MedPro Group
a Berkshire Hathaway company

Risk Q&A

High-Alert Medication Monitoring

Question

What strategies and safeguards can healthcare practices implement to prevent errors related to high-alert medications?

Answer

Each year, adverse drug events (ADEs) cause more than 3.5 million physician office visits, an estimated 1.5 million emergency department (ED) visits, and almost 500,000 hospitalizations.[1]

Studies show that insulin, anticoagulants, narcotics/opioids, and sedatives are the high-alert medications responsible for the majority of harm resulting from medication errors.[2] Further, the Agency for Health Research and Quality notes that antidiabetic agents, oral anticoagulants, antiplatelet agents, and opioid pain medications account for more than half of ED visits for ADEs in Medicare patients.[3]

Because of the potential harm associated with high-alert medications, healthcare practices need prudent approaches for managing the risks associated with prescribing and administering these drugs. The following risk strategies offer guidance to help improve safety for patients who take high-alert medications:

- Identify all high-alert medications that your practice prescribes or administers. The Institute for Safe Medication Practices provides a list of high-alert medications in community and ambulatory healthcare settings.
- Define and communicate the role of each healthcare team member relative to medication management, especially when high-alert medications are involved. Provide team members with medication management education.

- Adhere to conservative prescribing principles to help ensure safe and appropriate use of medications.
- Develop standard protocols for monitoring patients who are receiving high-alert medications. At minimum, standard protocols should include frequency of assessment and blood monitoring, parameters for tracking lab results and adjusting medications, and guidance for patient/family education. Consider using a medication monitoring service (e.g., a warfarin clinic) or implementing one of your own.
- Ensure your practice has a written standard procedure for test tracking that includes guidance for reviewing test results and documenting communication and follow-up with patients.
- Enable pertinent medication alerts in your electronic health record (EHR) system. Determine how best to use your EHR system to track pending test results, patient notifications, and other elements of your standard medication safety protocols.
- Use computerized provider order entry paired with a clinical support decision system to help prevent medication ordering, transcribing, and dispensing errors.
- Conduct medication reconciliation during each patient encounter and resolve medication discrepancies when they are discovered.
- Use strategies that support patient comprehension when educating patients about their medication treatment regimens.
- Minimize interruptions in care settings to ensure that healthcare providers can safely administer medications.
- Use data obtained from prescription drug monitoring programs and implement pain management agreements when prescribing narcotics, or refer patients to pain specialists as appropriate.
- Design a process for tracking and trending ADEs (e.g., using data from your EHR system). Debrief “near misses” and actual events with your team to learn from each occurrence and to prevent future ADEs from happening.

Resources

- Agency for Healthcare Research and Quality: Patient Safety Primer: Medication Errors and Adverse Drug Events
- HealthPartners: Ambulatory Patient Safety Toolkit 2024
- Institute for Safe Medication Practices: ISMP Articles and Alerts
- Institute for Safe Medication Practices: ISMP Guidance and Tools
- MedPro Group: Checklist: Managing Procedural Sedation Risks
- MedPro Group: Checklist: Medication Inventory Management for Healthcare Practices
- MedPro Group: Checklist: Reducing Risks Associated With Anticoagulants
- MedPro Group: Improving the Safety of Medication Prescribing in Ambulatory Care
- MedPro Group: Managing and Learning From Medication Mishaps: Promoting a Culture of Safety in Your Healthcare Practice
- MedPro Group: Risk Management Strategies and Considerations for Opioid Prescribing
- MedPro Group: Risk Resources: Opioid Prescribing & Pain Management
- MedPro Group: Risk Resources: Pediatric Medication Safety
- U.S. Food and Drug Administration: Safe Use Initiative: Collaborating to Reduce Preventable Harm from Medications

Endnotes

[1] Howard, I., Howland, I., Castle, N., Al Shaikh, L., & Owen, R. (2022). Retrospective identification of medication related adverse events in the emergency medical services through the analysis of a patient safety register. *Scientific Reports, 12*(1), 2622. doi: https://doi.org/10.1038/s41598-022-06290-9; Centers for Disease Control and Prevention. (2024, April 17). *FastStats: Medication safety data.* Retrieved from www.cdc.gov/medication-safety/data-research/facts-stats/index.html

[2] Health Research and Educational Trust. (2012). *Implementation guide to reducing harm from high-alert medications.* U.S. Department of Health and Human Services. Retrieved from www.qualityhealthnd.org/wp-content/uploads/ade_changepackage_508.pdf

[3] Agency for Healthcare Research and Quality. (2019, September). *Patient safety primer: Medication errors and adverse drug events*. Retrieved from https://psnet.ahrq.gov/primers/primer/23/medication-errors-and-adverse-drug-events