

Medication Safety in Health-System Practice

Strategies, Standards, and Communication for Error Prevention





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Learning Objectives

Pharmacy Technicians

will be able to

-  Identify common sources of medication errors in health system practice
-  Describe industry recommendations for patient safety and error prevention and their role therein
-  Apply evidence-based strategies and best practices to reduce risk of errors
-  Demonstrate effective communication techniques for improving collaboration

Pharmacists

will be able to

-  Identify common sources of medication errors in health system practice
-  Describe industry recommendations for patient safety and medication error prevention
-  Apply evidence-based strategies and best practices to reduce errors during prescribing, dispensing, and administration
-  Demonstrate effective communication techniques for patient counseling and interdisciplinary collaboration

Common Sources of Medication **Errors**

- ✗ **Prescribing:** wrong patient, drug, dose; illegible orders; look-alike/sound-alike names
- ✗ **Transcribing:** incomplete profiles, poor communication, unclear abbreviations
- ✗ **Dispensing:** automation overrides, labeling errors, stock placement issues
- ✗ **Administration:** wrong route/time, skipped doses, documentation gaps
- ✗ **Contributing factors:** interruptions, staffing, technology limitations

ISMP Targeted Medication Safety Best Practices

- ✓ **Dispense** vinCRIStine in a minibag (not syringe) to prevent fatal intrathecal administration
- ✓ **Ensure** weight-based dosing uses documented and verified patient weight
- ✓ **Use** metric (mL) units only for oral liquids
- ✓ **Implement** barcode scanning at dispensing and administration
- ✓ **Perform** regular inventory and standardize substitutions during shortages
- ✓ **Adopt** a just culture that focuses on system design, not individual blame

ASHP Guidelines on Preventing Medication **Errors**

✗ Establish a medication safety leader and multidisciplinary safety team

✗ Implement non-punitive error reporting and continuous quality improvement (CQI)

✗ Involve pharmacists throughout the medication-use process: selection, storage, verification, monitoring

✗ Use technology: CPOE, barcode systems, automated dispensing cabinets

✗ Promote a culture of safety and human factors awareness

Evidence-Based Strategies

Best Practices

✓ **Technology:** barcode scanning, smart pumps, RFID tracking, CPOE decision support

✓ **Workflow redesign:** standardize concentrations, remove error-prone steps, implement double checks

✓ **Human factors:** minimize distractions, ergonomics, clear labeling and organization

✓ **Continuous improvement:** RCA, FMEA, error trend analysis

SBAR

S – Situation

State what is happening right now.

Example: “This is Jill in pharmacy. I’m calling about a patient whose potassium level just came back at 2.8.”

B – Background

Provide context or relevant background information.

Example: “The patient was admitted this morning for dehydration and has been receiving IV fluids without potassium.”

A – Assessment

Share your professional assessment or concern.

Example: “I believe the patient’s potassium dropped due to the IV fluids and lack of supplementation.”

R – Recommendation

State what you need or suggest should happen next.

Example: “I recommend adding potassium to the IV fluids and rechecking labs in four hours.”

Purpose of SBAR





- Promotes clear, efficient, and focused communication between clinicians.
- Reduces misunderstandings that can lead to medical errors.
- Used across healthcare professions: nurses, pharmacists, physicians, and technicians.

RCA vs FMEA:

Key Concepts in Quality and Risk Management

Feature	RCA	FMEA
Timing	Reactive (after an event)	Proactive (before an event)
Goal	Find why a failure occurred	Predict how a failure could occur
Focus	Past incidents	Future risk prevention
Output	Corrective actions	Preventive actions

Communication & Interdisciplinary Collaboration

-  Use SBAR and closed-loop communication techniques
-  Promote pharmacist-nurse-technician coordination in the medication-use process
-  Use teach-back and plain-language counseling for patient education
-  Support a non-punitive environment for reporting and discussing near-misses

Top 5 Actions for Tomorrow

1. Verify patient weight documentation for all weight-based meds
2. Use metric units (mL) only for oral liquid medications
3. Confirm barcode scanning functionality in all dispensing/administration areas
4. Audit one high-alert medication workflow for compliance
5. Implement or review SBAR communication protocol in your team

Summary & Key Takeaways

- 📋 Medication errors are system-based, not individual failures
- 📋 ISMP and ASHP guidelines provide structured, evidence-based frameworks
- 📋 Technology, standardization, and communication are key to safety
- 📋 Every team member contributes to a culture of safety and continuous improvement

“Medication safety is not a goal — it's a continuous commitment.”