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Oops I Did It Again: Preventing Medication Errors Using BCMA

Abstract

This is literature review of current studies to answer the question "What effect does the use of electronic scanners have on medication administration errors in hospitalized patients as compared to manual MAR methods?" Current evidence shows that errors in the medication administration step pose to be the most problematic of the entire medication process in hospital settings. It is also known that less than 2% of medication errors are intercepted and corrected at the bedside. Traditional medication administration records (MAR) using pen and paper have dominated the hospital setting for the past several decades but could be largely responsible for the majority of medication errors. With the increasing use of technology, a bar code medication administration (BCMA) system has been implemented to overcome this common problem. Seven research studies were examined to determine whether an implemented BCMA system into hospital settings continuously proves to lower medication administration errors. Not only has BCMA shown to lower medication administration errors, but it has also shown to decrease turn-around time to process medication doses in the pharmacy as well as increase accuracy of patient identification, inventory, and staffing of nurses and pharmacists. Abandonment of traditional MAR systems and implementation of BCMA systems in hospital settings increases patient safety and saves money.

Keywords: *medication administration, bar code scanning, technology, prevention,* and *error*