

Is electronic  
medications a good  
idea?



Medication errors are reaching dangerous levels in Long Term Care Facilities and technology can help to alleviate this problem. Is there a better and more effective way of charting medications for distributing medications to help the med-pass run more efficiently? The med-pass is the process of distributing medications to an individual in a long-term care facility or other medical type setting.

Incorporating Bar Code Technology, which implements electronic charting is a more accurate and more horrors way to document medications given. The use of Bar Code Medication Administration Technology will decrease the amount of errors while administering medications. Patient safety should be the focus and top priority for all healthcare facilities. In the medical field, there are five rights of medication administration that are crucial to the patient's safety: the right drug, right dose, right time, right patient, and right route.

The Bar Code Medication Administration Technology has the ability to address all of these rights. In 1992, the Food and Drug Administration received early 30, 000 reports of medication errors. These were voluntary reports, so the number of medication errors that actually occur is thought to be much higher. There is no " typical" medication error, and health professionals, patients', and their families preparation of Tax for a patient, but the pharmacist accidentally prepared 260 milliamps of Taxol instead.

They are both chemotherapy drugs but are used for deferent types of cancer and with different recommended doses. The patient died several days later, though it could not be proven to be caused by the error because the patient

was already severely ill. Another example of improper medication use is when an older patient with rheumatoid arthritis died after receiving an overdose of metamorphose, as he was given a 10-milliard daily dose of the drug rather than the intended 10-milligram weekly dose.

Some dosing mix-ups have occurred because daily dosing of metamorphose is typically used to treat people with cancer, while low weekly doses of the drug have been prescribed for other conditions, such as arthritis, asthma, and inflammatory bowel disease. In another case, one patient died because 0 units of Insulin was abbreviated as " 20 U," but the " U" was mistaken for a " zero. " As a result, a dose of 200 units of Insulin was accidentally injected. In another case, a man died after his wife mistakenly applied six-transversal patches to his skin at one time.

The multiple patches delivered an overdose of the narcotic pain medicine fentanyl through his skin. These and other medication errors that have been reported to the FDA may stem from poor communication; misinterpreted handwriting; drug name confusion, confusing drug labels, labeling, and packaging; lack of employee knowledge; and lack of patient understanding about a drug's factors in a complex medical system. In most cases, medication errors can't be blamed on a single person," says Paul Salesman, M. D. , director of the FDA's Office of Pharmacology and Statistical Science.

A medication error is " any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the health care professional, patient, or consumer," according to

the National Coordinating Council for Medication Error Reporting and Prevention. The council, a group of more than 25 national and international organizations, including the FDA, examines and evaluates medication errors and recommends strategies for error prevention. " (FDA. Gob, 2011, pas. 1-2) Some errors associated with Bar Code Medication Administration are not the fault of this technology.

They occur earlier in the medication-pass process. The medication-dispensing phase is a typical place for medication errors and the bar code administration perpetuates these errors by verification of the medications, right drug, right dose, and right patient. In order to reduce medication errors, bar codes must be available and technology in place to scan the bar codes, while facilitating the rest of the clinical processes and workflow. A recent analysis of some health related field sites indicates that only approximately 20-35% of the bar code medication administration technologies are in place and being effectively utilized.

By increasing the availability of the technology of the bar codes and implementing this technology will leverage the industry to decrease the number of medication errors. What is bar code medication administration? Bar Code Medication Administration (ABACA) is an inventory control system that uses Barbados to prevent human errors in the distribution of prescription medications at hospitals, nursing homes, and long-term care facilities. The goal of ABACA is to make sure that patients are receiving the correct medications at the correct time by electronically validating and documenting medications.

The information encoded in bar codes allows for the comparison of the medication being administered with what was ordered for the patient. A bar code medication administration system consists of a barded printer, a barded reader, a bile computer (with Wife), a computer server and software. Each drug in the facility is labeled with a unique bar code. When a patient is prescribed medication, it is faxed, sent electronically or hand delivered to the facility pharmacy and entered into a computer system by a pharmacist.

The pharmacist dispenses the barrowed dose of the drug and delivers the medication to the facility. When it's time for the clinician to administer the medication, he uses a hand-held device to scan the bar codes on his identification badge, the patient's wristband and the drug. If the system Anton match the drug to be given with the order in the system, it alerts the clinician with a visual warning. Passing medications is a time consuming and tedious task and organization and efficiency is vital. If there is a way to improve the system it should be explored.

Humans err while there is less chance of computer error so I think this system is worth looking in to. There are many advantages at first glance: Electronic medical record systems and Bar Code Technologies offer better opportunities to organize and manage clinical data that can potentially improve the are of your residents and the financial health of your facility. (Annals of Family Medicine, 2005, Para 1). Electronic charting would eliminate paper discrepancies, allowing more time for quality resident care.

There would be less time spent on signing the books and making orders because the computer does that for you as it has a direct link to the

pharmacy. " Medication errors are a serious public health threat. According to a landmark 1999 Institute of Medicine report, between 44, 000 and 98, 000 Americans die annually due to medical mistakes. As part of its ongoing efforts to improve patient safety, the U. S. Food and Drug Administration (FDA) ruled on April 4, 2004, to make Barcodes mandatory on the labels of thousands of human medications and biological products by the year 2006.

The FDA has predicted that the ruling will prevent nearly 500, 000 adverse events and transfusion errors over the 20 years that follow, at a cost savings of \$93 billion. Although the ruling makes the National Drug Code (AND)-format Barcodes mandatory only on medication packaging produced by drug suppliers, there is hope that this policy will bring about technological advancements in prescription ordering, drug dispensing, and medication administration across all arms of the nation's health care system. "

(Weidman, Whittler, Anderson, ND, pag. 38) Electronic medical charting medications and Bar-Code Technology can work directly with pharmacies, provide drug interactions and allergy alerts and track the average number of medicines ordered. They can ensure there are no more audit discrepancies. The medications are counted and signed out only as they are given. A bar code scanner is used and only the right medication can be given at the right time. Electronic charting of medications and Bar Code Medication Administration Technology has obvious unifies.

In March of 2003, the Department of Health and Human Services publicized two new strategies that the FDA will implement while using state-of-the-art technology to improve patient safety. The first is the use of Bar codes: Just as the technology is used in retail and other industries, required bar codes

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would contain unique identifying information about drugs. When used with bar code scanners and computerized patient information systems, bar code technology can prevent many medication errors, including administering the wrong drug or dose, or administering a drug to a patient with a known allergy. The requirement took effect in April 2004.

The second is better safety reporting: " A proposed revamping of safety reporting requirements aims to enhance the Fad's ability to monitor and improve the safe use of drugs and biologic. In 2003, the FDA published a proposed rule. The rule, if enacted, would improve the quality and consistency of safety reports, require the submission of all suspected serious reactions for blood and blood products, and require reports on important potential medication errors. " (FDA. Gob. 2011, peg. 5) The healthcare industry has already begun to make progress with this genealogy but mostly in the hospital sector.

The technology needs to be made more readily available at affordable pricing. The objective is to enhance patient safety and eliminate errors throughout the medication distribution process.