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USP Quality Review

Too Much Similarity

The following error descriptions and recommendations are summarized from reports received through the USP Medication Errors Reporting (MER) Program during the time period July—September 2003. These cases illustrate how the similarity in product labeling and packaging and the drug product itself can lead to errors or have a potential to cause errors. When reading these examples, it may be apparent to the reader that the products differ; but in a busy work environment where there can be many distractions, it is easy to mistake these products for one another.

Similar Labeling/Packaging

POTENTIAL ERROR

The facility ran out of labetalol, which required them to purchase some from a neighboring hospital. The neighboring hospital carried a different brand of labetalol (manufactured by Abbott) than the facility normally stocked. The facility realized that the labeling of the Abbott brand of labetalol looked similar to A.H. Robins' Dopram® when the vials were placed next to each other on an anesthesia cart. Dopram is indicated for respiratory depression and labetalol is for hypertension.

Reporting pharmacist's action/recommendation: To prevent this potential error from occurring, the facility removed the look-alike labetalol and replaced it with the brand they usually purchase.

Photo of Dopram and labetalol similar labeling/packaging*

POTENTIAL ERROR

The labeling of Geodon™ (manufactured by Pfizer) 20 mg and 60 mg tablets is similar. The pharmacist was verifying an order for a total dose of 80 mg. The order was filled with a 20 mg and 60 mg tablet, and had a sticker attached that read, "note the dose" to indicate that both tablets should be administered. At first glance, the pharmacist believed the order was filled wrong and that they were both 60 mg tablets.

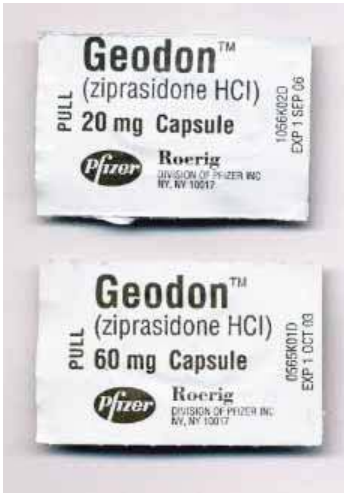


Photo of Geodon 20 mg and 60 mg similar unit-dose packaging*

Reporting pharmacist's action/recommendation: The facility took several actions to avert mix-ups: The pharmacist (1) notified staff, (2) initiated use of cautionary stickers on the unit-dose package, (3) added a warning in the computer system, and (4) separated the two products on the shelves.

ERROR DESCRIPTION

A pharmacy technician noticed that a lorazepam Carpuject® (for anxiety disorders) was returned to the pharmacy and placed in the diphenhydramine (for allergic symptoms) bin. Both products are manufactured by Abbott. Upon

further investigation, it was realized that the Carpujects have green caps and look very similar to each other.

Reporting pharmacist's action/recommendation: The manufacturer should consider changing the color of the caps on the Carpujects® as well as changing to a different color for the drug name.

Photos of diphenhydramine and lorazepam similar Carpuject packaging*

ERROR DESCRIPTION

Falcon Pharmaceuticals timolol 0.5% and levobunolol 0.5% ophthalmic solutions (both used for the treatment of intraocular pressure) have very similar packaging and were found in the same location on the pharmacy shelf. The label, dose, size, and even color of the boxes are nearly identical. Both products were received from the wholesaler on the same day. It is believed that a technician assumed they were the same product and placed them together on the shelf; the levobunolol's normal location is on a separate shelf. The pharmacist caught the error when one product was being labeled for dispensing.

Reporting pharmacist's action/recommendation: The facility has purchased a different brand of levobunolol to avoid future mix-ups.

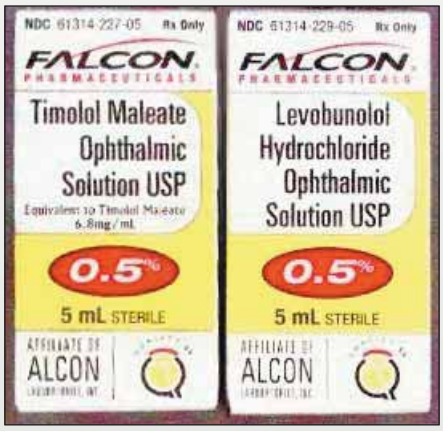


Photo of timolol and levobunolol similar labeling/packaging*

ERROR DESCRIPTION

A technician filling an order for heparin (manufactured by American Pharmaceutical Partners) noticed that a vial of glycopyrrolate (manufactured by American Regent Laboratories) was in the heparin bin. Heparin is for thromboembolic disorders and glycopyrrolate inhibits salivation and excessive secretions. The reporter thinks that, although the names are different, the vials are nearly identical in color and in a big bin they can be easily confused. The tops are the same color purple and the labeling has the same purple on white. The only difference is that the glycopyrrolate has the words "flip off" in raised letters on the top.

Reporting pharmacist's action/recommendation: It turns out, the facility usually orders the 1 mL glycopyrrolate vial; this error occurred with the 2 mL vial. The facility plans to purchase only the 1 mL glycopyrrolate vial in the future.

Photo of glycopyrrolate and heparin similar labeling/packaging*

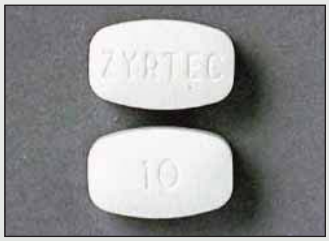
Similar Tablets

ERROR DESCRIPTION

A patient noticed two different medications in the prescription vial. The medications were Lipitor® 10 mg (for hypercholesterolemia) and Zyrtec® 10 mg (for allergic symptoms), both manufactured by Pfizer. The patient's prescription was for Zyrtec. A prescription for Lipitor was filled in the automatic counter first. The automatic counter may not have been fully emptied prior to filling the Zyrtec prescription. The pharmacist implicated the similar tablet color and size as a reason for not detecting the mix-up. Short staffing was also suggested as a contributing factor to this error.

Reporting pharmacist's action/recommendation: Check the automatic counter for remaining tablets after each fill and provide adequate staffing to enable double checks to be performed routinely.

Lipitor 10 mg



Zyrtec 10 mg

Photos of similar tablets†

ERROR DESCRIPTION

A patient was prescribed diazepam 2 mg, but received alprazolam 2 mg (both are used to treat anxiety disorders). The bottle the patient received was labeled as diazepam 2 mg. The patient felt tired and dizzy and contacted the physician. Staffing at the pharmacy was adequate. The possible cause of this error was the similarity in the tablets' shape, color, and markings (both are manufactured by Mylan Pharmaceuticals).

Reporting pharmacist's action/recommendations: Technicians must check the NDC before counting tablets; drugs with potential for error are distinguished by red dividers; drugs with no image in the computer are placed with the original prescription.

alprazolam 2 mg

diazepam 2 mg

Photos of similar tablets†

ERROR DESCRIPTION

The wrong strength, 0.112 mg vs. 0.2 mg, of Levoxyl® (manufactured by Jones Pharma, Inc.) was dispensed to the patient. The tablets are the same color, size, and shape, and the bottles are identical except for the strength.

Reporting pharmacist's action/recommendation: The two strengths are now placed in different areas of the pharmacy. The color of the bottle and tablets should be changed.

Levoxyl 0.112 mg

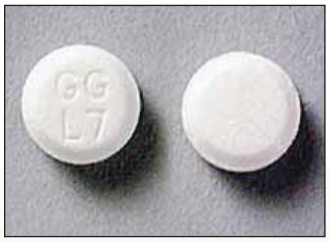
Levoxyl 0.2 mg

Photos of similar tablets†

ERROR DESCRIPTION

Atenolol 25 mg (for hypertension), by Geneva Pharmaceuticals, and prednisone 5 mg (a corticosteroid), by West-Ward Pharmaceuticals, were packaged by a technician. The wrong prescription labels were placed on the blister cards by the technician and the stock bottles were left with the cards to be checked by the pharmacist. The error was not caught by the pharmacist, as the tablets are very similar in size, shape, and color. The nurse administering the medications to the patients caught the error.

Reporting pharmacist's action/recommendation: All drugs should be double-checked with the original stock bottles by the pharmacist. The original containers should be opened and the tablets should be examined closely (i.e., with a magnifying glass if necessary) to ensure that the appropriate product is being dispensed.



atenolol 25 mg

prednisone 5 mg

Photos of similar tablets†

Conclusion/Recommendations

While facilities may not have direct control over the design and appearance of packaging and labeling and the physical product itself, healthcare professionals can take action to avoid these and similar errors from occurring. Identifying and applying cautionary labels to similar-looking products can aid in bringing to the staff's attention that the product they are about to dispense or administer should be handled with care. This measure encourages practitioners to take a second look at the product before they follow through with dispensing or administering the product.

Sometimes staff are not aware that a potential problem exists or that an error has occurred. Ensure that all staff are notified of potential problems by posting fliers, circulating newsletters such as this USP Quality Review that identify which products may cause confusion, sending e-mails, posting the information on your Intranet, or conducting an in-service education program. It is very important to find ways to reach ***every*** person in your institution. Remember to include floating and temporary staff, the night shift, and part-time employees.

Rewarding and recognizing staff is one of the most positive reinforcements facilities can use to engage staff and gather valuable information about medication errors.

Encourage staff members to be proactive in identifying potential hazards. Provide incentives for identifying, reporting, and solving challenges for products that look similar.

Reporting to national programs such as the MER Program is an important measure in ensuring that information is shared with the U.S. Food and Drug Administration, the Institute for Safe Medication Practices, and manufacturers and labelers. In addition, information reported to the MER Program is disseminated back to healthcare professionals through USP Quality Reviews, Practitioners' Reporting (PR) News, and CAPSLink. PR News items and CAPSLink can be viewed by visiting **www.usp.org/patientSafety/briefsArticlesReports/newsletters.html.**

* Provided courtesy of the reporter or the Institute for Safe Medication Practices.
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On-line reporting to the USP Medication Errors Reporting Program is available through the Internet at **www.usp.org/patientSafety/reporting/mer.html.** The USP Medication Errors Reporting Program is presented in cooperation with the Institute for Safe Medication Practices.

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