

## FEATURE ARTICLE

# Look-Alike, Sound-Alike Oncology Medications

Lisa Schulmeister, RN, MN, CS, OCN®

Confusing medication names and packaging may cause or contribute to potentially harmful medication errors. The names of several chemotherapy and supportive agents can look or sound like the names of other chemotherapy agents or unrelated medications and can be inadvertently interchanged, or mixed up. Poor handwriting, abbreviations of medication names, unclear verbal medication orders, memory lapses, and the large volume of medications currently in use are risk factors for look-alike, sound-alike medication errors. Risk reduction strategies include being aware of medications that look or sound like other medications, installing pop-up alerts in computer systems, prescribing medications by their generic and trade names, placing eye-catching labels and warning stickers on storage bins, storing medications in nonadjacent areas, and advising patients to be alert for potential mix-ups with look-alike, sound-alike medications.

**M**any medications have generic or trade names that can look or sound like the names of other medications. These “look-alike, sound-alike” medication names increase the risk of unintended interchanges or mix-ups of medications and may cause harmful medication errors. Several chemotherapy and supportive agents have names that sound and appear to be similar to other chemotherapy agents and, in some cases, look or sound like unrelated medications. Examples include similarities between the names of the chemotherapy agents carboplatin and cisplatin, docetaxel and paclitaxel, and vincristine and vinblastine. Doxorubicin has been confused with the antibiotic doxycillin, and methotrexate has been confused with methohexital, an ultrashort-acting barbiturate anesthetic (Joint Commission on Accreditation of Healthcare Organizations [JCAHO], 2005a; U.S. Pharmacopeia [USP], 2004a, 2004c). Look-alike, sound-alike medications commonly used in the care of patients with cancer are listed in Table 1.

Similarities in labeling and packaging of chemotherapy agents also increase the risk of medication errors. On labels, names of medications may be in small print that is easily misread. In addition, many medication labels have similar designs and layouts (Berman, 2004). Some chemotherapy agents are packaged using similar colors and designs on the outer box, vial label, and vial flip top. Vials may appear to be similar to one another in size and shape but contain vastly different medications (see Figure 1). Kenagy and Stein (2001) noted that simplicity, standardization, and differentiation are some of the human factors’ concepts that are relevant to the medication-use process, but these principles often have been ignored in the medication production process. They reported that “the consequences are predictable; bad names, bad labels, and bad packages represent accidents waiting to happen” (p. 2034).

### At a Glance

- ◆ Medication name and labeling confusion plays a role in as many as half of all medication errors.
- ◆ Look-alike, sound-alike errors cannot be attributed solely to similar medication names and packaging; additional root causes and contributing factors usually exist.
- ◆ Nurses, especially those who prepare chemotherapy in addition to administering it, play a major role in preventing or averting look-alike, sound-alike medication errors.

Several factors cause or contribute to errors involving look-alike, sound-alike medications. Poor handwriting, especially faint or illegible script, can lead to drug errors. Abbreviation of medication names can cause confusion regarding which of several similar-sounding medications is the intended medication. Similarly, chemotherapy treatment protocols stated as acronyms (e.g., CHOP, ABVD) can cause confusion. Referring to chemotherapy agents by their nicknames (e.g., “Donna” for daunorubicin, “epi” for epirubicin) has caused errors. Verbal orders involving sound-alike medications may be misinterpreted or misunderstood. Prescribers who place an incorrect prefix or suffix on the name

Lisa Schulmeister, RN, MN, CS, OCN®, is an oncology nursing consultant in New Orleans, LA. Mention of specific products and opinions related to those products do not indicate or imply endorsement by the *Clinical Journal of Oncology Nursing* or the Oncology Nursing Society. (Submitted May 2005. Accepted for publication July 11, 2005.)

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