

Can Curatives Kill? Reducing the Risk of Medication Error

Adverse Drug Events and Medication Errors

An adverse drug event (ADE) is defined as “harm experienced by a patient by exposure to a medication.”¹ The Institute of Medicine says an ADE is “an injury resulting from drug-related medical interventions.”² Like any adverse event, occurrence of an ADE does not necessarily indicate an error or poor quality care. However, adverse drug events account for nearly 700,000 emergency department visits and 120,000 hospitalizations annually.¹

One way a patient can experience an ADE is through a medication error. A medication error can occur at any step in the process, beginning when a clinician prescribes a medication and ending when the patient actually receives the medication. It can be an error of omission or an error of commission.¹ The Institute of Medicine’s report, *To Err is Human*, describes a medication error as “an error in the process of ordering or delivering a medication, regardless of whether an injury occurred or the potential for injury was present.” Further, statistics in the report revealed that 1.5 million Americans are injured by medication errors every year and the average hospitalized patient experiences at least one medication error each day.²

Potential for Harm

According to the Agency for Healthcare Research and Quality, there are more than 10,000 prescription medications available for clinicians to choose from.¹ The Centers for Disease Control and Prevention (CDC) statistics show the number of drugs ordered or provided to Americans during office visits equals 3.2 billion, 317.6 million during emergency room visits, and 329.2 million during outpatient hospital department visits per year. Available data also indicates that drug therapy is involved in 75.2% of overall patient office visits, 79.6% of emergency room visits and 72.5% of outpatient hospital department visits.³ According to the CDC, 85% of American adults take one medication daily and nearly one-third of adults take five or more medications per day.⁴

Additional Risk Factors Associated with Medication Errors

Areas requiring added vigilance due to an increased potential for medication error include:

- Transitions in patient care (e.g., between healthcare providers, discharges from facilities or between levels of care)
- Polypharmacy (e.g., patients who take five or more medications)
- Age-related (e.g., elderly or pediatric patients require closer monitoring)
- Limited health literacy (e.g., lack of understanding medication information, differing names for the same drug, rationale for use, correct dosage, administration, or frequency, etc.)
- Combined use and over-use of over-the counter (OTC) medications, herbal remedies or alternative medications
- Prescribing high-alert medications

Why Reconcile?

Many medication errors are preventable and medication reconciliation is one strategy for medication error risk mitigation. In a review of closed claims data from the NORCAL Group of companies (7/1/10-6/30/15), medication errors are a common allegation against physicians. The data shows medication errors as the fourth most frequent and the fifth most expensive allegation against our insured physicians. A number of factors contributed to the medication errors that occurred in these claims, including:

- The patients' comorbid conditions
- Inadequate patient histories
- Problems with medical record documentation
- Communication problems between providers

These contributing factors are closely tied to conducting medication reconciliation. Data revealed that almost one-quarter of the medication error claims involved these issues that are potentially related to a breakdown in the medication reconciliation process.

Medication reconciliation takes clinical skill and can save lives. The Institute of Health Improvement indicates that the goal of medication reconciliation is to prevent ADEs by creating and maintaining the most accurate list possible of the patient's medications including drug name, dosage, frequency, and route — and using that list to guide therapy.⁵

Medication reconciliation in the office site should be thought of as a patient safety measure and not viewed only as an accreditation function. Using a systematic and formal process with clearly designated responsibilities can improve and streamline the process. Consider the following:

1. Obtain an accurate list of prescribed medications, OTC drugs, herbs, vitamins, and supplements.
2. Verify the list with the patient using other reliable sources when possible: drug vials, patient's medication list, pharmacy, checking for changes in dosage, routes, frequencies, etc.
3. Reconcile and correct inadvertent discrepancies in the list (e.g., duplicates). This does not necessarily mean the clinician is verifying the appropriateness of the medications or dosages, as that should hopefully have been determined by the prescriber (who should be in a position to make that determination). However, it is important to determine whether any medication that the patient is taking or receiving as a result of your visit or procedure is reconciled. This may require communication, consultation, or coordination with another prescriber. This can also be an opportunity to educate patients on their medication management.
4. Document in the record changes to the medication list (e.g., finalize the list in the electronic health record) and provide a copy to the patient.

Risk Management Recommendations

- Create and maintain a current medication list for all patients.
- Develop a systematic, standardized and formal process for medication reconciliation.
- View medication reconciliation as a patient safety measure that is incorporated into the patient evaluation process by the clinician.
- Understand that medication reconciliation includes reviewing and verifying medication history, clarifying appropriate dosing, frequency, contraindications, and/or interactions; reconciling conflicts; and finalizing changes to the medications in the medical record.
- Keep a heightened awareness of additional risk factors associated with medication errors and ADEs.

The NORCAL Group of companies — including NORCAL Mutual Insurance Company, Medicus Insurance Company, FD Insurance Company, NORCAL Specialty Insurance Company, and Preferred Physicians Medical RRG — provide medical professional liability insurance to physicians, health care extenders, medical groups, hospitals, community clinics and allied health care facilities throughout the country. They share an A.M. Best "A" (Excellent) rating for their financial strength and stability. NORCAL Group has a team of risk management specialists available to assist policyholders with the assessment of their practice and to help identify any potential pitfalls that may arise.

Endnotes

1. U.S. Department of Health and Human Services Agency for Healthcare Research and Quality. Medication Errors. Last updated June 2017. Available at: psnet.ahrq.gov/primers/primer/23 (accessed 12/13/17).
2. Institute of Medicine. To Err is Human: Building a Safer Health System. 1999. Available at: nap.edu/read/9728/chapter/1 (accessed 12/13/17)
3. Centers for Disease Control and Prevention. Therapeutic Drug Use. Available at: cdc.gov/nchs/fastats/drug-use-therapeutic.htm (accessed 12/13/17)
4. Centers for Disease Control and Prevention. Medication Safety Basics. Available at: cdc.gov/medicationsafety/basics.html (accessed 12/13/17)
5. The Institute for Healthcare Improvement. Medication Reconciliation to Prevent Adverse Drug Events. Available at: ihi.org/Topics/ADEsMedicationReconciliation/Pages/default.aspx (accessed 12/13/17)

Additional Resources

- U.S. Department of Health and Human Services Agency for Healthcare Research and Quality.
 - Medication Reconciliation Victory After an Avoidable Error. Available at: psnet.ahrq.gov/webmm/case/195 (accessed 12/21/17).
 - E-prescribing: E for error? Available at: psnet.ahrq.gov/webmm/case/260
- Institute for Safe Medicine Practices. Education, resources, and medication safety tools are available at: ismp.org/default.asp (accessed 12/21/17).