

Effect of computerized physician order entry and a team intervention on prevention of serious medication errors.

May 27, 2011

Bates DW, Leape L, Cullen DJ, et al. Effect of computerized physician order entry and a team intervention on prevention of serious medication errors. JAMA. 1998;280(15):1311-6.

<https://psnet.ahrq.gov/issue/effect-computerized-physician-order-entry-and-team-intervention-prevention-serious-medication>

The authors report their groundbreaking before-and-after trial of [computerized physician order entry](#) (CPOE) in six units at the Brigham and Women's Hospital in Boston. The authors used several manual methods for detecting [adverse drug events](#) (ADEs) and potential ADEs and for assessing their severity in two intensive care and four general care units before and after implementing a CPOE system. The system featured several decision-support functions, including dose-range checking; display of relevant laboratory values at the time of medication ordering; consequent order prompting; and drug-drug, drug-allergy, and drug-laboratory interaction checking. The study demonstrated significant decreases in several classes of ADEs and provides estimates of the system's cost efficacy. This study remains one of the largest and most comprehensive on the potential of feature-rich CPOE systems and has significantly motivated hospital, research, and policy interest in the field.