Improving Medication Errors and Near Miss Reporting Without Spending Money

Jacob Thompson, PharmD, MS
Associate Director of Pharmacy
Learning Objectives

• Describe strategies to improve medication errors and near miss reporting

• Describe creative ways to improve the culture of reporting errors and near misses

• Describe one way to formalize a Medication Safety Committee
• 4 Hospital Health-System:
  – UHS Wilson Regional Medical Center: 280 bed teaching, regional trauma center
  – UHS Binghamton General Hospital: 200 bed community hospital
  – UHS Chenango Memorial Hospital: 58 bed rural community hospital
  – UHS Delaware Valley Hospital: 25 bed critical access hospital
- UHS Home Care
- UHS Senior Living at Ideal
- UHS Primary Care
- UHS Specialty Care
- Integrated across the Health-System:
  - 24/7 operations
  - 3 Community Practice Pharmacies
  - 62 Physician office practices

- 120 Employees
  - 97 FTE
  - 44 FTE pharmacists
  - 53 FTE non-pharmacists
Medication Safety

• Institute of Medicine: To Error is Human: Building a Safer Health System (1999)
  – 380,000 - 450,000 preventable ADE’s in hospitals
  – 44,000 – 98,000 people die annually from medical errors
Our Journey...
Medication Safety Committee

• Formed: Fall 2011
• Multi-disciplinary:
  – Pharmacy Director
  – Associate Director of Pharmacy
  – Medication Safety Pharmacist
  – Quality Management
  – Nursing Quality Coordinator
Medication Safety Committee

- Originally analyzed current data
  - Insulin changes

- Lack of data
  - Message to Nursing and Pharmacy staff
Medication Safety Video

Jacob Thompson, Associate Director of Pharmacy

Going in the Pharmacy to help reduce errors, really want us to report every time?

What happens with the event reports? Will someone get in trouble? Are medication errors a problem at UHS?
Medication Safety Video

• FAQ:
  1) What is the appropriate way to report a medication error or near miss?
  2) Do you really want us to report every time?
  3) What happens with the event reports?
  4) Will someone get in trouble?
  5) Are medication errors a problem at UHS?
  6) What else are we doing in the pharmacy to help reduce errors?
Trend Line

• Reporting increased 56% since video was presented.
Discussions with Senior Leadership

• Occurred prior to spike in reporting
• With individual Vice Presidents
• At Hospital Quality Council
• Difference between documented and actual errors
• Don’t discuss the bump in reporting after the fact
Sustainment Efforts

- Continuous Feedback Loop
What have we learned?  What have we done?

1) UHSH has increased error & near miss reporting for 3 straight months!
   Thanks for your dedication to help improve the medication process.

2) Problems were identified with labeling of patient specific insulin pens.
   Educated pharmacy technician staff and labels should only be fixed to
   actual pen (not cap).

3) Some of the errors that have occurred could be caught during RN night
   check.  Double checking medication renewals and order checks could
   help identify problems earlier.

4) Rapid Improvement Team established to address medication renewals
   as a problem.  Order entry when medications expired and were not renewed.

9) Vaccines will be entered as a one time unspecified order.  This will
   prevent vaccines from “falling off” the MAR.

10) Orders with stop dates appear to be an error prone.  If an order is
    written to stop after so many doses or on a specific date, there should
    be a message in the medication comments section AND entered into
    the system to stop accordingly.  Please see screen shot
    on how to verify the order was entered correctly.  (Example
    shows this order is INCORRECT.  Stop date set for 30 days,
    not 2).
CELEBRATION!!
Data from event reports in 2012 have been collected.

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error</td>
<td>427</td>
<td>424</td>
</tr>
<tr>
<td>Near Miss*</td>
<td>250</td>
<td>321</td>
</tr>
<tr>
<td>Total Reports</td>
<td>677</td>
<td>745</td>
</tr>
<tr>
<td>Total Doses</td>
<td>681</td>
<td>661</td>
</tr>
</tbody>
</table>

*28% increase in near misses from 2011

Top 10 Medications reported (in order):
Insulin, IV Fluid, lorazepam, metoprolol, heparin, fentanyl, vancomycin, potassium, oxycodone, morphine

*Please continue to submit both medication errors and near misses*
Efforts within the Department

• What could be done internally that is within your control
Central Pharmacy Reporting
Central Pharmacy Reporting

Please fill out when there is a "Good Catch"

Date: ________________________________  Time: ________________

Drug Picked: _________________________

PLEASE DO NOT INCLUDE STAFF NAMES

Intended Drug: ________________________

Additional Comments/Suggestions for Safety Improvements:

_________________________________________________________________

_________________________________________________________________

_________________________________________________________________
IV Room Reporting

Please fill out when there is a "Good Catch"

Date: ___________________________  Time: ____________

Wrong Volume
Wrong Technique (Pull Back used on high risk med)
Filter device not used
Calculations not documented
Base Drug Not Labeled With Drug Concentration
Base Drug Not Labeled With Drug Expiration Date
Wrong additive (if checked, please fill out section below)
Wrong Base Solution (if checked, please fill out section below)

Drug Picked: ___________________________

Intended Drug: ___________________________

Other: ___________________________

Additional Comments/Suggestions for Safety Improvements:

________________________________________
________________________________________
________________________________________
Pharmacy Data

- 469 Near Misses Reported in first 8 months
  - Data showing that dispensing errors are caught in the pharmacy
- Data was not known before project
- Share with Nursing/Quality Leadership
Actions Taken

• Changed labeling on storage bins and placement of certain medication containers
• Modified Therapeutic Substitution Policy
• Eliminated medications from Formulary
• Automation Improvement
**Pharmacy Staff Evaluation**

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<tr>
<th>SECTION D: NEW POSITION SPECIFIC COMPETENCIES</th>
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- May include competency required for new equipment obtained, new procedures. Process the following year, these will be made base competencies.

| 1. | Embraces a Culture of Safety by promoting safe medication use practices and helps identify ways to continually improve the medication use process. |
MEDICATION SAFETY COMMITTEE CHARTER

1. Mission

The UHSH Medication Safety Committee will evaluate the safety of the medication use system continuously and systematically in order to minimize medication errors and promote positive clinical outcomes for the patients we serve.
2. **Goals and Objectives**

The committee promotes medication safety through evaluation of best practice and evidence-based medicine. Specific goals and objectives include:

- *Increase the quantity and quality of medication error reports*
- *Create a non-punitive reporting culture (Just Culture)*
- *Review aggregate UHSH medication error and near miss data and individual significant events to seek the root causes of medication errors. Make recommendations for system/process changes to prevent the error or near miss from occurring again in the future*
- *Review external error data reported by safety experts such as the Institute for Safe Medication Practices (ISMP) and governing agencies such as the Joint Commission (TJC) and Department of Health (DoH). Recommend the implementation of systems that will prevent errors reported by these experts from occurring at UHSH*
- *Aid in the education of practitioners about the causes of medication errors and the prevention strategies that have been implemented*
Committee Membership

• Medication Safety Pharmacist (Chair)
• System Director of Pharmacy
• Associate Director of Pharmacy
• Nursing Quality and Compliance Coordinator
• Nursing Education Coordinator
• Quality Management Nurse Coordinator
• Hospitalist
• Internal Medicine Senior Resident
• Internal Medicine Resident
Formalized Reporting

- UHSH Workgroups
- Medication Safety Committee
  - Hospital Quality Council
  - Pharmacy and Therapeutics Committee
    - Medical Staff Executive Committee
Formal Agenda

• Medication Error Reporting
  • Monthly Data
    • Medication Safety Ratio
    • Doses in Error
    • Near Miss Reports
    • Level of Errors
    • Trends from the month
  • Root Cause Analysis
• Top Ten Medications 2012
Formal Agenda

• Action Logs
  • Medication Safety Committee Action Log
  • The Joint Commission Sentinel Event Alerts
  • ISMP Quarterly Action Agenda
  • ISMP Site Visit
Formal Agenda

• New Business
  • FMEAs
  • Risk Assessments
  • Smart Pump Changes
• Any member can bring up concerns
  • Patient-Specific
  • Process concerns
• Opportunities to educate staff
Accomplishments Q1 2013

• 5 pages of accomplishments
  • New Medication Safety Newsletter
  • Screensavers on hydromorphone
  • Insulin Pen FMEA
  • Multiple Risk Assessments
  • Ordered new wireless glucose monitors
Launch: Online Reporting System
Keys to Success

- Team member engagement
  - Accountability
- Action Logs/Minutes report to the highest level
- Don’t take on every request
- Expect background work to be done prior to meeting
Other ways to get Data

• BCMA Reports

• Pharmacy Documented Interventions
Next…

• Safety Culture Survey 2014

• Formal “Just Culture” environment

• Optimize the electronic reporting system
Take Home Points

• Build a structure to review, communicate, and make changes

• Be creative

• Reporting starts within the pharmacy department
Acknowledgements

• Original Medication Safety Committee
  • Lynne Lee – UHS Medication Safety Pharmacist
  • Pam Rice – UHS Nursing Quality and Compliance Coordinator
  • Sue Kliment – UHS Quality Management Nurse Coordinator
  • Larry Tremel – Past UHS Director of Pharmacy
Questions

Jacob_Thompson@uhs.org