PROBLEM: Nurses sometimes find the way in which drug orders are presented on pharmacy computer-generated medication administration records (MARs) to be confusing. With many pharmacy computer systems, the specifications for drug profiles first present the dosage strength available in stock and then present the number of tablets or volume of oral or injectable liquid needed for the prescribed dose. This sequence is transferred to the MAR, so that the drug name and available dosage strength, often in bold print, appear on the top lines, with the patient’s actual dose appearing in plain type below. This presentation also guides the dose selection for daily cart distribution.

Nurses who administer drugs, however, often think first about the dose that must be given and then about the number of tablets or volume of liquid needed for the dose. Their eyes are naturally drawn to the topmost, bold lines of the MAR to locate the patient’s dose. Errors are possible when the patient’s dose differs from the available dosage strength listed on the top lines.

In one hospital, a patient received 50 mg of intravenous (IV) cyclosporine after a nurse misinterpreted the dosage strength of 50 mg/ml, which was listed in bold on the top line, to be the patient’s actual dose in the bottle (40 ml) and called the pharmacy for the remainder. We suspect that similar errors often go unrecognized and might account for some doses being returned to the pharmacy in patient drawers and supplies.

SAFE PRACTICE RECOMMENDATION: Although pharmacy computer-generated MARs guide drug administration far more safely than do handwritten MARs, an ongoing interchange between pharmacy and nursing is essential to ensure that the presentation of drug orders is clear to nurses. Here are some suggestions:

1. Hold regular pharmacy–nursing meetings to identify format problems. Include staff members from information systems in the beginning to work with the pharmacy computer vendor in making necessary changes.
2. For nurses:
   • List the drug name (the generic name and, if used, the brand name) on the first line.
   • List the patient-specific dose, route, and frequency (and, if applicable, the indication) in bold print on the second line.
   • List any special instructions (e.g., 50 mg = 2 x 25-mg tabs) on the third line.
3. Highlight the patient’s dose, not the available dosage strength. One hospital has recently reported planned vendor changes to list, in bold type, the patient’s dose, route, frequency, and special instructions in a separate column to the right of the column that lists the drug’s generic and brand names and the available dosage strength. Although there is often a vendor charge for this level of customization, minimal costs would be incurred for printing the word “DOSE” in front of the patient-specific dose and using boldface print for the dose to be administered instead of the available dosage strength.
4. To reduce the frequency of dispensing doses that do not match the patient-specific dose, carry more strengths of oral and injectable drugs. Dispense as many drugs as possible in unit doses.
5. If multiple tablets are needed, dispense each dose within the same properly labeled package or with the package correctly attached in some fashion.
6. When liquids must be dispensed in bulk, do not list the container’s total volume on the MAR.