

Is Electronic Medical Record Software Ready for Evidence-Based Therapeutics in Primary Care?

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Background: Electronic medical records offer considerable potential as a vehicle for drug utilization review and decision support to physicians. We have undertaken the first pilot project designed to fully computerize family practices in the province of Ontario, the largest single-payer health jurisdiction in North America. The COMPETE project aims to computerize approximately 100 office-based family physicians; upload anonymized data to the research center to study the quality of charted data and the appropriateness of prescribing; and to provide patient-specific therapeutic advice via the EMR.

Methods: A systematic review, surveys, detailed evaluation of EMR software products and companies with attention to our combined clinical and research aims. A precise prescribing appropriateness algorithm was developed for this assessment.

Results: We found no reports which detailed a similarly rigorous process of EMR software review or the process of computerization itself for a medical population. While EEMR usage is low in Canada, over 60% of Canadian family physicians have expressed interest in computerizing. Evidence-based therapeutics is an important stimulus, but the main driver of interest is office efficacy. Our systematic approach to EMR evaluation for clinical and research use quickly reduced the eligible vendors from approximately 50 to 4. Reaching consensus regarding the finalist product was difficult. None of the finalist software fully integrate evidence-based therapeutics decision support.

Conclusions: Rigorous evaluation of available office-based EMR products is difficult, time-consuming, expensive and therefore rarely done. Further development of the best software is required to meet current expectations to support evidence-based practice including evidence-based therapeutics.