



THE STATE EDUCATION DEPARTMENT / THE UNIVERSITY OF THE STATE OF NEW YORK / ALBANY, NY 12234

TO: The Professional Practice Committee
FROM: Frank Muñoz
SUBJECT: Conceptual Discussion of Possible Amendments to the Rules of the Board of Regents Relating to Prescriptions
DATE: January 24, 2011
AUTHORIZATION(S):

Summary

Issue for Discussion

The purpose of this item is to discuss with the Professional Practice Committee proposals relating to (1) the information to be included on prescription forms issued by physicians and other prescribers, and (2) customized patient medication packaging, which is intended to increase patient compliance with complex medication regimens.

Reason(s) for Consideration

Review of Policy.

Proposed Handling

This item is intended to bring to the attention of the Professional Practice Committee emerging issues that have been brought to our attention by the Department of Health and others through conversations with the Board of Pharmacy. Adoption of these proposals would require amendments to the Rules of the Board of Regents.

Background Information

Prescription Forms

Section 29.7(a)(1) of the Rules of the Board of Regents specifies the information that must be provided on every prescription. That information currently includes the name, address, and age of the patient; the strength and quantity of the drug; directions for use; and the name, address, telephone number, profession, and signature of the prescriber.

The State Board of Pharmacy is now recommending that every prescription written in this State be required to include the prescriber's National Provider Identifier (NPI). The NPI is the unique provider identifier required by the federal Health Insurance Portability and Accountability Act (HIPAA). It is used in many prescription drug benefit programs administered by the Department of Health or offered by other providers for a variety of purposes, including validation of the provider's license and quality of care initiatives. The preprint of the individual NPI number on the prescription form will allow pharmacies to easily obtain the NPI for claims submission purposes. In the past, many programs inappropriately used prescribers' Drug Enforcement Administration (DEA) numbers to identify prescribers. In addition to the fact that it was never intended that the DEA number to be used for this purpose, many professionals do not choose to obtain a DEA number, and other prescribers are not eligible for a DEA number. It was for these reasons that the NPI process was developed.

While engaging in discussions on the NPI, the State Board of Pharmacy and others suggested a concurrent amendment to allow a reformatting of prescription blanks to include a space for the voluntary inclusion of a diagnosis or diagnostic code. Medical errors are estimated to cause as many as 100,000 premature deaths each year. Although medication errors represent a small percentage of all errors, the prescribing, dispensing and administration of incorrect drugs can have devastating, even fatal, results. Unfortunately, with many thousands of drug products on the market, the number of look-alike and sound-alike (LASA) drugs often contribute to these errors. For reference, we have attached a chart of these LASA combinations compiled by the Institute for Safe Medication Practices, keyed to show the very different indications for each (Attachment A). Interestingly, the Medicare and Medicaid programs already require that prescriptions for durable medical equipment contain a diagnosis.

As indicated, these concepts have been broadly discussed. These discussions have included participation by associations representing pharmacists and physicians, as well as the New York State Department of Health. Underscoring the importance of these concepts, we have attached a letter from former Commissioner of Health Richard Daines expressing the Department of Health's support for these concepts (Attachment B).

Customized Patient Packaging

The second proposal being presented for your consideration concerns a method of packaging drugs that is officially referred to as customized patient packaging by the United States Pharmacopeia (USP), the official compendia of standards for drugs in the United States.

In traditional packaging for tablets and capsules, each drug is placed in a vial with a label. An alternative method is unit-dose packaging, in which each capsule or tablet is packaged separately. Customized patient medication packaging is different in that several different drugs are packaged together for administration at the same time of day. Specific labeling would still be required, and certain drugs, such as those that are controlled substances or those that are known to be chemically unstable, would not be permitted in this type of packaging. Likewise, to assure the chemical and therapeutic viability of these medications, once packaged, repackaging would be prohibited, and the

customized patient medication packages would have a 60-day expiration period. To provide additional background information, the USP Guidelines for customized patient packaging are attached (Attachment C).

Customized patient medication packaging would not be appropriate for all patients. It has been proven, however, to increase compliance with complex therapeutic regimens, such as those required for patients with end-stage renal disease or HIV/AIDS. In all cases, it is anticipated that providers, patients, and caregivers will be familiarized with the process and the packaging itself. Customized patient medication packaging may reduce reliance on daily and weekly “pill-minders” that are often packed by patients themselves or by caregivers, with a potential for error that this customized patient packaging would avoid.

Timetable for Implementation

If the concept is approved by the Professional Practice Committee, amendments to the Rules of the Board of Regents will be presented for action later this year.



STATE OF NEW YORK DEPARTMENT OF HEALTH

Corning Tower The Governor Nelson A. Rockefeller Empire State Plaza Albany, New York 12237

Richard F. Daines, M.D.
Commissioner

James W. Clyne, Jr.
Executive Deputy Commissioner

November 12, 2010

Lawrence H. Mokhiber
Executive Secretary, State Board of Pharmacy
Office of the Professions
State Education Building, 2nd Floor
89 Washington Avenue
Albany, New York 12234

Dear Mr. Mokhiber:


We were pleased to learn that the State Board of Pharmacy is considering the addition of the individual National Provider Identifier (NPI) and a space for Diagnosis Code on New York State official prescription forms. This letter reflects the support of the New York State Department of Health (Department) for these changes.

As you know, the Department administers prescription drug benefits to over five million New Yorkers through New York Medicaid, Child Health Plus, and the Elderly Prescription Insurance Coverage Program (EPIC). As the unique provider identifier required by the Health Insurance Portability and Accountability Act (HIPAA), the individual NPI is used in these programs for a variety of claim system edits, including validation of the provider's license and quality of care initiatives. The preprint of the individual NPI number on the prescription form for those prescribers who are covered under HIPAA will allow pharmacies to easily obtain the NPI for claims submission purposes and serves the same purposes as did the preprint of the prescriber's license number. Under this proposal, prescribers who are not subject to HIPAA will not be obligated, but may voluntarily provide their individual NPI on prescriptions.

The Department also supports the voluntary submission of diagnosis code(s) by the prescriber on the prescription form as a way to reduce the risk of medication errors. Diagnosis code is currently a requirement for prescription claims submitted under Medicare Part B and for most claims submitted to Medicaid. In addition to avoiding potential adverse events, the inclusion of a space on the prescription form for the voluntary submission of diagnosis code(s) will reduce the administrative burden and cost of follow-up with beneficiaries and/or providers when this information is needed.

Thank you for the opportunity to submit the Department's views on these important issues. Please contact Dr. James Figge at (518) 474-8045 if we can be of further assistance.

Sincerely,



Richard F. Daines, M.D.
Commissioner of Health

cc: Donna Frescatore
Gregory S. Allen
Janet Elkind
James Figge, M.D., M.B.A.
John Morley, M.D.

to the product where it has been repackaged in a different container. repackaged drugs dispensed pursuant to a prescription are exempt from this expiration date labeling requirement. It is necessary, therefore, that other precautions be taken by the dispenser to preserve the strength, quality, and purity of drugs that are repackaged for ultimate distribution or sale to patients.

The following guidelines and requirements are applicable where official dosage forms are repackaged into single-unit or unit-dose containers or mnemonic packs for dispensing pursuant to prescription.

Labeling—It is the responsibility of the dispenser, taking into account the nature of the drug repackaged, any packaging and beyond-use dating information in the manufacturer's product labeling, the characteristics of the containers, and the storage conditions to which the article may be subjected, to place a suitable beyond-use date on the label. Repackaged dosage forms must bear on their labels beyond-use dates as determined from information in the product labeling. In the absence of stability data or information to the contrary, such date should not exceed (1) 25% of the remaining time between the date of repackaging and the expiration date on the original manufacturer's bulk container, or (2) a six-month period from the date the drug is repackaged, whichever is earlier. Each single-unit or unit-dose container bears a separate label, unless the device holding the unit-dose form does not allow for the removal or separation of the intact single-unit or unit-dose container therefrom.

Storage—Store the repackaged article in a humidity-controlled environment and at the temperature specified in the individual monograph or in the product labeling. Where no temperature or humidity is specified in the monograph or in the labeling of the product, controlled room temperature and a relative humidity corresponding to 75% at 23° are not to be exceeded during repackaging or storage.

A refrigerator or freezer shall not be considered to be a humidity-controlled environment, and drugs that are to be stored at a cold temperature in a refrigerator or freezer shall be placed within an outer container that meets the monograph requirements for the drug contained therein.

CUSTOMIZED PATIENT MEDICATION PACKAGES

In lieu of dispensing two or more prescribed drug products in separate containers, a pharmacist may, with the consent of the patient, the patient's caregiver, or a prescriber, provide a customized patient medication package (patient med pak).⁷

A patient med pak is a package prepared by a pharmacist for a specific patient comprising a series of containers and containing two or more prescribed solid oral dosage forms. The patient med pak is so designed or each container is so labeled as to indicate the day and time, or period of time, that the contents within each container are to be taken.

It is the responsibility of the dispenser to instruct the patient or caregiver on the use of the patient med pak.

Label—

- (A) The patient med pak shall bear a label stating:
- (1) the name of the patient;
 - (2) a serial number for the patient med pak itself and a separate identifying serial number for each of the prescription orders for each of the drug products contained therein;
 - (3) the name, strength, physical description or identification, and total quantity of each drug product contained therein;
 - (4) the directions for use and cautionary statements, if any, contained in the prescription order for each drug product therein;
 - (5) any storage instructions or cautionary statements required by the official compendia;
 - (6) the name of the prescriber of each drug product;
 - (7) the date of preparation of the patient med pak and the beyond-use date or period of time assigned to the patient med pak (such beyond-use date or period of time shall be not longer than

⁷ It should be noted that there is no special exemption for patient med paks from the requirements of the Poison Prevention Packaging Act. Thus the patient med pak, if it does not meet child-resistant standards, shall be placed in an outer package that does comply, or the necessary consent of the purchaser or physician, to dispense in a container not intended to be child-resistant, shall be obtained.

the shortest recommended beyond-use date for any dosage form included therein or not longer than 60 days from the date of preparation of the patient med pak and shall not exceed the shortest expiration date on the original manufacturer's bulk containers for the dosage forms included therein); alternatively, the package label shall state the date of the prescription(s) or the date of preparation of the patient med pak, provided the package is accompanied by a record indicating the start date and the beyond-use date;

(8) the name, address, and telephone number of the dispenser (and the dispenser's registration number where necessary); and

(9) any other information, statements, or warnings required for any of the drug products contained therein.

(B) If the patient med pak allows for the removal or separation of the intact containers therefrom, each individual container shall bear a label identifying each of the drug products contained therein.

Labeling—The patient med pak shall be accompanied by a patient package insert, in the event that any medication therein is required to be dispensed with such insert as accompanying labeling. Alternatively, such required information may be incorporated into a single, overall educational insert provided by the pharmacist for the total patient med pak.

Packaging—In the absence of more stringent packaging requirements for any of the drug products contained therein, each container of the patient med pak shall comply with the moisture permeation requirements for a Class B single-unit or unit-dose container (see *Containers—Permeation* (671)). Each container shall be either not reclosable or so designed as to show evidence of having been opened.

Guidelines—It is the responsibility of the dispenser, when preparing a patient med pak, to take into account any applicable compendial requirements or guidelines and the physical and chemical compatibility of the dosage forms placed within each container, as well as any therapeutic incompatibilities that may attend the simultaneous administration of the medications. In this regard, pharmacists are encouraged to report to USP headquarters any observed or reported incompatibilities.

Recordkeeping—In addition to any individual prescription filing requirements, a record of each patient med pak shall be made and filed. Each record shall contain, as a minimum:

- (1) the name and address of the patient;
- (2) the serial number of the prescription order for each drug product contained therein;
- (3) the name of the manufacturer or labeler and lot number for each drug product contained therein;
- (4) information identifying or describing the design, characteristics, or specifications of the patient med pak sufficient to allow subsequent preparation of an identical patient med pak for the patient;
- (5) the date of preparation of the patient med pak and the beyond-use date that was assigned;
- (6) any special labeling instructions; and
- (7) the name or initials of the pharmacist who prepared the patient med pak.

(671) CONTAINERS— PERMEATION

The tests that follow are provided to determine the moisture permeability of containers utilized for drugs being dispensed on prescription. The section *Multiple-unit Containers for Capsules and Tablets* applies to multiple-unit containers (see *Preservation, Packaging, Storage, and Labeling* under *General Notices*). The section *Single-unit Containers and Unit-dose Containers for Capsules and Tablets* applies to single-unit and unit-dose containers (see *Single-unit Containers and Unit-dose Containers for Nonsterile Solid and Liquid Dosage Forms* under *Containers* (661)). As used herein, the term "container" refers to the entire system comprising, usually, the container itself, the liner (if used), the closure in the case of multiple-unit containers, and the lidding and blister in the case of single-unit and unit-dose containers.

Where the manufacturer's unopened multiple-unit, single-unit, or unit-dose packages are used for dispensing the drug, such containers are exempt from the requirements of this test.



ISMP's List of Confused Drug Names

This list of confused drug names, which includes look-alike and sound-alike name pairs, consists of those name pairs that have been involved in medication errors published in the *ISMP Medication Safety Alert!*[®] and the *ISMP Medication Safety Alert!*[®] Community/Ambulatory Care Edition. The errors involving these medications were reported to ISMP through the ISMP Medication Errors Reporting Program (MERP).

This list also contains the names that appear on The Joint Commission's list of look-alike and sound-alike names. The Joint Commission established a National Patient Safety Goal that requires each accredited organization to identify a list of look-alike or sound-alike drugs used in the organization. Those names that appear on The Joint Commission's list have been noted with an asterisk (*) below.

| Drug Name | Confused Drug Name |
|----------------------------|-------------------------|
| Abelcet* | amphotericin B* |
| Accupril | Aciphex |
| aceta ZOLAMIDE * | aceto HEXAMIDE * |
| acetic acid for irrigation | glacial acetic acid |
| aceto HEXAMIDE * | aceta ZOLAMIDE * |
| Aciphex | Accupril |
| Aciphex | Aricept |
| Activase | Cathflo Activase |
| Activase | TNKase |
| Actonel | Actos |
| Actos | Actonel |
| Adacel (Tdap) | Daptacel (DTaP) |
| Adderall | Inderal |
| Adderall | Adderall XR |
| Adderall XR | Adderall |
| Advair* | Advicor* |
| Advicor* | Advair* |
| Advicor | Altacor |
| Afrin (oxymetazoline) | Afrin (saline) |
| Afrin (saline) | Afrin (oxymetazoline) |
| Aggrastat | argatroban |
| Aldara | Alora |
| Alkeran | Leukeran |
| Alkeran | Myleran |
| Allegra | Viagra |
| Alora | Aldara |
| ALPRAZolam * | LORazepam * |
| Altacor | Advicor |
| amantadine | amiodarone |
| Amaryl | Reminyl |
| Ambisome* | amphotericin B* |
| Amicar* | Omacor* |
| Amikin | Kineret |
| a MILoride | am LODIPine |
| amiodarone | amantadine |

| Drug Name | Confused Drug Name |
|------------------------------|------------------------------------|
| am LODIPine | a MILoride |
| amphotericin B* | Abelcet* |
| amphotericin B* | Ambisome* |
| Anacin | Anacin-3 |
| Anacin-3 | Anacin |
| antacid | Atacand |
| Antivert | Axert |
| Anzemet | Avandamet |
| Apresoline | Priscoline |
| argatroban | Aggrastat |
| argatroban | Orgaran |
| Aricept | Aciphex |
| Aricept | Azilect |
| aripiprazole | proton pump inhibitors |
| aripiprazole | rabeprazole |
| Asacol | Os-Cal |
| Atacand | antacid |
| Atrovent | Natru-Vent |
| Avandamet | Anzemet |
| Avandia | Prandin |
| Avandia* | Coumadin* |
| AVINza | INVanz |
| AVINza * | Evista* |
| Axert | Antivert |
| aza CTIDine | aza THIOprine |
| aza THIOprine | aza CTIDine |
| Azilect | Aricept |
| B & O (belladonna and opium) | Beano |
| BabyBIG | HBIG (hepatitis B immune globulin) |
| Bayhep-B | Bayrab |
| Bayhep-B | Bayrho-D |
| Bayrab | Bayhep-B |
| Bayrab | Bayrho-D |
| Bayrho-D | Bayhep-B |
| Bayrho-D | Bayrab |

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* These drug names are included on The Joint Commission's list of look-alike or sound-alike drug names from which an accredited organization creates its own list to satisfy the requirements of the National Patient Safety Goals. Visit www.jointcommission.org for more information about this Joint Commission requirement.

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ISMP's List of Confused Drug Names

| Drug Name | Confused Drug Name |
|-------------------------------------|-------------------------------------|
| Beano | B & O (belladonna and opium) |
| Benadryl | benazepril |
| benazepril | Benadryl |
| Benicar | Mevacor |
| Betadine (with providone-iodine) | Betadine (without providone-iodine) |
| Betadine (without providone-iodine) | Betadine (with providone-iodine) |
| Bextra | Zetia |
| Bicillin C-R | Bicillin L-A |
| Bicillin L-A | Bicillin C-R |
| Bicitra | Polycitra |
| Brethine | Methergine |
| Brevibloc | Brevital |
| Brevital | Brevibloc |
| buPROPion | busPIRone |
| busPIRone | buPROPion |
| Capadex [non-US product] | Kapidex |
| Capex | Kapidex |
| Carac | Kuric |
| captopril | carvedilol |
| carBAMazepine | OXcarbazepine |
| CARBOplatin | CISplatin |
| Cardura* | Coumadin* |
| carvedilol | captopril |
| Casodex | Kapidex |
| Cathflo Activase | Activase |
| Cedax | Cidex |
| ceFAZolin | cefTRIAxone |
| cefTRIAxone | ceFAZolin |
| CeleBREX* | CeleXA* |
| CeleBREX* | Cerebyx* |
| CeleXA | ZyPREXA |
| CeleXA* | CeleBREX* |
| CeleXA* | Cerebyx* |
| Cerebyx* | CeleBREX* |
| Cerebyx* | CeleXA* |
| cetirizine | sertraline |
| chlordiazepOXIDE | chlorproMAZINE |
| chlorproMAZINE | chlordiazepOXIDE |
| chlorproMAZINE | chlorproPAMIDE |
| chlorproPAMIDE | chlorproMAZINE |
| Cidex | Cedax |
| CISplatin | CARBOplatin |
| Claritin (loratadine) | Claritin Eye (ketotifen fumarate) |
| Claritin-D | Claritin-D 24 |
| Claritin-D 24 | Claritin-D |
| Claritin Eye (ketotifen fumarate) | Claritin (loratadine) |

| Drug Name | Confused Drug Name |
|-------------------------------------|---------------------------------|
| Clindesse | Clindets |
| Clindets | Clindesse |
| clomiPHENE | clomiPRAMINE |
| clomiPRAMINE | clomiPHENE |
| clonazepam | clonazepam |
| clonazepam | LORazepam |
| clonazepam | clonazepam |
| clonazepam* | Klonopin* |
| Clozaril | Colazal |
| Coagulation factor IX (recombinant) | Factor IX Complex, Vapor Heated |
| codeine | Lodine |
| Colace | Cozaar |
| Colazal | Clozaril |
| colchicine | Cortrosyn |
| Comvax | Recombivax HB |
| Cortrosyn | colchicine |
| Coumadin* | Avandia* |
| Coumadin* | Cardura* |
| Cozaar | Colace |
| Cozaar | Zocor |
| cycloSERINE | cycloSPORINE |
| cycloSPORINE | cycloSERINE |
| Cymbalta | Symbyax |
| DACTINomycin | DAPTOmycin |
| Daptacel (DTaP) | Adacel (Tdap) |
| DAPTOmycin | DACTINomycin |
| Darvocet* | Percocet* |
| Darvon | Diovan |
| DAUNOrubicin* | DAUNOrubicin citrate liposomal* |
| DAUNOrubicin* | DOXOrubicin* |
| DAUNOrubicin* | IDARubicin* |
| DAUNOrubicin citrate liposomal* | DAUNOrubicin* |
| Denavir | indinavir |
| Depakote | Depakote ER |
| Depakote ER | Depakote |
| Depo-Medrol | Solu-MEDROL |
| Depo-Provera | Depo-subQ provera 104 |
| Depo-subQ provera 104 | Depo-Provera |
| desipramine | disopyramide |
| dexmethylphenidate | methadone |
| Diabinese | Diamox |
| Diabeta* | Zebeta* |
| Diamox | Diabinese |
| Diffucan* | Diprivan* |
| Dilacor XR | Pilocar |
| Dilaudid | Dilaudid-5 |

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* These drug names are included on The Joint Commission's list of look-alike or sound-alike drug names from which an accredited organization creates its own list to satisfy the requirements of the National Patient Safety Goals. Visit www.jointcommission.org for more information about this Joint Commission requirement.

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ISMP's List of Confused Drug Names

| Drug Name | Confused Drug Name |
|---------------------------------|-------------------------------------|
| Dilaudid-5 | Dilaudid |
| dimenhy DR INATE | diphenhydr AM INE |
| diphenhydr AM INE | dimenhy DR INATE |
| Dioval | Diovan |
| Diovan | Dioval |
| Diovan | Zyban |
| Diovan | Darvon |
| Diprivan* | Diffucan* |
| Diprivan | Ditropan |
| disopyramide | desipramine |
| Ditropan | Diprivan |
| DOB UTamine | DOP amine |
| DOP amine | DOB UTamine |
| Doxil | Paxil |
| DOXO rubicin* | DAUNO rubicin* |
| DOXO rubicin* | DOXO rubicin liposomal* |
| DOXO rubicin* | IDAR ubicin* |
| DOXO rubicin liposomal* | DOXO rubicin* |
| Dulcolax (bisacodyl) | Dulcolax (docusate sodium) |
| Dulcolax (docusate sodium) | Dulcolax (bisacodyl) |
| DU Loxetine | FLU xetine |
| Durasal | Durezol |
| Durezol | Durasal |
| Duricef | Ultracet |
| Dynacirc | Dynacirc |
| edetate calcium disodium | edetate disodium |
| edetate disodium | edetate calcium disodium |
| Effexor* | Effexor XR* |
| Effexor XR* | Effexor* |
| Entrel | Levbid |
| Engerix-B adult | Engerix-B pediatric/adolescent |
| Engerix-B pediatric/adolescent | Engerix-B adult |
| Enjuvia | Januvia |
| e PHE Drine* | EPINEPH rine* |
| EPINEPH rine* | e PHE Drine* |
| Estratest | Estratest HS |
| Estratest HS | Estratest |
| ethambutol | Ethmozine |
| Ethmozine | ethambutol |
| Evista* | AVIN za* |
| Factor IX Complex, Vapor Heated | Coagulation factor IX (recombinant) |
| Femara | Femhrt |
| Femhrt | Femara |
| fenta NYL | SUF entanil |
| Floricet | Flornal |

| Drug Name | Confused Drug Name |
|--|--|
| Flornal | Floricet |
| flavoxate | fluvoxamine |
| Flonase | Flovent |
| Flovent | Flonase |
| flumazenil | influenza virus vaccine |
| FLU xetine | PAR oxetine |
| FLU xetine | DUL oxetine |
| fluvoxamine | flavoxate |
| Folex | Foltx |
| folic acid* | folic acid (leucovorin calcium)* |
| folic acid (leucovorin calcium)* | folic acid* |
| Foltx | Folex |
| fomepizole | omeprazole |
| Foradil | Fortical |
| Foradil | Toradol |
| Fortical | Foradil |
| gentamicin | gentian violet |
| gentian violet | gentamicin |
| glacial acetic acid | acetic acid for irrigation |
| glici ZIDE | gly BUR IDE |
| gly BUR IDE | glici ZIDE |
| Granulex | Regranex |
| guai FEN esin | guan FAC INE |
| guan FAC INE | guai FEN esin |
| HBIG (hepatitis B immune globulin) | BabyBIG |
| Healon | Hyalgan |
| heparin* | Hespan* |
| Hespan* | heparin* |
| HMG-CoA Reductase Inhibitors ("statins") | nystatin |
| Huma LOG * | Humu LIN * |
| Huma LOG * | Novo LOG * |
| Huma LOG Mix 75/25 | Humu LIN 70/30 |
| Humapen Memoir (for use with Huma LOG) | Humira Pen |
| Humira Pen | Humapen Memoir (for use with Huma LOG) |
| Humu LIN * | Novo LIN * |
| Humu LIN * | Huma LOG * |
| Humu LIN 70/30 | Huma LOG Mix 75/25 |
| Hyalgan | Healon |
| hydr ALAZ INE* | hydr OXY zine* |
| HYDR ocodone* | oxy CODONE * |
| Hydrogesic | hydr OXY zine |
| HYDR omorphone* | morphine* |
| hydr OXY zine | Hydrogesic |
| hydr OXY zine* | hydr ALAZ INE* |
| IDAR ubicin* | DAUNO rubicin* |
| IDAR ubicin* | DOXO rubicin* |

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ISMP's List of Confused Drug Names

| Drug Name | Confused Drug Name |
|------------------------------------|--|
| Inderal | Adderall |
| indinavir | Denavir |
| inFLIXimab | riTUXimab |
| influenza virus vaccine | flumazenil |
| influenza virus vaccine | tuberculin purified protein derivative (PPD) |
| Inspira | Spiriva |
| INVanz | AVINza |
| iodine | Lodine |
| Isordil | Plerdil |
| isotretinoin | tretinoin |
| Jantoven | Janumet |
| Jantoven | Januvia |
| Janumet | Jantoven |
| Janumet | Januvia |
| Janumet | Sinemet |
| Januvia | Enjuvia |
| Januvia | Jantoven |
| Januvia | Janumet |
| K-Phos Neutral | Neutra-Phos-K |
| Kaopectate (bismuth subsalicylate) | Kaopectate (docusate calcium) |
| Kaopectate (docusate calcium) | Kaopectate (bismuth subsalicylate) |
| Kadian | Kapidex |
| Kaletra | Keppra |
| Kapidex | Capadex [non-US product] |
| Kapidex | Capex |
| Kapidex | Casodex |
| Kapidex | Kadian |
| Keflex | Keppra |
| Keppra | Kaletra |
| Keppra | Keflex |
| Ketalar | ketorolac |
| ketorolac | Ketalar |
| ketorolac | methadone |
| Kineret | Amikin |
| KlonoPIN* | clonIDine * |
| Kuric | Carac |
| Kwell | Qwell |
| LaMICTal | Lamisil |
| Lamisil | LaMICTal |
| lamiVUDine* | lamoTRIGine* |
| lamoTRIGine* | lamiVUDine* |
| lamoTRIGine | levothyroxine |
| Lanoxin | levothyroxine |
| Lanoxin | naloxone |
| lanthanum carbonate | lithium carbonate |
| Lantus | Lente |

| Drug Name | Confused Drug Name |
|-----------------------------|-----------------------------|
| Lariam | Levaquin |
| Lasix | Luvox |
| Lente | Lantus |
| leucovorin calcium* | Leukeran* |
| Leukeran | Alkeran |
| Leukeran | Myleran |
| Leukeran* | leucovorin calcium* |
| Levaquin | Lariam |
| Levbid | Enbrel |
| levetiracetam | levofloxacin |
| levofloxacin | levetiracetam |
| levothyroxine | lamoTRIGine |
| levothyroxine | Lanoxin |
| Lexapro | Loxitane |
| Lipitor | Loniten |
| Lipitor | ZyrTEC |
| lithium carbonate | lanthanum carbonate |
| Lodine | codeine |
| Lodine | iodine |
| Loniten | Lipitor |
| Lopressor | Lyrica |
| LORazepam* | ALPRAZolam* |
| LORazepam | clonazePAM |
| LORazepam | Lovaza |
| Lotronex | Protonix |
| Lovaza | LORazepam |
| Loxitane | Lexapro |
| Loxitane | Soriatane |
| Lunesta | Neulasta |
| Lupron Depot-3 Month | Lupron Depot-Ped |
| Lupron Depot-Ped | Lupron Depot-3 Month |
| Luvox | Lasix |
| Lyrica | Lopressor |
| Maalox | Maalox Total Stomach Relief |
| Maalox Total Stomach Relief | Maalox |
| Matulane | Materna |
| Materna | Matulane |
| Maxzide | Microzide |
| Menactra | Menomune |
| Menomune | Menactra |
| Mephyton | methadone |
| Metadate | methadone |
| Metadate CD | Metadate ER |
| Metadate ER | Metadate CD |
| Metadate ER | methadone |
| metFORMIN* | metroNIDAZOLE* |

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ISMP's List of Confused Drug Names

| Drug Name | Confused Drug Name |
|--|--|
| methadone | dexmethyphenidate |
| methadone | ketorolac |
| methadone | Mephyton |
| methadone | Metadate |
| methadone | Metadate ER |
| methadone | methylphenidate |
| Methergine | Brethine |
| methimazole | metolazone |
| methylphenidate | methadone |
| metolazone | methimazole |
| metoprolol succinate | metoprolol tartrate |
| metoprolol tartrate | metoprolol succinate |
| metronIDAZOLE* | metFORMIN* |
| Mevacor | Benicar |
| Micronase | Microzide |
| Microzide | Maxzide |
| Microzide | Micronase |
| midodrine | Midrin |
| Midrin | midodrine |
| mifepristone | misoprostol |
| Miralax | Miralax |
| Miralax | Miralax |
| misoprostol | mifepristone |
| morphine* | HYDRomorphine* |
| morphine - non-concentrated oral liquid* | morphine - oral liquid concentrate* |
| morphine - oral liquid concentrate* | morphine - non-concentrated oral liquid* |
| Motrin | Neurontin |
| MS Contin* | OxyCONTIN* |
| Mucinex* | Mucomyst* |
| Mucinex D | Mucinex DM |
| Mucinex DM | Mucinex D |
| Mucomyst* | Mucinex* |
| Myleran | Alkeran |
| Myleran | Leukeran |
| naloxone | Lanoxin |
| Narcan | Norcuron |
| Natru-Vent | Atrovent |
| Navane | Norvasc |
| Neo-Synephrine (oxymetazoline) | Neo-Synephrine (phenylephrine) |
| Neo-Synephrine (phenylephrine) | Neo-Synephrine (oxymetazoline) |
| Neulasta | Lunesta |
| Neulasta | Neumega |
| Neumega | Neupogen |
| Neumega | Neulasta |
| Neupogen | Neumega |
| Neurontin | Motrin |

| Drug Name | Confused Drug Name |
|--|--|
| Neurontin | Noroxin |
| Neutra-Phos-K | K-Phos Neutral |
| NexAVAR | NexIUM |
| NexIUM | NexAVAR |
| niCARDipine | NIFEdipine |
| NIFEdipine | niCARDipine |
| NIFEdipine | niMODipine |
| niMODipine | NIFEdipine |
| Norcuron | Narcan |
| Normodyne | Norpramin |
| Noroxin | Neurontin |
| Norpramin | Normodyne |
| Norvasc | Navane |
| NovoLIN* | HumaLIN* |
| NovoLIN* | NovoLOG* |
| NovoLIN 70/30* | NovoLOG Mix 70/30* |
| NovoLOG* | HumaLOG* |
| NovoLOG* | NovoLIN* |
| NovoLOG FLEXPEN | NovoLOG Mix 70/30 FLEXPEN |
| NovoLOG Mix 70/30 FLEXPEN | NovoLOG FLEXPEN |
| NovoLOG Mix 70/30* | NovoLIN 70/30* |
| nystatin | HMG-CoA Reductase Inhibitors ("statins") |
| Occlusal-HP | Ocuflox |
| Ocuflox | Occlusal-HP |
| OLANzapine | QUetiapine |
| Omacor* | Amicar* |
| omeprazole | fomepizole |
| opium tincture* | paregoric (camphorated tincture of opium)* |
| Oracea | Orencia |
| Orencia | Oracea |
| Orgaran | argatroban |
| Ortho Tri-Cyclen | Ortho Tri-Cyclen LO |
| Ortho Tri-Cyclen LO | Ortho Tri-Cyclen |
| Os-Cal | Asacol |
| OXcarbazepine | carBAMazepine |
| oxyCODONE* | HYDRocodone* |
| oxyCODONE* | OxyCONTIN* |
| OxyCONTIN* | MS Contin* |
| OxyCONTIN* | oxyCODONE* |
| paclitaxel | paclitaxel protein-bound particles |
| paclitaxel protein-bound particles | paclitaxel |
| Pamelor | Panlor DC |
| Pamelor | Tambocor |
| Panlor DC | Pamelor |
| paregoric (camphorated tincture of opium)* | opium tincture* |
| PARoxetine | FLUoxetine |

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ISMP's List of Confused Drug Names

| Drug Name | Confused Drug Name |
|---------------------------------|---------------------------------|
| Patanol | Platinol |
| Pavulon | Peptavlon |
| Paxil | Doxil |
| Paxil | Taxol |
| Paxil | Plavix |
| pemetrexed | pralatrexate |
| Peptavlon | Pavulon |
| Percocet* | Darvocet* |
| Percocet | Procet |
| PENT obarbital | PHEN obarbital |
| PHEN obarbital | PENT obarbital |
| Pilocar | Difacor XR |
| Platinol | Patanol |
| Plavix | Paxil |
| Plendil | Isordil |
| pneumococcal 7-valent vaccine | pneumococcal polyvalent vaccine |
| pneumococcal polyvalent vaccine | pneumococcal 7-valent vaccine |
| Polycitra | Bicitra |
| pralatrexate | pemetrexed |
| Prandin | Avandia |
| Precare | Precose |
| Precose | Precare |
| predni SONE | predni SONE |
| predni SONE | predni SONE |
| PriLOSEC * | PROzac * |
| Priscoline | Apresoline |
| probenecid | Procanbid |
| Procan SR | Procanbid |
| Procanbid | probenecid |
| Procanbid | Procan SR |
| Procardia XL | Protain XL |
| Procet | Percocet |
| Prograf | PROzac |
| propylthiouracil | Purinethol |
| Proscar | Provera |
| Protain XL | Procardia XL |
| protamine | Protonix |
| proton pump inhibitors | aripiprazole |
| Protonix | Lotronex |
| Protonix | protamine |
| Provera | Proscar |
| Provera | PROzac |
| PROzac | Prograf |
| PROzac * | PriLOSEC * |
| PROzac | Provera |
| Purinethol | propylthiouracil |

| Drug Name | Confused Drug Name |
|------------------------|------------------------|
| QUET iapine | OLANZ apine |
| qui NID ine | qui NINE |
| qui NINE | qui NID ine |
| Qwe ll | Kwe ll |
| rabeprazole | aripiprazole |
| Razadyne | Rozerem |
| Recombivax HB | Comvax |
| Regranex | Granulex |
| Reminyl | Robinul |
| Reminyl | Amaryl |
| Renagel | Renvela |
| Renvela | Renagel |
| Reprexain | ZyPREXA |
| Restoril | Risperdal |
| Retrovir* | ritonavir* |
| Rifadin | Rifater |
| Rifamate | rifampin |
| rifampin | Rifamate |
| rifampin | rifaximin |
| Rifater | Rifadin |
| rifaximin | rifampin |
| Risperdal | Restoril |
| risperidone | ropinirole |
| Ritalin | ritodrine |
| Ritalin LA | Ritalin SR |
| Ritalin SR | Ritalin LA |
| ritodrine | Ritalin |
| ritonavir* | Retrovir* |
| nTUX imab | inFLIX imab |
| Robinul | Reminyl |
| ropinirole | risperidone |
| Roxanol | Roxicodone Intensol |
| Roxanol | Roxicet |
| Roxicet | Roxanol |
| Roxicodone Intensol | Roxanol |
| Rozerem | Razadyne |
| Salagen | selegiline |
| SandoSTATIN | SandoSTATIN |
| SandoSTATIN | SandoIMMUNE |
| saquinavir | SINE quan |
| saquinavir (free base) | saquinavir mesylate |
| saquinavir mesylate | saquinavir (free base) |
| Sarafem | Serophene |
| selegiline | Salagen |
| Serophene | Sarafem |
| SERO quel | SERO quel XR |

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| Drug Name | Confused Drug Name |
|-------------------------|-------------------------|
| SEROquel | Serzone |
| SEROquel | SINEquan |
| SEROquel XR | SEROquel |
| sertraline | cetirizine |
| sertraline | Soriatane |
| Serzone | SEROquel |
| Sinemet | Janumet |
| SINEquan | saquinavir |
| SINEquan | SEROquel |
| SINEquan | Singulair |
| SINEquan | Zonegran |
| Singulair | SINEquan |
| sitaGLIPtin | SUMatriptan |
| Solu-CORTEF | Solu-MEDROL |
| Solu-MEDROL | Depo-Medrol |
| Solu-MEDROL | Solu-CORTEF |
| Sonata | Soriatane |
| Soriatane | Loxitane |
| Soriatane | sertraline |
| Soriatane | Sonata |
| sotalol | Sudafed |
| Spiriva | Inspira |
| Sudafed | sotalol |
| Sudafed | Sudafed PE |
| Sudafed PE | Sudafed |
| SUFentanil | fentaNYL |
| sulfADIAZINE | sulfISOXAZOLE |
| sulfISOXAZOLE | sulfADIAZINE |
| SUMatriptan | sitaGLIPtin |
| SUMatriptan | zolmitriptan |
| Symbyax | Cymbalta |
| Tambocor | Pamelor |
| Taxol | Taxotere |
| Taxol | Paxil |
| Taxotere | Taxol |
| TEGretol | TEGretol XR |
| TEGretol | Tequin |
| TEGretol | TREntal |
| TEGretol XR | TEGretol |
| Tequin | TEGretol |
| Tequin | Ticlid |
| Testoderm TTS | Testoderm |
| Testoderm TTS | Testoderm with Adhesive |
| Testoderm with Adhesive | Testoderm |
| Testoderm with Adhesive | Testoderm TTS |
| Testoderm | Testoderm TTS |

| Drug Name | Confused Drug Name |
|--|--|
| Testoderm | Testoderm with Adhesive |
| tetanus diphtheria toxoid (Td) | tuberculin purified protein derivative (PPD) |
| Thalomid | Thiamine |
| Thiamine | Thalomid |
| tiaGABine* | tiZANidine* |
| Tiazac | Ziac |
| Ticlid | Tequin |
| tiZANidine* | tiaGABine* |
| TNKase | Activase |
| TNKase | t-PA |
| Tobradex | Tobrex |
| Tobrex | Tobradex |
| TOLAZamide | TOLBUTamide |
| TOLBUTamide | TOLAZamide |
| Topamax* | Toprol-XL* |
| Toprol-XL* | Topamax* |
| Toradol | Foradil |
| t-PA | TNKase |
| Tracleer | Tricor |
| traMADol* | traZODone* |
| traZODone* | traMADol* |
| TREntal | TEGretol |
| tretinoin | isotretinoin |
| Tricor | Tracleer |
| tromethamine | Trophamine |
| Trophamine | tromethamine |
| tuberculin purified protein derivative (PPD) | influenza virus vaccine |
| tuberculin purified protein derivative (PPD) | tetanus diphtheria toxoid (Td) |
| Tylenol | Tylenol PM |
| Tylenol PM | Tylenol |
| Ultracet | Duicet |
| valacyclovir | valganciclovir |
| Valcyte | Valtrex |
| valganciclovir | valacyclovir |
| Valtrex | Valcyte |
| Varivax | VZIG (varicella-zoster immunoglobulin) |
| Vesanoid | Vesicare |
| Vesicare | Vesanoid |
| Vexol | Vosol |
| Viagra | Allegra |
| vinBLAStine* | vinCRIStine* |
| vinCRIStine* | vinBLAStine* |
| Viokase | Viokase 8 |
| Viokase 8 | Viokase |
| Vioux | Zyvox |
| Viracept | Viramune |

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| Drug Name | Confused Drug Name |
|--|--------------------|
| Viramune | Viracept |
| Vosol | Vexol |
| VZIG (varicella-zoster immunoglobulin) | Varivax |
| Wellbutrin SR* | Wellbutrin XL* |
| Wellbutrin XL* | Wellbutrin SR* |
| Xanax* | Zantac* |
| Xeloda | Xenical |
| Xenical | Xeloda |
| Yasmin | Yaz |
| Yaz | Yasmin |
| Zantac* | Xanax* |
| Zantac* | ZyrTEC* |
| Zebeta* | Diabeta* |
| Zebeta | Zetia |
| Zegerid | Zestril |
| Zelapar (Zydis formulation) | ZyPREXA Zydis |
| Zestril | Zegerid |
| Zestril* | Zetia* |
| Zestril* | ZyPREXA* |
| Zetia | Bextra |
| Zetia | Zebeta |
| Zetia* | Zestril* |
| Ziac | Tiazac |

| Drug Name | Confused Drug Name |
|--|--|
| Zocor | Cozaar |
| Zocor* | ZyrTEC* |
| zolmitriptan | SUMATriptan |
| Zonegran | SINEquan |
| Zostrix | Zovirax |
| Zovirax | Zyvox |
| Zovirax | Zostrix |
| Zyban | Diovan |
| ZyPREXA | CeleXA |
| ZyPREXA | Reprexain |
| ZyPREXA* | Zestril* |
| ZyPREXA* | ZyrTEC* |
| ZyPREXA Zydis | Zelapar (Zydis formulation) |
| ZyrTEC | Lipitor |
| ZyrTEC* | Zantac* |
| ZyrTEC* | Zocor* |
| ZyrTEC* | ZyPREXA* |
| ZyrTEC | ZyrTEC-D |
| ZyrTEC (cetirizine) | ZyrTEC Itchey Eye Drops (ketotifen fumarate) |
| ZyrTEC-D | ZyrTEC |
| ZyrTEC Itchey Eye Drops (ketotifen fumarate) | ZyrTEC (cetirizine) |
| Zyvox | Vioxx |
| Zyvox | Zovirax |

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