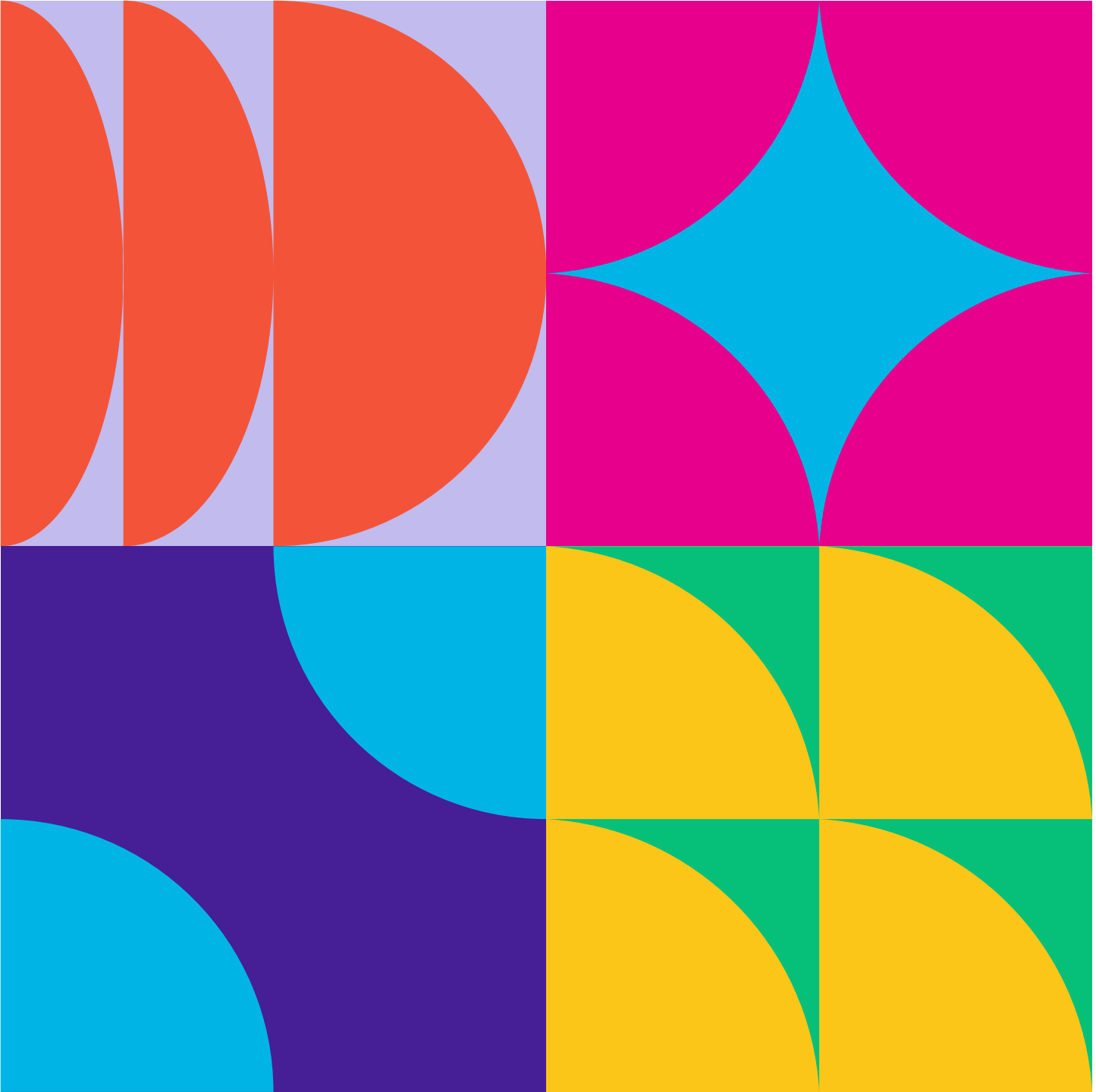

Good Neighbor Pharmacy

ThoughtSpot

ISMP Targeted Medication Safety Best Practices for Community Pharmacy

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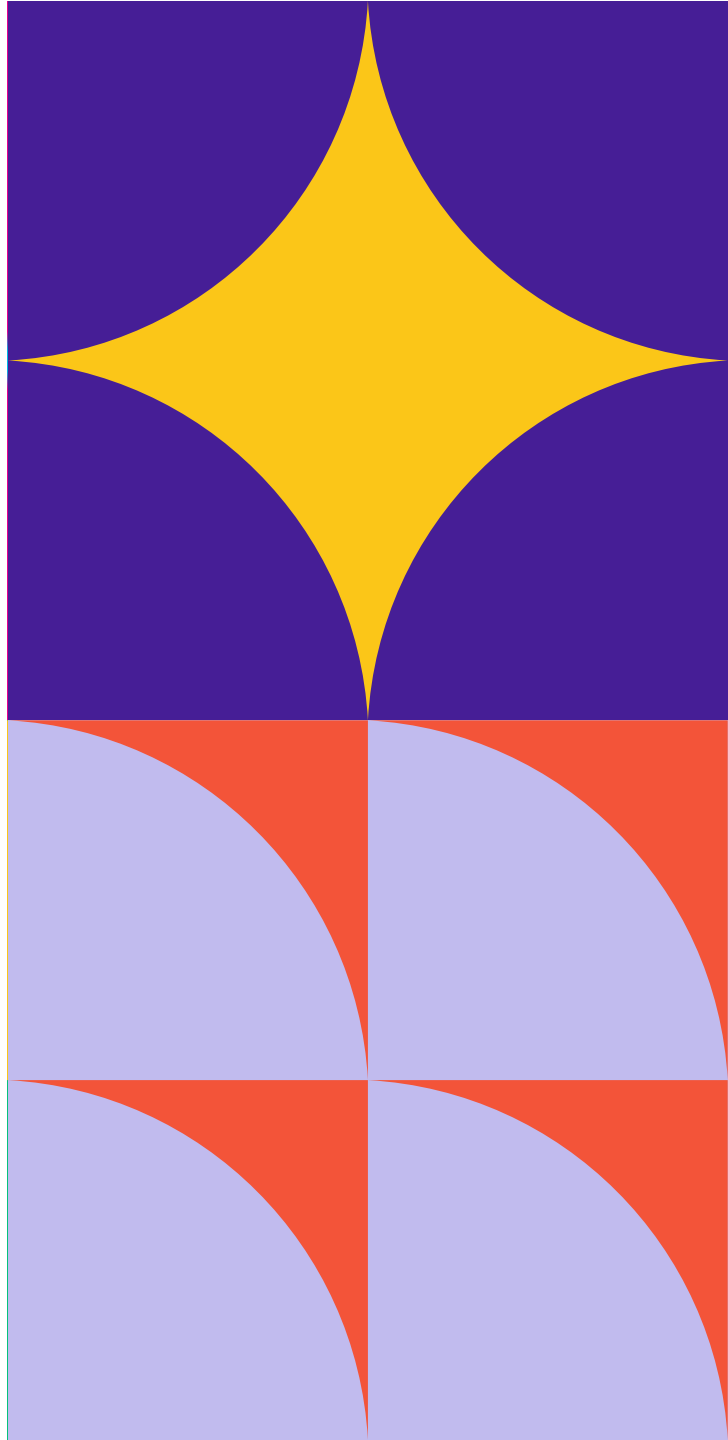
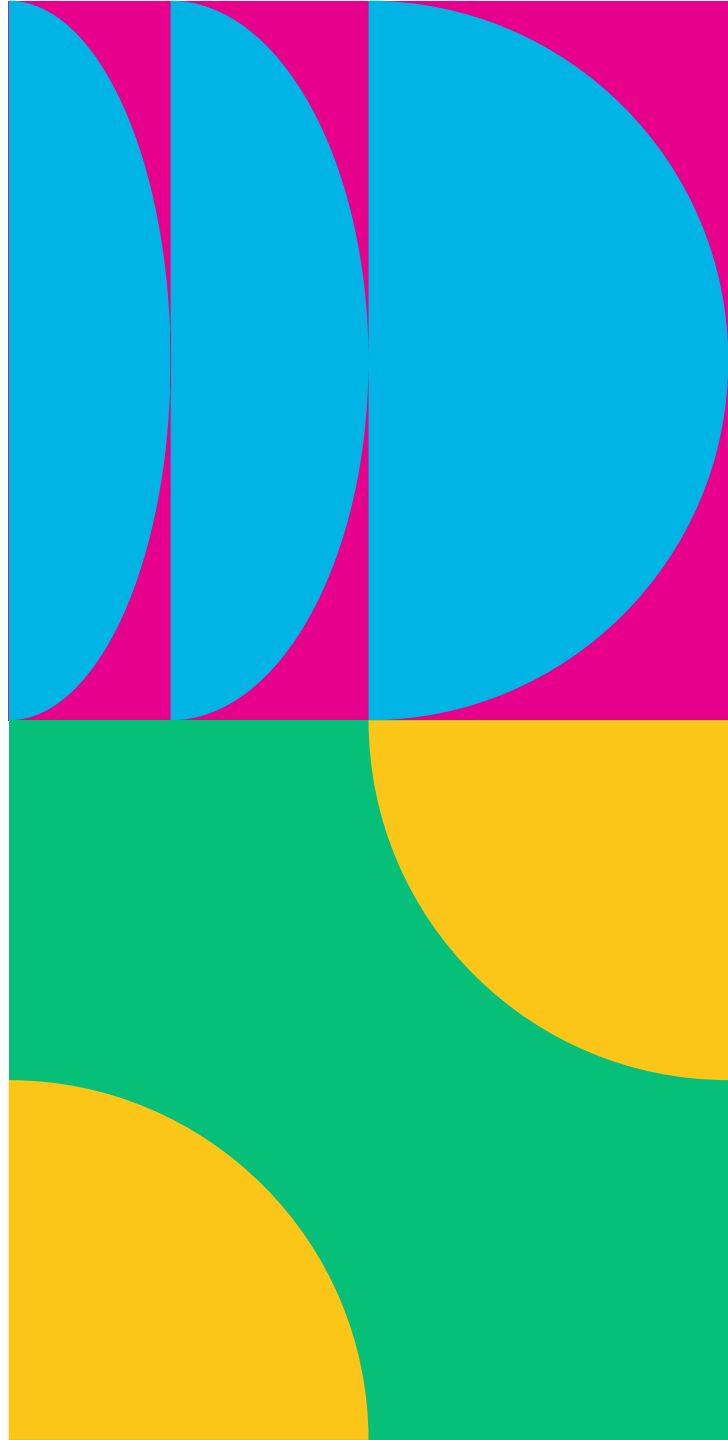
Disclosure Statement

There are no relevant financial relationships with ACPE defined commercial interests for anyone who was in control of the content of the activity.

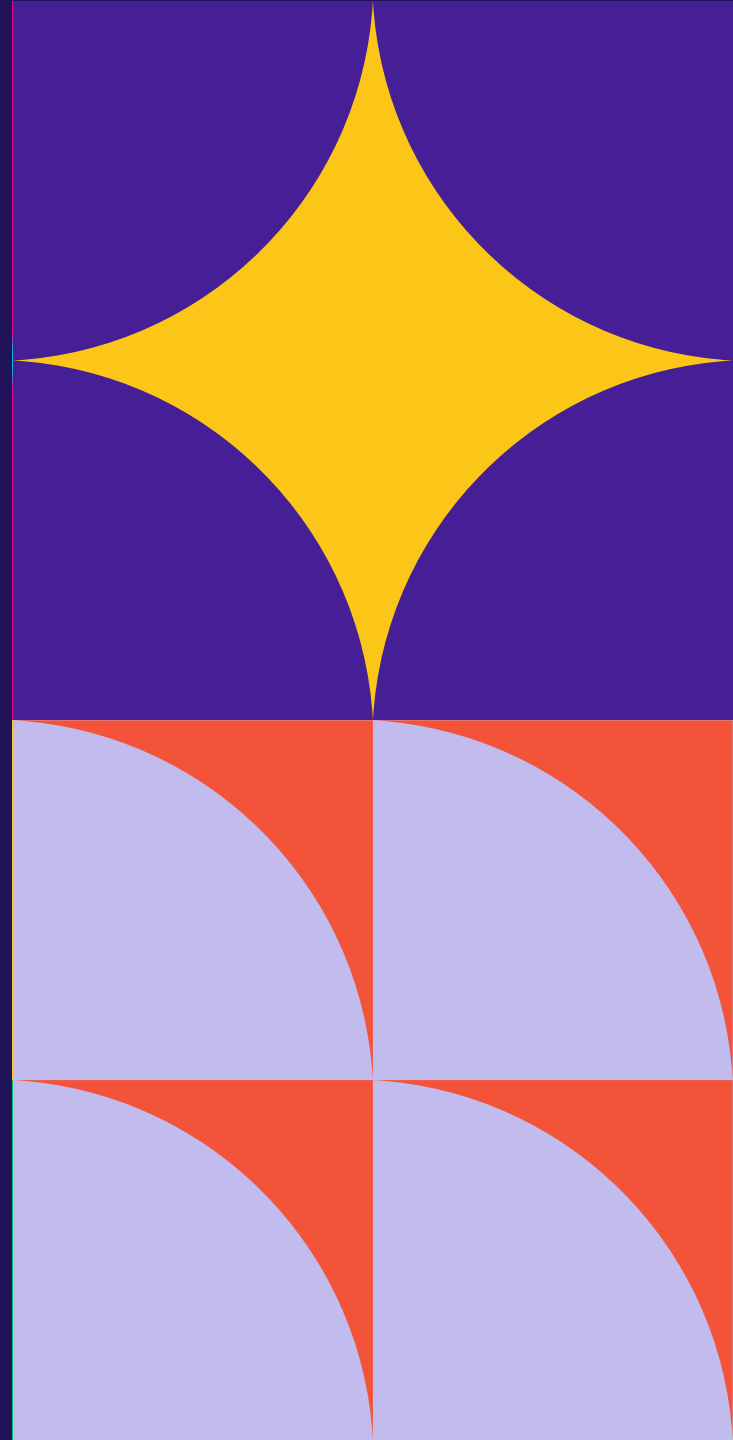


Learning Objectives

1. Identify common medication safety risks in community pharmacy settings.
2. Describe *ISMP's Targeted Medication Safety Best Practices for Community Pharmacy*.
3. Apply system-based strategies for reducing medication errors and enhancing patient safety to case studies.

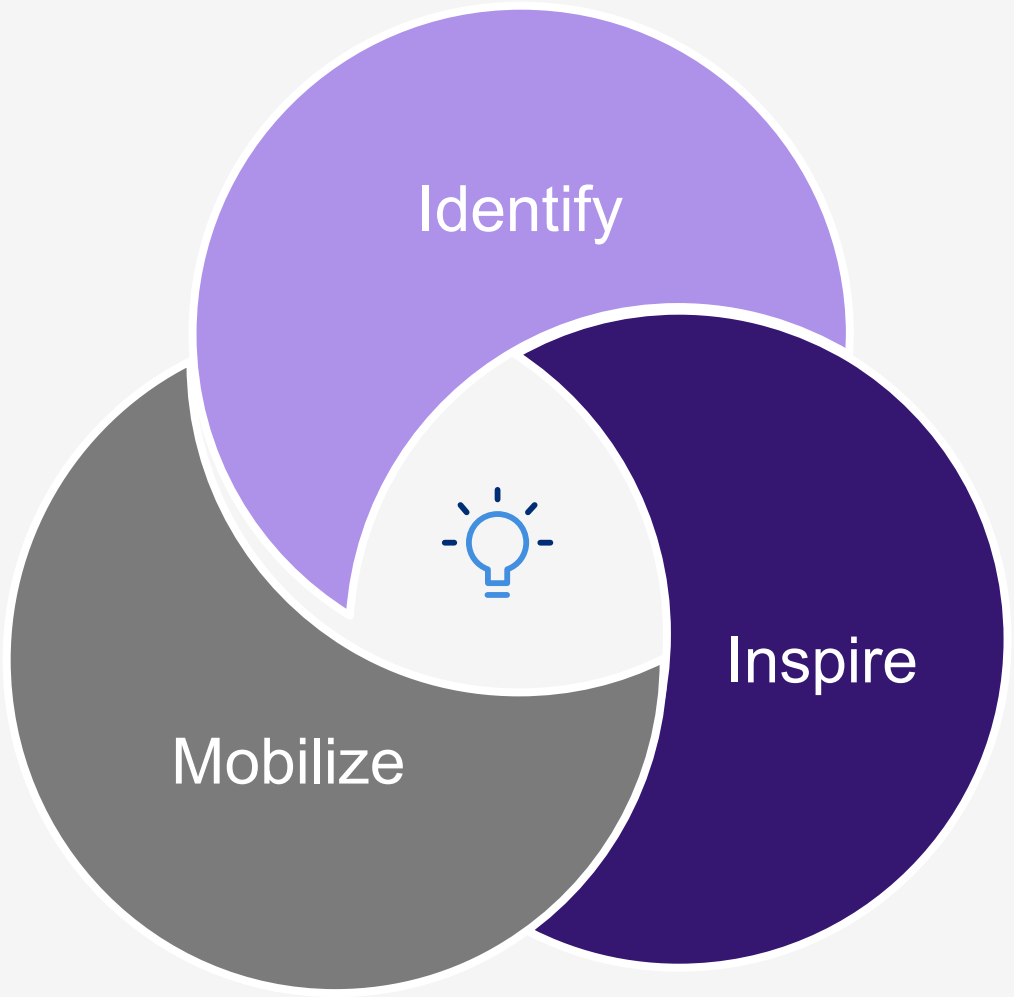


Targeted Medication Safety Best Practices



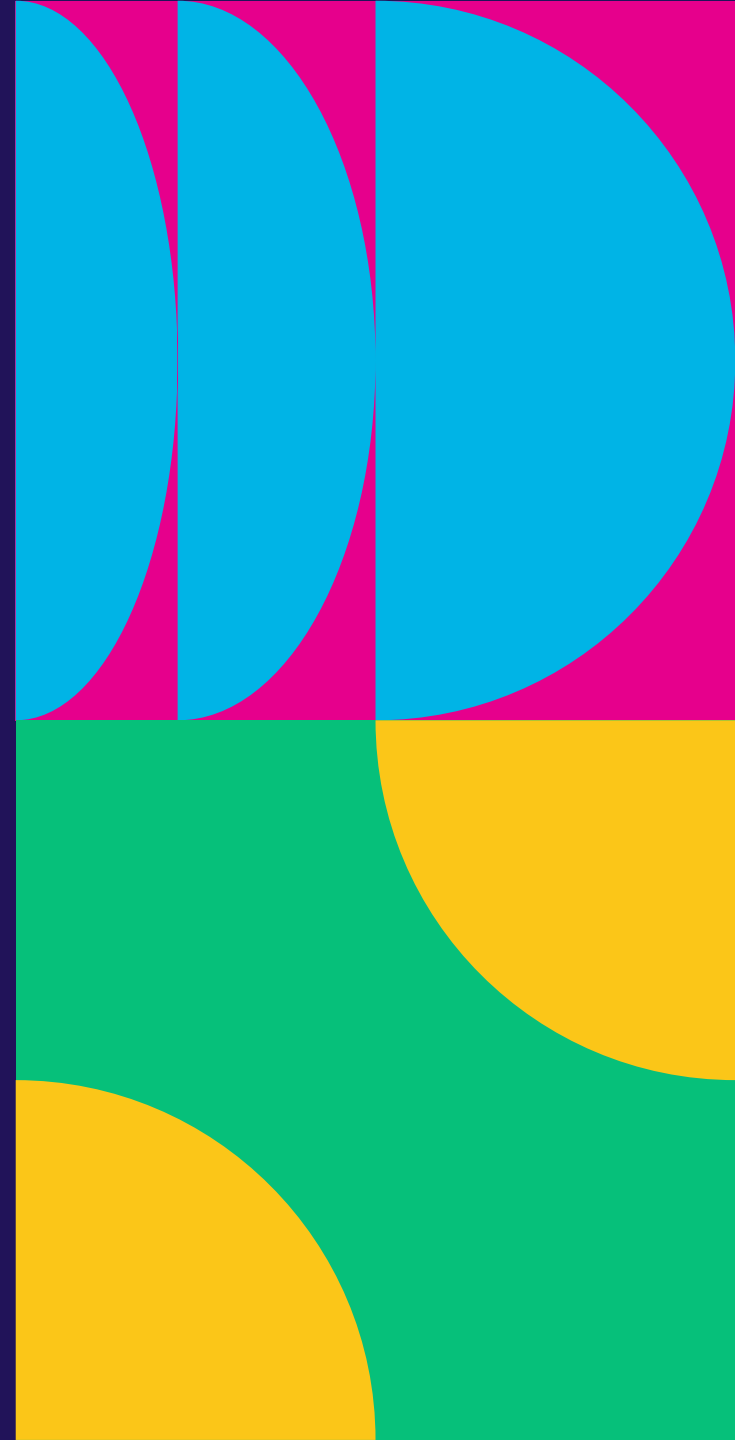
History and Purpose

- First introduced for hospitals in 2014-2015
- First introduced for community pharmacies in 2023-2024
- Safety issues that continue to cause fatal and harmful errors
- Repeated warnings from ISMP
- Two-year time period
- Focus medication safety efforts on adoption of consensus-based Best Practices



Best Practice Development

Existing Best Practices



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 involve patients ingesting the wrong medication
- This error happens about once for every 1,000 prescriptions dispensed
- How?
  - Select the wrong patient in the pharmacy computer system
  - Place the pharmacy label on the wrong prescription vial
  - Working on more than one patient's prescription at a time
  - Staff believe they know the patient by sight
- Many potential consequences

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.

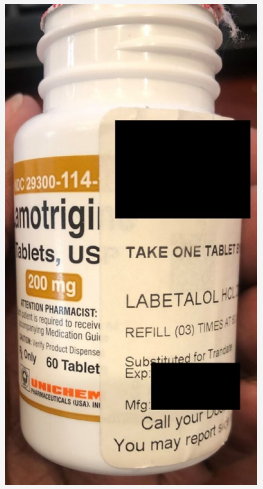
Use a standard protocol to **verify a patient's identity**, utilizing at least two patient identifiers, when receiving a prescription to be filled, responding to patient-specific questions, providing filled prescriptions to patients at the point of sale, when delivering prescriptions to the patient's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

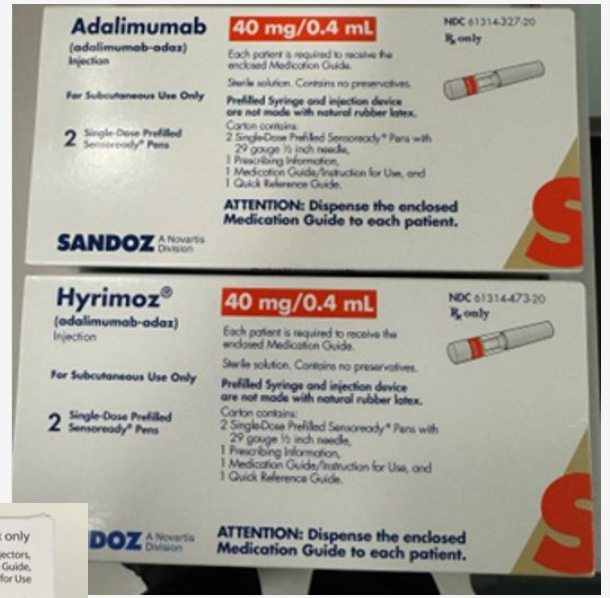
Best Practice 1

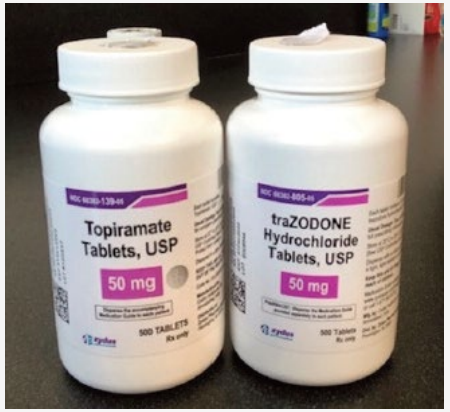
- Use at least two identifiers (e.g., full patient name and date of birth)
- Compare the stated identifiers to either the prescription, pharmacy information system, prescription or vaccine label
- Employ technological enhancements at the point-of-sale
- Review with the patient each container and label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

Barcoding Error Situations

- Prescriber ordered labetalol but lamo**TRI**gine dispensed – resulted in multiple hospital admissions
- Many barriers and workarounds
  - Scanning one container several times, manually changing NDC
  - Working on more than one patient's prescriptions at a time
  - Using a sheet of barcodes
  - Return-to-stock (RTS) bottles and labels without a functional barcode







LamoTRIgine dispensed with labetalol label. *ISMP Medication Safety Alert! Community/Ambulatory Care*. 2024;23(6):3.

Install and use **barcode verification** during dispensing (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

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

Polling Question

When you are using or dispensing more than one manufacturer's bottle for a prescription, which of the following functionalities does your pharmacy dispensing system use?

a. Requires scanning of each manufacturer bottle used to fill a prescription
b. Prompts but does not require scanning of each manufacturer bottle used to fill a prescription
c. Does not require nor prompt to scan each manufacturer bottle used to fill a prescription (i.e., only one barcode scan is allowed or used for a prescription)
d. I don’t know

Methotrexate Errors

- High-alert medication
- Administered once weekly for non-oncologic indication
- Analysis of inadvertent daily methotrexate administration over 18 months between 2018 and 2019
  - ~50% 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

QuarterWatch. *ISMP Medication Safety Alert! Community/Ambulatory Care*. 2019;18(12):1-4.

Methotrexate Errors

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

Best Practice 3

3A. Use a weekly dosage regimen default for oral methotrexate in electronic systems when medication orders are entered.

3B. Require verification and entry of an appropriate oncologic indication in order entry systems for daily orders.

3C. Create a forcing function 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.

3D. Provide specific patient and/or family education for all oral methotrexate prescriptions.

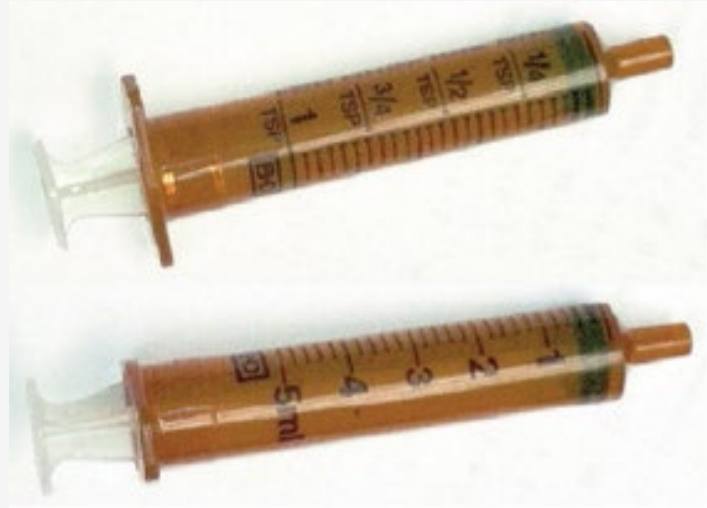
Polling Question

Does your pharmacy dispensing system default to a weekly dosage regimen when methotrexate orders are entered?

a. No
b. Yes
c. I don’t know

History of Confusion with Liquid Units

- 2000 - First reported confusion
- Confusion between units of measure
  - –Teaspoons and tablespoons
  - –Milliliters and teaspoons
  - –Apothecary units
- Multi-fold Errors
  - –Dozens and dozens of cases
  - –Some injuries required treatment or hospitalization
- Multiple calls to action



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

Best Practice 4

- Eliminate the use of “teaspoonful,” “tablespoonful,” and other non-metric units
- Purchase and dispense metric-only oral liquid dosing devices
- Dispense a dosing device that most closely matches the prescribed dose volume needed to administer one dose
- Educate patients using the teach-back method

Don’t Wait, Be Proactive

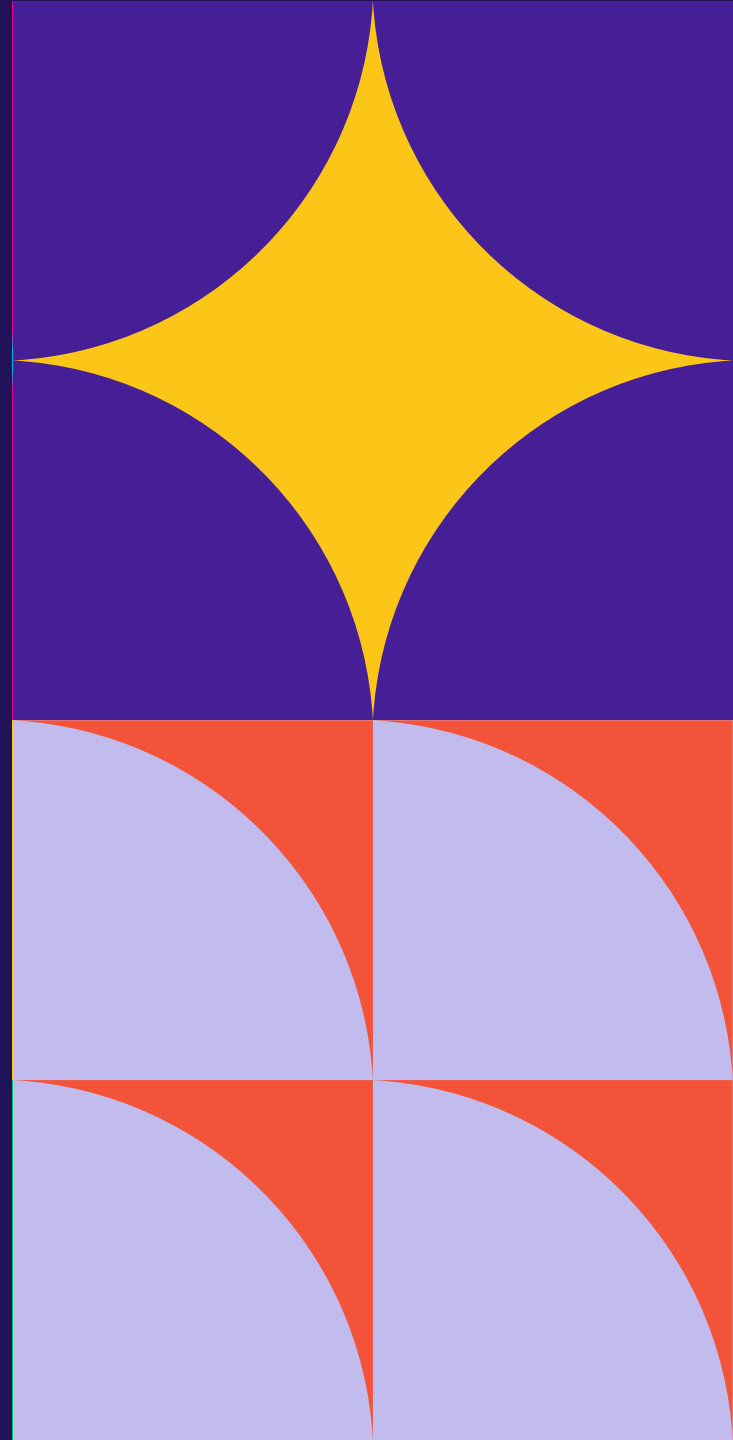
- Risk can be hidden, lying dormant for years
- Medication error reported in one organization likely to occur in another
- Tendency to “normalize” errors that happen elsewhere
  - They will never happen in our pharmacy
- External risks and errors offer valuable and necessary learning opportunities
-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

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

Best Practice 5

- Identify reputable resources to learn about risks and errors that have occurred externally
- Establish a process for review of risks and errors reported by external organizations
- Share the stories of risk and errors with all staff
- Conduct short safety huddles regularly to discuss pertinent safety issues

Best Practice 6



Patient Weights

- Patient's weight represents a key piece of information needed to ensure a correct medication dose
- ISMP has recommended
  - Pharmacies take steps to obtain patient's weight when dispensing weight-based drugs
  - Prescribers can proactively share this information on prescriptions
- Continue to receive reports describing these types of errors in both adult and pediatric patients

Polling Question

Does your pharmacy dispensing system capture patient weight data when included in an electronic prescription?

a. No
b. Yes
c. I don’t know

Best Practice 6

Obtain and use a patient's weight to verify dosing of weight-based medications

- Obtain and document the patient's weight in metric units (i.e., kg or g) when dispensing weight-based drugs, such as those used in chemotherapy treatment, pediatric patients, or pets
- Establish a policy and process to ensure staff utilize a patient's weight to verify dosing before filling prescriptions for weight-based medications

Best Practice 6

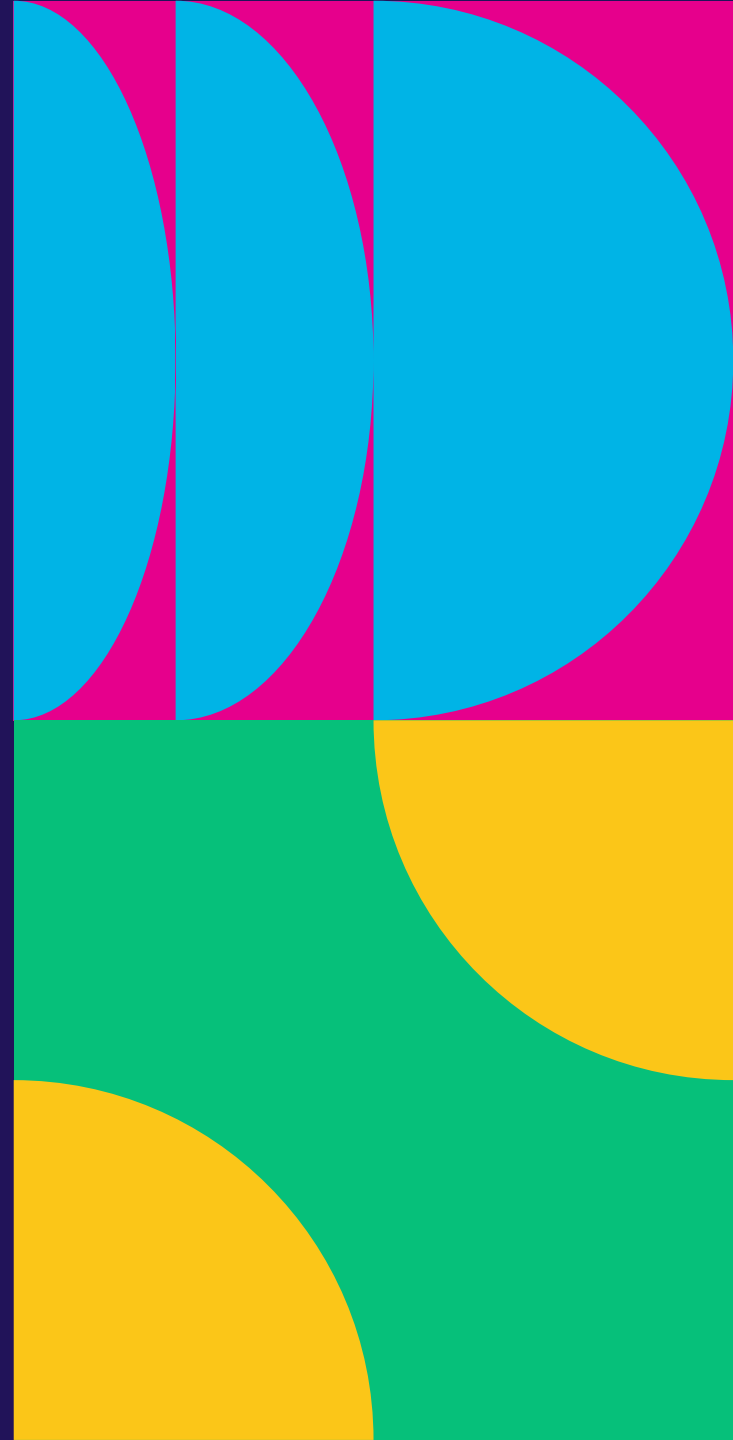
- Work with software vendors and/or information technology staff to:
  - Provide a discrete field within the pharmacy computer system to record the patient's weight in metric units
  - Configure the pharmacy computer system to capture patient weight data when included in an electronic prescription
  - Build clinical decision support for weight-based dose checking
  - Enable a mechanism to support staff to identify patient weights that require updating prior to dispensing weight-based medications
  - Provide a notification when a weight entry changes significantly from the previous entry

Polling Question

Does your pharmacy dispensing system provide clinical decision support for weight-based dose checking (rather than using patient age as a proxy)?

a. No
b. Yes
c. I don’t know

Best Practice 7



Return-to-stock (RTS) Medications

- Pharmacies may return filled prescriptions to stock for a variety of reasons
- Received many reports where medications have been returned to incorrect manufacturer bottles or mixed back into automated dispensing technology
- Unintended disclosure of protected health information
  - RTS vial dispensed with a previous patient-specific label still affixed
- Label used for the RTS vial does not have a barcode or a functional barcode
  - Pharmacy staff must then bypass barcode scanning

Best Practice 7

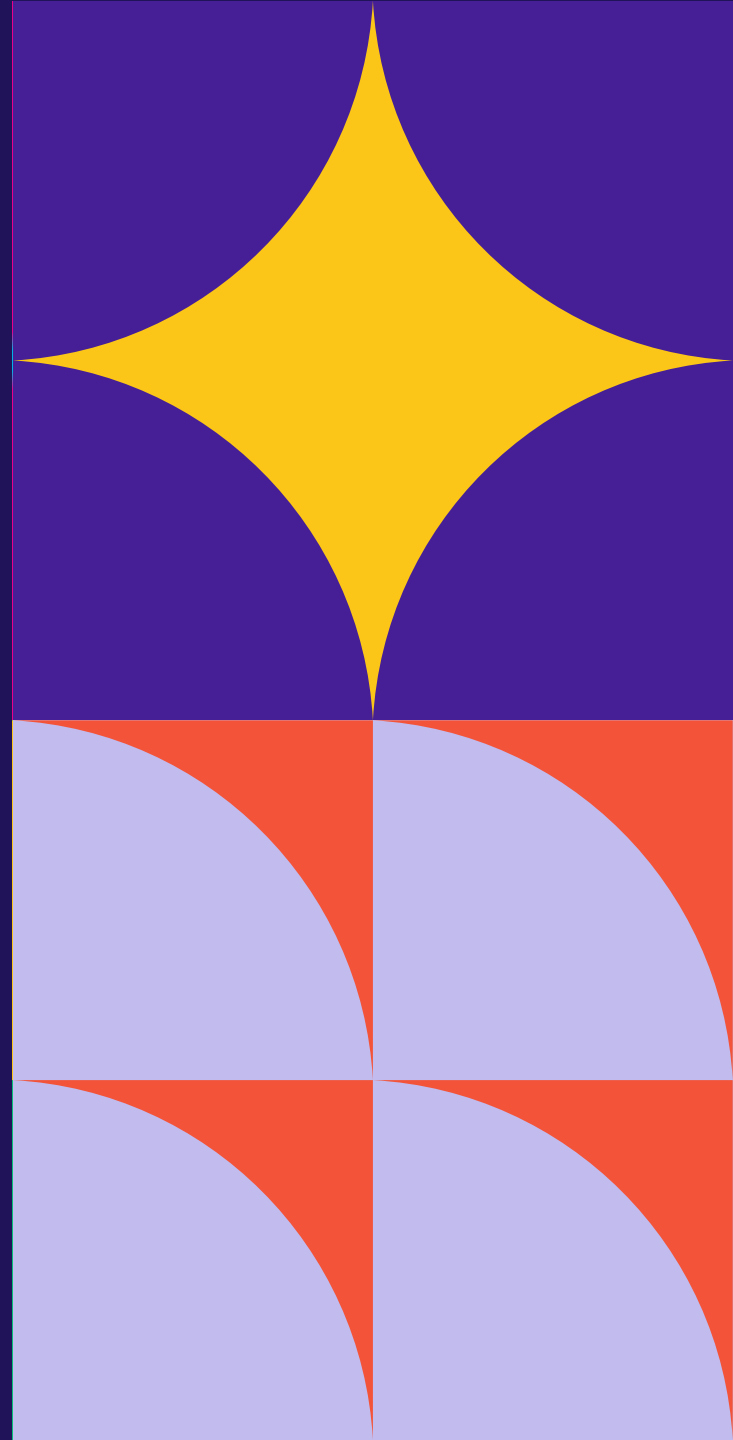
Maximize the use of technology to prevent errors during the return-to-stock (RTS) process

- Do not return medications from filled prescriptions into manufacturer stock bottles that have been opened or cells within automated dispensing technology
- Create functionality within the pharmacy computer system to generate specific labels to apply to prescription bottles that require RTS
- RTS labels should include:
  - Drug name
  - Dosage strength
  - Expiration date
  - Drug description (e.g., tablet shape, color, imprint code)
  - Barcode that can be used when filling a subsequent prescription

Best Practice 7

- Place RTS medications (after affixing an RTS label) on pharmacy shelves and, as appropriate, use these to fill subsequent prescriptions
- Develop functionality to automate and guide the use of available RTS medications to fill prescriptions before reverting to sending prescriptions to an automated dispensing system for filling
- Utilize barcode verification throughout the RTS process to ensure the correct RTS label is placed on the correct RTS prescription and during subsequent prescription fills
- Periodically review and observe the RTS process to ensure adherence

Best Practice 8



Vaccines and Errors

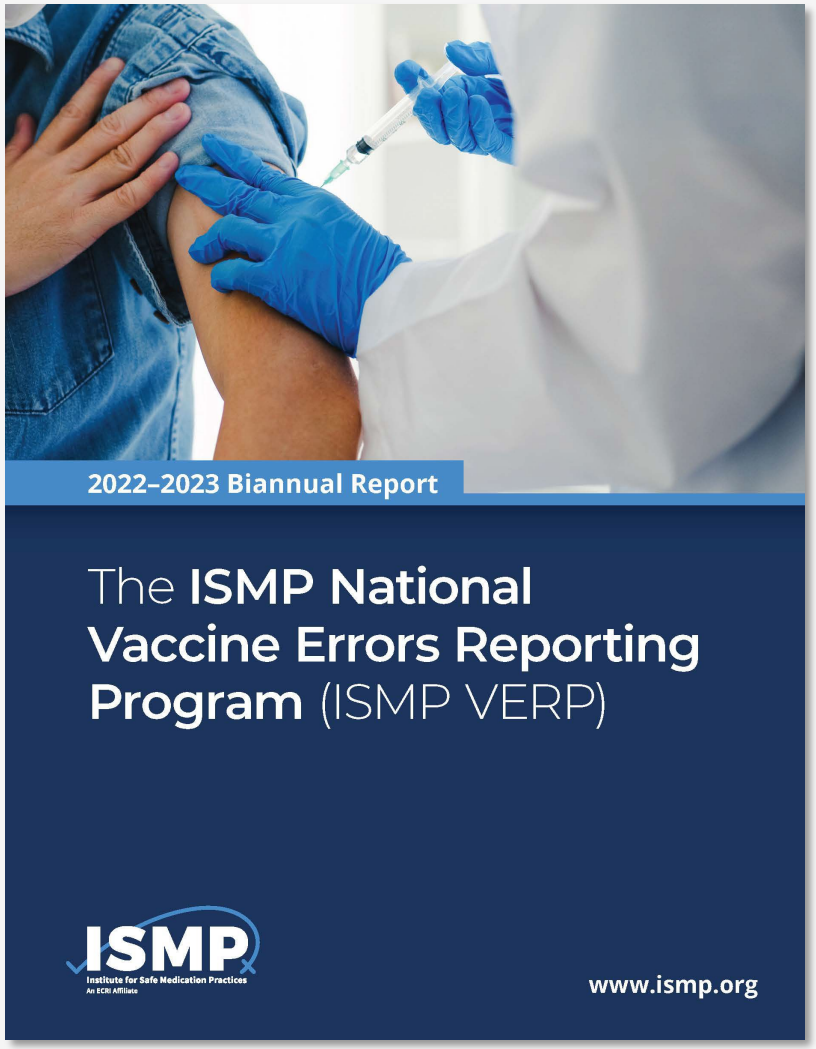
- Immunizations prevent diseases in children and adults
- Errors can result in unintended consequences
  - Leave patients unprotected against serious diseases
  - Injury
  - Reduce confidence in the healthcare delivery system
  - Inconvenience
  - Increase cost

Vaccines and Errors

- Error can occur during:
  - Scheduling
  - Ordering
  - Dispensing
  - Preparation
  - Administration
- ISMP established the ISMP National Vaccine Errors Reporting Program (ISMP VERP) in 2012 to collect data about the types of errors occurring with vaccines and their underlying causes

ISMP VERP Analysis

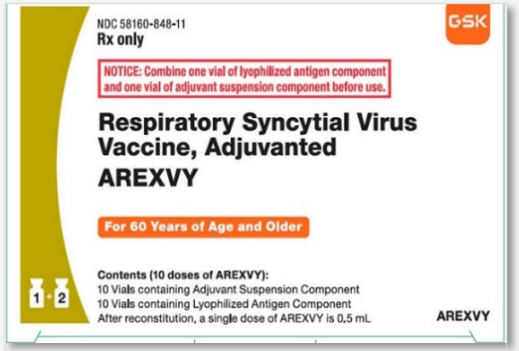
- Errors with age-specific formulations
- Wrong-patient errors (e.g., due to confusion among siblings)
- Wrong timing errors (e.g., dose given too soon)
- Missed opportunities to vaccinate
- Wrong-route errors caused by lack of familiarity with the vaccine
- Errors with combination vaccines or vaccines with diluents

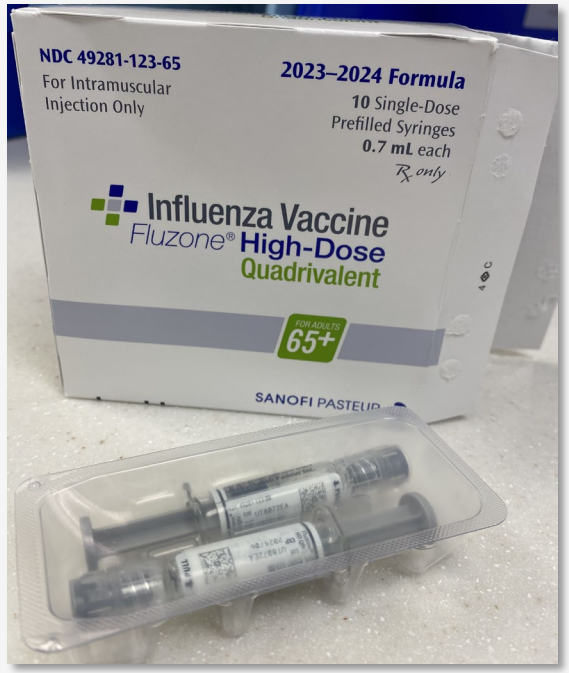


2017-2018 Biannual Report: The ISMP National Vaccine Errors Reporting Program (VERP). ISMP; 2024. https://home.ecri.org/blogs/ismp-resources/vaccine-bi-annual-report

ISMP VERP Analysis

- Wrong vaccines related to vaccine nomenclature
- Wrong-vaccine and dose errors related to labeling and packaging
- Errors related to unsafe vaccine storage
- Administration of expired vaccines
- Failure to involve the patient in the verification process





Best Practice 8

Establish standard processes to prevent errors during vaccine preparation and administration

- Schedule dedicated resources and times for vaccinations
- Verify a patient's immunization status prior to administering vaccines
- Obtain and review the patient's completed vaccine administration consent and screening form prior to administration
- Provide patients or caregivers with verbal counseling, an opportunity to ask questions, and written information in their primary language prior to vaccination
- Store vaccines separately based on the type and formulation (e.g., pediatric and adult formulations of the same vaccine)
  - Store two-component vaccines together if storage requirements do not differ

Best Practice 8

- Use prefilled syringes when available
  - If not available, prepare and label each vaccine dose immediately prior to administration
- Verify the vaccine expiration date prior to administration
- Provide a separate area or room for vaccine administration, away from distractions and interruptions
- Document the vaccine's national drug code (NDC), lot number, and expiration date *prior* to administration; document administration *after* vaccine administration
  - Ensure information is sent to the local or state vaccine registry
- Provide a separate area or room for vaccine administration, away from distractions and interruptions
- If multiple patients (e.g., in the same family) are being vaccinated at the same time, bring one patient into the vaccination area at a time
  - At a minimum, bring only one patient's vaccines into the vaccination area at a time.

Best Practice 8

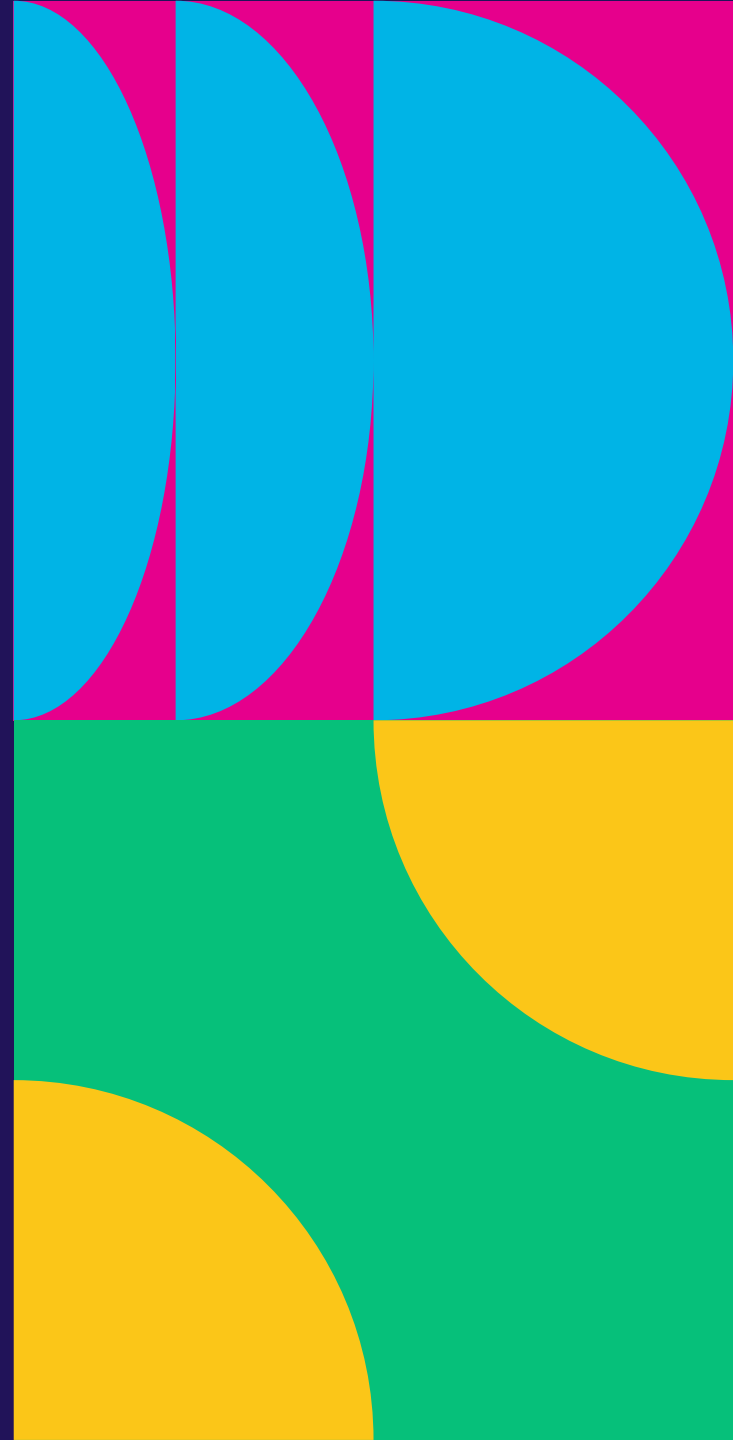
- Verify the patient's identity using at least two unique identifiers (e.g., full name, date of birth, address)
- Ask the patient/caregiver what vaccine they are expecting to receive and verify that this information matches the vaccine in hand to be administered
  - Use open-ended questions
- Use barcode scanning technology to verify the correct vaccine(s), dose(s), and diluent(s) are selected and are being administered to the correct patient
- After administering the vaccine, monitor the patient for the indicated period
  - Establish a documented plan to respond to vaccine related reactions
- Provide vaccinators with dedicated time to allow for ongoing education
- Provide regular competency assessments for all who prepare/administer vaccines

Polling Question

How do you engage patients and/or caregivers at the point of vaccine administration?

a. I verify the patient's name and date of birth
b. I ask the patient which vaccine they are intending to receive?
c. I ask the patient to verify that what they are expecting matches the vaccine in hand to be administered
d. A and B
e. All of the above

Resources



https://home.ecri.org/blogs/ismp-resources/targeted-medication-safety-best-practices-for-community-pharmacy

Worksheet for the 2025-2026
ISMP Targeted Medication Safety Best Practices for Community Pharmacy

This tool was developed to assist pharmacy in analyzing their current status with implementing the ***2025-2026 ISMP Targeted Medication Safety Best Practices for Community Pharmacy***. Please refer to the **Targeted Medication Safety Best Practices for Community Pharmacy** document for related references, as well as the rationale and significance for focusing on each of these *Best Practices*.

Each of the *Best Practices* (in bold text) are listed in the first column of the table below. Change ideas (in italicized text) associated with each *Best Practice* are also listed in the first column. The second column, titled "Implementation Status," allows pharmacies to record their implementation status with each *Best Practice*. For this column, select an answer ("Fully Implemented," "In Progress," "Not Implemented," or "Not Applicable") from the dropdown menu in each cell. Use the third column, "Pharmacy Assessment," to provide a more descriptive analysis of your current status and rationale for your selected answer. In the last column ("Action Required/Assignment"), pharmacies can detail their action plan for fully implementing each of the *Best Practices*, as well as to assign individuals or teams/committees certain related tasks.

The purpose of the **Targeted Medication Safety Best Practices for Community Pharmacy** is to identify, inspire, and mobilize widespread adoption of consensus-based Best Practices for specific medication safety issues that continue to cause fatal and harmful errors in patients, despite repeated warnings in ISMP publications. ISMP encourages pharmacies to focus their medication safety efforts on these Best Practices, and this worksheet may help hospitals to identify gaps in their safety practices and to develop their action plan for implementation.

2025 - 2026 ISMP Targeted Best Practices	Implementation Status	Pharmacy Assessment	Action Required/Assignment
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.			
Use at least two identifiers (e.g., full patient name and date of			

https://home.ecri.org/blogs/ismp-resources/worksheet-for-the-ismp-targeted-medication-safety-best-practices-for-community-pharmacy

Questions?

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