

Physicians click their way to better prescriptions

March 10 2010

Is it time for all community-based doctors to turn to e-prescribing to cut down on the number of medication errors? According to Rainu Kaushal and colleagues from the Weill Cornell Medical College in New York, electronic prescriptions can dramatically reduce prescribing errors - up to seven-fold. Their study of the benefits of e-prescribing in primary care practices appears online in the *Journal of General Internal Medicine*.

In the U.S. there is a strong national push to encourage doctors to adopt ambulatory e-prescribing. An estimated 2.6 billion drugs are provided, prescribed, or continued at ambulatory care visits. Demonstrating the potential safety gains through health information technology is important to bring small group physician practices on board.

To assess the effects of e-prescribing on [medication errors](#), the authors looked at the number and severity of prescribing errors - such as ordering a medication but omitting the quantity, prescribing a drug to a patient with a known allergy to the active ingredient and injuries from medication - in 12 community-based medical practices in the Hudson Valley region of New York. The study's authors compared the number of prescription errors between those who adopted e-prescribing (15 doctors) and those who stuck with paper-based [prescriptions](#) (15 doctors) between September 2005 and June 2007. In total, the researchers analyzed 3,684 paper-based prescriptions at the start of the study, and 1,543 paper-based and 2,305 electronic prescriptions after a year.

The providers who adopted e-prescribing over the study period used a commercial, stand-alone system with clinical decision support such as dosing recommendations and checks for drug-allergy interactions, drug-to-drug interactions and duplicate therapies.

Kaushal and team found that among those who used e-prescribing, there was an almost seven-fold decrease in prescribing errors after one year - from 42.5 percent at the start of the study to 6.6 percent after a year. In contrast, among those who used traditional paper-based prescriptions, the level of errors remained high: 37.3 percent at baseline versus 38.4 percent at one year. Predictably, illegibility errors were completely eliminated by e-prescribing.

The authors conclude: "Prescribing errors may occur much more frequently in community-based practices than previously reported. Our study is one of the first to demonstrate a reduction in prescribing errors in ambulatory solo and small group community practices, where e-prescribing adoption and usage has lagged. Our findings suggest that stand-alone e-prescribing with clinical decision support may significantly improve ambulatory medication safety."

More information: Kaushal R et al (2010). Electronic prescribing improves medication safety in community-based office practices. Journal of General Internal Medicine, [DOI 10.1007/s11606-009-1238-8](https://doi.org/10.1007/s11606-009-1238-8)

Provided by Springer

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