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Conflict of Interest Disclosures: None reported.


Pharmacist-Led Education to Discontinue Inappropriate Prescribing

To the Editor: In the D-PRESCRIBE cluster randomized clinical trial conducted in Canada, Dr Martin and colleagues showed that pharmacist-led education directed at older patients who were prescribed Beers Criteria medications led to discontinuation of inappropriate prescriptions. The study demonstrated validity because there were few differences between treatment and control groups, randomization was concealed, participants were blinded, and few participants were lost to follow-up. However, there are 2 aspects of the trial that raise concerns.

First, a significant portion of the eligible pharmacies and patients were not included in the study. Halfof eligible pharmacies declined to participate either because of competing priorities or lack of interest in research. Of the participating pharmacies, more than half of the eligible patients (1805 of 2815) did not provide consent to be contacted by the research team. Analysis of the pharmacies and patients excluded from the study should be done to assess for selection bias. We would be especially interested to see if there were any defining characteristics or geographic locations of the pharmacies that refused to participate, which consequently excluded their patients as well.

Second, reproducibility in the United States may be limited by differences in pharmacist reimbursement for cognitive services and the predominance of large for-profit chain pharmacy-Continued
In Reply We deliberately designed the D-PRESCRIBE study as a pragmatic clinical trial to mirror real-life conditions and test the effectiveness, rather than the efficacy, of the pharmacist-led educational intervention for patients and primary care clinicians. \(^1\) The more similar the participants and conditions in a trial are to real life, the more reproducible the findings will be in practice. For this reason, the trial was rolled out in the community, outside of the academic setting, without financial incentives offered to pharmacists or patients. We recruited pharmacies through partnership with 3 large for-profit pharmacy chains serving rural and urban areas in Quebec. Although only half of the eligible pharmacies agreed to participate, and we could not record the profiles of pharmacies that declined, the characteristics of the 69 pharmacies that enrolled in the trial were similar to the characteristics of a population-based sample of 1742 pharmacies in the province of Quebec. \(^2\) Pharmacies in the intervention group filled a mean number of 411 prescriptions per day (range, 140-1000), with more than 50% of their clientele composed of adults aged 65 years and older. This large-chain, high-volume prescribing profile of consenting pharmacies compares favorably—and even exceeds—the mean prescription volume reported in 2017 by a random sample of 292 nationally representative community pharmacies in the United States. \(^3\) The latter sample of US pharmacies reported a mean prescription volume of 228 prescriptions per day (range, 0-900). Furthermore, the following characteristics of participants in the trial reflected the type of patient that physicians and pharmacists are likely to see in practice: mean age of 75 years (range, 66-96 years) with significant polypharmacy (a mean number of 9 different medications per day [range, 1-28]), frailty rates of 27%, and almost 40% of patients taking more than 10 medications per day. The 2014 EMPOWER trial recruited a comparable sample of pharmacists and patients to an educational deprescribing intervention and achieved discontinuation rates of 27% for chronic benzodiazepine users. \(^4\) Taken together, the EMPOWER and D-PRESCRIBE trials provide strong evidence that the deprescribing intervention will work effectively if applied by high-volume, for-profit pharmacy chains in the United States.

Whether reimbursement strategies for US pharmacists will preclude uptake is a distinct issue. The pay-for-prescription, fee-for-service model of pharmacy care in the United States is similar to the model in Canada. While pharmacists in Quebec had access to an additional small, government-sponsored service fee of Can$19 for sending evidence-based pharmacological opinions to physicians, this fee is not available in many US jurisdictions. According to the American Pharmacists Association, new payment models that are less volume based and more value based are becoming increasingly common, depending on the organization pharmacists work within. \(^5\) However, financial incentives and performance measures alone do not lead to successful deprescribing. \(^6\) The uptake of improved quality-of-care practices depends on the motivation of individual practitioners to apply evidence-based interventions. Insurers may also be motivated by approaches that reduce waste, diminish costs, and increase value. The evolution of health care systems toward a self-driven, internally reflective microcosm that embraces evidence-based interventions and limits low-value care remains a work in progress.

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Conflict of Interest Disclosures: Dr Tannenbaum reports receipt of funding from the Fonds de Recherche en Santé de Québec. No other disclosures were reported.


