Quick Review of Stage 6 & 7

Of the HIMSS EMRAM

HIMSS Analytics

Stage 6

- **Stage 6** – Physician Documentation **and** Closed Loop Medication Administration are being practiced
  - Physician Documentation with underlying CDSS and clinical guidance
  - Pharmacy orders verified by a pharmacist before dispensing a unit dose
  - Use of bar coding at the point of care – the patient and medication (unit dose or sachet) must be bar coded
  - “5 Rights” of closed loop medication administration – the right patient, right drug, the right dose, the right route, and the right time

Stage 6, Key Failure Points

- Physician Documentation
  - Needs to have some examples of CDSS – some rule or alert that fires from documentation …
    - For example, adding *cardiomyopathy* to the Dx list could remind the physician to order ejection fraction if not ordered
    - or … the next generation ..
- Medication safety is a hot topic ..
  - Bar coding is the international standard of best practice
  - The evidence in the literature is overwhelming, plus it is a nurse satisfier … makes nurses feel safer

Medication Reconciliation

Medications at admission, discharge, and transfers in care

CPOE and/or e-prescribing

Medication orders pass clinical decision support @ the point-of-care

eMAR

Complete medication administration documentation

Pharmacy / Nurse

Validation of order and dispensing of Unit Doses (e.g. by ADM)

PoC Administration

Secure identification of nurse, patient and medication at Point-of-Care (PoC)

Automated Dispensing Machines (ADM)

Medication Safety

- Comparison with & without BCMA
- Timing errors without & with bar codes[2]
  - 6,723 without bar codes : 11.5% timing errors
    - 3.1% were judged serious ADE
  - 7,318 with bar codes: 6.8% timing errors (-40.9%)
    - 1.6% were judged serious ADE (-50.8%)
- Wrong Medications – 57.4%
- Wrong dose – 41.9%
- Improper documentation – 80.3%
- Transcription errors: - 100%

2 N Engl J Med 2005; 353:329-331July 28, 2005

Stage 7

- **Stage 7** – Complete EMR, Data Analytics, Business Continuity, and HIE , System Governance, use of connected medical devices
  - Essentially no paper charts used for patient care throughout the hospital
  - =>90% of all physician orders entered by physicians in CPOE
  - => 95% of all patient IDs and medications are scanned and verified at bedside
  - Use of clinical analytics to analyze outcomes and care delivery processes; care improvement to be demonstrated
  - Disaster recovery and systems governance demonstrated

HIMSS Analytics

Stage 7 Continued

- 2014 additional requirements:
  - Bar code usage for blood products administration
    - Again, trauma exceptions
  - Bar coding for human milk if client has a NICU or milk bank

- Do you see the future???
  - IV Pumps receive the order from CPOE, only needs to have patient & meds & channel scanned to initiate flow

Stage 7, continued

- **Stage 7** is validated with a site visit by two CIOs and a CMIO
  - Team visits to:
    - Medical & surgical unit(s)
    - ICU
    - Emergency Department
    - Medical imaging
    - Blood Bank
    - Pharmacy
    - Medical Records

Stage 7, Key Failure Points

- Weak Analytics program
  - We need to see that you are analyzing all this data from the EMR and doing something to improve quality, safety & efficiency
  - Show three case studies
- Paper
  - Either not getting clinically relevant paper scanned within 24 hours, or paper that should not exist ….
- Clearly not a consistent use pattern
  - Shows lack of governance, lack of standard education, etc.
- Not hitting the “numbers” .. CPOE% and Medication Administration %

Dank u voor deze gelegenheid

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