For Best Quality, Send Only Original Orders to Pharmacies

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PROBLEM: The use of technology that is intended to improve safety and efficiency occasionally leads to unforeseen errors. These mistakes can be minimized if the risk has been recognized, especially if the benefits of the technology are far-reaching.

Such may be the case with document-imaging technology that captures a digital image of a handwritten order and routes it to the pharmacy, thus eliminating the need for faxing, courier, or tubing systems. The advantages of this technology are numerous and include decreased time from prescribing to availability of medications for administration; a reduced risk of lost orders; electronic maintenance of orders in the pharmacy; and a potentially lower risk of transcription errors. Unfortunately, these benefits are compromised if an order that has been scanned and sent to the pharmacy is not legible or clear.

Many pharmacists have notified the Institute for Safe Medication Practices (ISMP) that orders received via document-imaging technology are often difficult to decipher if the “no-carbon-required” (NCR) copy of the order—not the original order—has been scanned. In some cases, the copy of the order that has been scanned might be the third or fourth page within a multipage NCR order form. Such situations are also responsible for poorly legible faxed orders.

One hospital pharmacist reported that when scanning technology was first implemented, errors occurred daily and the time needed to clarify illegible orders was significant. Now, several years later, errors are still occurring because pharmacists, who have spent years learning to decipher these orders, believe they can figure them out themselves.

Interestingly, one of the features of document-imaging technology—the ability to magnify the order image—might actually be contributing to the problem. Although magnification can sometimes be helpful, it should not be necessary when clearly written original documents are scanned. However, magnification has become somewhat of a crutch or a workaround for barely legible orders, whether the cause is indecipherable handwriting or a lack of clarity associated with scanned copies of orders.

The solution seems obvious; the original order should always be scanned. So why does the problem persist in some hospitals?

A few practitioners have told us at ISMP that nurses and unit secretaries do not like to remove the original order from the patient’s chart because they are concerned they will forget to return it or that they will place it in the wrong chart. This worry may be especially prevalent if unit secretaries are unavailable to assist nurses or if the scanning device or fax machine is not located right next to the person who is transcribing the orders.

Several practitioners have also told us that nurses or unit secretaries might be minimizing the problem because they are not aware of the extent and scope of errors that have resulted from faxing and scanning copies of orders. Pharmacists might also be unaware of workflow barriers that make it difficult for nurses and secretaries to scan or fax the original order. Using the NCR copy might simply be the result of longstanding habits that developed when previous systems were in place to communicate orders to the pharmacy. Copies of orders, which used to be sent to pharmacies by courier or tube, are no longer necessary if the original order can be scanned or faxed to the pharmacy.

The continued use of multipage NCR order forms, especially with the advent of scanning or faxing technology, is a prime example of a failure to evaluate the effects of the new technology on the present system. Leaving old processes and tools in place that no longer support the new technology can result in mistakes.

One pharmacist provided another pertinent example. His hospital had implemented document-imaging technology the year before, but he recently learned that new nurses undergoing orientation were being taught to send the pharmacy a scan of the order copy. In this case, copies of original orders are pink and more difficult to scan, further increasing the risk of a barely legible image. No one had informed the appropriate staff members of the updated procedures for transmitting orders to the pharmacy.

SAFE PRACTICE RECOMMENDATIONS: Here are some suggestions for minimizing errors when prescriptions are scanned or faxed to pharmacies:

1. Before implementing document-imaging equipment, an interdisciplinary team should review current medication-use procedures to evaluate whether they support the safe and efficient use of new technology.

2. Important changes in procedures or policies should be communicated to the staff before the technology is implemented.

3. If the technology is already in use or if orders are currently faxed to the pharmacy, a medication safety team should evaluate the current clarity of transmitted orders and interview pharmacy staff personnel to determine the scope of problems with legibility.

4. The original order form should always be used for scanning or faxing orders to the pharmacy.

5. Multipage NCR order forms should be eliminated to improve the clarity of the order image and to reduce nursing and pharmacy time that might otherwise be spent on clarifying orders. Costs associated with order forms would also be reduced.

6. If the facility decides to continue to use multipage NCR order forms, there
should be only a single white copy without lines. However, the risks associated with scanning or faxing copies should be carefully weighed against the benefit of a two-page order form.

7. A process should be established to indicate which orders or order sets have been scanned (or faxed) to the pharmacy. For example, some hospitals stamp “faxed” or “scanned” below the orders and document the date and time.

8. It might be helpful for pharmacists to hold a small focus group with nurses and unit secretaries to examine any concerns they might have with removing original orders for scanning or faxing. The technology cannot be successful unless expressed concerns are addressed.

9. High-speed scanners and fax machines should be located close to those responsible for transmitting orders to the pharmacy, and a sufficient number of scanners should be available.

10. Workload concerns also must be resolved.

11. When the original orders are replaced in the patient’s chart, mistakes can be reduced if staff members are required to fax or scan one patient’s orders at a time, each page separately.

12. Staff members should confirm that they are returning the orders to the correct patient’s chart by comparing two identifiers on the order with information in the patient’s medical record.

13. It is helpful to keep the patient’s chart open until the original orders have been returned.

The reports described in this column were received through the ISMP Medication Errors Reporting Program (MERP). Errors, close calls, or hazardous conditions may be reported on the ISMP Web site (www.ismp.org) or communicated directly to ISMP by calling 1-800-FAILSAFE or via e-mail at ismpinfo@ismp.org.