



Maximizing the Value of Barcode Scanning in Community Pharmacies

Barcode scanning of medication containers during the dispensing process is one way patient safety can be improved with the use of information technology. It serves to verify that the drug product and strength selected from storage matches what has been entered into the pharmacy computer system. When fully and properly implemented and used, barcode scanning will not permit the dispensing process to continue if a match does not occur. When used together with computerized patient information systems, barcode technology can prevent many medication errors, including dispensing the wrong drug, strength, or dosage form.

The biggest barriers to maximizing the usefulness of many technologies are system problems that exist in the medication-use process. These problems encourage staff to work around the technology's safety features or to use the technology in a way in which it is not intended. One community pharmacy was using a sheet of barcodes prepared from the barcodes printed on the bulk cartons of frequently dispensed unit-of-use products because those barcodes were not recognized by the system. This workaround could result in medication errors, despite the "use" of barcode technology, because the actual products were not being scanned.

Even barcode scanning cannot prevent all medication errors. If the wrong medication is prescribed, the wrong patient is selected, or the wrong strength is entered into the system, then these errors will not be captured by the system.

SAFE PRACTICE RECOMMENDATIONS

When using barcode scanning, ensure that it is used consistently and as intended each time a medication is dispensed, including refills and owed quantities. Other strategies to maximize safety when using barcode scanning systems include:

- Always scan the barcode printed from the pharmacy computer system and the barcode on the manufac-

- turer's package. Avoid verifying product selection by typing the national drug code number from the pharmacy label or the computer screen. If you must type the NDC number because the barcode won't scan, type it from the manufacturer's package.
- During order entry, either type the drug name and strength or use the computer system's drug look-up feature. Do not first retrieve the product from storage and scan the barcode as a way of entering the drug; if the wrong product is selected from storage, there will be no opportunity to catch the error later in the dispensing process by scanning the barcode.
- When more than one stock bottle is needed for a specific drug quantity, scan each stock bottle.
- If more than one container will be dispensed, ensure that each one has a pharmacy-generated label. Scan each medication product for verification. For example, dispensing three albuterol inhalers should require three individual computer-generated labels and the scanning of each albuterol inhaler package barcode.
- Review system reports on overrides of the scanning to discover problems in workflow and make necessary changes.
- Never bypass the barcode scan in the interest of delivering prescription more quickly.
- If a mismatched scan is identified, investigate the cause. **ap**

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