



## Picture-perfect order scanning and faxing eliminates confusion

**D**ocument-imaging (scanning) technology can eliminate the need for using courier or tubing systems to send written orders to the pharmacy. The advantages include decreased time for getting medications on the nursing unit for administration, less risk of lost orders, electronic maintenance of orders in the pharmacy, and possibly a lower risk of transcription errors. Unfortunately, safety may be compromised if orders that are scanned and sent to the pharmacy aren't perfectly clear.

Some pharmacists have reported that orders received via scanning technology are often poorly legible if the "no-carbon required" (NCR) copy of the order—not the original—is scanned. Similar legibility issues exist if the order copy, not the original order, is faxed to the pharmacy. In some cases, the copy scanned or faxed may be three or four sheets under a multi-page order form.

Obviously, scanning or faxing the original order would enhance clarity, but practitioners report various reasons this isn't always done. For example, unit secretaries may not want to remove the original order from a patient's chart because they fear they'll forget to return it or replace it in the wrong chart, especially when the scanner or fax machine isn't nearby. In some cases, nurses and unit secretaries simply may not be aware of the extent of errors that may result from scanning and faxing order copies. Using the NCR copy may be the result of long-

standing habits carried over from previous systems used to communicate orders to the pharmacy. Leaving old processes in place when they no longer support new technology can lead to error-prone conditions.

A pharmacist provided an example of how old habits die hard. A year after his hospital had implemented scanning technology, the procedure for transmitting orders to the pharmacy hadn't been updated and communicated to all appropriate staff. The pharmacist learned that new nurses undergoing orientation were being taught to send pharmacy a scan of the order copy, not the original. The copy page color was pink and hard to scan, which increased the risk of illegible images.

Discussion between nurses, pharmacists, and unit secretaries can uncover everyone's concerns about scanning and faxing technology. The hospital, patients, and staff can benefit when pharmacists understand the workflow issues on the nursing unit and the nursing staff recognize how their use of the technology affects pharmacy. Improving the order images can reduce the time both nursing and pharmacy spend on clarifying illegible orders. Eliminating multi-page order forms can reduce costs. If a decision is made to continue use of multi-page NCR order forms, there should be just a single white copy without lines.

Updated technology calls for updating the medication-use system. Read the tips in **checkitout!** in the right column for ways to improve or update your use of scanning or faxing technology.

**Safety may be compromised if scanned or faxed orders sent to pharmacy aren't perfectly clear.**

### checkitout! ✓✓✓✓

These measures can safeguard your use of scanning and faxing technology:

- ✓ **Review current use.** Ask for an interdisciplinary evaluation of the scanning and faxing technology to make sure it's being used correctly and that policies and procedures for its use are up-to-date. Eliminate multi-page NCR order forms.
- ✓ **Scan/fax the first page.** Always use the original order form to scan or fax orders to the pharmacy.
- ✓ **Use yellow highlighters.** Use only yellow highlighters if markers are used during the transcription of orders. Other highlighter colors (e.g., pink, blue) can obscure the order when it's scanned or faxed.
- ✓ **Identify scanned/faxed orders.** Establish a process to indicate which orders or order sets have been scanned or faxed to the pharmacy. For example, stamp "scanned" or "faxed" below the orders, and document the date and time. Be sure the stamp does not obscure any written orders.
- ✓ **Prevent mix-ups.** Only scan or fax one patient's orders at a time, scanning or faxing each page separately. To validate that you're returning the orders to the correct patient's chart, compare two identifiers on the order with information in the patient's medical record. Keeping the chart open until the original orders are returned is also helpful.

### to the point

➔ **"Take Care! Patient Safety is No Accident."**  
...American Academy of Orthopaedic Surgeons

## Telephone orders

### How do you know the caller is for real?

Mishearing a telephone order is a well-recognized problem with verbal orders. Less often considered is another potential risk: fraudulent telephone orders. Several reports about this serious problem are described below.

▶ A teenage hospital employee who wanted to be a doctor responded to pages to on-call surgical residents. As a part-time unit secretary, the teen had access to the hospital's computerized paging system and patient records and was able to forward physicians' pages to his own pager. He issued orders for six patients, including administration of heparin, oxygen therapy, and laboratory tests. When his activity was discovered, the hospital's chief of surgery admitted that the orders were medically "appropriate under the circumstances." Fortunately, the patients weren't harmed. Because the teen's voice and phone manner were appropriate and the orders were based on what the nurses told him, his actions didn't raise immediate suspicion.

▶ The friend of a patient suffering from AIDS called the hospital and gave a verbal order for insulin to help end his friend's life. Although the patient didn't have diabetes, the nurse carried out the order and the patient died.

▶ A fraudulent order was called in for an inappropriate dose of digoxin IV, but fortunately, it wasn't administered.

▶ More than a dozen patients at various New York City hospitals received soap-suds enemas prescribed via fraudulent telephone orders. A man claiming he was the attending physician called the orders in to the nursing units.

Telephone orders should be limited to emergency or urgent situations. If you must take telephone orders, be suspicious when you're unfamiliar with the practitioner's voice and manner. If you don't recognize the caller, request his or her telephone number, verify it in the medical staff directory, and call the prescriber back to take the order. You can also verify a cell phone number with the prescriber's office staff or answering service. Another identification method is asking for a doctor-specific number such as medical records dictation number, but you'd need a list of these numbers to verify the caller's identity. If the caller doesn't provide a telephone number or you can't verify it, ask the individual to call back to speak to a nursing supervisor.

### All is not as it seems...

A patient with renal failure received a dose of vancomycin along with orders to administer another 1 gram dose IV if his vancomycin level the next morning was less than 10 (see below). The following day, a

*if Am Vancomycin level is <10,  
- Give 1 gram IV = 1*

nurse called the pharmacy to ask if a level of "35" was close enough to give the next dose. The nurse was told to hold the vancomycin until the pharmacist could investigate why she thought a serum level of 35 mcg/mL was "close enough" to 10 mcg/mL. A quick look at the original order revealed the source of confusion. The symbol for "less than" made the lab value of 10 look more like 40. A more acceptable way to write this order is, "if morning vancomycin level is less than 10 mcg/mL, give a single 1 gram dose of vancomycin IVPB." "Greater than" and "less than" symbols are frequently confused with each other or mistaken as numbers, so their use should be avoided.

### ▶ Special Announcement...

**Webinar.** The last in a series of free patient safety webinars based on the 2007 Nursing Leadership Congress will be held on **August 1**. The program, **Physical Design and Workflow of an Organization to Support Patient Safety**, will review the link between physical design, clinical workflow, and patient outcomes, and recommend steps nurse leaders can take to align design of the physical environment and clinical workflow to enhance patient safety. For details, please visit: <http://nursingleadershipcongress.com/webinars.asp>.

## safetywire



**Refrigerator monitoring.** A December 2007 article in *USA Today* reported that more than 1,000 Iowa families were notified that their children needed revaccination ((Welte M. Vaccines ruined by poor refrigeration. *USA Today*, December 4, 2007, accessed at [www.usatoday.com/news/health/2007-12-04-spoiled-vaccines\\_N.htm?loc=interstitialskip](http://www.usatoday.com/news/health/2007-12-04-spoiled-vaccines_N.htm?loc=interstitialskip)). State officials had found that repeated drops below freezing over a 17-month period had potentially destroyed vaccines stored in the clinic's refrigerator. A Minnesota clinic had to revaccinate 8,600 patients for similar reasons. Of the \$20 million a year in waste incurred by the federal Vaccines for Children program, refrigeration issues—from malfunctions to unsafe temperature fluctuations caused by simply leaving the door open for a while—account for the largest causative factor. Intermittent manual checks of refrigerator temperature aren't enough. Electronic systems that document temperature around the clock and immediately signal problems to staff should become a standard along with written procedures for how to handle any breach of a safe temperature range. Until then, nurses should contact a pharmacist for advice on medication stability and actions to be taken if a refrigerator temperature registers outside the acceptable range. Because ice build-up affects a refrigerator's ability to maintain a consistent temperature range, refrigerators on patient care units also need regular defrosting. Make sure to monitor the defrosting process to avoid temperature fluctuations and damage to refrigerated and frozen medications.

**ISMP Medication Safety Alert! Nurse Advise-ERR** (ISSN 1550-6304) ©2008 Institute for Safe Medication Practices (ISMP). Permission is granted to subscribers to reproduce material for internal newsletters or communications. Other reproduction is prohibited without written permission. Unless noted, published errors were received through the USP-ISMP Medication Errors Reporting Program. **Editors:** Judy Smetzer, RN, BSN, FISMP; Ann Shastay, RN, MSN, AOCN; Michael R. Cohen, RPh, MS, ScD; Russell Jenkins, MD. **ISMP, 200 Lakeside Drive, Suite 200, Horsham, PA 19044.** Tel. 215-947-7797; Fax 215-914-1492; Email: [nursing@ismp.org](mailto:nursing@ismp.org). **Report medication errors to ISMP at 1-800-FAIL-SAF(E).**