E-Prescribing Reduces Errors, Record Review Says

BY TIMOTHY F. KIRN
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SEATTLE — Electronic prescribing may be a way to significantly reduce medication errors, according to a study that reviewed records involving 749 private-practice patients and more than 1,000 prescriptions.

The study found an error rate of 3.9% when physicians used electronic prescribing, Martha Simpson, D.O., said at a conference on rural health sponsored by the WONCA, the World Organization of Family Doctors. That compares with medication error rates from hospital studies that range from 3% to 6%, and error rates from studies in the community that have reached as high as 10%.

"This is significantly lower than other reported rates have been," said Dr. Simpson of the department of family medicine at Ohio University College of Osteopathic Medicine, Athens.

The study involved four group practices in Ohio, which were given equipment (Rcopia, DrFirst Inc., Rockville, Md.) and training for electronic prescribing to five local pharmacies. The prescriptions were written over a 14-month period. Medical records were then reviewed by a pharmacist, and the patients were telephoned 3 months after their final prescription for an interview to find out if they if they had any adverse events or problems.

The study's results are not particularly surprising, because one of the most common reasons for prescription error is physician handwriting, Dr. Simpson said.

However, once electronic prescribing becomes more common, it will bring with it errors and challenges that are unique to the process, she said. For example, physicians can easily point their cursors to the wrong box and click, thereby inadvertently canceling a prescription or ordering the wrong one. And, of course, computers sometimes go down temporarily.

Some states do not allow electronic prescribing, and most do not allow prescribing of scheduled drugs. Moreover, electronic prescribing technologies are not automatically entered into electronic medical records. "Until all these systems are integrated, we are not going to have widespread adoption of this," Dr. Simpson said.

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DR. SIMPSON

Another advantage of electronic prescribing will be that pharmacists will know when patients fail to pick up their prescribed medications, and will be able to notify the doctor, she noted. Dr. Simpson said her study also looked at how the physicians accepted and used the technology they were given. Contrary to her expectations, there were no strong, enlightening patterns, she said.

Of the nine physicians and one nurse practitioner in the practices, four adopted it immediately, three used it about half of the time, and three did not use it at all. Some of those who used the system were the older physicians, and some of those who did not use the system were the younger physicians. What they did see, however, was that if doctors did not take to the technology right away, they never did, she added.

The study was sponsored by a grant from the Ohio Medical Quality Foundation. ■

INDEX OF ADVERTISERS