



What does your patient safety brochure really say about safety?

Most patient safety advocates agree that educated patients are the safest patients. The concept is clear: patients who know what to expect will be more aware of potential risks and errors. What is less clear is exactly how organizations educate patients and their caregivers about their role in safety and encourage their contributions.

At a minimum, most healthcare providers attempt to involve patients in safety by distributing a handout or brochure that covers general safety tips and encourages patients to speak up about the hazards they may encounter. The emphasis is usually on actions *patients* can take to help ensure their safety.

Unfortunately, the impact of patient safety brochures has not been well studied. While these have the potential to reduce errors, a recent analysis¹ of five leading national patient safety brochures suggest that they may also result in unintended consequences that can compromise patient safety

efforts. The study was conducted with participants from academic, clinical, administrative, and consumer settings who had been promoting or researching patients' perspectives on, and contributions to, safety. Based on this analysis, we have put together questions and recommendations to help you design or improve the patient safety brochures that you distribute to patients. See Table 1, which appears on page 2.

Although many nurses do not directly participate in the development of patient safety brochures, all nurses can still benefit from reviewing the assessment questions and recommendations in Table 1. Nurses are typically the most visible healthcare practitioners to hospitalized patients, so they are in the best position to discuss safety with patients, reinforce the safety messages in a safety brochure, and respond to patients' concerns about safety.

Reference: 1) Entwistle VA, Mello MM, Brennan TA. Advising patients about patient safety: current initiatives risk shifting responsibility. *Jt Comm J Qual Patient Saf.* September 2005; 31(9):483-94.

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Vincristine: Days "4-11" misunderstood as days "4 through 11"

This year, we learned about a vincristine overdose that was caused, in part, by misinterpretation of the "hyper CVAD" regimen for a lymphoma patient. The regimen includes cyclophosphamide (sometimes administered with mesna as a chemoprotectant), methotrexate, dexamethasone, doxorubicin, cytarabine, and vincristine. In this regimen, a 2 mg dose of vincristine IV is given on day 4 and day 11 of the first course of therapy. Unfortunately, the prescriber misinterpreted the regimen to mean that vincristine should be given on days 4 *through* 8 and wrote an order for "vincristine 2 mg IV daily x 8 on days 4-11."

Vincristine 2 mg IV appeared on the medication administration record daily for 8 consecutive days and was dispensed by the pharmacy and administered. The patient received a total of 16 mg but survived the overdose.

This is similar to another case ISMP published more than a decade ago¹ in which the use of a dash mark in a cancer journal² contributed to an accidental overdose of vincristine. A protocol in the article called for "vincristine 1.4 mg/m² days 1-8." The dose should have been stated as "days 1 and 8." The physician, pharmacists, and

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⚡ It's not a match. A nurse encountered a scanning problem when a patient's name on a medication label and drug name did not match before administering the drug. The label had been applied, peeled off, and then reapplied to the minibag (see photo below). The barcode at the top and bottom of the IV label were supposed to be identical. The bottom barcode scanned correctly as metronidazole, but the top barcode scanned incorrectly as levothyroxine. When inspecting the label carefully, it looks like the top part of the label strip was ripped upon removal



The barcode became misaligned when a previously torn label was reapplied.

and reapplied unevenly. This created a new barcode that happened to read as levothyroxine. The nurse recognized the problem before administering the drug. If a barcode label appears to be ripped, send the product back to the pharmacy so it can be relabeled and sent back to the patient care unit for administration.

⚡ Unusual floor stock request. A nurse from a remote hospital clinic used a blank request form to order "tromethamine" from the pharmacy for floor stock. The dosage form, concentration, and strength were not specified on the form. The brand name for tromethamine is **THAM**, which is an alkalinizing agent

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Table 1. Design, Assess, and Improve Your Patient Safety Brochures

What the Study ¹ Shows	Recommendations
Is the safety information well defined?	
Most safety tips are broad-based and generalized. Patients who are ill are less likely to act on vague safety tips, such as "Ask questions."	Patients are more likely to heed advice if the instructions are clear and concise, such as "Make sure your name is spelled correctly and your birth date is correct on the bracelet applied to your wrist when you are admitted."
Is the basis for the safety tips provided?	
Many times, the basis for the safety tips are not provided. Recommendations without a rationale represent missed opportunities to broadly educate patients about safety issues in healthcare.	Safety tips should clearly explain why specific actions are recommended and the desired outcome or goal of the recommendations. Knowing the reason for a safety tip also helps patients remember it and use it.
Are the safety tips prioritized?	
Participants in the study noted that the sheer number of tips in a handout may overwhelm patients because they cannot act on all of them.	Tell patients which safety tips are most important based on likely impact on their safety during hospitalization.
Does the safety brochure specify what the organization is doing to enhance safety?	
A long list of safety tips for patients alone may imply that patients are the <u>only</u> ones looking out for their safety.	Describe how patient participation contributes to what the organization is already doing to ensure safety, to reassure patients that their safety is not in their hands, alone.
Are patients advised how to report hazards and errors?	
Patients and families may observe or perceive risks during the course of care that healthcare providers may not notice. But some patients are not comfortable telling their direct caregivers about these risks, yet they would like to make the organization aware of them.	Tell patients several ways they can report safety problems, including avenues that bypass their direct caregivers, such as telephone hotlines, safety suggestion boxes, surveys, and patient advocate rounds. Also include information about rapid response teams, if available.
Is the patient safety brochure written from the patient's perspective?	
According to the study's authors, safety handouts are often written from the provider's perspective.	Learn about the predominant concerns and self-perceived information needs of the patient community served before creating/reviewing the brochure. Test the contents of the brochure with patients before finalizing the design.
Do the safety tips require patients to check or challenge healthcare providers?	
Advice that requires checking and challenging providers may be particularly problematic for patients, who may fear being labeled as difficult if they speak up. Staff also may be less inclined to interact with patients who challenge them, potentially worsening safety risks.	Include some safety tips that do not require patients to check and challenge providers. Create an environment that demonstrates respect for the patient's assertiveness regarding safety and encourages patients to speak up about safety.
Does the brochure shift responsibility for safe care from the provider to the patient?	
Patients may perceive the safety tips in the brochure as inappropriately shifting responsibility for safe care from the healthcare provider to the patient, particularly if there's little evidence that the healthcare provider is also taking steps to improve safety.	Be clear about the key initiatives that the organization has implemented or is planning to implement to protect the patient's safety while providing healthcare services.
Do staff reinforce the safety tips and offer patients support in carrying them out?	
Healthcare providers are not likely to discuss the safety tips in the brochure with patients and encourage them to participate unless organizational leaders value and reinforce this behavior. As noted by one study participant: "Systems aren't set up to have you involved... you have to bully your way in to be a partner...and you're really not a partner, you're an imposition at that point. And patients feel that."	All staff should know the safety tips offered in their organization's patient safety brochure and be fully conversant with patients about their meaning and implementation. Beyond distributing advice in safety brochures, organizations need to build the infrastructure required to ensure that patients' contributions to error prevention are encouraged and met with appropriate responses.

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used primarily to prevent or correct systemic acidosis, such as that associated with cardiac bypass surgery. The pharmacist was surprised to receive such a request since the clinic had never before requested this drug; and with the patient population treated in the clinic, it was unlikely that there would be need for tromethamine. The pharmacist realized that the nurse might be confusing tromethamine with ketorolac tromethamine (**TORADOL**). When he questioned the nurse, he found that ketorolac tromethamine was what she had intended to request. The nurse had accidentally copied just a part of the generic drug name on the request slip. Requests for new floor stock should always include the complete drug name and strength. Preprinted lists for floor stock replacement could help prevent errors, as could automated dispensing cabinets that handle restocking requests electronically via programmed par levels.

 **Propofol safeguards.** In the pharmacy, a label that listed "10 mEq KCl in D5W/100," the patient's name, infusion rate, and a corresponding barcode was accidentally placed on a bottle of propofol, a general anesthesia sedating agent. The bottle was then dispensed to the nursing unit for administration to the patient. A newly licensed nurse scanned the barcode, which responded favorably since the patient had an order for potassium chloride. The nurse hung the solution to run at about 100 mL/hr. Thankfully a more experienced nurse stopped the infusion before the patient became drowsy after she saw the white, opaque solution infusing. The same hospital reported another error, several years earlier, in which an ICU nurse accidentally grabbed propofol from the "pharmacy return" box and began the infusion, thinking it was imipenem-cilastatin (**PRIMAXIN**),

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nurses interpreted the dose in the cancer journal to mean that vincristine should be administered on days 1 through 8. The patient received vincristine IV daily for 3 consecutive days until painful peripheral neuropathy developed. The error was then recognized upon closer review of the patient's medical records.

Although both patients in the events described above survived the overdoses, the potential for fatal vincristine overdoses is high. Most facilities limit doses to 1.4 mg/m² per week and often set dose alerts in pharmacy computer systems to prevent accidental doses beyond the safe maximum dose. A dash mark, such as in "days 1-8," should never be used when communicating dosing schedules. Its meaning can easily be confused. The use of standard preprinted

order sets for chemotherapy regimens can also help avert an overdose and improve the safety of communicating the orders. It is essential that all staff who prescribe, dispense, and administer chemotherapy are qualified to safely manage these specialized high-alert medications. Such staff would be in the best position to recognize and prevent a potentially fatal overdose. As a final check, pharmacists should ensure an independent double-check of chemotherapy before dispensing the product, and nurses should seek an independent double-check of all chemotherapy before administering it.

References: 1) Cohen MR. Hazard warning—vincristine overdose. *Hosp Pharm.* 1994;29:53. 2) Lopez TM, Hagemester FB, McLaughlin P, et al. Small non-cleaved cell lymphoma in adults: superior results for stages I-III disease. *J Clin Oncol.* 1990;8:615-22.

nicecatch



Wait... that's not right!

We've been reminded again how important it is to fully investigate situations that just don't seem right, even after an initial confirmation by an authoritative source. A pharmacist received an order for topotecan (**HYCAMTIN**) 0.75 mg to be given subcutaneously. This is a chemotherapeutic agent used to treat cervical, ovarian, and small-cell lung cancers. Topotecan labeling calls for the drug to be given as an IV infusion, not a subcutaneous injection. The pharmacist checked with the prescriber who explained that he'd copied the order for topotecan from a protocol sent to him by a well-known university hospital oncologist. Still not satisfied, the pharmacist called the university hospital oncologist and asked him to fax a copy of the protocol to the pharmacy. The protocol listed the dose per square meter as "topotecan 0.75 mg/sq m." The "sq" in

the abbreviation used for square meter was mistaken as the route "sq," or subcutaneous. Thanks to this pharmacist's extra effort, the order was corrected and the patient received the right dose of topotecan as an IV infusion, avoiding possible harm, as infiltrations of topotecan have been associated with mild local reactions such as erythema and bruising.

During staff educational offerings, it's important to instill the thought that statements such as "the protocol says to do it this way," or "that's the way they do it at University Hospital" should never be considered an endpoint when it comes to investigating the safety of an order. For a list of other "catch phrases" you might hear that often signal a red flag requiring that extra step for safety, see our November 2003 newsletter, which can be viewed at: www.ismp.org/Newsletters/nursing/Issues/NurseAdviseERR200311.pdf.

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which was packaged in a similar looking bottle. The nurse discovered the error when her patient became inexplicably sedated. When supplies of propofol are first received in the pharmacy, a label should be immediately affixed to the medication indicating that the "drug should only be given by staff certified in the use of drugs causing deep sedation." Such a warning on the bottles of propofol involved in both of these errors could have led to the recognition that the wrong product had been selected. Also, nurses should request frequent pharmacy rounds to patient care units to retrieve discontinued medications from the "pharmacy return" box to lessen the risk of medication mix-ups.

Special Announcements

ISMP teleconference.

Please join us for our last scheduled teleconference of 2007, **Clinical Pharmacists in the Emergency Department (ED): Building an Interdisciplinary Team to Improve Medication Safety**. The program, which will be held on **November 16** from 1:30-3:00 p.m. ET, will feature two clinical pharmacists who designed and implemented clinical pharmacy programs in their EDs. You will learn about the improved patient outcomes that have resulted from collaboration among physicians, nurses, and pharmacists. The speakers will also share how they are addressing the intent of The Joint Commission's Medication Management Standard 4.10 (EP1), which requires a pharmacist to review of all medication orders. For more information, please visit: www.ismp.org/educational/teleconferences.asp.

Survey results. ISMP thanks more than 800 nurses who completed the August-September 2007 **Survey on Practice Site Distribution of Nurse Advise-ERR®**. We will publish a short summary of the findings in the November 2007 newsletter.

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