

| Issue | Problem | Recommendation | Organization Assessment | Action Required/ Assignment | Date Completed |
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| Improper use of the insulin pen safety needles led to patient’s death | | | | | |
| 10/17  agenda safety icon-alert | While hospital staff often use insulin pens with a safety needle that does not require removal of the needle cover prior to injection, patients often use a standard insulin pen needle at home, which has a needle cover that must be removed before injection. Some hospitalized patients who have been taught to inject insulin using a pen with a safety needle have tried to inject insulin at home without removing the needle cover on a standard needle, thus failing to administer the insulin. One patient developed ketoacidosis and died. | Teach patients how to administer the insulin with the pen they will be using at home and require a return demonstration. Verify which pen needle the patient will be using and tailor the training to that needle. Remind patients that a standard pen needle is different from what may have been used in the hospital. Review injection technique with the patient if blood glucose levels are elevated. Establish a system to ensure that patients receive counseling when picking up new prescriptions and refills for insulin pen and pen needle products. A National Alert Network (NAN) communication offers further details ([www.ismp.org/NAN/files/NAN-20171012.pdf](http://www.ismp.org/NAN/files/NAN-20171012.pdf)). |  |  |  |
| Liraglutide (VICTOZA, SAXENDA) dosage unit confusion | | | | | |
| 11/17 | The electronic prescribing network, Surescripts, recently identified inaccurate dosage information in some new prescriptions for liraglutide pen injectors. The issue is the inappropriate use of “mL,” “milliliters,” or “cc” as doing units rather than “mg” (e.g., “inject 1.2 mL sub-q EVERY DAY” instead of 1.2 mg). These pen injectors only display the dose in “mg.” Since the concentration of liraglutide in both products is 6 mg/mL, prescribing in “mL” instead of “mg” results in a 6-fold overdose. | Prescribers should work with their electronic health record vendors to ensure that the dose creation tools provided to end users do not allow “mL” as a dose unit option for Victoza or Saxenda. Should a free-text prescription be necessary, type the patient directions with the dose unit in “mg” to ensure correct labeling, counseling, and administration of the intended dose. Pharmacists should clarify orders for Victoza or Saxenda with a “mL” dosage amount with the prescriber to verify the dose. |  |  |  |
| Confusion with measuring the correct dose with a U-500 insulin pen | | | | | |
| 10/17  agenda safety icon-alert | A patient using a U-500 insulin pen showed a pharmacist how he turned the dose knob on the pen to “15” to deliver each prescribed dose of 75 units. He had previously used a U-100 syringe to measure each dose of U-500 insulin, stopping at the “15 units” marking on the syringe. But the U-500 pen delivers the actual dose dialed. | For U-500 insulin, only use a U-500 insulin pen or a U-500 insulin syringe. When patients are started on U-500, using either a vial or insulin pen, prescribers and pharmacists must engage patients, provide education, and verify that patients can accurately prepare and administer a dose. Tailor the education to the devices being used. |  |  |  |
| Differentiating insulin types by touch and separate storage | | | | | |
| 11/17  agenda safety icon-alert | A visually impaired woman who uses both rapid-acting and long-acting insulin pens stored them both in the refrigerator. She accidentally administered 50 units of the rapid-acting insulin at night. She woke up at 4 a.m. with a blood glucose value of 50 mg/dL. | Teach patients ways to differentiate insulin types by touch, such as applying adhesive tape or rubber bands to pens. Storing these products with prominent ‘long-acting’ or ‘rapid-acting’ stickers on the containers may help differentiate them. Avoid storing insulin pens together. Advise patients to keep long-acting insulins in the bedroom and rapid-acting insulins in the dining area, keeping in mind that sole reliance on medication location might be risky (if displaced by another person). |  |  |  |
| Don’t leave “Meds to Beds” prescriptions at bedside | | | | | |
| 09/17 | “Meds to Beds” programs bring prescription drugs to the patient’s bedside prior to discharge and provide pharmacists with an opportunity to educate patients about their medications. We recently learned of an event in which a nurse gave a patient his medications, and then the patient opened the bag of discharge medications left at the bedside and nearly took the same medications. | Pharmacy and nursing staff should work collaboratively to provide patient education as part of a “Meds to Beds” program. Affix an auxiliary label to the bag of discharge prescriptions to remind patients that the medications are not for use while in the hospital. Do not leave the medications unsecured at the bedside. A plan should be established regarding where to secure these medications until discharge, after a pharmacist has reviewed them with the patient, and what to do if the patient is not in the room at the time of delivery. |  |  |  |
| Do not run test prescriptions to verify insurance coverage | | | | | |
| 10/17  agenda safety icon-alert | To determine if a medication will be covered by the patient’s insurance, a prescriber may send a prescription to the pharmacy to run a “test” claim. Doing so has resulted in a patient receiving an unintended medication. In the latest case, a patient was dispensed **GENVOYA** (cobicistat, elvitegravir, emtricitabine, and tenofovir alafenamide) after the insurance company approved the “test” claim. | Electronic health record and e-prescribing vendors along with their end users should ensure that no “test” prescriptions are sent. Only transmit electronic prescriptions that are intended to be dispensed to the patient. Prescribers that want to know if a medication is covered should call or have an assigned office-staff member call the insurance company or pharmacy benefit manager to inquire about coverage or check plan formularies. |  |  |  |
| Mix-ups between mL and teaspoon dosing | | | | | |
| 11/17  agenda safety icon-alert | Some community pharmacists change milliliters (mL) to teaspoon dosing or list both teaspoonful and mL (in parentheses), believing consumers are more familiar with household measures. In a recent case, an antibiotic suspension was prescribed for a child with otitis media. The pharmacy label directed the parent to “give 5 teaspoons” when the prescribed dose was actually 5 mL. Also, most oral dosing devices now display a mL scale, some exclusively. | Do not “translate” mL doses to teaspoons or list both teaspoons and mLs on labels. For oral liquids, adopt mL dosing as the standard for all pharmacy labels and computer systems. Always provide an appropriate metric dosing device and use teach back methods to educate patients and caregivers on how to measure the dose in milliliters. |  |  |  |
| Dispense dose appropriate dosing devices | | | | | |
| 12/17  agenda safety icon-alert | An infant was inadvertently administered a 10-fold overdose of digoxin by her parents. The patient was to receive 0.44 mL (22 mcg) with each dose. The pharmacy provided the patient’s parents with a 5 mL oral syringe. When preparing a dose at home, the child’s parent accidently measured and administered 4.4 mL (220 mcg). It is unclear how the patient’s parents would have accurately measured 0.44 mL using a 5 mL device since the markings on many of these syringes only measure to the nearest 0.2 mL. | Review the dosing devices that come with manufacturer products and those purchased by the pharmacy. Stock appropriate metric measuring devices that correspond to potential label instructions and support accurate dose measurement. When dispensing an oral liquid, provide an appropriate dosing device that most closely matches the prescribed dose volume and limits the number of instrument fills needed to administer one dose. Use teach back methods to demonstrate how to measure and administer the dose and validate learning. |  |  |  |