

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

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## Continuing Education

**Target Audience:** Certified Pharmacy Technicians

**Activity Type:** Knowledge

**Contact Hrs:** 1.0 or 0.1 CEU

**UAN:** 0384-0000-23-011-H03-P/ 0384-0000-23-011-H03-T

0384-0000-23-011-L03-P / 0384-0000-23-011-L03-T

**Release Date:** 03/23/2023 **Exp. Date:** 03/23/2026

**Credit:**

To receive credit for this LIVE program, participants must complete an online program evaluation AND submit a request through the designated webform to obtain CE credit.

To receive credit for this RECORDED program, participants must complete the post-test with a passing score of 70%.

Jose Nery, PharmD has no conflicts of interest to disclose.



**Accreditation:**  
The National Pharmacy Technician Association (NPTA) is accredited by the Accreditation Council for Pharmacy Education (ACPE) as an approved provider of continuing pharmacy education.

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## Learning Objectives

**At the completion of this professional continuing education program, the alert attendee should be able to:**

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



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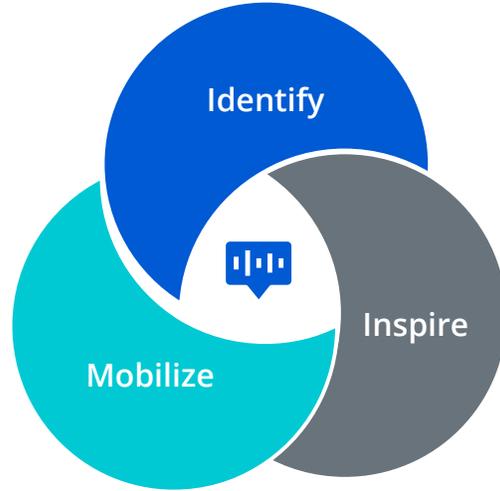
# Targeted Medication Safety Best Practices

History and Creation

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## 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

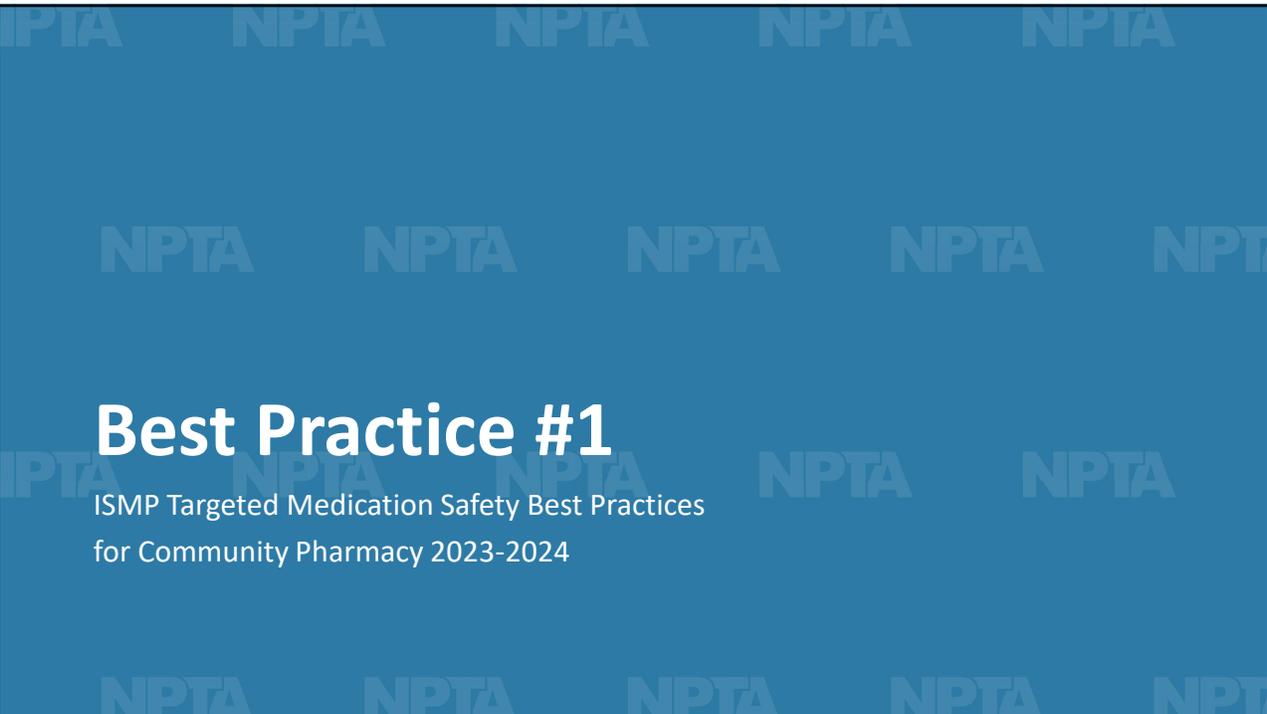


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## Best Practice Development



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# Best Practice #1

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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

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## How Wrong-Patient Errors Occur

- 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

## 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

## 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)

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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 - Strategies

- 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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## Barcoding Error Situations

- Loading traZODone 50 mg tablet into a robot
- Retrieved topiramate 50 mg instead
- Look-alike bottles
- Look-alike tablets

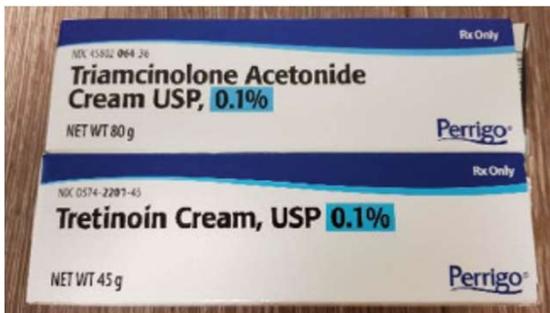


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## Barcoding Error Situations

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



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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



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## 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 - Strategies

- Scan each container used and/or dispensed
- Standardize 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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 **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
  - ~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
  - Suggests the number of dose frequency errors could be far greater

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## 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

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## Best Practice #3a

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

## Best Practice #3b

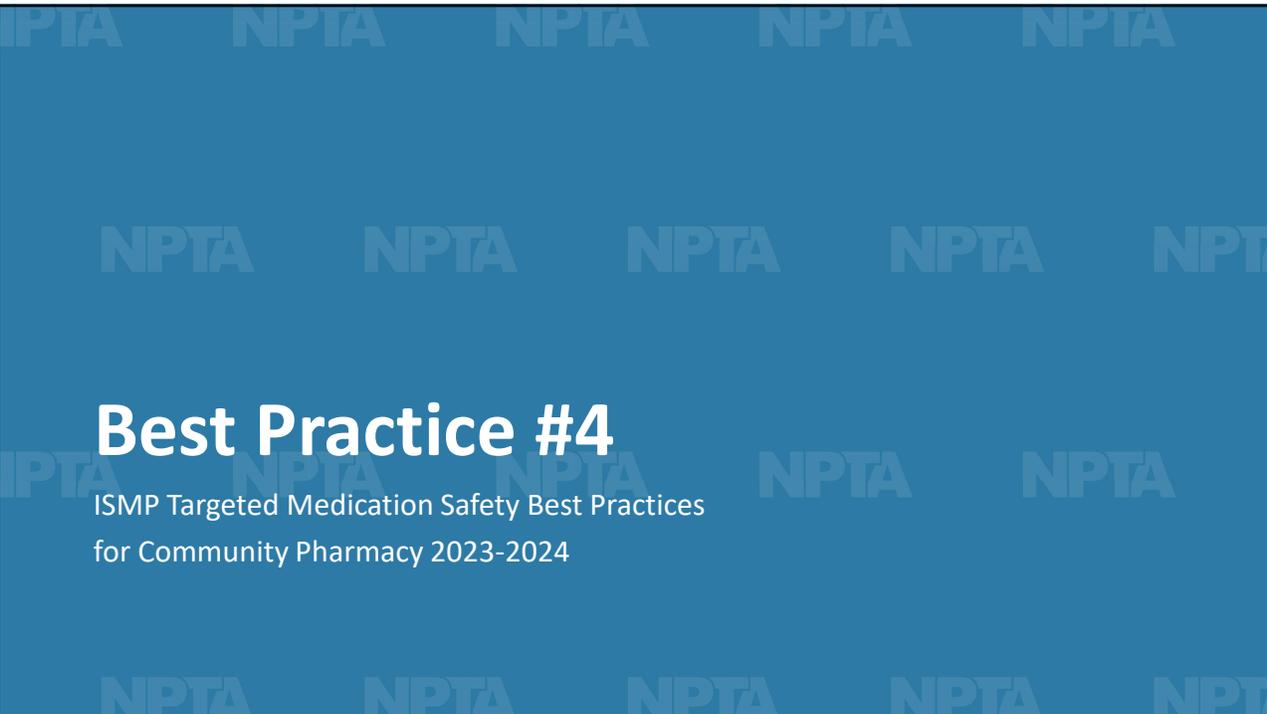
- Require verification and entry of an appropriate oncologic indication in order entry systems for daily orders

## 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

## Best Practice #3d

- Provide specific patient and/or family education for all oral methotrexate prescriptions
  - [www.ismp.org/ext/221](http://www.ismp.org/ext/221)

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# Best Practice #4

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## History of Measurement 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



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## 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.



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## Best Practice #4

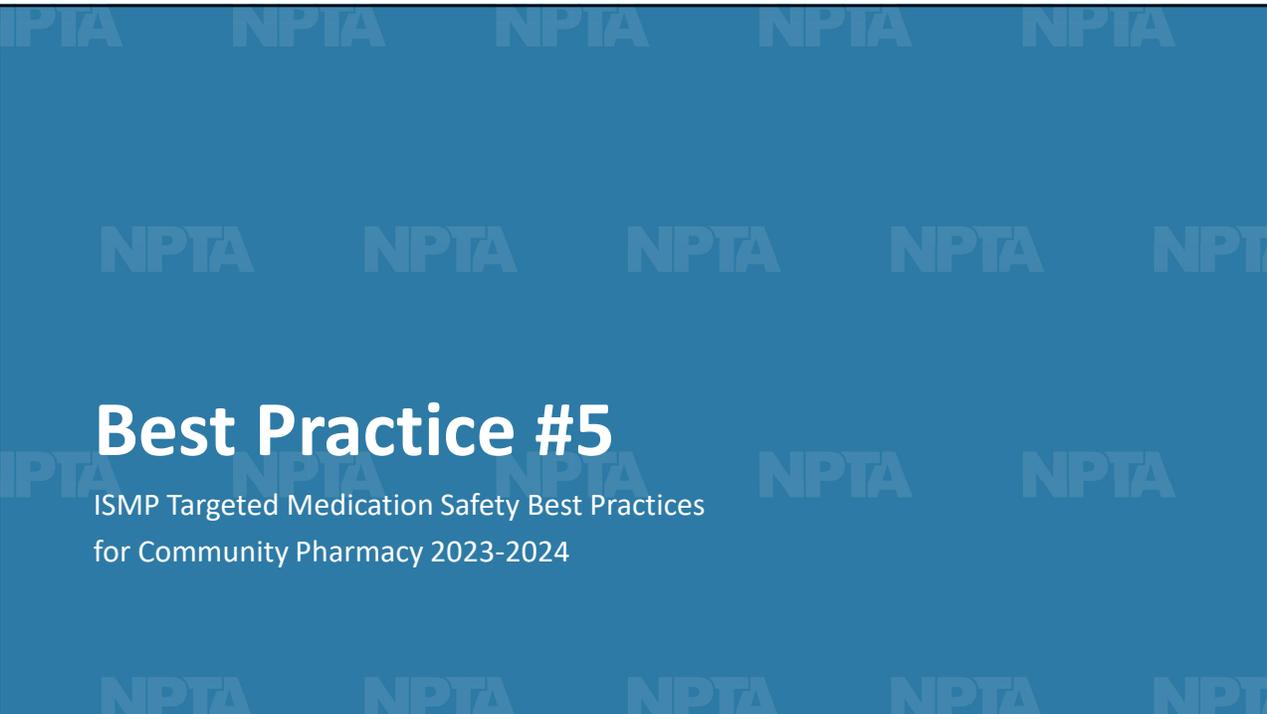
Standardize to the use of the milliliter (mL) unit of measure when prescribing, dispensing, and measuring oral liquid medications

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## Best Practice #4 - Strategies

- 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
- Use the teach-back method

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# Best Practice #5

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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 - Strategies

- 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
- 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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# Questions...

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