Abstract:

Introduction: Healthcare-related technology has been widely accepted as a key patient safety solution to reduce adverse drug events by decreasing the risk of human error. The introduction of technology can enhance safety and support workflow; however, it does not eliminate all error types and may create new ones. Barcode medication administration and smart infusion pumps are two technologies utilized during medication administration to prevent medication errors before they reach the patient.

Objective: This article reviewed different error types with barcode medication administration and smart infusion pumps and examined how these errors were able to occur while using the technology. Recommendations for preventing these types of errors were also discussed.

Conclusion: Hospitals must understand the technology, how it is designed to work, which errors it is intended to prevent, as well as understand how it will change staff workflow. It is essential that metrics are set by hospital leadership and regularly monitored to ensure optimal use of these technologies. It is also important to identify and avoid workarounds which eliminate or diminish the safety benefits that the technology was designed to achieve. Front line staff feedback should be gathered on a periodic basis to understand any struggles with utilizing the technology. Leaders must also understand that even with full implementation of technology, medication errors may still occur.

Reference: