Medication Safety Alerts

David U

This column draws primarily on US experience and includes, with permission, material from the *ISMP Medication Safety Alert!*, a biweekly bulletin published by the Institute for Safe Medication Practices (ISMP), Huntingdon Valley, Pa.

NEWS

The American Society of Health-System Pharmacists conducted a national survey in 1999 to determine patients' top concerns upon entering a hospital. A total of 61% of respondents indicated that they were "very concerned" about "being given the wrong medicine". This survey has echoed one of the important issues that health-care providers have to grapple with and work on: ensuring safe medication use in hospitals and in the health-care system.

ISMP, in conjunction with the International Pharmaceutical Federation (FIP), is planning a joint patient safety initiative with the other international health-care communities to promote safe medication practices. The project was formally endorsed at the most recent FIP conference, held in Barcelona in September 1999. A proposed structure and working relationship for FIP–ISMP and its members is being developed. Canada is very much a part of this exciting collaborative venture.

There has been an exchange of ideas between ISMP and some Canadian pharmacists on a number of safe medication issues. A Safe Medication Practice Network has been created. This is an informal group of Canadian health-care professionals, currently including pharmacists and nurses, who believe in promoting safe medication practices. They are committed to sharing information and strategies and to examining issues relating to all aspects of safe medication use, both in hospital and in community settings. Pharmacists who share this vision and are willing to help are welcome to join the Network. Contact David U for more details.

MAINTAINING PATIENT SAFETY IN THE FACE OF STAFF REDUCTION

Recently, amalgamation and restructuring of hospitals have created some concerns related to medication use for patients. Some hospitals have reported that their administrations have proposed removing some "system checks" for medication processes and distribution in the name of re-engineering. As a health-care profession, we must take steps to prevent this from happening.

The following is taken directly from *ISMP Medication Safety Alert!* volume 4, issue 21, October 20, 1999.

Problem: A pharmacist, who was working alone in a busy hospital pharmacy, received a stat order for oral clonidine 1 mg and levodopa 125 mg for a growth hormone stimulation test on an 8-year-old child. Despite significant pressure from the stat order and a backlog of work, the pharmacist, who was unfamiliar with the test, took time to research the information and discovered that the correct test dose of clonidine for a pediatric patient was 0.15 mg/m^2. After calling the physician, the order was changed to clonidine 0.1 mg. Unfortunately, even successful outcomes like this one may not be widely appreciated if productivity is sacrificed to enhance patient safety. Nevertheless, numerous errors reported through the USP-ISMP Medication Errors Reporting Program have resulted when practitioners felt significant pressure to place productivity above patient safety, especially when faced with inadequate staffing.

Dealing with reduced staffing is a harsh reality in healthcare. Whether the situation is due to cost

containment decisions to cut staff, unexpected absences, or difficulty filling open positions, inadequate staffing fosters stress and increases error potential. Compounding the problem, administrative actions that result in reduced staffing send an unspoken, but clear, message that crucial decisions should favor productivity. So, critical tasks such as redundancies and other standard error reduction strategies are often sacrificed to increase productivity, resulting in weakened defense systems. Even under the best of conditions, practitioners must make continuous choices between productivity and patient safety. With the added burden of inadequate staffing, they face an enormous dilemma when trying to cope with the difficult balancing act. When an error occurs, the practitioner's actions often appear as a poor gamble and disregard of patient safety.

Safe Practice Recommendation: Organizational leaders and individual practitioners share equal responsibility to protect patients from harm. Leaders must make safety an explicit goal, understand the fundamental incompatibility between productivity and safety, and emphatically reinforce that safety should not be sacrificed in favor of productivity. Before any staff reductions, leaders should allow front-line practitioners to redesign processes to eliminate some production work, not safety work such as independent check systems and other primary safety functions. Surveying practitioners intimately involved in the processes may be helpful to identify both formal and *informal* safety practices to assure that all critical defenses remain intact. Internal data and research in the literature regarding the relationship between patient outcomes and staffing levels also should be openly discussed and considered during process redesign. To enhance patient safety in times of unexpected staff absences, realistic contingency plans should be established and implemented.

When individual practitioners or managers believe that safe care is not possible, they should immediately notify more senior managers, describe the problem in quality and safety terms, and suggest actions to reduce risks, such as triaging phone calls, delegating tasks within the scope of practice, and redeployment of qualified staff. The superior's response to safety concerns and the actions taken should be documented later to maintain evidence in the event of an adverse incident and to facilitate review and organizational learning.

With continually shrinking reimbursement systems and shortages of specially trained and experienced personnel, staffing levels are unlikely to improve soon. Yet perhaps the effects of reduced staffing have fostered a much-needed multidisciplinary approach to error reduction. Reduced staffing has forced us to acknowledge professional interdependence and the need for collaboration among physicians, pharmacists, nurses, and patients. We must work together, side by side, to create safety for the system as a whole, rather than within single disciplines, departments, or units. In the face of reduced staffing, effective adaptations to enhance safety must emerge from new strategies or novel combinations of safety measures that have been previously performed only *within* each profession. Thus, we are now more likely to see physicians who delay elective admissions based on temporary staffing inadequacies, clinical pharmacists and patients who participate in independent checks before drug administration, and nurses who prioritize service calls to the pharmacy to minimize disruptions.

SAFETY BRIEFS

The Safety Brief presented here is taken directly from *ISMP Medication Safety Alert!* volume 3, issue 24, December 2, 1998.

Thorough understanding of proper directions is especially important when the patient receives a prescription for **COUMADIN** 2.5 mg, with directions to take "2.5 Mon, Tue, Thu, Fri, Sat and 5 Wed and Sun." The patient misunderstood these directions and thought he was to take 2 ½ tablets or 5 tablets instead of 2.5 mg or 5 mg. After 2 weeks, the patient developed GI bleeding. He had an INR greater than 60! With 2.5 mg tablets in the bottle, it would have been clearer to direct the patient to take one or two tablets on the desired days. In another case, a doctor verbally modified prior prescription instructions and told the patient to take Coumadin 5 mg on Monday, Wednesday and Friday, alternating with 2.5 mg on remaining days. No written directions were provided. The patient heard "2 ½ tablets" of Coumadin 5 mg instead of 2.5 mg. She suffered gross hematuria, and was hospitalized with an INR of 26! Due to warfarin's propensity to cause injury if misused, it is important to verify that patients can demonstrate clear understanding of directions, side effects, drug interactions, etc. Patients must receive instructions that follow accepted standards for communicating the dosing schedule.

The Safety Briefs presented here are taken directly from *ISMP Medication Safety Alert!* volume 4, issue 21, October 20, 1999.

Drugs such as **COUMADIN** (warfarin) and **SYNTHROID** (levothyroxine) are available in a wide range of dosages

to accommodate expected variation in patient specific doses. Yet, some inpatient pharmacies stock only some of the available strengths. As a result, pharmacists must dispense multiple tablets in different strengths with detailed and sometimes confusing directions to administer various combinations of whole and half tablets. Quite frequently, this results in partial doses being returned to the pharmacy, and the full dose never reaches the patient. Pharmacists and technicians should take note of drugs that often require dispensing of multiple tablets in different strengths to accommodate typical dose ranges. Then, increase the variety of strengths available to avoid confusion with drug administration directions and minimize the possibility of error.

A table in the current edition of *The Pediatric Dosage Handbook* (6th edition; Lexi-Comp) incorrectly lists doses of IV midazolam **(VERSED)** in mg rather than mg/kg. The table is on page 1284. If the book is available at your practice location, please write in a correction.

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