Better Safe Than Sorry:

Improving Medication Safety Through Best Practices and Workplace Culture

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Professional Disclosure

- *I have had no financial relationship over the past 12 months with any commercial sponsor with a vested interest in this presentation.*

Technician Objectives:

- List one of the recommendations from the Institute of Safe Medication Practices' (ISMP) Best Practices for Hospitals.
- Differentiate Punitive, Blameless, and Just cultures.
- Identify strategies to promote a culture of safety within the pharmacy.

Pharmacist Objectives:

- Demonstrate how the recommendations from ISMP's Best Practics for Hospitals can be implemented into pharmacy practice.
- Describe the potential consequences of Punitive, Blameless, and Just cultures.
- Identify strategies to promote a culture of safety within the pharmacy.

Why Medication Safety?

- Medication use has become increasingly complex.
- Medication errors are a major cause of **preventable** harm in healthcare.
- Medication errors lead to an extra $3.5 billion annually in healthcare expenses.

IOM Preventing Medication Errors. 2006.
Picture: www.wsj.com

Why Medication Safety?

- On average, a patient hospitalized in the U.S. will experience at least **1 medication error per day**.
- At least **1.5 million** U.S. residents are harmed or killed each year because of medication errors.
- How much is 1.5 million?
  - Average passenger airplane holds 450 people
  - 9 passenger airplanes would have to crash every day for a whole year to reach 1.5 million

IOM Preventing Medication Errors. 2006.

So what can we do…?

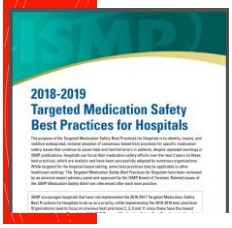
- Implement Best Practices
- Promote a Culture of Safety

Implement Best Practices

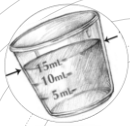
Institute of Safe Medication Practices (ISMP)

- Nonprofit, interdisciplinary organization founded in 1994
- Educates the healthcare community and consumers about safe medication practices
- The nation's **only** nonprofit organization devoted entirely to medication error prevention and safe medication use.
- ISMP Safety-Initiatives:
  - Medication Errors Reporting Program (MERP)
  - Medical Error Recognition and Revision Strategies (Med-ERRS)
  - ISMP Medication Safety Alert!® newsletter
  - Quarter Watch Reports
  - High-Alert Med List
  - Look Alike/Sound Alike Med List
- Website: www.ismp.org

ISMP 2018-2019 Targeted Medication Safety Best Practices for Hospitals



- Purpose: to identify and mobilize widespread adoption of best practices for medication safety issues that continue to cause **fatal and harmful errors** in patients
- 14 total best practice recommendations
- **3 NEW** best practices in the 2018 – 2019 document



Best Practice #5

Oral Liquid Measuring Devices - Use Metric Units

2018-2019 ISMP Targeted Medication Best Practices

Best Practice #5: Oral Liquids – Use Metric Units

"Purchase oral liquid dosing devices (oral syringes/cups/droppers) that only display the metric scale."

What Does This Mean?

- Eliminate measuring devices that display teaspoons or ounces
- Supply patients with metric oral syringes upon discharge

Rationale:

- Goal is to reduce mix-ups between milliliters and non-metric measures such as teaspoonfuls or ounces

2018-2019 ISMP Targeted Medication Best Practices

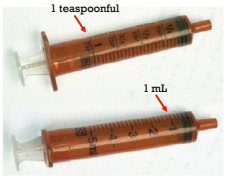
Best Practice #5: Oral Liquids – Use Metric Units

Patient Case

- 1 mL of midazolam 2mg/mL syrup was prescribed for a child for sedation before a procedure. When a nurse drew up the medication, she inadvertently drew up teaspoonful (5mL) instead of 1mL. As a result, the patient received 5x the dose he was supposed to receive.

What Happened?

- Both the English and metric scales were displayed on the syringe.
- The nurse drew up to the **"1"** mark since the order was written for **1 mL**; however she didn't realize that she drew up to **1 tsp** instead of to **1 mL**.



ISMP Medication Safety Alert!® Nov 2012.

2018-2019 ISMP Targeted Medication Best Practices

Best Practice #11: Eliminate "Syringe Pull-Back" Method

"When compounding sterile preparations, perform an independent verification to ensure that the proper ingredients (medications and diluents) are added, including confirmation of the proper amount (volume) of each ingredient prior to its addition to the final container."

Rationale: Goal is to prevent medication errors during sterile compounding of drugs, especially for high-alert medications

2018-2019 ISMP Targeted Medication Best Practices

Best Practice #11: Eliminate "Syringe Pull-Back" Method

What Does This Mean?

- Eliminate proxy methods of verification
  - "Syringe pull-back method"
  - Checking label rather than actual ingredients
- Use technology: barcode scanning, video cameras, gravimetric scales
- At a minimum, use independent verification for
  - High-alert medications
  - Pediatric/neonatal preparations
  - Pharmacy-prepared bulk containers
  - Products administered via high-risk routes of administration (i.e. intrathecal, epidural)

2018-2019 ISMP Targeted Medication Best Practices

Best Practice #11: Eliminate "Syringe Pull-Back" Method

Patient Case

- Magnesium sulfate 135mg IV infusion was ordered for a neonate. The pharmacy label correctly stated that 0.27mL of magnesium sulfate 50% (135mg) should be added to 5.13mL of NS to provide a total volume of 5.4mL. However after the infusion, the infant wasn't moving, had no reflexes, and exhibited poor muscle tone. The baby's magnesium levels had increased to critical levels. Fortunately, the infant fully recovered.

ISMP Medication Safety Alert!® July 2013.

Best Practice #11: : Eliminate "Syringe pull-back"

What Happened?

- Pharmacy technician had drawn up 5.13mL of magnesium and 0.27mL NS instead of the other way around.
- When checking the 2 syringes, one was drawn back to 0.27mL and the other to 5.13mL, but it was unclear which one represented the magnesium and which one represented the NS. The pharmacist who checked the final product assumed the correct amount had been drawn up from the correct medication.

System-Based Solutions

- Hospital discontinued the pullback method for all neonate/pediatric preparations.
- Hospital reviewed procedures for verifying other high-risk preparations.

ISMP Medication Safety Alert!® July 2013.

Best Practice #14

Learn From Others

2018-2019 ISMP Targeted Medication Best Practices
Picture: www.citycollege.edu/blog

Best Practice #14: Learn From Others

"Seek out and use information about medication safety risks and errors that have occurred in other organizations outside of your facility, and take action to prevent similar errors."

What Does This Mean?

- NEW PRACTICE for 2018-2019
- Learn from other local facilities and reputable organizations (ISMP, Joint Commission)
- Complete monthly reviews of medication risks and errors

Rationale

- One of the most important ways to prevent medication errors is to learn from errors made in other organizations.
- An error in one organization is likely to occur in another.
- Use outside information to identify potential risks within your **own** facility.

2018-2019 ISMP Targeted Medication Best Practices

Best Practice #14: Learn From Others

Time to Share!

1. Describe a medication error that occurred in your facility (please NO patient or employee names/identifiers).
   - How did your facility react to that error?
   - What changes were implemented?
2. What are some safety initiatives that are implemented in your facility?
   - Examples: High-Alert Med Stickers, Tall-Man Lettering, etc.

Promote a Culture of Safety

Promoting a Culture of Safety

- Preventing medication errors requires more than implementing best practices.
- An organization must develop a **culture** of safety.
- An organization's culture is a major predictor of patient safety.

ISMP Medication Safety Alert March 2017.

Self Reflection Question

- I trust that submitting a Medication Error Event report is about improving safety and is not punitive.
  - Yes
  - No
  - Not sure

Punitive, Blameless, & Just Culture

Workforce Cultures

Punitive culture:

- Individual employees are fully responsible for patient outcomes and errors
- Focused on re-training and disciplining those who made errors
- Perfect performance is expected
- Belief that discipline is necessary to ensure safety
- Effects:
  - Employees are afraid to report errors
  - Discourages opportunities for learning from mistakes

ISMP Medication Safety Alert Sept 2006.

Workforce Cultures

Blameless culture:

- Acknowledges that human error is inevitable
- Belief that most mistakes are a result of mental slips or system weaknesses
- Fails to confront individuals who willfully make unsafe behavioral choices or reckless decisions
- Effects:
  - Employees not held accountable for reckless behavior or malpractice

ISMP Medication Safety Alert Sept 2006.

Workforce Cultures

Just Culture

- A good compromise in between punitive and blameless cultures
- Understands that disciplining human error is not productive
- Human error is accepted but employees are held accountable for things that are under their control
- Focuses on system-based solutions
  - "We cannot change the human condition, but we can change the conditions under which humans work"
  - When an error occurs the focus is not on how to handle the involved workers, but what can be done to prevent the error from happening again
- Employees understand that safety is a priority and errors are opportunities for growth

ISMP Medication Safety Alert Sept 2006.

How Do You Promote a Just Culture?

How To Promote a Just Culture

- Raise awareness
- Be Proactive!
- Be willing to accept change
- Collaborate with colleagues and other departments
- Reinforce safe behaviors, encourage error reporting
- Safety Initiative Ideas:
  - "Great Catch" awards
  - Patient safety awareness week
  - Patient safety bulletin board or newsletter
  - High-Alert Medication of the Month

How To Promote a Just Culture

Time to Share!

- What new strategies/initiatives can you implement to promote a culture of safety within your pharmacy?

Conclusion – Two Parts to Improving Medication Safety

1. Implement Best Practices
   - 2018-2019 ISMP Targeted Best Practice Recommendations for Hospitals
2. Promote of Culture of Safety
   - Adopt a Just culture to foster an attitude of growth and develop system-based solutions regarding medication errors
   - Make it a team effort – collaborate with others
   - It starts with you!

Technician Assessment Question #1

- Which practice is supported as one of ISMP's Best Practices for Hospitals?
  - A. Oral liquid medications must be dispensed in a syringe labeled with BOTH metric and English units.
  - B. To minimize medication errors and improve safety at your facility, seek out information on safety risks and medication errors that have occurred at other facilities.
  - C. When preparing sterile compounded products, one should perform an independent verification which can include the "syringe pull-back" method.
  - D. All of the above

Technician Assessment Question #2

- When promoting safety, which culture should a workplace adopt?
  - A. Punitive
  - B. Blameless
  - C. Just
  - D. None of the above

Pharmacist Assessment Question #1

- The Chief of Pharmacy is working to implement ISMP's Best Practices into his hospital pharmacy. Which of the following changes should he implement?
  - A. Restructure the IV verification process to ensure that all high-risk medications are independently verified by a pharmacist without the use "proxy" methods.
  - B. Work with the procurement technicians to purchase new oral syringes that only show metric units.
  - C. Schedule an interfacility safety conference in which medication errors are shared and prevention strategies are discussed.
  - D. All of the above

Pharmacist Assessment Question #2

- Which statement is true regarding a Just culture?
  - A. Disciplining employees for every mistake they make (even accidental ones) is a key part of a Just culture.
  - B. Within a Just culture, employees are not held accountable for reckless behaviors or malpractice.
  - C. Errors are viewed as opportunities for growth within a Just culture.
  - D. Perfect performance is expected in a Just culture.

Questions?

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