

Using EMRs to fuel quality improvement

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Increasingly, FPs and primary care teams are using electronic medical records (EMRs). There is growing consensus that EMRs facilitate research and epidemiologic surveillance but little evidence yet that they improve patient care or health outcomes.¹

Data from EMRs can provide feedback, a core activity for quality improvement (QI). Feedback is effective if it is local (reflecting actions of a physician and the group), includes comparisons, and is credible and actionable.² Creating useful comparative reports depends on accurate, standardized data and software tailored to practice needs; the availability of such software is currently limited.

In Canada, most FPs practise within groups,³ and 25% practise in interdisciplinary primary care organizations³ (eg, family health teams [FHTs] in Ontario and primary care networks in Alberta). To meet increasing requirements for accountability and reporting, some groups have hired data analysts to help them manage their information. In Ontario, analysts include provincially funded Quality Improvement and Data Support Specialists, each of whom supports a group of affiliated FHTs. However, the data entry and the EMRs' capabilities are often unable to support feedback and reporting.^{4,5} Conflicting evidence about EMR benefits for patient care is due partly to problems encountered in using EMR data for measurement.⁶

To overcome these challenges, the Canadian Primary Care Sentinel Surveillance Network (CPCSSN) developed the Data Presentation Tool (DPT)⁷ and provided it to several teams in its network. The DPT uses data cleaned and standardized by CPCSSN and has query, export, and reporting features usually not available in EMRs. The data and software are returned to the team member responsible for analytics. Data can be re-identified at the practice site for clinical action. Information about the DPT's effect in these teams is emerging.⁸ For example, the North York FHT used it to identify missing or non-standardized data in its EMRs. The data were then updated with standardized codes, which led to a 22% improvement in coding across 5 important chronic conditions and to the team's formation of registries of health conditions.⁸ At project's end, the team not only had credible data but also analysts confident in using the DPT to manage the team's data. The result was team-based decisions on QI projects and actionable information delivered by well respected local clinical leaders.⁹

Key informants in the FHT stressed the value of access to these data: "We can now pose questions and get answers

to the questions that are important to us."⁸ The interprofessional team members also better understood the benefits of entering structured, standardized data in their EMR.

Multiple report types might be needed to fuel QI in primary care. For example, aggregated information comparing groups to others provincially or nationally, such as reports provided by Health Quality Ontario,¹⁰ can send signals indicating need for improvement. However, these reports might not identify individual patients needing actions or be informed by local priorities or resource availability. Reports using local EMR data and by analysts embedded in the team are less broadly based but perhaps timelier and more focused and responsive to local needs; they can also identify individual patients requiring additional clinical action. It is feasible to return standardized CPCSSN data and the DPT to support local clinical analytics; given appropriate resources, this approach could be widely implemented by primary care groups across Canada and is being actively pursued by CPCSSN. 🌱

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Competing interests

None declared

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