"Nothing to See Here; Move Along" A 2018 View of Medication Errors

Maryland Chapter ASCP
Spring Spectacular
April 14, 2018

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Objectives

- Recognize and define the prevalence and risk of medication errors.
- Identify primary causes of medication errors.
- Identify ways to enhance awareness, improve communication, and reduce risk of such errors
- Recognize the limitations of using a punitive approach in dealing with medication errors.

The Once and Future Problem

"It has long been recognized that the multiplicity of drugs and preparations of drugs presented to the medical professions is an evil. Risks for errors exist and multiply with use over time. Many of these drugs or preparations are worthless."

Adapted from AMA "Useful Drugs", Second edition 1916
Johns Hopkins School of Nursing Reference, 1927

These Are Not the Medication Errors That You Are looking For

Not a Real Medication Error?

- Caught error before prescription was filled,
- Filled but caught before dispensing,
- Dispensed, but patient caught before taking,
- Dispensed and patient took Rx, but no adverse events, and
- This never happened before and cannot happen again.

No Harm, No Foul?

The medication error was caught before filling and dispensing, so there was no risk to patient. So this is not a real error.

- True
- False

Definition of Medication Error

A medication error is “any error occurring in the medication use process.”

ISMP 2017 rev

- *Note that this definition includes* ***any and all errors that occur at any time.***

More About Medication Errors

“Any preventable event that may cause or lead to inappropriate medication use or patient harm, while the medication is in the control of the health care professional, patient, or consumer. Such events may be related to professional practice, health care products, procedures, and systems including: prescribing; order communication; product labeling, packaging and nomenclature; compounding; dispensing; distribution; administration; education; monitoring; and use.“

National Coordinating Council for Medication Error and Prevention, 2015

Alternate Definition from AHRQ

Types of Errors

- Incident = patient safety event that reaches patient (regardless of harm)
- Near Miss = did not reach patient
- Unsafe Condition = increased probability of error

Agency for Health Research and Quality, Update 2017

Murphy's Law for Orders: SW^2

- If it starts wrong, it stays wrong.
- Until something else goes wrong.
- Or until someone says, "Whiskey Tango Foxtrot"…"

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Medication Errors: What Just Happened?

DEA Diversion Conference 2016 11

Let HAL Fix This?

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The Rise of the Machines

Computer-involved errors have been shown to be involved in what percentage of events.

- 0
- 5
- 20
- 50
- All of them that involved me.

Prescription For Error

- Medication errors may be the third leading cause of death in the United States
  - Now: Possibly 400,000 deaths in 2012
  - Then: IOM reported 98,000 in 1999
- Computer-associated errors involved in 20% of events
- Computerized Physician Order Entry (CPOE) may increase risk in 22 types of medication errors

Journal of Patient Safety, September 2013

JAMA, 2010

General View from Board of Pharmacy Survey

Types of Medication Errors Reported

- Wrong
  - Directions: 47%
  - Quantity: 46%
  - Strength: 46%
  - Drug: 42%
  - Dosage form: 31%

Just A Thought

"It is the nature of medicine that you are going to screw up."

Dr. Gregory House; House, MD

Essential Sources of Errors

- Communication problems
- Inadequate information flow
- Human problems
- Patient related issues
- Organizational transfer of knowledge
- Staffing patterns/work flow
- Technical failures
- Inadequate policies and procedures
- Distractions, interruptions

AHRQ, 2017

Confirmation Bias

- Accept information that agrees with our hypothesis and reject information that does not
- Practitioners see the name or dose that they are most familiar with and don't question the order

(Or…What You See Is What You Get *or maybe vice versa*)

Risk Multiplier

- A Pharmacist Filling
  - 250 prescriptions per day
  - 1,250 per 5 day work week
  - 62,500 per year, assuming you can take 2 weeks off annually
  - 2,812,500 during the course of a 45 year career
- That's a lot of work, but…

That Might Be a Lot of Risk

- ISMP estimates that there are 40 steps per prescription from start to end
- 56% of overall errors are in prescribing, 34% in administration, 4% in dispensing
- 4,500,000 potential errors involved overall
  - 180,000 just in dispensing activity

Based on ISMP data 2017

Medication Errors and Risk Stratification

- A: Circumstances exist to allow an error
- B: Error happened; did not reach patient
- C: Error reached patient; no harm
- D: Error reached patent; monitoring needed
- E: Error caused temporary harm; some intervention
- F: Temporary harm: acute care intervention needed
- G: Permanent patient harm
- H: Life-saving intervention needed
- I: Death of the patient

Risk Levels
Right and Up Are Bad

G: Permanent patient harm	**H: Life-saving action needed**	**I: Patient died**
D: Error reached patient, monitor	*E: Temporary Harm*	*F: Harm needing acute intervention*
A: Risk for Error	B: Error, caught before patient received	C: Error reached patient, no harm

Things to Think About

1. If an error can happen, it will.
2. No Miss, Near Miss, Just Plain Miss, OOPS!
3. Even if we caught it early, it is still an error and a symptom of risk.
4. Communication about errors lets all learn.
5. Avoid any level of a punitive approach.

"What We've Got Here Is A Failure To Communicate. Some Men You Just Cannot Reach."

Cool Hand Luke, 1967

Let's Take a Look

- Equivalents of a sort, but…

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Black and White

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So, What Are We Going to Do?

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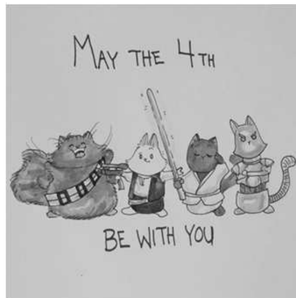
What to Do?

- Awareness of risk is an excellent defense against occurrence or recurrence.
  - Individual practitioner
  - System-related
  - Surprise!
- The best defense is an aggressive offense
  - Act before you have to react
  - If it happened before, it can happen again
- QA/QI Plan must address

A Mission Statement



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Medication Error Action

- Report!
  - If you do not know, you cannot fix
- Assess:
  - What kinds of errors might happen in your practice?
- Evaluate High Risk
  - Drugs, dose, data entry, etc.
- Work to prevent recurrence
- Follow Trends
  - Your rate
  - Overall rates
- Revisit

Repair? or Prevent?

- RCA
- FMEA

RCA Means

- Radio Corporation of America
- Right and Correction Action
- Really Catastrophic Accident
- Root Cause Analysis

RCA

Root Cause Analysis

- What happened?
- Why did it happen this time?
- How to prevent it happening that way again?
- Reactive to analyze, not necessarily correct.
- Risk management as part of CQI

FMEA Means

- Federal Medication Error Awareness
- Fund for Medication Error Awareness
- Looks like FEMA but is just misspelled
- Failure Mode and Effects Analysis

FMEA

Failure Mode and Effects Analysis

- Collaborative step-by-step process to collect and analyze potential failure points in a product or process
- Determine potential frequency of failure, risks of failure and means to prioritize
- Preventive and anticipatory
- Promote quality and risk avoidance

Just What is CQI?

1. Establish a culture of safety awareness
2. Need to perform a thorough workflow assessment
3. Establish and maintain relevant Policies and Procedures
4. Institute process for collection, analysis and review
5. Begin and maintain an active continuous quality improvement cycle
6. Mandated for all pharmacies in Maryland

Protect the Prescription

- Define a protected workspace
- Minimize interruptions
- Limit noise
- Coordinate communication direct to prescriber if possible
- Avoid prohibited abbreviations
- Use the metric system
- Always observe leading/ trailing zero rule

Get Smart: Control Communication

Diversion

Roman Republic RCA

- "Men are only clever at shifting blame from their own shoulders to those of others.

  Titus Livius, Rome, AD 15

Blame

Old, Bad Fix

- Punitive
  - Threats
  - Insults
  - Personal
- Focus is on the person who caused the error
  - Find 'em and fire 'em
- If everyone person were perfect, we would not have had an error
- Fear leads to hiding

New, Better Fix

- Positive
  - Open
  - Communicative
- What (system) not Who (person) caused the problem
  - Find it and fix it
- Opportunity is for improvement
  - Not blame
- Encourages open discussion

T.R.U.S.T

TRUST is the same as Confirmation Bias; I've always done it this way with no problems

- True
- False

TRUST: Avoid the Second Victim

- Treatment
  - Just, not punitive
- Respect
- Understanding
  - Not condemnation
- Support
  - Not accusation
- Transparency
  - Collaboration and communication = Contribution

Adapted from: Denham: Rights of the Second Victim, 2007 .

Resistance Is Futile

Denying an error
does not make it go away.

Awareness

- ASHP: 14% of Pharmacists unaware of medication error reporting protocol
- Maryland Board of Pharmacy Survey: 86% of Pharmacists surveyed do not consider an error caught before dispensing to be real
- 7 to 14 % of those surveyed do not document errors regardless of level

Resources

- The Joint Commission (TJC)
- Institute for Safe Medication Practices (ISMP)
  - www.ismp.org/Tools/tallmanletters.pdf
- American Hospital Association
- American Pharmacists Association
- American Society of Consultant Pharmacists
- American Society of Health-System Pharmacists
- National Coordinating Council for Medication Error Reporting and Prevention

Thank You!

"Alone, we can do so little; together, we can do so much."

Helen Keller

- Are there any questions?