Targeted Medication Safety Best Practices for Community Pharmacy: 2023-2024

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This activity is supported by **Novartis, Name Creation & Regulatory Strategy.**

1

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Pharmacists and Pharmacy Technicians

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- This activity has been approved for up to 1.0 California State Nursing contact hours by the provider, Debora Simmons, who is approved by the California Board of Registered Nursing, Provider Number CEP 13677. Credit will only be issued to individuals that are individually registered and attend the *entire* program.

5

Target Audience & Learning Objectives

The target audience for this activity is pharmacists and pharmacy technicians.

Upon completion of this activity, participants should be able to:

1. Cite the five new best practices from the ISMP Targeted Medication Safety Best Practices for Community Pharmacy.
2. Describe the medication errors that each of these new best practices were designed to prevent.
3. Describe recommended strategies related to ISMP Targeted Medication Safety Best Practices for Community Pharmacy.

6

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- Login at www.ProCE.com
- Select the following link: https://proce.com/CE-CME/pharmacy/medication-safety-best-practices-for-community-pharmacy/22968
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- Deadline: 02-28-2023
- Pharmacists/Technicians: CE credit uploaded to CPE Monitor

Attendance Code

Code will be provided at the end of today's activity

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7

Mission

How does ISMP accomplish its mission?

Collect and Analyze	reports of medication-related errors and hazardous conditions
Disseminate	timely medication safety information
Educate	the healthcare community and consumers
Collaborate	with other organizations
Advocate	for the adoption of safe medication standards
Conduct Research	to provide evidence-based safe medication practices

https://ismp.org/about/mission

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8

Targeted Medication Safety Best Practices

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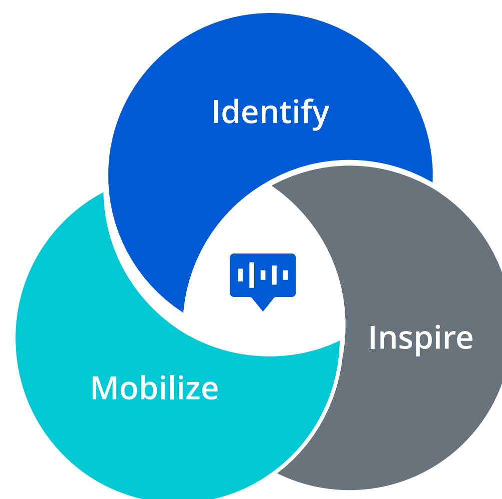
9

History and Purpose

- First introduced for hospitals in 2014-2015
- Safety issues that continue to cause fatal and harmful errors
- Repeated warnings from ISMP
- Adoption of consensus-based Best Practices



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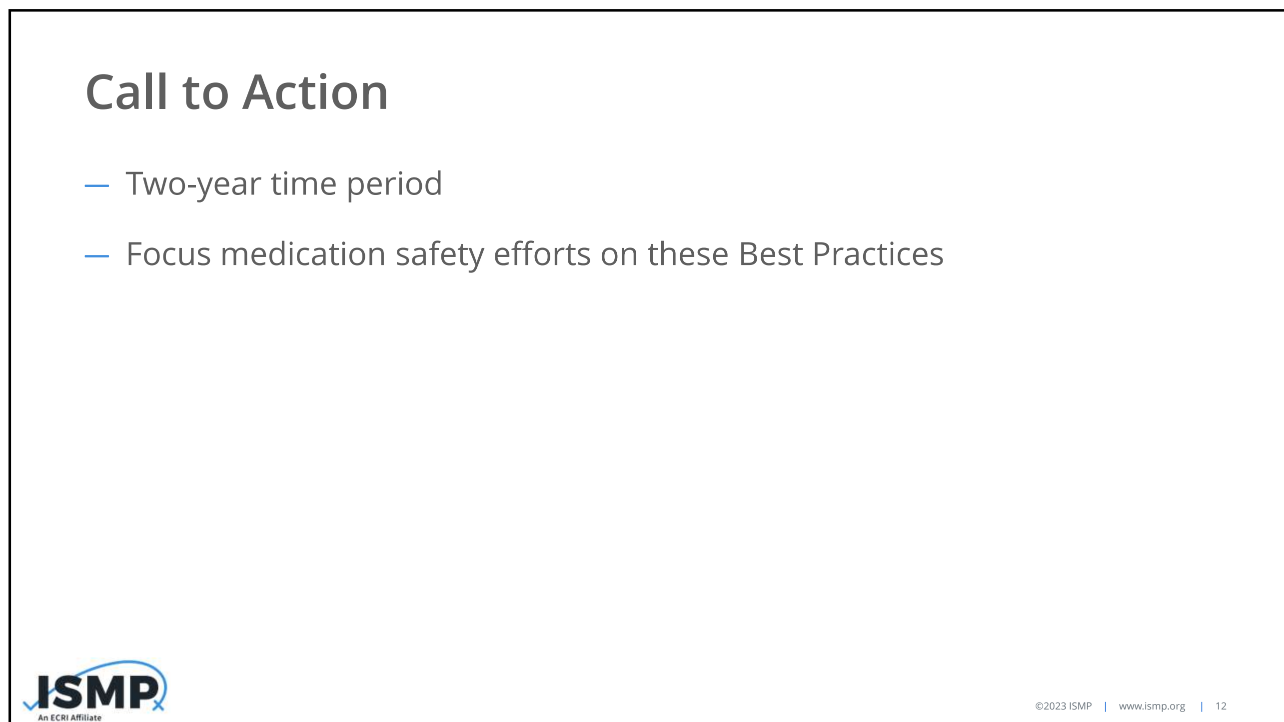

12

Best Practice 1

Polling Question #1

Have you been involved in or know of a wrong patient error at your practice site?

a. Yes

b. No

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Wrong-Patient Errors

- Giving a correctly dispensed prescription to the wrong patient is a common error
- Most common complaint received through the ISMP National Consumer Medication Errors Reporting Program
- Roughly a quarter of the events ISMP has received involve patients ingesting the wrong medication
- This error happens about once for every 1,000 prescriptions dispensed

Cohen MR, Smetzer JL, Westphal JE, et al. Risk models to improve safety of dispensing high-alert medications in community pharmacies. *J Am Pharm Assoc.* 2012;52(5):584-602.

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How Wrong-Patient Errors Happen

- Select the wrong patient in the pharmacy computer system
- Place the pharmacy label on the wrong prescription vial
- Place the prescription in the wrong bag for pick-up
- Select the wrong patient's bag from the will call area

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How Wrong-Patient Errors Happen

- Distractions
- Working on more than one patient's prescription at a time
- Patients with a similar or the same last names
- Flawed patient identification process
- Staff believe they know the patient by sight
- Not reviewing the medication with the patient

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Consequences of Wrong-Patient Errors

- Taking a contraindicated medication
  - **Pregnant patient given methotrexate intended for a different patient**
- Omission of the correct medication
  - **Patient received another patient's sertraline instead of the intended antibiotic**
- Misuse of the incorrect medication
  - **Patient received amitriptyline (ELAVIL) instead of PREMARIN (estrogen)**
- Breach of protected health information
  - **Psychiatric drugs or medications that treat human immunodeficiency virus (HIV),**

Open the bag to catch errors at the point-of-sale. *ISMP Medication Safety Alert! Community/Ambulatory Care.* 2015;14(7):1:3.

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Best Practice 1

Use a standard protocol to verify a patient's identity, utilizing at least two patient identifiers, when receiving a prescription to be filled, responding to patient-specific questions, providing filled prescriptions to patients at the point-of-sale, when delivering prescriptions to the patient's home, and prior to administering vaccines or other treatments.

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Best Practice 1

- Use at least two identifiers (e.g., full patient name and date of birth)
- Compare the stated identifiers to either the prescription, pharmacy information system, prescription or vaccine label
- Employ technological enhancements at the point-of-sale
- Review with the patient each container and label
- Observe the patient identification processes at various points in the workflow

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Best Practice 2

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Polling Question #2

At which of the following stages do you employ barcode scanning?

a. Production (i.e., prescription filling) for medications
b. Production for vaccine selection
c. Production for vaccine preparation
d. Vaccine administration
e. None of the above

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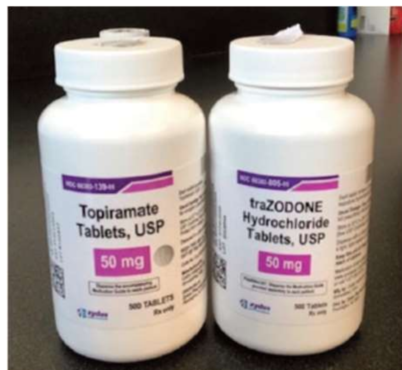
Barcoding Error Situations

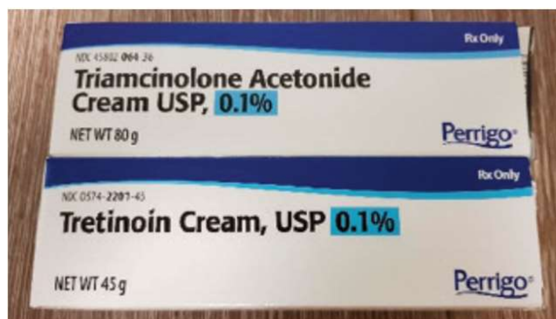
- Loading tra**ZOD**one 50 mg tablet into a robot
- Retrieved topiramate 50 mg instead
- Look-alike bottles
- Look-alike tablets



Ensuring the safe use of automated dispensing technology: We):1-need your input!. *ISMP Medication Safety Alert! Community/Ambulatory Care.* 2021;20(8):1-2.

Barcoding Error Situations

- A 6-month old patient
- Tretinoin cream 0.1% vs. triamcinolone acetonide cream 0.1%
- Skin irritation and break down



Look-alike cartons of topical creams. ISMP Medication Safety Alert! Community/Ambulatory Care. 2020;19(10):4-5.

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Barcoding Error Situations

- Patient stable on prasugrel
- Prasugrel label applied to bottle of methotrexate
- Took methotrexate daily for 3 months
- Experiencing:
  - Worsening adverse
  - Arm and joint pain
  - Hair loss.

Methotrexate taken daily after a wrong-drug error. ISMP Medication Safety Alert! Community/Ambulatory Care. 2022;21(12):2-3.

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25

Barcode Workarounds

- Working on more than one patient's prescriptions at a time
- Manually entering prescription number for refills or at point-of-sale
- Using a sheet of barcodes prepared from the barcodes printed on the bulk cartons of frequently dispensed unit-of-use products
- Scanning one container several times when multiple containers are required to fulfil the order
- Manually changing NDC when barcode scanning fails
- Return-to-stock (RTS) bottles and labels without a functional barcode

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Best Practice 2

Install and use barcode verification during production (i.e., the prescription filling process) to scan each drug or vaccine package or container (e.g., bottle, carton) used to fill a prescription, including manufacturer cartons or bottles that may be dispensed to a patient.

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Best Practice 2

- Scan each container used and/or dispensed
- Standard workflow process to work on one patient's prescription(s) at a time
- Review compliance and other metric data
  - **Scanning compliance rates**
  - **Bypassed or acknowledged alerts**
- Observe the processes involving barcode verification
- Actively solicit feedback about barriers

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Best Practice 3

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Polling Question #3

Does your pharmacy computer system require entry of an appropriate oncologic indication for daily orders?

a. Yes

b. No

c. I don't know

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Methotrexate

- High-alert medication
- Used for oncologic and nononcologic indications
- Administered once weekly for non-oncologic indication
- Severe toxic effects, including
  - Myelosuppression
  - Pulmonary complications
  - Central nervous system toxicity
  - Hepatotoxicity

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Fatal Methotrexate Errors

- Analysis of inadvertent daily methotrexate administration over 18 months between 2018 and 2019[1]
  - ~50% half involved older patients who were confused about the frequency of administration
  - 50% were made by healthcare providers who inadvertently prescribed, labeled, or dispensed methotrexate daily when weekly was intended.
- FDA sponsored study suggests that up to 4 per 1,000 patients may mistakenly take the drug daily instead of weekly[2]
  - Suggests the number of dose frequency errors could be far greater

ISMP. QuarterWatch. 2019 Dec 4. www.ismp.org/resources/scope-injury-therapeutic-drugs
Herrinton LJ, et al. Pharmacoepidemiol Drug Saf. 2019;28[10]:1361-8

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32

Case Report

- Elderly patient prescribed methotrexate 15 mg once *weekly*
- Label instructed patient to take 15 mg (6 x 2.5 mg tablets) once *daily*
- Pharmacy dispensed a 3-month quantity of medication
- Discovered during patient counseling when the patient requested a refill 3 weeks later
- The error resulted in severe harm and a long hospital stay

ISMP Canada. Severe harm and deaths associated with incidents involving low-dose methotrexate. ISMP Canada Safety Bulletin. 2015;15(9):1-5.

Best Practice 3a

Use a weekly dosage regimen default for oral methotrexate in electronic systems when medication orders are entered

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Best Practice 3b

Require verification and entry of an appropriate oncologic indication in order entry systems for daily orders

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Best Practice 3c

Create a forcing function (e.g., electronic stop in the sales register that requires intervention and acknowledgement by a pharmacist) to ensure that every oral methotrexate prescription is reviewed with the patient or a family member when a prescription is presented or refills are processed

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Best Practice 3d

Provide specific patient and/or family education for all oral methotrexate prescriptions

ISMP high-alert medication consumer leaflet on oral methotrexate (found at: www.ismp.org/ext/221).

Best Practice 4

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Polling Question #4

Do you dispense metric-only dosing devices to your patients?

a. Yes

b. No

c. We make them available for purchase only

d. I don't know

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39

History of Confusion

— 2000 - First reported confusion

— Confusion between units of measure

- **teaspoons (tsp) and tablespoons (tbsp or tbs)**
- **milliliters (mL) and teaspoons**

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Multi-fold Errors

- Dozens and dozens of cases
- Some injuries required treatment or hospitalization
- 2-year-old-child
- 3.5 teaspoonfuls of cefdinir instead of 3.5 mL
- Insufficient supply
- Diarrhea, yeast infection, and possible recurrence of a previous Clostridium difficile infection

Safety standards needed for expressing/measuring doses of liquid medications. ISMP Medication Safety Alert! Community/Ambulatory Care. 2011;10(6);1-4

41

Previous Call to Action

- 2009 - Called for metric-only devices with over-the-counter (OTC) and prescription oral liquid medications
- 2011 – “Pediatric liquid medications that require measurement” added to ISMP List of High-Alert Medications in Community/Ambulatory Healthcare
- 2011 – ISMP calls for healthcare to only use metric measurements in prescription directions.

ISMP Press Release. 2011. https://www.ismp.org/node/496

42

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Best Practice 4

Standardize to the use of the milliliter (mL) unit of measure when prescribing, dispensing, and measuring oral liquid medications

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Best Practice 4

- Eliminate “teaspoonful,” “tablespoonful, ” and other non-metric units
- Purchase and dispense metric only liquid dosing devices
- Dispense an appropriate metric-only dosing device that most closely matches the prescribed dose volume needed to administer one dose.
- Using the teach-back method

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44

Best Practice 5

45

Polling Question #5

Does your pharmacy share with staff stories of errors that happen outside of your pharmacy (e.g., different store but same chain, different chain/independent/other)?

a. Yes

b. No

c. I don't know

46

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Don't Wait, Be Proactive

- Risk can be hidden, lying dormant for years
- Medication error reported in one organization is likely to occur in another
- Tendency to "normalize" errors that happen elsewhere
  - **They will never happen in our pharmacy**
- External risks and errors offer valuable and necessary learning opportunities
- External errors should be a "clear and present danger"

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Best Practice 5

Seek out and use information about medication safety risks and errors that have occurred in organizations outside of your pharmacy, including other affiliated pharmacies, and take action to prevent similar errors

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Best Practice 5

- Identify reputable resources to learn about risks and errors that have occurred externally.
- Establish a process for review of medication risks and errors reported by external organizations.
  - **Review the pharmacy's current medication use systems and other data**
  - **Determine any potential risk points that would allow a similar risk or error to occur**

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49

Best Practice 5

- Share the stories of risk and errors with all staff
  - **All pharmacy locations if applicable**
  - **Include any changes that will be made minimize their occurrence**
- Conduct short safety huddles daily or regularly to discuss pertinent safety issues.

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51

Questions?

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52

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