

Abstract

In the high-stress environment of the emergency department (ED), accurate and timely medication administration is crucial to patient safety. Medication errors, which account for the highest frequency of adverse medical events, present significant risks including adverse reactions and increased healthcare costs. Barcode scanning medication administration (BCMA) technology has emerged as an effective solution to reduce such errors; however, its implementation in the ED remains challenging. This project examines an academic medical center's effort to improve BCMA compliance in its ED through a continuous quality improvement (CQI) project utilizing the Plan-Do-Study-Act (PDSA) model. Initially, BCMA use was very low due to staffing challenges, IT inconsistencies, and the recent transition to a new electronic health record (EHR). In three PDSA cycles, interventions such as team competitions, direct engagement with low-adopting staff, and public compliance reporting were implemented, resulting in significant compliance improvements. This project demonstrates the potential of targeted interventions to enhance BCMA adoption in a complex ED setting, with implications for improving patient safety and quality care.