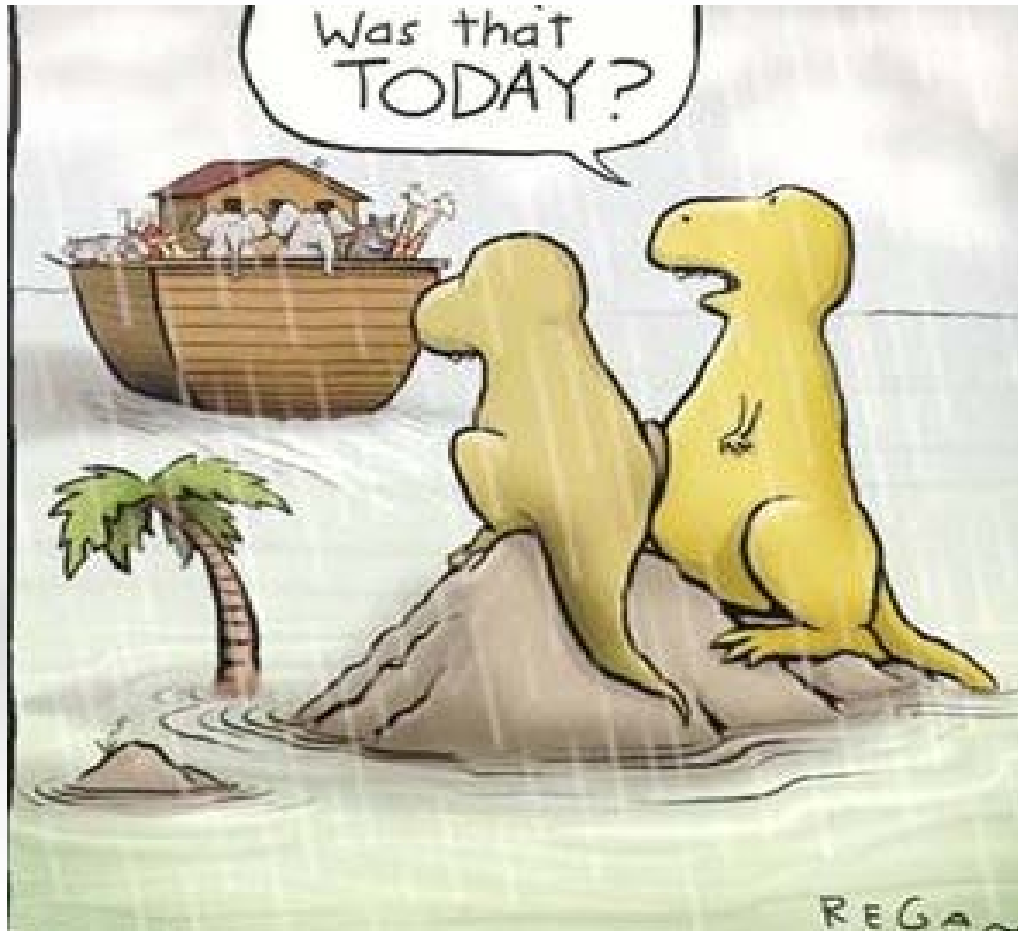
good

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

