



# Drug Safety Review

## Improving patient identification

**D**ata collected through the U.S. Pharmacopeia's two national medication error-reporting programs support the need for improvement in patient identification. From January 2000 through November 2003, 105 wrong-patient errors were reported to the Medication Errors Reporting (MER) program. Fortunately, the vast majority of these errors (101, or 96.2%) were not harmful, with four (3.8%) causing patient harm.

In calendar year 2002, the MEDMARX program collected 8,196 wrong-patient medication errors, making it the seventh-most frequent type of error (accounting for approximately 5% of all reports) in this database. Analysis of the MEDMARX data also revealed that most of the reported wrong-patient errors (7,284, or 89%) did not result in harm, and a small percentage (1.4%) were harmful. Approximately 10% (800) were categorized as potential errors. However, a considerable number still managed to slip past safety checks, with more than half (4,226 or 52%) of these errors reaching the patient. These data signal that more needs to be done to improve the interception of these errors, enhance safety nets, and refine processes around patient identification.

Although the administering phase had the highest reported percentage of where these types of errors originated, there were numerous times when documenting/transcribing (29.3%)

and dispensing (23.5%) were the source of wrong-patient errors. Therefore, it is prudent to look beyond just the administering phase when targeting wrong-patient error events.

The top five leading causes of wrong-patient errors are outlined in the table below. Performance deficit was the leading reported cause of error (listed in over 50% of the records). Examination of records listing performance deficit as the cause showed distractions were often listed as a contributing factor.

### Leading causes of error involving wrong patients

Cause of error	Number of errors	Percent
Performance deficit	4,148	53.5%
Procedure/protocol not followed	2,364	30.5
Computer entry (Incorrect or incomplete)	1,143*	14.7
Documentation	948	12.2
Transcription inaccurate/omitted	636	8.2

\*Computer entry is defined as "incorrect or incomplete information was entered into a computer system associated with the medication use process." 2002 MEDMARX Data Summary Report

Computer entry was the third-most frequently cited cause of error for wrong-patient events, indicating that technology has the potential both to reduce and create medication errors. Examples of computer entry errors in various MUP (medication use process) phases are as follows:

**Prescribing:** A physician selected the patient's father from the computer screen when the order was actually intended for the son. Both patients had the same first

and last name. Fortunately, the parent at the outpatient pharmacy noticed the error, and a correct prescription was obtained.

**Documenting:** Nursing staff entered orders for one patient into the computer system under another patient's profile. The patient profile was found to have the same last four digits in the account number, and the first letter of both patients' last name was the same. The error was discovered on day three of a hospital stay.

**Dispensing:** Metformin (500 mg twice a day) was ordered for a patient in room 205-1 but entered in the pharmacy computer system under room 204-2. The wrong patient was given two doses.

**Administering:** A nurse accessed the computerized medication administration record (MAR), not realizing it related to a different patient and subsequently mistakenly administered methocarbamol to the wrong patient. The physician was notified and the patient did not experience any adverse sequelae.

### Minimizing wrong-patient errors

Here are some suggestions on how to reduce the risk of giving drugs to the wrong patients. Some of these suggestions were adapted in part from Texas Children's Hospital's (Houston) draft policy on patient identification.

1. Conduct a review of the processes used in the admission of the patient into the facility. What patient-specific identifiers are

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collected and placed on the patient's wristband, addressograph card, or computer record? Are there select identifiers that nurses, pharmacists, and physicians find easier to use (e.g., date of birth, Social Security number, or hospital admission number)? Such a review could be performed by a subcommittee of a medication-safety committee or even the pharmacy & therapeutics committee.

2. Physically identify admitted patients (e.g., using an identification [ID] wristband) at the time of registration or admission or, if circumstances cause a delay, as soon thereafter as is feasible. Establish a list of medical conditions that may constitute an exception. Under certain circumstances, attaching an ID band to a patient's limb may be medically contraindicated.

3. Examine the admission/discharge/transfer (ADT) information system. What precautions or safeguards are in place to prevent patient mix-ups (e.g., patients with the same last name residing in the same room or within the same patient care unit)? How quickly is ADT information updated? When the hospital's ADT system is not operational, are there policies and procedures in place to ensure that patient identification bands are properly prepared?

4. All employees who assume any level of responsibility for patient care (e.g., transportation) or who administer care (noninvasive or invasive care, including transfusions and medication administration) to a patient should first verify that an ID band is attached to that patient and verify that the information on the ID band matches in every respect documented orders and/or labeled materials (e.g., medications or blood products) intended for use with that

patient. Documentation may be the medical chart or medical chart surrogate.

5. Write out (i.e., print) the complete name of the patient—last name, first name, and middle initial—on all manual records or charts. Information system records should incorporate human-factors research into the design of how patient names appear on the computer screen (e.g., alternate shading of lines to differentiate a list of names) and to help identify the types of alerts that should appear (e.g., when two patients with the same last name are located on the same patient care unit).

6. At a minimum, label all medication-dose containers (e.g., Ziploc bags containing unit-dose items, IV bags, syringes, oral liquid bottles, ointment tubes, droppers, or inhalers) with the patient's complete name (first, middle, and last), most current room number, and another unique patient identifier (e.g., date of birth). Using some type of unique patient ID other than name and room number is strongly encouraged on all bulk medication and IV product labels and unit-dose cassette bins. Consider using machine-readable coding (e.g., bar-coding,) as a means to uniquely identify the patient on all medication-dose containers dispensed by pharmacy (including patient medication cart cassettes).

7. Do not use a patient's room number as a patient identifier in the administration of medications. This is also stated under National Patient Safety Goals of the Joint Commission on Accreditation of Healthcare Organizations.

8. Establish at least two different patient identifiers that will be used prior to medication administration. Some identifiers that could be used include the individual's

name, an assigned hospital ID number, Social Security number, date of birth, or telephone number. JCAHO requires that the two patient-specific identifiers must be directly associated with the individual, and the same two identifiers must be directly associated with the medication (e.g., on an attached label to a medication container). The two identifiers may be in the same location (e.g., the patient's wristband).

9. Review processes and procedures for returning medications from patient care units back to the pharmacy to avoid the misadministration of these products to another patient. How are these medications labeled for return?

10. Review pharmacy procedures for reissuing medications that were previously labeled for another patient (particularly IV bags).

11. Encourage patients to state their name (when possible) before taking any medications and to always offer their wrist/ID bracelet for proper identification. Also encourage patients to ask the healthcare practitioner to identify each medication by name (including IV infusions or piggybacks) before it is administered. In situations where the patient is unable to state his/her name or ask questions about administered medications, encourage family members or caregiver to assume this role.

12. Consider using photo identification as another means of confirming the identity of the patient, particularly in settings (e.g., long-term care) where the length of stay is extended.

THE AUTHOR is director of educational program initiatives at USP Center for the Advancement of Patient Safety.

USP operates two complementary reporting programs: the Medication Error Reporting Program, presented in cooperation with the Institute for Safe Medication Practices, and MEDMARX. For more information on how to report errors, visit: [www.usp.org/patientsafety](http://www.usp.org/patientsafety).