Improving Medication Verification with Barcoding

Supports Pharmacies’ Quality-Control Processes That Can Boost Patient Safety

It is estimated that the incidence of adverse drug events (ADEs), which directly result from medication dispensing errors, can be as high as 6.5%, depending on the facility. Given this unacceptably high rate, the pharmacy profession is looking at ways to improve medication verification prior to dispensing.

Establishing a quality-control process is an essential part of any pharmacy’s strategy for minimizing dispensing errors. Barcode label printing and scanning technology simplifies and streamlines verification by encoding essential data from the prescription order and automatically recording the data. This approach can help improve patient safety when paired with a bedside barcode medication administration process.

Medication Barcoding May Reduce Errors by Half

Implementing barcode medication administration processes can reduce medication errors by 50%. Implementing a comprehensive system for labeling all medications in a pharmacy at the unit-dose level is particularly effective. Quality barcode labels serve as a reliable data capture platform. Barcode scanning efficiently verifies the correct medication, patient and dosage prior to dispensing.

Barcoding at the unit-dose level is a proven method for preventing medication errors.  

1 Barcode-Based Patient Safety Initiatives in Hospital Pharmacies. White paper, Zebra Technologies, 2016
Dispensing is one of the most vulnerable stages of patient care where medical errors are likely to occur. Pharmacists need to verify that the right patient is getting the right medication at the right dose at the right time. Labeling every medication with a barcode and scanning it to verify dispensing of the correct medication is the basis of a sound verification process that can reduce errors.

Ensuring Reliable Labeling of Varying Container Shapes
Comprehensive barcode labeling of all drugs in a pharmacy makes it possible to verify the dosage on the unit-dose container vs. the stated dosage on the prescription order with a barcode scan prior to dispensing. To make the process work, pharmacies need to ensure that the labels reliably adhere to different container surface types for oral, injectable and infusible medications and stand up to routine contact with liquids. Reliable printing technology and durable label materials are key components of the process.

Improving Pharmacy Workflow Efficiency
In a busy pharmacy, the medication verification process must be simple, accurate and swift. High-speed, reliable barcode printers and scanners designed for continuous operation in the fast-paced pharmacy environment can make pharmacists’ workflows more efficient. Verification is quick and easy—a major benefit for busy pharmacy staff when prescription volume is high.

Data-Powered Decision Making Can Improve Patient Safety
Implementing barcode labeling and scanning technology can give pharmacists better data-powered decision-making ability right on the front line of patient care: medication dispensing. The ability to rapidly verify the correct patient, medication and dosage prior to dispensing can yield benefits that significantly reduce medication errors and the ADEs that often result.
Zebra Has Your Pharmacy Management Solutions

Your pharmacy staff needs enterprise technology with the functionality and durability to overcome the daunting challenge of minimizing medication dispensing errors amid the hectic demands of the pharmacy environment. Zebra offers tailored healthcare solutions that help you protect patients—from barcode printers, scanners and enterprise mobile computers to the software, supplies and support that make integration, deployment and management simple.

Enterprise Medication Management Solutions for Pharmacies

**Desktop and Industrial Printers**
Pharmacists need worry-free printing to accurately label medications and help prevent medication errors. Zebra® desktop and industrial printers for healthcare utilize thermal technology that leaves out additional personal health information that would require secure disposal. Healthcare versions feature disinfectant-ready plastic and a healthcare-compliant power supply to suit the hospital environment.

**Barcode Scanners**
In a hectic pharmacy, pharmacists need to seamlessly manage the flow of information yet maintain data accuracy. Zebra® healthcare barcode scanners are engineered to support seamless medication dispensing management by capturing virtually any barcode, on any medium, in any condition, the first time. Engineered for reliability in fast-paced working environments such as pharmacies, Zebra® healthcare scanners offer accurate medication data collection.

**Handheld Mobile Computers**
Establishing an efficient, effective medication verification process requires mobile technology that is reliable, durable and user-friendly. Zebra® healthcare mobile computers have integrated, advanced scanning technology that rapidly captures 1D and 2D barcodes; a durable design with drop ratings suited to cement hospital floors; disinfectant-ready plastic; and long-lasting batteries constructed to last an entire shift.
Software, Supplies and Services

Mobility DNA
Mobility DNA is a suite of software tools, utilities and applications that transform Zebra mobile computers into true enterprise-class devices. Making device management simpler, integration problem free and making your devices powerhouses of productivity.

Print DNA Software
Print DNA is a suite of powerful tools for Link-OS printers. These tools offer a customizable printer user experience that enables fast, accurate printing; remote enterprise-level printer management tools; and easy printer integration into existing infrastructures.

Link-OS Intelligent Printer Operating System
Link-OS is Zebra’s one-of-a-kind enterprise printer operating system. Enabling advanced connectivity capabilities, extensive device management and advanced privacy controls.

DataCapture DNA Software
Pharmacies can deploy and maintain devices for maximum operating performance with DataCapture DNA, a portfolio of scanner productivity, visibility, management and application development tools. It enables greater worker efficiency through seamless application integration and maximum device performance.

Workforce Connect
Zebra designed its Workforce Connect solution to enable healthcare professionals of all kinds to make voice calls, send push-to-talk and secure text messages to connect with their peers—all with a single device.

Medication Labels
Genuine Zebra® labels use materials and adhesives that accommodate packaging variables and reliably maintain adhesion to numerous surfaces and their shapes, including syringes and IV bags.

OneCare Visibility Services
OneCare ensures that Zebra® devices achieve maximum uptime and peak performance. Multiple service levels are available to meet each pharmacy’s unique requirements.

To learn more about Zebra’s pharmacy management solutions, visit www.zebra.com/healthcare