

Transcript Details

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Top 10 Med Errors & Hazards, Part 2

Announcer:

You're listening to *The Drug Report* on ReachMD, hosted by Linda Bernstein, Pharm.D., Clinical Professor on the Volunteer Faculty of the School of Pharmacy, University of California, San Francisco.

Dr. Bernstein:

Welcome to *The Drug Report*. I'm Dr. Linda Bernstein.

Today we are continuing to highlight the Institute for Safe Medication Practices list of top 10 medication errors and hazards.

We begin with number five.

Medication Error 5. Unsafe automated dispensing cabinets (ADCs) practices. ISMP continues to receive reports of unsafe practices using ADCs, mostly surrounding the removal of a medication from an ADC without a pharmacist's review of the order. ISMP focused in 2019 on three unsafe conditions: 1) Overuse of "overrides" which allow easy and unnecessary removal of medications and with no perceived risk. 2) Removal of a drug from an ADC without an order such as may occur with a lifesaving drug or when an order was anticipated. 3) Removal of an ordered drug from a non-profiled ADC (not recommended) which could mean the pharmacist was not notified about the order or have a chance to review it retrospectively. The ISMP has set safe ADC guidelines to optimize their use in the profiled mode in inpatient and outpatient practice settings. Some of the recommendations include to always require a medication order (or protocol) prior to removing any drug from an ADC, even via override. Overrides should be limited to emergencies, such as lifesaving antidotes and reversal agents, where any delay for a pharmacist order review would be hazardous to the patient. If overrides are needed, reduce the risk by limiting available drug quantities. Finally, assess the drug available for override by location and practitioner type for appropriateness and safety.

Medication Error 6. Safety of IV push medications. ISMP has set forth safe practice guidelines for adult IV push medications, including acquisition and distribution, aseptic technique, clinician preparation and administration, labeling, drug information resources, competency assessment and error reporting. Specifically, ISMP wants the pharmacy to dispense all adult IV push medications in a ready-to administer form, set standard competency assessments for IV push medications and validate staff competencies regularly. Practitioners should learn the risks associated with unnecessary medication dilution, and dilution or reconstitution in a commercially available prefilled flush syringe of 0.9% sodium chloride which often remains mislabeled as having only 0.9% sodium chloride.

Medication Error 7. Wrong route (intraspinal injection) errors with tranexamic acid. There were 21 reported cases of accidental intraspinal injection of tranexamic acid in 2019. The mortality rate of this is 50%. Tranexamic acid can be confused with bupivacaine or ropivacaine, as all three come in vials with blue caps and are often stored upright near each other with only the caps, not labels, showing. Products such as these used in the operating room, labor and delivery may not be bar code scanned for before dispensing or administration. ISMP recommends a number of remedies to reduce the risk of this dangerous mix-up.

Medication Error 8. Unsafe labeling of prefilled syringes and infusions by 503B compounders. ISMP has received an increasing number of error reports related to this issue. The FDA does not hold outsourcing facilities to the same labeling standards as for commercial manufacturers. Some compounders stray from USP <7> labeling standards, listing the strength per ML as the primary expression on labels, rather than the strength per total volume, which is required on all FDA-approved labels. Look-alike syringes within the same class have led to mixups in the operating room. ISMP calls upon the FDA to publish a guidance for these compounders to follow labeling standards required of commercial manufacturers. In the meantime, they encourage compounders to voluntarily comply with

USP <7> labeling standards.

Medication Error 9. Unsafe use of syringes for vinca alkaloids. ISMP reports that vinca alkaloids in 2019 are still being incorrectly administered by the intrathecal route. ISMP is asking the FDA to “remove administration by syringe” from the prescribing information. They feel the most effective way to prevent patient harm is to supply vinca alkaloids in minibags, avoiding the risk of confusion with syringes. 15% to 20% of U.S. hospitals still use syringes, mainly for pediatric patients, so ISMP urges hospitals to establish policy to always dilute vinca alkaloids in a minibag before administration, even for pediatric patients.

Finally, Medication Error 10. 1,000-fold overdoses with zinc. Critical dose warnings are not available for IV zinc and other trace elements used as parenteral nutrition additives, making errors more likely, particularly involving pediatric patients. 1,000-fold overdoses have occurred and have been fatal. ISMP advises all healthcare providers to build, test and heed maximum dose warnings in parenteral nutrition order entry systems, with a hard stop for critical zinc overdoses (e.g., above 250 mcg/kg for pediatric PN).

For the ISMP medication errors 1-4, check out Part One of this program.

For *The Drug Report*, I'm Pharmacist, Dr. Linda Bernstein.

Announcer:

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