Managing Medication Errors

IN LONG TERM CARE

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Med Errors- Outline

- Types of Errors
- Contributing Factors
- Why is LTC more prone?
- Pharmacy – A Key Component
- A parallel industry
- How can they be avoided?
- Quality Improvement
- Criminalization- An alarming trend

Med Error - Definition

Any **preventable event** that may cause or lead to inappropriate medication use or patient harm

National Coordinating Council for Medication Error Reporting and Prevention
Timeline of “Preventable Events”

Pre-Admission

Admission

Medication Administration

On-Going Resident Stay

Types of Errors

MECHANICAL VS. HUMAN

Human Error - Definition

Human error is any human action or lack thereof that exceeds the tolerances defined by the system with which the human interacts.

D.K. Lorenzo, A Manager’s Guide to Reducing Human Errors
Unintentional errors

*Actions committed or omitted with no prior thought*

- misreading an order
- bumping the wrong switch
- forgetting to properly set the dose on an X-ray device
- usually thought of as accidents

Intentional errors

*Actions deliberately committed or omitted because staff believe their actions are correct or better than the prescribed actions*

- Shortcuts
- “Improved” methods
- Don’t always result in harm

The Swiss Cheese Organizational Model

*Developed by James Reason, University of Manchester*

- A series of events which must occur in a specific order and manner for an accident to occur
- Holes are opportunities for failure
- Each slice is another layer of the system
Contributing Factors

WHAT MAKES THEM HAPPEN?

Performance Shaping Factors (PSF)

Anything that affects staffs’ performance of a task

Internal PSFs

Individual skills, abilities, attitudes and other characteristics staff bring to the job

- Experience
- Knowledge of standards
- Intelligence
- Motivation/work attitude
- Personality
- Emotional state
- Physical condition/health
**External PSFs**

*Influence the environment in which tasks are performed*

- Facility Layout
- Temperature, lighting, noise
- Shift rotation/Staffing levels
- Procedures: written or not written
- Frequency/repetitiveness

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**Stressors**

- Heavy task load
- Threats of failure or loss of job
- Degrading or meaningless work
- Long, uneventful vigilance periods
- Distractions
- Fatigue
- Lack of rewards, recognition or benefits

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**Long Term Care**

**EVEN MORE ERRORS**
Concerning Statistics

- 7,000 yearly deaths due to sloppy handwriting
- 106,000 yearly deaths from adverse drug reaction
- Only 6% of ALL adverse drug reactions are properly identified
- 800,000 preventable drug-related errors occur in long-term care settings

Concerning Statistics (Cont.)

Why is LTC More Error Prone?

- Unusually Complex Environment
- Rx/Resident
- Existing Compromised Health
- Many Residents per Unit
Additional Factors

- Transition from one care setting to another
  - Prescribing or transcription errors
  - Medicare Part D
- Time Constraints/ Understaffed
- Inadequate pharmacological knowledge
- Failure to comply or lack of procedures

PHARMACY

A KEY COMPONENT

The Fill Process - Oversimplified

- Code
- Fill
- Bag
Pharmacy Step 1 - Code

PROCEDURE:
Receive fax → Enter data
RPH1 Check → Print Label

QUALITY ASSURANCE:
Missing Orders → Skips
Transcription → Allergies

Pharmacy Step 2 - Fill

PROCEDURE:
Pre-Pack → Affix Label → RPH2 Check

QUALITY ASSURANCE:
Mismatch → Skips

Pharmacy Step 3 - Bag

PROCEDURE:
• Package Totes
• Create Manifests
• On-Time Delivery

QUALITY ASSURANCE:
• Mixed Totes
• Skips
A Parallel Industry

ERRORS FROM ANOTHER PERSPECTIVE

Transportation Facts
Odds of fatal accident

- Airline = 1/7,000,000
- Train = 1/1,000,000
- Driving = 1/14,000
General Odds of Death

- Cardiovascular disease: 1 in 2
- Smoking: 1 in 600
- Bicycle accident: 1 in 88,000
- Tornado: 1 in 450,000
- Lightning: 1 in 1.9 million
- Bee sting: 1 in 5.5 million

Airline Strengths

- Minimized distractions
- Checklist centered/Verbalization
- Set up to avoid work fatigue
- Unprecedented training routines
- Thorough investigation after even MINOR accident
Delta Flight 1141: August 31, 1988

Dallas Times Herald
Miraculously, 94 survive
13 die in fiery Delta crash—search for clues begins

How Can We Control Med Errors?

APPLIED LEARNING

Minimize Distractions

- Impossible to AVOID but can be CONTROLLED
- Cell Phones
- Other interruptions
  - **Restart individual med pass if interrupted**
Checklists

- Keep them brief
- Easy to understand
- Make them available
- Wide range of scenarios
- Verbalizing

Work Fatigue

- Shortage of staff
- Pool of per diem staff
- Look out for signs of extreme fatigue
- Keep an eye out for talent

Training

- Re-examine orientation procedures
- On-going competency exams
- Perform routine drills
- Real life testing
Investigate

- Internal poc's
- Take A/I reports more seriously
- Look for systemic breakdowns
- Identify training weaknesses
- Share lessons with other facilities

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eMars

Dispensing & Delivery

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Quality Improvement

FROM TEXTBOOK TO PRACTICE

Six Sigma

- Identifying and removing the causes of defects (errors)
- Minimizing variability
- Uses Quality Management methods
- Infrastructure of experts within organization
**Pareto Analysis**

![Pareto Analysis Chart]

**Pick Chart**

![Pick Chart]

**National Quality Forum (NQF)**

- Setting priorities and goals for performance improvement
- Creating standards for measuring and reporting
- Education and outreach
Measuring

Cornerstone of any quality improvement program

- Can’t change what you can’t measure
- Gives true scope of any problem area
- Lets you know when you’ve reached the goal
- Lets you compare to others

“Vulnerable Adult Abuse”

Any knowing, intentional, or negligent act by a caregiver or any other person that causes harm or a serious risk of harm to a vulnerable adult.

Washington State Office of the Attorney General
Who is a Vulnerable Adult?

One who is unable to independently provide for their own basic necessities of life by virtue of:

- Age
- Physical injury
- Disability
- Disease
- Emotional or developmental disorders

Death of Michael Jackson

June 25, 2009

Summary & Conclusion

WHAT TO TAKE HOME