

ISMP Quarterly Action Agenda

ISMP One of the most important ways to prevent medication errors is to learn about problems that have occurred in other organizations and to use that information to prevent similar problems at your practice site. To promote such a process, the following selected items from the **January–March 2017** issues of the *ISMP Medication Safety Alert!* have been prepared for leadership to use with an interdisciplinary committee or with frontline staff to stimulate discussion and action to reduce the risk of medication errors. Each item includes a brief description of the medication safety problem, a few recommendations to reduce the risk of errors, and the issue number to locate additional information. Look for our high-alert medication icon under the issue number if the agenda item involves one or more medications on the *ISMP List of High-Alert Medications* (www.ismp.org/sc?id=479). The Action Agenda is also available for download in a Microsoft Word format (www.ismp.org/newsletters/acutecare/articles/ActionAgenda1702.doc) that allows expansion of the columns in the table designated for organizational documentation of an assessment, actions required, and assignments for each agenda item. Continuing education credit is available for nurses at: www.ismp.org/sc?id=480.

Key:  — ISMP high-alert medication

| Issue No. | Problem | Recommendation | Organization Assessment | Action Required/Assignment | Date Completed |
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| Using information from external errors to signal a “clear and present danger” | | | | | |
| (3) | Despite repeated descriptions of harmful and fatal errors in publications, many organizations fail to use this information to decrease the risk of similar errors. Attribution biases that cloud the way we judge the behavior of others when errors happen often thwart our ability to learn from their mistakes. Although the Centers for Medicare & Medicaid Services (CMS) requires organizations to be aware of external errors and alerts, recommended actions go unheeded by those who feel they don’t apply to them. | Establish a systematic way to review information about external errors and assess the organization’s vulnerability to similar errors. Identify reliable sources of information about external errors, such as ISMP newsletters and the Quarterly Action Agenda, alerts from the US Food and Drug Administration, The Joint Commission, and peer-reviewed journals. Assign a medication safety officer to review these sources to understand how and why errors happened, and determine an action plan. | | | |
| Color-coding injectables by drug class can be dangerous | | | | | |
| (4)  | Similar looking vials of ePHEDrine (Éclat Pharmaceuticals) have been mistaken as EPINEPHrine (PAR Pharmaceutical). The generic names are similar, and both vials have purple caps and purple coloring on their labels. Purple is the standard color for user-applied labels on syringes of vasopressors in the operating room (OR). Outside the OR environment, this practice leads to dangerous confusion between drugs within the same class. | Due to name and packaging similarities, avoid storing these vials next to each other. Take steps to differentiate the two drugs on pharmacy shelf labels and in automated dispensing cabinets. Color-coding by drug class is not recommended for commercial vial caps and labels. | | | |

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| Vaccine abbreviations and acronyms lead to errors | | | | | |
| (4) | <p>Long nonproprietary vaccine names have spurred the use of abbreviations. The Centers for Disease Control and Prevention (CDC) provides a list of standard abbreviations, but nonstandard abbreviations are used often, and some standard abbreviations are very similar, sharing a main root to identify the target disease. Mix-ups have been reported, the latest involving Hib (<i>Haemophilus influenzae</i> type b conjugate vaccine) and HPV (correct abbreviation was 9vHPV for human papillomavirus 9-valent vaccine, recombinant).</p> | <p>If vaccine abbreviations are permitted, allow only current CDC-approved abbreviations to be used. Establish standard order sets or protocols that include the vaccine’s brand name (if applicable) and full nonproprietary name. If CDC-approved vaccine abbreviations are permitted in electronic formats, configure the display to allow viewing of the full nonproprietary vaccine name when hovering over the vaccine abbreviation. List full vaccine names on patient vaccination records, and provide patients with a copy.</p> | | | |
| Two effective initiatives for C-suite leaders to improve medication safety and the reliability of outcomes | | | | | |
| (6) | <p>Organizations will be reliable only around those things that they value—safety must be one of those things. ISMP has identified two strategic initiatives related to safety that senior leaders should undertake to significantly improve reliable patient outcomes and to communicate that safety is a core value worthy of the hard work needed to achieve.</p> | <p>Senior leaders should facilitate implementation of ISMP’s <i>Targeted Medication Safety Best Practices</i>, a set of interventions that address 11 medication safety issues that can cause fatal or harmful errors. As a second initiative, leaders should learn from external and internal errors, using resources such as the <i>ISMP Quarterly Action Agenda</i> and conducting <i>Safety WalkRounds</i>.</p> | | | |
| Accidental injection of topical thrombin | | | | | |
| (1) | <p>More than 8 events of accidental intravenous (IV) administration of topical thrombin were reported, with the latest involving a mix-up between syringes containing IV coagulation factor and topical thrombin, which led to cardiac arrest. The vial-and-syringe packaging of some topical thrombin products makes them look like parenteral medications, and the only available human recombinant thrombin (RECOTHROM) comes with a Luer-tip syringe.</p> | <p>Use spray kits for topical thrombin or have the pharmacy dispense thrombin in a topical syringe so it can’t connect to an IV line. Affix warning labels to syringes and bowls of the product to warn that it should only be given topically. Separate topical thrombin vials and syringes from parenteral products both on and off the sterile field. Consider using topical thrombin in powder form or adding it to absorbable gelatin sponges.</p> | | | |

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| Mix-ups between Fresenius Kabi's lipid emulsions, SMOFLIPID 20% (fish oil based) and INTRALIPID 20% (soy based) | | | | | |
| (5) | Smoflipid, a lipid emulsion that contains fish oil, has been confused with similar-looking bags of Intralipid, a soy-based emulsion. Smoflipid had been brought into the pharmacy to familiarize staff before adding it to the formulary, and it was accidentally dispensed instead of Intralipid. The primary concern is with patients who have a fish allergy. | In order entry systems, list the products as Smoflipid (Fat Emulsion 20%) and Intralipid (Fat Emulsion 20%) instead of listing "Fat Emulsion" first. Consider including a note about the type of fat in each product (fish oil vs. soybean). Use barcode scanning to verify products, and store them in separate locations. Sequester products before they are added to the formulary. | | | |
| Inconsistent expression of strength on outsourced anesthesia syringes | | | | | |
| (6)  | Some outsourcing companies that dispense prefilled anesthesia medication syringes prominently display the strength on the label as the amount per mL rather than the amount per total volume. This can confuse a practitioner who is familiar with other labels that list the amount per container prominently. | Explain this issue to anesthesia staff, and have outsourcing companies correctly list the strength per total volume as the primary and prominent expression of strength, as per the USP <7> requirement for all commercially available parenterals in vials, ampuls, and prefilled syringes. | | | |
| TOPOSAR and generic etoposide injection labels with wrong strength expression | | | | | |
| (5)  | The labels on Toposar (Teva) and generic etoposide (Fresenius Kabi) prominently display the amount of drug per mL instead of the total amount per vial. This is not consistent with USP <7> requirements. The labeling could cause a practitioner to believe that the amount per mL is the total amount in the vial. | Place an auxiliary label on the carton and vial prominently stating the total strength per total volume. Barcode scanning during intravenous (IV) drug preparation may also help prevent an error. The US Food and Drug Administration (FDA) is investigating the label issue. | | | |
| Concomitant use of ENTRESTO (sacubitril/valsartan) and angiotensin converting enzyme (ACE) inhibitors can lead to serious outcomes | | | | | |
| (1) | ENTRESTO should not be administered within 36 hours of switching to or from an ACE inhibitor. More than 50 cases of concomitant use have been reported to the US Food and Drug Administration (FDA), 11 of which required hospitalization due to angioedema, hyperkalemia, acute kidney injury, and hypotension. | Create order entry alerts to warn against the concomitant use of Entresto and ACE inhibitors. Conduct a thorough medication reconciliation at discharge to ensure that patients who are prescribed Entresto do not restart an ACE inhibitor upon discharge. | | | |

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| Fatal route of administration recommended in journal | | | | | |
| (1, 3)  | <p>Intrathecal vinCRIS^{ti}ne was listed as a possible treatment option for leptomeningeal multiple myeloma in an article published by <i>Hematological Oncology</i>. A similar error listing the intrathecal route with vinCRIS^{ti}ne occurred in a 2017 article in the <i>Journal of Applied Hematology</i>. Giving vinCRIS^{ti}ne via the intrathecal route is fatal.</p> | <p>Mistakes can be made even in respected peer-reviewed publications, so don't immediately accept everything you read. To keep abreast of any articles with serious errors that are retracted by journals after publication, subscribe to Retraction Watch's blog (www.retractionwatch.com).</p> | | | |
| Educate fluorouracil home infusion patients about accidental overinfusion | | | | | |
| (1)  | <p>A physician prescribed a 7-day continuous infusion of fluorouracil for a patient at home via an elastomeric infusion pump. The patient received the entire infusion in just 4 days but waited until his scheduled doctor's appointment 4 days later to report the mishap. The patient experienced serious sequelae and was admitted to the hospital for 7 days.</p> | <p>Educate patients with ambulatory infusion pumps about how the pump works, what to expect during treatment, the infusion rate, how long the infusion should last, how much should be left in the container each day, and to immediately report any incident to their care team should the container empty sooner than anticipated so an antidote can be administered.</p> | | | |
| Use EPINEPHrine autoinjectors for anaphylaxis management | | | | | |
| (2, 3) | <p>An emergency department physician ordered EPINEPHrine 1 mg intramuscularly (IM) for a patient with anaphylaxis, which exceeds the usual anaphylaxis dose (0.2-0.5 mg). The dose was prepared and administered using a vial and syringe, leading to hypertension, tachycardia, and agitation.</p> | <p>Reconsider use of EPINEPHrine autoinjectors to deliver doses for anaphylaxis. They are now available in a generic form at a lower cost. If using vials or ampuls, prepare kits containing a 1 mg vial or ampul along with a syringe, needle, and a label listing the dose and an "IM use only" warning. Contrary to some misguided efforts to reduce the risk of administering the full contents of the 1 mg (1 mL) vial, DO NOT use a 30 or 50 unit capacity insulin syringe in the kits, as these syringes only measure in units, have an attached needle of insufficient length, and may be mistaken as a syringe containing insulin.</p> | | | |

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