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ISMP Medication Error Report Analysis

Should *Clear Care* Be Kept Behind the Ambulatory Care Pharmacy Counter?

Similarity Between Two Forms of *Solu-Medrol*

Over-the-Counter Eye Drops May Be Harmful If Swallowed

Nuedexta-Neulasta Mix-ups

Michael R. Cohen, RPh, MS, ScD, and Judy L. Smetzer, RN, BSN†*

These medication errors have occurred in health care facilities at least once. They will happen again—perhaps where you work. Through education and alertness of personnel and procedural safeguards, they can be avoided. You should consider publishing accounts of errors in your newsletters and/or presenting them at your inservice training programs.

Your assistance is required to continue this feature. The reports described here were received through the Institute for Safe Medication Practices (ISMP) Medication Errors Reporting Program. Any reports published by ISMP will be anonymous. Comments are also invited; the writers' names will be published if desired. ISMP may be contacted at the address shown below.

Errors, close calls, or hazardous conditions may be reported directly to ISMP through the ISMP Web site (www.ismp.org), by calling 800-FAIL-SAFE, or via e-mail at ismpinfo@ismp.org. ISMP guarantees the confidentiality and security of the information received and respects reporters' wishes as to the level of detail included in publications.

SHOULD CLEAR CARE BE KEPT BEHIND THE AMBULATORY CARE PHARMACY COUNTER?

Clear Care, a hydrogen peroxide-based contact lens cleaning and disinfecting solution, continues to harm too many contact lens wearers (**Figure 1**). We've issued a previous alert about using this contact lens cleaning product directly in the eye. In some cases, people have not soaked lenses for the specified period of time in the supplied special lens case so that the hydrogen peroxide can be neutralized before the lenses are placed in the eyes (Cohen MR, Smetzer JL. Painful eye injuries with improper use of *Clear Care* solution. *Hosp Pharm.* 2010;45:676–679). Since then, minor container label changes (www.ismp.org/sc?id=158) were made by the manufacturer; but unfortunately, based on a stream of continuing error reports, these changes have not been effective. Without neutralization, the hydrogen peroxide gets into the eye and causes a severe burning sensation and excruciating pain. Some patients have also had chemical injuries to the eye.

We are aware of hundreds of incidents in which contact lens wearers have used the product improperly, and we continue to bring these to the attention of the US Food and Drug Administration (FDA) and the manufacturer. We've had multiple cases reported in 2013, including one from a woman who opened the package in her car and poured the solution directly into her eye, thinking it was a rinse. She said she began to scream because it felt as if she had instilled acid into

*President, Institute for Safe Medication Practices, 200 Lakeside Drive, Suite 200, Horsham, PA 19044; phone: 215-947-7797; fax: 215-914-1492; e-mail: mcohen@ismp.org; Web site: www.ismp.org. †Vice President, Institute for Safe Medication Practices, Horsham, Pennsylvania.

Figure 1. *Clear Care* contact lens cleaner label.

her eye. Four days later, she was still experiencing intense pain, swelling, and constant redness.

Given the vast number of reports of harmful errors with this product, we wonder whether the product is worthy of special "behind the pharmacy counter" status only – a drastic step, perhaps, but one that would encourage the pharmacist to educate the consumer about proper use before purchase. As presently packaged, this product and similar hydrogen peroxide lens products should not be on the shelves of grocery stores or other retail markets. Ultimately, the package should be reconfigured to make it impossible for the product to be used in any way other than to soak contact lenses for the required time using the special container.

SIMILARITY BETWEEN TWO FORMS OF SOLU-MEDROL

Due to the unavailability of methylprednisolone sodium succinate 40 mg vials and 125 mg vials, a hospital pharmacy began drawing up doses from *Solu-Medrol* brand 500 mg vials. Two formulations are available. The *Act-O-Vial* of *Solu-Medrol* 500 mg has the diluent in a chamber separated from the lyophilized powder. The other *Solu-Medrol* product only contains the powder in a vial. The cartons look nearly identical (see **Figure 2**) but yield different concentrations after reconstitution.

The *Act-O-Vial* provides 500 mg per 4 mL, whereas the other provides 4 doses of 125 mg per 2 mL once the product is diluted with 8 mL of bacteriostatic water according to the product labeling.

We spoke with Pfizer about our concerns and encouraged the company to make these packages look different.

OVER-THE-COUNTER EYE DROPS MAY BE HARMFUL IF SWALLOWED

FDA posted some advice about seemingly harmless over-the-counter (OTC) eye drops, such as *Visine* and similar products that contain the active ingredients tetrahydrozoline, oxymetazoline, or naphazoline (www.ismp.org/sc?id=135). These drugs can be dangerous if ingested. Severe side effects, including nausea, vomiting, lethargy, tachycardia, decreased

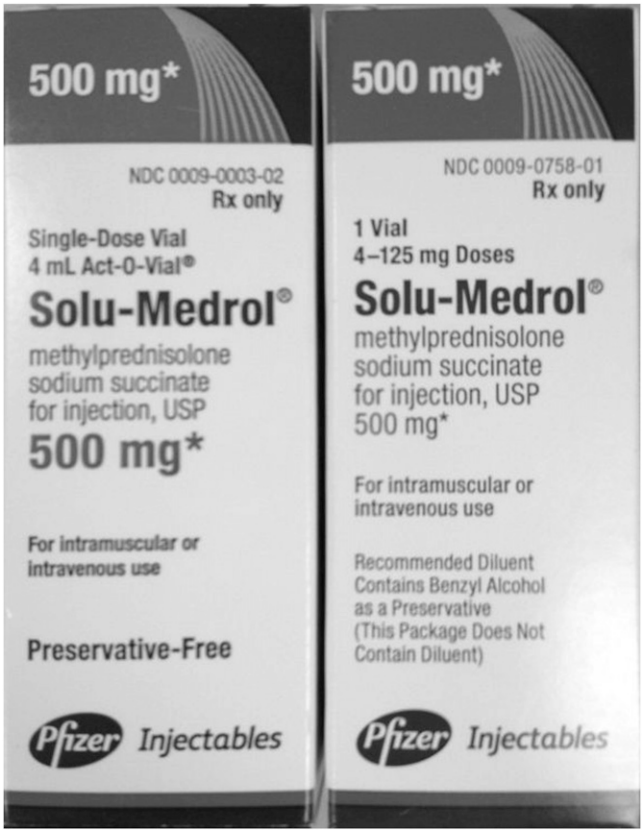

Figure 2. There's quite an difference between these 2 forms of *Solu-Medrol* 500 mg.

respiration, bradycardia, hypotension, hypertension, sedation, somnolence, mydriasis, stupor, hypothermia, drooling, and coma, have occurred and have been documented after swallowing as little as a few mL.

ISMP posted a similar alert on its Facebook page for consumers in August 2012 (www.facebook.com/consumermedsafety.org). These products are not marketed in childproof containers, putting small children at risk for an accidental exposure. The products are also colorless, odorless, and tasteless, which can increase the risk that a child might ingest them. People tend to throw the drops in purses or drawers or leave them on countertops. Adults might not think of it as dangerous, so they may not think twice about how it is stored.

Visine and other similar products should never be placed in diaper bags, purses, or areas where children can easily access them. Although the product has the statement, "Keep out of reach of children. If swallowed get medical help or contact a Poison Control Center right away," the warning is extremely small. Labeling should be more prominent and alert-like. Other OTC products that come in small bottles, such as nasal sprays, are also potentially dangerous. They need better warning labels to keep the product up and away and out of reach of children. The US Consumer Product Safety Commission has proposed a new rule requiring child-resistant packaging for these products, but the rule has yet to be finalized (www.cpsc.gov/library/foia/foia12/brief/imidazolines.pdf).

NUEDEXTA-NEULASTA MIX-UPS

When someone suddenly bursts out crying or laughing for no apparent reason, it may be due to a neurologic condition called pseudobulbar affect. It's associated with certain neurologic conditions such as Alzheimer disease or other dementias, stroke, traumatic brain injury, Parkinson disease, multiple sclerosis (MS), or Lou Gehrig disease (ALS). There's an FDA-approved drug to treat pseudobulbar affect, a combination of dextromethorphan and quinidine, called *Nuedexta*.

We recently received information about the potential mix-up between *Nuedexta* and the colony-stimulating factor, *Neulasta* (pegfilgrastim). *Neulasta* is indicated for decreasing the incidence of infection during myleosuppressive chemotherapy associated with febrile neutropenia. It is administered subcutaneously. *Nuedexta*, on the other hand, is an oral medication. The differing routes should help in distinguishing them from each other. However, the report we received indicated that an information technology pharmacist confused the 2 products and misspelled one of the drugs as "Nuedasta."

These drug names look very similar and could easily be misread or documented incorrectly, so we'll be keeping an eye on them. ■