

| Issue | Problem | Recommendation | Organization Assessment | Action Required/ Assignment | Date Completed |
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| **Misuse of new insulin strengths** | | | | | |
| 09/16agenda safety icon-alert | A patient previously using **LANTUS** (insulin glargine) U-100 was switched to **TOUJEO** U-300 (insulin glargine) pens. Although given pen needles, the man drew a dose from the pen cartridge using a U-100 syringe, filling it to the 100 unit mark (his prior Lantus dose). This resulted in a dose of 300 units of Toujeo, leading to hypoglycemia requiring hospitalization. Using a U-100 syringe to measure higher insulin concentrations could lead to a serious overdose. With U-500 insulin, there is also risk of an underdose if patients, accustomed to measuring only 20% of the actual dose when using a U-100 syringe, dial this lower dose when using a U-500 pen. | Educate patients and health professionals regarding the proper dosing and dose measurement of the higher concentration insulin products now available in pen devices. With pen devices, there is no need for dose calculations. The prescribed dose is the dose that is indicated once the dial on the pen is turned to that number. Never use a pen cartridge as a vial. |  |  |  |
| **Problems using the TANZEUM (albiglutide) pen (in QuarterWatch)** | | | | | |
| 10/16 | Tanzeum has a lengthy and complicated process for reconstitution that takes at least 30 minutes and requires more than a dozen steps. During a 12-month period, the US Food and Drug Administration (FDA) received 1,500 reports of patients using the pen incorrectly. | Refer patients using Tanzeum to the manufacturer’s website where they can access an instruction manual, as well as a brief informational video on proper reconstitution technique ([www.tanzeum.com/how-to-use.html](http://www.tanzeum.com/how-to-use.html)). |  |  |  |
| **Do not give ZURAMPIC (lesinurad) without a xanthine oxidase inhibitor** | | | | | |
| 10/16 | Zurampic carries a boxed warning about the risk for acute renal failure when used without a xanthine oxidase inhibitor, such as allopurinol or febuxostat. In clinical trials, patients taking this drug alone experienced renal failure at a rate of 9.3% compared to 1% when taken with a xanthine oxidase inhibitor. | AstraZeneca plans to offer a combination product with lesinurad and allopurinol in the future. Until a combination product is available, develop a linked order set that requires both drugs to be ordered, and place reminders in computer systems and on auxiliary labels. |  |  |  |
| **Potential issues with SOLIQUA 100/33 (insulin glargine-lixisenatide) and XULTOPHY 100/3.6 (insulin degludec-liraglutide)** | | | | | |
| 12/16agenda safety icon-alert | Two new combination insulin/glucagon-like peptide-1 (GLP-1) agonists, Soliqua 100/33 and Xultophy 100/3.6, are dosed in insulin units, which could lead practitioners to mistakenly think the products contain only insulin and prescribe an additional GLP-1 agonist separately. Also, both products may be used at doses lower than currently approved for the single GLP-1 component. Thus, converting between the combination products and the individual ingredients could be problematic. | To indicate to users that these products contain two different ingredients, computer system drop-down lists and pharmacy communications should use brand names if your system allows. If using generic names, make sure both ingredients are displayed and not truncated. Educate patients taking these products to make sure they understand they contain both insulin and a GLP-1 agonist. |  |  |  |
| **EPINEPHrine anaphylaxis kit not recommended for consumers** | | | | | |
| 09/16agenda safety icon-alert | The excessive cost of **EPINEPH**rine auto-injectors has led consumers to do without the drug, use a single device for multiple relatives, or rely on expired products. As an alternative, the media has publicized ways for consumers to construct an anaphylaxis treatment kit using a 1 mg vial of **EPINEPH**rine, syringe, and needle. However, this may lead to administration of the entire 1 mg vial of the drug. | Due to the possibility of overdose, the use of vials by consumers is not a viable alternative to the **EPINEPH**rine auto-injectors. Hopefully, as more generic **EPINEPH**rine auto-injectors become available, their prices will decrease. |  |  |  |
| **Preventing 10-fold dosage errors** | | | | | |
| 09/16agenda safety icon-alert | Drug strengths that are available in a factor of 10 such as predni**SONE** 5 mg and 50 mg tablets and **ARIP**iprazole 2 mg and 20 mg tablets are error-prone. We learned of an event in which a patient received **BELBUCA** (buprenorphine) 750 mcg from a pharmacy instead of the 75 mcg she was prescribed. This led to her experiencing side effects including dizziness, vomiting, and somnolence. | Make sure that computer systems display doses with leading zeros when appropriate (e.g. 0.5 mg instead of .5 mg) and that they do not include trailing zeros in the dose (e.g., 1.0 mg can be misread as 10 mg). We also urge pharmaceutical companies to take a safer approach and avoid producing medications that are available in strengths that are exactly a 10-fold difference. |  |  |  |
| **Potential to confuse “T” drugs** | | | | | |
| 09/16agenda safety icon-alert | There are five drugs for diabetes that begin with the letter “T” that may be confused for one another, including **TRADJENTA** (linagliptin), **TRULICITY** (dulaglutide), **TANZEUM** (albiglutide), **TOUJEO SOLOSTAR** (insulin glargine), and **TRESIBA FLEXTOUCH** (insulin degludec). | To avoid name and strength confusion with these products, assess how these drugs are displayed and selected in your computer system and how they are stored in the pharmacy. Take steps to differentiate them, and make sure to provide patient counseling at the point-of-sale. |  |  |  |
| **Mix-up between TRESIBA (insulin degludec) and TARCEVA (erlotinib)** | | | | | |
| 11/16agenda safety icon-alert | Confusion has occurred between two sound-alike drug names—Tresiba and Tarceva. In one case, Tarceva, a kinase inhibitor for the treatment of metastatic non-small cell lung cancer and pancreatic cancer, was mistakenly documented on the patient’s home medication and discharge lists instead of Tresiba. A nurse caught the error when reviewing the medication list with the patient. | Prescribers should document the purpose of the medication on prescriptions and patients should be encouraged to include drug indications on their medication lists. |  |  |  |
| **Beware of drug names that end in the letter “L”** | | | | | |
| 12/16agenda safety icon-alert | Potentially serious medication errors have occurred when a lower case “L” at the end of the drug name is misread as the numeral “1.” For example, an order for 300 mg of **TEGRETOL** (car**BAM**azepine) BID (Tegretol300 mg) was misinterpreted as 1,300 mg BID. In another example, the amount of menthol to be included in a topical cream was written as “menthol5%.” This could easily be misinterpreted as menthol 15% rather than the intended menthol 5%. | Ensure there is adequate spacing between the drug name and the dose on electronic prescriptions and other electronic formats such as pharmacy computer selection screens, computer-generated medication labels and records, printed forms and communications, shelf labels, etc. |  |  |  |
| **CLARISPRAY and CLARITIN, despite name similarities, contain totally different ingredients** | | | | | |
| 11/16 | ClariSpray is a nasal spray marketed by Bayer, the maker of Claritin. The packaging and trade name are similar to Claritin, yet ClariSpray contains fluticasone propionate instead of loratadine. Another product, **MUCINEX ALLERGY** is also a brand name extension product and contains fexofenadine instead of guai**FEN**esin. | Keep in mind the possibility of confusion and mix-ups if you have these products in your pharmacy. Consumers and pharmacists need to be aware of the differences between these products. If you encounter any errors with these products, please report them to ISMP at: www.ismp.org/merp. |  |  |  |
| **Clear methotrexate dose communication** | | | | | |
| 10/16agenda safety icon-alert | A rheumatologist sent a facsimile prescription to a pharmacy for methotrexate 2.5 mg, take 8 tablets per week. The “8” was misread as “6” and the prescription was dispensed with the wrong directions of “take 6 tablets per week.” The patient, who was aware of her correct dose and the number of tablets she needed to take, caught the error. | To make communication of methotrexate doses clear and precise, prescribers should write out the dose in letters (e.g., eight tablets) and include the patient’s total mg dose (e.g., 20 mg per week). The purpose of the medication should also be included on the prescription. |  |  |  |