

# Medication Safety Issue Brief

## *Mastering a Few of the Basics*

5

of 6 in a series

Series II

Covering the basics of medication safety is the focus of part five in a six-part series designed to help senior managers reduce preventable patient harm in their hospitals. This series of six issue briefs was developed by the American Hospital Association, the American Society of Health-System Pharmacists and *Hospitals & Health Networks* with the generous support of Aventis Pharmaceuticals. You may tear out this card for future reference. Additional copies of both an earlier series, published in 2001, and this series are available in PDF versions on the ASHP and *H&HN* Web sites ([www.ashp.org](http://www.ashp.org) and [www.hhnmag.com](http://www.hhnmag.com)). ASHP members can also call the ASHP's fax-on-demand service.

### • SUMMARY

In these high-tech times, it's easy to get distracted by the emphasis on computerized answers to every patient safety question. While automation can reduce many risks of drug delivery, it should be built only on a firm foundation of the essentials of medication safety. Be sure your organization has already mastered basics such as unit-dose drug distribution, sterile compounding, formulary management and clarity in drug names.

### • ISSUE BRIEF

There's so much discussion about technological patient safety innovations such as bar codes and order entry that it's easy to forget that only a small percentage of hospitals are using them. Even those planning to invest in IT solutions to medication management need to have the basics in place before moving ahead. Here are some of the ducks to have in a row before writing any big checks.

**Unit-dose drug distribution:** The idea that a medication dose should go from the pharmacy to the patient's bedside in a single dose has been around since the 1960s. And, theoretically, most American hospitals use unit dose, at least in part. But in reality, many hospitals have compromised that original concept in the name of convenience. For instance, nurses may receive 24 hours' worth of medication for a hospital unit in a single cart, containing multiple but differing doses for a given patient. Relying on the nurse's memory and communication with the next shift to be sure the correct dose makes it to the patient at the right time violates a basic tenet of patient safety: Reduce reliance on human frailty by using well-designed systems.

Making matters worse is that exceptions have been made to unit-dose practices so that some medications are delivered in a single dose, while others require a nurse to divvy them up. "What we end up with over the years as we slice off pieces [of a unit-dose system] is a hodge-podge of systems that becomes so uncontrollable and misunderstood that it actually becomes more inefficient," says Marc Summerfield, director of pharmacy at the University of Maryland Medical Center, Baltimore. Relying on nurses to break a tablet in half to get the correct dose at the bedside also increases the risk of error because the final dose has not been double-checked by both the pharmacist and the nurse. "Rarely, if the same person does several steps in the process, can they catch their own error," Summerfield notes.



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## ACTION *Agenda*

Here is a list of action items:

- Check in with the committee in your hospital that oversees medication safety and be sure these basic techniques are being used in your organization.
- Involve pharmacists in the medication administration process. Will evidence support the use of clinical pharmacists working in patient care areas?
- Be sure your pharmacy and therapeutics committee is well-organized and functional.
- Keep the hospital's formulary to a manageable level and up-to-date so practitioners don't have to remember details of too many medications.
- A clear commitment to safety from the top so staff members don't build work-arounds to important safety measures.
- Be aware that accreditation surveyors are giving closer scrutiny to basic medication safety practices such as sterile compounding and use of medication abbreviations.

### ADDITIONAL RESOURCES

- American Society of Health-System Pharmacists. A variety of articles on formulary system management and guidelines. [www.ashp.org/bestpractices/formulary.cfm](http://www.ashp.org/bestpractices/formulary.cfm)
- ASHP guidelines on quality assurance for pharmacy-prepared sterile products and ASHP statement on unit dose drug distribution. [www.ashp.org/bestpractices/drugdistribution.cfm](http://www.ashp.org/bestpractices/drugdistribution.cfm)
- Marc Summerfield and Thomas Lawrence, "Rethinking Approaches to Reducing Medication Errors: An Examination of 10 Core Processes." *Formulary*, Sept. 2002; vol. 37, 462-72. [www.formularyjournal.com/formulary/data/articlestandard/formulary/382002/32565/article.pdf](http://www.formularyjournal.com/formulary/data/articlestandard/formulary/382002/32565/article.pdf)

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**Sterile compounding:** For IV medications that must be prepared immediately before use, hospital pharmacists prefer to be the ones to do so, given that they have the expertise and equipment to carry out the task antiseptically and safely. But in some hospital intensive care units and emergency departments, nurses end up doing the job. "We're trying to minimize that, or make sure nurses who do it are trained in the same way as pharmacy technicians are," says Paul Bush, director of pharmacy services at the Medical University of South Carolina in Charleston. Surveyors from the Joint Commission on Accreditation of Healthcare Organizations will be taking a closer look at sterile compounding starting in 2004.

**Formulary management:** Maintaining a tight, up-to-date list of approved medications on a formulary can give a hospital's prescribing doctors a fighting chance to be familiar with the drugs they choose for patients. "The formulary process allows us to focus on maybe three different drugs for high cholesterol rather than the six or seven on the market," Bush explains. But that process requires constant oversight by a pharmacy and therapeutics committee, which needs the backing of hospital administration.

**Avoiding use of abbreviations and brand names:** When prescribers abbreviate the name of a medication or use a brand name rather than generic moniker, confusion can follow. Hospital accreditors are beginning to focus more intently on safer use of abbreviations. Meanwhile, hospitals are working with physicians to eliminate the riskier nomenclature. "We could come up with 50 to 100 abbreviations we'd like to get rid of," says Harold Godwin, director of pharmacy at the University of Kansas School of Pharmacy, Lawrence. "Most places are focusing on the top five or top seven."

Many of these fundamentals have been accepted in theory for decades, but adoption has been slow or has slacked off. Still, they are essential to safe medication use. Hospitals shouldn't ignore them on the assumption that new technologies will make them obsolete. "Technology is an enabler of a fundamentally safe system," says Philip Schneider, clinical professor at Ohio State University's College of Pharmacy, Columbus, and director of the Latiolais Leadership Program. "Technology is not really the answer."

Still, Schneider acknowledges that changes such as higher patient acuity and the need for decentralized drug distribution are altering the classic unit-dose system. More important than adhering to a particular system is answering two essential questions: First, does a pharmacist review every medication order before the first dose is administered to a patient? And second, are the great majority of medications provided to a nurse in ready-to-administer, single-dose form?

While hospital executives may not be focused on the details of medication distribution, their support for patient safety improvements is crucial, Schneider says. "You have to make a decision whether medication safety is an important priority for the institution." ●

