A Medication-Error Trifecta!

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PROBLEM: A confused, agitated, and combative man was admitted to the emergency department (ED) with severe nausea, vomiting, and a reported seizure. These three symptoms, ironically, led to a potentially catastrophic combination of three prescriptions.

The patient’s initial diagnosis was “viral gastroenteritis.” He had been taking bupropion (Wellbutrin, GlaxoSmithKline) for depression. Six weeks prior to hospital admission, his physician had given him new prescriptions for all of his medications. This time, however, he prescribed the generic products. Unfortunately, the patient continued taking his original prescription for Wellbutrin along with the new prescription for generic bupropion.

Around the same time, he attended a smoking-cessation program. Another physician gave him a prescription for bupropion (Zyban, GlaxoSmithKline). Thus, he began taking Zyban, bupropion, and Wellbutrin—all at the same time.

The patient had given the physician who prescribed Zyban a list of his other medications. All three drugs were listed as “active meds” in the physician’s notes with no apparent recognition of the triple redundancy. The ED staff, unit nurses, pharmacists, the attending physician, and a consultant neurologist also missed the error.

A third-year medical student discovered the error after looking up the generic names of each of the patient’s medications. If the student had not found the error, the patient might have been sent home with prescriptions for the same three drugs, totaling 600 mg of bupropion daily. Fortunately, the problem was identified and the patient was discharged from the hospital after 24 hours of intravenous hydration.

Some pharmaceutical companies select different brand names for products with the same active ingredient when the medication has been approved by the Food and Drug Administration (FDA) for different indications. In addition to the aforementioned example of Zyban and Wellbutrin, Merck’s Propecia and Proscar are both brand names for finasteride, and the company’s Blopred is the brand name of the oral beta blocker timolol maleate, but Timoptic is the brand name of the drug used for the eyelid. Eli Lilly produces both Sarafem and Prozac (fluoxetine), and Pfizer manufactures both Revatio and Viagra (sildenafil citrate) for pulmonary arterial hypertension and for erectile dysfunction, respectively.

Marketing concerns may drive the practice of assigning a new trademark when the same active ingredient is used for a different indication, but other problems may also be involved. For example, the FDA allowed Eli Lilly to use the name Sarafem for Premenstrual Dysphoric Disorder because Prozac (which is FDA-approved for depression, obsessive-compulsive disorder, and bulimia) may have a stigma associated with its use and women may not want to use it under that name. In addition, third-party reimbursement may be available only for certain approved indications. For example, bupropion therapy may be covered for depression (Wellbutrin) but not for smoking cessation (Zyban).

SAFE PRACTICE RECOMMENDATIONS: Multiple names for the same product increase the likelihood of duplicate or triplicate therapy. Superfluous therapy also may occur under one or all of these circumstances:

- When branded generic products are available from different manufacturers
- When the same drug is dispensed from two pharmacies under two different names
- When one physician prescribes the product by its brand name and another physician prescribes the product by its generic name (e.g., Coumadin and warfarin sodium, Bristol-Myers Squibb).

Fragmented health care also adds to the problem. Here are some strategies to help avoid confusion with drug names:

- Recording the patient’s entire drug history is essential for preventing errors.
- Patients should be alerted to the potential confusion with drug names and should be taught the generic and brand names of products when applicable.
- Patients should be encouraged to keep a list of medications and to bring the list with them to doctors’ appointments.
- Patients should try to use the same pharmacy for all of their prescriptions when possible.
- Manufacturers’ package labels and accompanying patient information should mention that the active ingredient is available under two or more names.

The reports described in this column were received through the USP-ISMP Medication Errors Reporting Program (MERP). Errors, close calls, or hazardous conditions may be reported on the ISMP (www.ismp.org) or the USP (www.usp.org) Web site or communicated directly to ISMP by calling 1-800-FAIL SAFE or via e-mail at ismpinfo@ismp.org.