ED CPOE Experience

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Objectives

- Review how CPOE has impacted patient safety in the ED
- Review the basic safety benefits CPOE of CPOE
- Review the safety concerns associated with CPOE

Why Do CPOE?

- More than one million serious medication errors occur every year in U.S. hospitals
- Medication errors alone contribute to 7,000 deaths annually
- Financial costs. One ADE adds more than $2,000 on average to the costs of hospitalization. This translates to over $7.5 billion per year nationwide in hospital costs alone.

Why Do CPOE?

- Standardize process (check list of items to remember for each condition)
- Real time rules and alerts at ordering, signal drug interaction, allergy or dose errors
- Eliminate delays to downstream departments with real time order processing
- Enable bar code medication administration
- Dose calculations and other electronic tools to assist in accurate dosing
- Order sentences eliminate sound alike drug errors
- Clearer communication between physicians, nurses and pharmacists

Before CPOE

Paper orders and order sets

After CPOE

Home Folder with department specific order sets/Powerplans
Before CPOE

Order hieroglyphics?

After CPOE

Orders easily legible and found electronically.

Before CPOE

Hand Written orders sit in paper chart to be transcribed into Cerner.

After CPOE

Physician can order electronically from anywhere they can access Cerner.

Before CPOE

Pharmacist transcribing handwritten, often illegible, medication orders

After CPOE

Pharmacist reviews electronic orders in Pharmnet.
Before CPOE

Hand Written Discharge Instructions

After CPOE

Printed Electronic Discharge Instructions

Before CPOE

Hand Written Prescriptions

After CPOE

Printed (legible) prescription or prescription sent electronically to pharmacy (e-prescribe)

Previous clinical references

Cefazolin adults
Difficulties experienced in ED

- Culture change by providers
- Decreased direct communication
- Software limitations
- Education, there is a steep learning curve
- Real time and order processing very quick
- Real-time evaluation with ability to update quickly
  - Clinical updates
  - Safety issues
  - Efficiency upgrades

CPOE Safety Recommendations

- Robust education before, during and after “Go Live” events
- Extensive IT support staff with real time response
- Hardware and software able to support CPOE
- Monitor before and after “go live” to research effectiveness
- Continuous review and updating of system to accommodate provider concerns and new clinical evidence
- Most importantly, monitor and correct unanticipated safety errors

Spectrum ED Experience

Over 200 physicians, extenders and nurses entering orders. Despite steep learning curve and frequent obstacles along the way, very few providers would elect to “go back”.

Spectrum ED Experience

Most importantly, monitor and correct unanticipated safety errors.