

Table 2

Benefits of CPOE Implementation

Benefit	Details	Citation
Medical error reduction	Meta-analysis study in 2008 estimated 12.5 percent reduction in medication errors, or about 17.4 million medication errors averted in the United States in one year by using CPOE.	Radley et al. (2013)
	Prescribing errors decreased 91 percent with implementation of CPOE.	Aronsky et al. (2007)
Cost reduction	Brigham and Women's Hospital saved \$28 million over the course of 10 years by reducing medical errors and ADEs.	Kaushal et al. (2006)
CDSS integration	Alert systems prevented a significant amount of potentially inappropriate medication orders, with the number of inappropriate orders dropping by 20 to 30 percent.	Mattison et al. (2010)
	Drug interaction checks, drug allergy checks, and prompts for the provider about when to order a service for a patient reduced ADEs 7 to 10 times out of every 100 hospital admissions.	Kaushal and Bates (2013)
	CPOE with CDSSs decreased prescribing errors or ADEs as much as 55 to 86 percent.	Bates (2010); Georgiou et al. (2013)
Duplicate test check	Physicians have instant access to their patients' EHRs and their prior test results.	Callen et al. (2006)
	Checking for tests that had been performed saved \$92,000 per year.	Levick et al. (2013)
	Once a test has been selected, alerts let the physician know if that patient has previously had the test done.	Baron and Dighe (2011)
Interruptive/noninterruptive pop-ups	Interruptive alerts only pop up for serious issues, whereas noninterruptive alerts pop up for issues that are not crucial.	Baron and Dighe (2011)

ADE, adverse drug event; CDSS, clinical decision support system; CPOE, computerized provider order entry.

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