UNIVERSITY OF ROCHESTER MEDICAL CENTER

The Optimized Emergency Pharmacist Role

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Outline

- Why do we need a pharmacist in the ED?
- Intro to our ED Pharmacist Project
- Presentation of phase 1 findings

The Need

- Medication events are a significant cause of adverse events in the ED

Hafner, JW, Belknap, SM, et al. Ann Emerg Med 2002; 39(3):258-67.

- Higher prevalence of preventable adverse events in the ED

Brennan TA, Leape LL, Laird NM et al. NEJM 1991; 324 (6):370-6.

What’s different about the ED?

- No pharmacy check as occurs in rest of hospital
  - Redundancy step missing – 2 vs 3 people
  - Medications ordered, dispensed and administered in ED
- Higher prevalence of verbal orders
- Urgent and high stress situations
- Multitasking, interruptions
- High risk intravenous medications

What's different about the ED?

- Unfamiliar patients
- Often no access to the medical record
- No direct follow-up
- Crowding (due to inpatients)

Bottom Line: Emergency Medicine lacks redundancies and system protections afforded inpatients

Clinical Pharmacists Work

- **Pharmacists as members of an inpatient care team reduce the number of adverse drug events**

Folli HL, Poole RL, Benitz WE, Russo JC. Pediatrics 1987; 79(5)
Gattis WH, Whellan DJ. Arch Internal Med, 1999. 159(16): p. 1939-1945.
Kane SL, Weber RJ, Dasta JF. Int Care Med 2003;29(5):691-8
Leape LL, Cullen DJ, Clapp MD, et al. JAMA 1999;282(3):267-70

Who is doing it? (2004)

- 4079 emergency departments in US
- 43 with dedicated pharmacists in ED (1%)
  - Vast majority not clinically emerged
  - (dispensing, stocking, etc)

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Emergency Pharmacist since 2000

- Clinical consultation
  - Nurses, physicians
  - Portable phones
- Order screening
- Critical patients
- Education- patients, nurses, physicians
  - Very well received among providers

Fairbanks, Hays, Webster, Spillane, *Clinical Pharmacy Services in an Emergency Department*, Am J Health Syst Pharm, May 2004; 61:934-7.

Typical consults

- Medication choice
- Dose, route
- Interactions
- Dilemma posed by allergies
- Administration details
- Medication reconciliation
- Emergency med preparation

Preliminary Data- Trauma Care

- Improved key measures
- Reduced costs
- Sought out by physician and nursing staff

Fairbanks RJ, Hays DP, et al. Am J Health-System Pharm 2004;61(9):934-7.

Kelly SJ, Hays D, et al. "Pharmacists Enhancing Patient Safety During Trauma Resuscitations." 2005 ASHP Best Practices Award

Overview of ED Pharmacist Project

AHRQ Partnerships in Implementing Patient Safety

- Phase 1– optimize the role
- Phase 2– evaluate the impact
- Phase 3– assess staff acceptance/satisfaction
- Phase 4– impact national practice

Overview of ED Pharmacist Project

AHRQ Partnerships in Implementing Patient Safety

- **Phase 1– optimize the role**
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Optimization Phase

- Objective
  - Optimize Emergency Pharmacist Role
- Methods
  - Qualitative: interviews (purposive sampling)
    - ED staff, patients, inpatient providers, pharmacists
    - How can we maximize the patient safety role…
  - Field notes transcribed, coded and thematically analyzed by review committee
  - Recommendations developed

Results: 43 Interviews

1. Maintain high visibility
2. Focus on ED patients
   - avoid care of inpatients boarding in the ED, who should receive inpatient pharmacy services
3. Focus coverage on peak volume periods including evenings and weekends

Results: 43 Interviews

4. Maintain surveillance of provider orders
   - increase likelihood of intercepting problem drug orders
5. Respond to all trauma and medical resuscitations
6. No dispensing
7. No stocking

Results: 43 Interviews

8. Minimize administrative responsibility
9. Mandatory review
   - Ex) pediatric orders: patients <1 year or <10kg
10. Easy Access
    - Portable phone
    - Pager
    - etc

Conclusions

- EDP was felt to enhance patient safety
- Several factors were seen as enhancing role.
- These have been implemented
- Phase 2 will now study effectiveness
  - Quality measures
  - Adverse events

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