High-Alert Medication Monitoring

Question

My practice has had several "near misses" occur recently related to either the dosing or follow-up of high-alert medications prescribed to patients. What safeguards can we implement to prevent a medication error that may cause severe patient harm?

Answer

Each year, adverse drug events (ADEs) cause more than 3.5 million physician office visits, an estimated 1 million emergency department (ED) visits, and about 125,000 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]

Consider pursuing these risk strategies to minimize the potential for harm to your patients that take high-alert medications:

- First and foremost, if your practice does not already have a written standard procedure for test tracking, develop one that includes guidance for reviewing test results and documenting communication and follow-up with patients.
- 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 each healthcare team members' role relative to medication management, especially when high-alert medications are involved. Provide staff with medication management education.
- Adhere to conservative prescribing principles to help ensure safe and appropriate use of medications.
- Develop standard protocols for monitoring patients receiving high-alert medications. At a 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 or implementing one of your own (e.g., a warfarin clinic).
- 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 to help healthcare providers administer medications safely.
- Use data obtained from prescription monitoring programs and pain management contracts when prescribing narcotics, or refer patients to pain specialists as appropriate.
- Design a process for tracking ADEs. 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

- Centers for Disease Control and Prevention: Medication Safety Program
- HealthPartners: Ambulatory Patient Safety Toolkit 2021
- Institute for Safe Medication Practices: Medication Safety Tools

  U.S. Food and Drug Administration: Safe Use Initiative: Collaborating to Reduce Preventable Harm from Medications

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[1] Office of Disease Prevention and Health Promotion, Office of the Assistant Secretary for Health, Office of the Secretary, U.S. Department of Health and Human Services. (2021, August 24). Adverse drug events. Retrieved from https://health.gov/our-work/national-health-initiatives/health-care-quality/adverse-drug-events

[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 https://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