

Preventing medication errors

The Seattle Times, September 27th, 2006, Ted Neal Special to The Times

A recent report from the Institute of Medicine states that at least 1.5 million Americans are injured every year by medication errors that could have been prevented. Nothing disturbs me — and my fellow pharmacists — more than medication errors in hospitals. It's a significant problem that needs to be fixed and I have good reason to hope that it will be. I firmly believe we will see a significant reduction in medication errors as new systems are put in place and proactive education takes hold in our region and nationwide.

Why am I hopeful? We are in the midst of several major movements in patient safety and quality, driven by health-care powerhouses. The Joint Commission on Accreditation of Healthcare Organizations, the nation's predominant standards-setting and accrediting body in health care, has taken on this problem rigorously. In one small but dramatic example, this agency now requires hospitals to stop using certain abbreviations in patient orders that previously caused a host of problems.

Here's one example to illustrate the problem: The abbreviation "QD" is Latin and short for "daily." It could be misread as the abbreviation "QID," which is short for "four times daily." You can see how one letter makes a world of difference. By eliminating potentially confusing abbreviations in patient charts, lives can be saved and harm prevented.

Drugs that have similar names can have seriously different consequences when they are prescribed. For this reason, many hospitals have adopted "Tall Man Lettering," which graphically emphasizes the differences between two look-alike, sound-alike drugs by using capitalizations to point out the variance (e.g., epHEDrine and epINEPHrine).

The Institute for Safe Medication Practices has published a recommended list of high-risk drugs that look alike and sound alike for hospitals to post in the medication-dispensing areas. Other medications that don't have similar names — but are considered high-risk — have special labels or alerts for the health-care provider. These alerts can be in the form of colored labeling or bold lettering that is twice the size of normal print on labels.

Many hospitals are starting medication-reconciliation projects. This is designed to correct a complex process, but here is the essence. Patients are asked to take responsibility for providing key medication information. For any planned hospitalization, patients bring a comprehensive list of everything they are taking, including supplements and natural therapies. We then compare this regime with the medications provided during hospitalization. Finally, this complete list is communicated through the next phase of care, which might mean going home or on to another facility.

This project has been widely promoted nationwide through the Institute for Healthcare Improvement's "100K Lives Campaign," which recently announced great success in its patient safety and quality efforts.

In Washington state, a law was passed this year that prohibits physicians from writing prescription orders using cursive handwriting. Instead, they need to print, type or computer-generate medication orders.

It's a stereotype that physicians have illegible handwriting, but the unfortunate reality for us pharmacists is that too many prescription orders are difficult to read. Even under the considerable pressures of time constraints and multiple demands, physicians will now need to use more care in writing prescriptions. Electronic prescribing (computerized physician order entry) is being promoted to help with this problem; however, full acceptance and implementation in this area will take a significant amount of time.

Technology is truly our friend in the pharmacy world. A few innovations and emerging systems are causing tremendous improvements. There are now automated medication-dispensing cabinets that nurses use to obtain medications. Much like a banking ATM machine, a nurse enters his or her code, along with the patient's code, and



only the selected medication and dose can be obtained. Special dosing alerts are built into the system to help avoid potential dosing errors.

Other examples include the use of smart IV-pump technology, whereby abnormal dosing parameters and rates can alert the nurse.

Also, a small but growing percentage of hospitals nationwide are using bedside bar-coding technology to scan an I.D. bracelet worn by the patient, along with the corresponding bar-coded medication before it is administered. This is to help make sure the right drug, at the right dose, is given to the right patient (via the right route) — all at the right time.

These technological tools are excellent and are sure to reduce the occurrence of medication errors in hospitals. But good technology and improved systems are only part of the solution. Every family member, nurse, physician, pharmacist and caregiver needs to be attentive and handle with thoughtfulness the medications given to our patients.

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