

The other side of the coin

The case for deprescribing competencies in medical education

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Canadians are living longer, with those over the age of 85 becoming one of the fastest growing demographic groups.¹ Older adults, particularly those who are frail and have more medical conditions, are at greater risk of experiencing polypharmacy, which is often defined as regularly taking 5 or more medications.² The concern with polypharmacy has grown from simply the number of medications prescribed to include those that are inappropriately prescribed (potentially inappropriate medications [PIMs]). A medication can become a PIM in several scenarios, including when the evidence no longer supports its use, and when the harm outweighs the benefit. The increasing number of PIMs can potentially lead to worsening frailty and disability, more falls and cognitive impairment, hospitalization, and death.³ PIMs are likewise associated with greater health care use and costs.³ In 2021-2022, 42.3% of older Canadian adults were prescribed a PIM, with higher rates reported in women.^{4,5} It has been estimated that up to 10% of hospitalizations in developed countries around the world result from medication-related problems, two-thirds of which are thought to be preventable.⁶

New tools to tackle polypharmacy

With the growing availability of medications and the proliferation of clinical practice guidelines, 1 of the defining features of family medicine has become the act of prescribing, with competency frameworks published by both the Medical Council of Canada⁷ and the Royal Pharmaceutical Society.⁸ Until recently, there had been no systematic guidance to assist physicians in the challenging pursuit of deprescribing. The idea of providing an off-ramp for when medications begin to cause harm or may no longer be needed has traditionally not been a part of medication or health care discourse. It is still common for patients to be informed by physicians they should remain on most of their medications for life. This has created a set of patient and provider assumptions that favour staying on medications indefinitely despite potential harm, rather than creating an opportunity for reducing risk linked to problematic pill burden. In turn, while deprescribing can be seen on a continuum with prescribing, the skills required for it involve a different valuation of benefit and risk⁹ and are not easily included in existing medical education. Education regarding polypharmacy and deprescribing has typically occurred in academic geriatric clinical settings, where access to newly available resources such as deprescribing guidelines for specific medication classes, screening tools, or

deprescribing case reports has enhanced deprescribing competency for physicians involved.^{3,10}

Attention to polypharmacy has increased among different stakeholders, including physicians, pharmacists, patients, and policy-makers, with the emergence of the Canadian Medication Appropriateness and Deprescribing Network (CADeN)^{11,12} and others over the past decade. Established in 2015, CADeN is a group of people with lived experience in this area, composed of clinicians, educators, policy-makers, and researchers working together to promote the safe and appropriate use of medications. Importantly, CADeN provides clinicians with evidence-based tools and resources to support deprescribing of PIMs.¹³ Members of CADeN's Health Care Provider Committee also recently proposed the first curriculum framework to teach and evaluate deprescribing competencies in medicine, pharmacy, and nursing entry-to-practice degree programs.¹⁴

Proposed curriculum framework

Development of CADeN's framework stemmed from clinicians' lack of confidence with the principles and practice of deprescribing. While a variety of barriers to deprescribing exist, including system and patient factors, gaps in clinician knowledge and skills are arguably 1 of the more important obstacles.⁹ Clinicians have expressed low self-efficacy with deprescribing, including concern over possible withdrawal effects and uncertainty about tapering and monitoring.¹⁵ However, deprescribing patterns among family physicians have not been studied. While the concept of deprescribing has entered the clinical vernacular over the past decade, and prescribing trends have declined for certain PIMs in recent years,¹⁶ prescribing rates for other PIMs have increased.¹⁷ The proposed curricular framework aims to respond to a suspected persistent knowledge and skills gap and makes a compelling case for embedding a standardized approach to deprescribing in medical education.


If team-based care is the future of family medicine, the framework developed by CADeN highlights the need for each team member to receive systematic, evidence-based teaching in deprescribing principles and skills geared to their discipline. Outlined here are 7 key competencies required, including gathering a patient's medication history; considering goals of care; identifying PIMs; comparing benefits with harms to determine which medications may be most amenable to deprescribing; employing shared decision-making to decide whether a medication should be deprescribed;

developing a deprescribing and monitoring plan; and monitoring patient response to medication changes.¹⁴

The formulation of deprescribing curricula is justifiably comprehensive. It scaffolds the competencies with built-in means of teaching and assessment at every step of training. There is flexibility in the approach, envisioning deprescribing to be taught as a stand-alone course, integrated into other courses with varying levels of competency stipulated, depending on the institution. The knowledge and skills deemed necessary are to be imparted in a variety of ways, from didactic to experiential. The corollary of this call for change is that it is rooted in patient-centred care, grounded in shared decision-making, and highlights the importance of patient values and preferences. It is guided by an interprofessional clinical team approach. This emphasis on teamwork to ensure successful deprescribing is timely and in line with proposed strategies to address the current crisis in family medicine. The framework, in turn, aims to fill the communication skills gaps that continue to impede conversations with patients around deprescribing.

This call to action will encourage our system to adapt, in part because the system and physician remuneration are not set up to accommodate deprescribing, considering the time required for assessment, care planning, and monitoring. However, what this proposed curriculum framework promotes—more widespread knowledge and a standardized practice of deprescribing—will substantially benefit patients and the surrounding health system through potentially improved quality of life, fewer adverse drug events, reduced cost, and perhaps even lower mortality rates.³ Implicit in CADeN's proposal is the notion of elevating deprescribing where it is most likely to take root and have maximum impact—in medical education.

Conclusion

This paradigm shift in curricula means that physicians, pharmacists, nurses, and allied health colleagues will collaborate to keep deprescribing opportunities at the forefront of the clinical team's thinking. Tied to this are new pharmacist and nursing roles in prescribing. Moreover, the idea that being a good prescriber also requires being a confident deprescriber emerges as a central principle for physicians and their colleagues alike. Both exist along the same continuum: Prescribing by necessity entails the possibility of deprescribing. Awareness of this interconnectedness will be important to imbue a new generation of family physicians with the capacity to make deprescribing an integral part of their practice. 

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Competing interests

Camille Gagnon is a member of the Choosing Wisely Quebec board, reports salary support from Health Canada and the Canadian Institutes of Health Research (CIHR) through grant funds, and has received honoraria as a speaker on deprescribing for the Fédération des médecins spécialistes du Québec. **Brenda G. Schuster** reports honoraria as Co-chair of the Canadian Medication Appropriateness and Deprescribing Network (CADeN). **Tiphaine Pierson** reports research support from CADeN. CADeN receives funding from Health Canada, Accelerating Clinical Trials Canada, and CIHR.

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