



U.S. Pharmacopeia
The Standard of QualitySM

MedmarxSM 2001 Data Report Details: A Look at Pediatric Errors

Snapshot

Medication errors can happen to any patient at any age. However, when children are involved in medication errors, the consequences can be far more devastating.

Pediatric health care is especially challenging because health care practitioners must consider a child's age, weight, medication dosing frequencies, and a number of other factors to ensure the safety of the patient. A misplaced decimal point in a medication dose or an incorrectly calculated weight conversion from pounds to kilograms could mean the difference between life and death.

Report Findings

- Almost 52 percent of pediatric medication errors occurred during administration of the medication.
- Nearly 20 percent of errors in pediatric departments caused patient harm.
- Improper dosing/quantity accounted for 29 percent of pediatric medication errors.
- Pediatric medication errors involving improper dosing of the diphtheria/tetanus vaccine were common in emergency rooms.
- The procedure/protocol not being followed resulted in 26 percent of pediatric medication errors.

Dosing for Children Requires Extra Attention

In pediatric care, children are often prescribed and administered medications based on milligrams of medicine per kilogram of body weight. To ensure that appropriate medication doses are administered to children, converting a child's weight from pounds to kilograms with accuracy is essential. To minimize the risk of improper dosing errors, USP's Center for the Advancement of Patient Safety (CAPS) recommends that health care practitioners perform calculations using validated computer-based algorithms or provide double checks for manual calculations.

Tips for Parents: Preventing Medication Errors

The following tips are suggested to help parents prevent medication errors involving their children:

- On admittance to the hospital, provide the health care practitioner (HCP) with an up-to-date list of all medicines (prescription and over-the-counter) and dietary supplements that your child is taking. This will help minimize medication errors and prevent drug interactions during your child's hospital stay.
- Make sure your child's HCP is aware of any allergies your child may have. For life-threatening allergies, be sure that your child wears a MedicAlert bracelet at all times.
- Medications administered to children are based on the child's weight in kilograms. For purposes of preparing appropriate dosages of medicines, your child's weight in pounds must be divided by 2.2 in order to convert his or her weight into kilograms. Be aware of this calculation, and reconfirm the correct dosage with your child's HCP if you have concerns.
- Pay close attention to how your child is feeling while in the hospital. Notify the HCP immediately if you notice any negative side effects from the administered medications.
- Be sure that your child's school has a list of any medical conditions or allergies your child may have should an emergency situation arise.

For a copy of the Medmarx 2001 data report, send an e-mail to mediarelations@usp.org. For more information about Medmarx, visit www.medmarx.com.

12601 Twinbrook Parkway
Rockville, MD 20852

301-881-0666

www.usp.org