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Title

Did the implementation of team-based primary care models in Ontario and Quebec, Canada, impact appropriate prescribing?

Priority 1 (Research Category)

Secondary data analysis

Presenters

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Abstract

Context: Many older adults take multiple medications prescribed by a variety of providers, which leads to concerns about medication management, appropriateness, and adverse drug events.

Interdisciplinary, team-based primary care models can improve coordination of health care services, which could translate to improved medication management and related outcomes.

Objective: Evaluate the impact of interdisciplinary team-based primary care models implemented in two Canadian provinces — Ontario and Quebec — on outcomes related to medication use.

Study Design and Analysis: Retrospective cohort analysis of population-level administrative health data. We used difference-in-differences analysis to compare older adults rostered to team-based primary care models, to older adults not rostered to team-based models.

Dataset: Data housed at ICES in Ontario and the Institut national d'excellence en sante et services sociaux (INESSS) in Quebec. We focused on fiscal years 1999/00 to 2017/18.

Population Studied: Eligible patients were between 66 and 104 years of age. We matched (1-to-1 propensity score matching without replacement) an exposure group of older adults who were rostered to a physician affiliated with a team-based primary care model to a comparison group of older adults rostered to non-team family physicians.

Intervention: Quebec's Family Medicine Groups (implemented in 2002) and Ontario's Family Health Teams (implemented in 2005).

Outcome Measures: Any adverse drug event resulting in hospitalization, polypharmacy (5+ medication classes), and any potentially inappropriate prescription (adapted from Beer's and STOPP/START criteria).

Results: Matched cohorts included 429,104 older adults in Ontario and 310,198 in Quebec. In the year before they rostered, 53% and 40% of older adults had a potentially inappropriate prescription in Ontario and Quebec, respectively. In both provinces, 1% had an adverse drug event. Quebec's Family Medicine Groups were more likely to experience an adverse drug event (RR = 1.14; 95% CI: 1.10 - 1.17). We found no other differences between the exposure and comparison groups.

Conclusions: The implementation of team-based primary care models in Ontario and Quebec was not associated with a variety of outcomes related to medication management. These results point to a need for further investigation of the composition and functioning of primary care teams to determine how they can support older adults with complex health needs