ISMP Medication Safety Alert! ActionAgenda

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 agenda items have been prepared for you and your staff to stimulate discussion and collaborative action to reduce the risk of medication errors. These agenda topics appeared in the *ISMP Medication Safety Alert!* Community/Ambulatory Care Edition between January 2018 and April 2018. Each item includes a brief description of the medication safety problem, recommendations to reduce the risk of errors, and the issue to locate additional information. The Action Agenda is also available for download in a Word format at: www.ismp.org/node/1080.

Key: ⚠ — ISMP high-alert medication

Issue	Problem	Recommendation	Organization Assessment	Action Required/Assignment	Date Completed
Confusing requirements for SHINGRIX (zoster vaccine recombinant, adjuvanted) with those for ZOSTAVAX (zoster vaccine live)					
02/18	Different storage requirements, components/diluents, and routes of administration for the newly approved Shingrix and the more familiar Zostavax have led to errors. Shingrix lyophilized antigen and adjuvant suspension must both be refrigerated, while Zostavax lyophilized vaccine must be kept frozen, and the included sterile water diluent kept refrigerated or at room temperature. Shingrix is given intramuscularly while Zostavax is given subcutaneously.	Educate staff about the differences between Shingrix and Zostavax. Label the storage bins/shelves using the updated Centers for Disease Control and Prevention (CDC) vaccine labels, which draw attention to the differences in storage, component/diluent, and routes of administration (www.ismp.org/sc?id=3101). Store the Shingrix lyophilized component and adjuvant suspension together to reduce the risk of using the wrong diluent.			
Nurse order entry error					
04/18	A hospice patient was ordered morphine sulfate concentrated oral solution 100 mg per 5 mL, 5 mg (0.25 mL) every 4 hours sublingually. The patient's nurse called the pharmacy to request morphine 100 mg per 5 mL, promising to send an electronic order soon afterwards. When entering the order, the nurse could not find the correct concentration. Feeling rushed, she selected morphine solution 10 mg/5 mL and entered instructions for "2.5 mL (5 mg)" subcutaneously. This information was transmitted to the pharmacy, without prescriber review, and appeared on the electronic medication administration record. The facility's electronic health record automatically placed the name of the physician in the field, "doctor signed electronically." The potential 10-fold overdose was caught before reaching the patient.	Prescribers should enter orders directly into the electronic prescribing system. Do not use "auto verification" in which the prescriber's signature appears on nurse-entered orders before they are verified. Avoid using the comment field to clarify electronic orders since the pharmacist may miss the information or the interface may not properly transmit the information. Staff and prescribers should seek assistance if they cannot enter the correct drug, dose, or frequency into the electronic prescribing application. Report close calls and actual errors involving electronic prescribing to the ISMP National Medication Errors Reporting Program (www.ismp.org/merp).			

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Confusion between SANDIMMUNE (cycloSPORINE) and NEORAL or GENGRAF (cycloSPORINE [MODIFIED])					
03/18 ⚠	Sand**IMMUNE** is a nonmodified form of cyclo**SPORINE** that has decreased bioavailability compared to Neoral or Gengraf capsules and oral solution. These are not interchangeable, yet patients often receive Sand**IMMUNE** when a cyclo**SPORINE** modified oral formulation was intended. Four patients recently received Sand**IMMUNE** instead of the more appropriate form of the drug, Neoral or Gengraf.	Indicate the brand name in orders, medication histories, and medication reconciliation records. Clarify orders for cyclo**SPORINE** if the formulation is not specified. Clearly display the different drug forms in order entry systems and create a hard stop to force verification of the correct drug form during prescribing. Monitor blood levels if a transplant patient receives the wrong formulation.			
Order entry short codes may be too short					
02/18	Order entry errors can happen when just the first few letter characters and a strength are used to search and select a medication from computer listings. When entering a prescription for oxybutynin extended release 10 mg, a pharmacist used the first 3 letters of the generic name and the strength of the drug (i.e., "oxy10") to search for the product in the computer system. A number of products appeared on the screen, including oxybutynin extended release 10 mg and oxy**CODONE** extended release 10 mg. The pharmacist inadvertently chose "oxycodone SR 10 mg."	Typing at least 5 letter characters (unless the drug name contains 4 or fewer letters) along with the drug strength most often limits similar names from appearing together on the same screen. Work with your information technology staff and computer system vendor to implement this strategy in the order entry system. Use mixed case lettering (e.g., tall man letters) to help differentiate similar drug names in computer systems.			
Label immediate medication containers					
01/18	A patient received overdoses of cefdinir 250 mg/5 mL oral suspension. The child was supposed to receive 3 mL each day. However, the child's parents were administering 14 mL a day in 2 doses following the "directions" on the manufacturer's container label. The pharmacy had affixed the pharmacy label to the outer carton of the medication, which was disposed of when the prescription was brought into the home. Thus, the only dosage information that remained was on the manufacturer's label on the bottle.	It is critical that the pharmacy label be affixed to the immediate container from which medication doses will be retrieved. If this is not possible, remind patients to retain the label which includes the directions for use and the patient's name. Opening the bag at the point-of-sale to review the medication and directions for use with the patient's parents would have helped them reduce the risk of the dosing error.			

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Warning! Dilute sertraline oral concentrate					
04/18	Sertraline liquid oral concentrate is produced in a 20 mg per mL concentration. The concentrated solution is astringent and direct administration of the undiluted solution may numb the tongue and mouth for at least a day, even if the mouth is rinsed extensively. Recently, a young child was given the undiluted concentrate. The instructions on the prescription and pharmacy label did not direct the caregiver to dilute the solution before administration. The child became distressed after receiving the solution undiluted.	Educate prescribers and pharmacy staff about the need to dilute this product before administration. Mandate patient counseling. Do not cover important warnings or instructions on manufacturer labels with pharmacy labels. Add directions for dilution to orders and medication administration records in long-term care facilities. Apply auxiliary labels warning that the product must be diluted. Warn patients and caregivers to use only the manufacturer-supplied dropper to measure the solution and dilute only in one of the solutions listed in the package insert.			
Confusion between lamoTRIgine and labetalol					
01/18	More than a dozen mix-ups have been reported between oral labetalol and lamo**TRI**gine. The mix-ups have resulted in breakthrough seizures and hypotension in patients who received labetalol in error, and skin rashes or untreated hypertension in patients who received lamo**TRI**gine in error. Contributing factors include similar size bottles and label colors, overlapping strengths, side-by-side storage, and look-alike tablets.	When receiving orders for either drug, match the patient's condition to the proper indication. Use a marker to draw attention to the product's name on the bottle. In community pharmacies, ask the patient to review the labels and contents of each prescription container for accuracy. Use mixed case lettering (e.g., tall man letters) when expressing lamo**TRI**gine. Electronic prescribing and barcode scanning helps to decrease this error potential.			
Wrong-patient errors at drive-thru					
01/18	Wrong-patient errors occur at the pharmacy drive-thru. Factors contributing to these errors include sound quality of the intercom system and failure to use two patient identifiers (i.e., the patient's full name and full date of birth). Only using an address to identify patients is not ideal, as people with the same last name often live together and addresses may not be up-to-date in computer systems. Mix-ups also can occur when prescriptions for patients with similar or same names are stored near each other in the will call area.	Always ask the patient to provide at least two patient identifiers—their full name and full date of birth—when picking up prescriptions. Consider asking the patient for a physical form of identification to minimize the risk of mishearing the patient. If sound quality is not sufficient, ask the patient to come into the store. Ask patients to open the bag of filled prescriptions to verify that the medications are correct before completing the transaction (i.e., before returning the patient's form of payment or change).			