

The impact of introducing automated dispensing cabinets, barcode medication administration, and closed-loop electronic medication management systems on work processes and safety of controlled medications in hospitals: a systematic review.

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<https://psnet.ahrq.gov/issue/impact-introducing-automated-dispensing-cabinets-barcode-medication-administration-and-closed>

This systematic review sought to determine the impact of [automated dispensing cabinets](#) (ADCs), [barcode medication administration](#) (BCMA), and [closed-loop electronic medication management systems](#) (EMMS) used by hospitals in reducing controlled substance medication errors in hospitals. Overall, only 4 studies (out of 16) focused directly on controlled medications. A variety of types of errors (e.g., log-in, data, entry, [override](#)) compromised patient safety. High-quality targeted research is urgently needed to evaluate the risks and benefits of medication-related technology.