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Implementing deprescribing guidelines into frontline practice: Barriers and facilitators

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ABSTRACT

A Bruyère Evidence-Based Deprescribing Guideline Symposium was held in March 2018; one component focused on implementing deprescribing guidelines into practice. An interactive discussion activity allowed the 107 participants to share experiences and ideas concerning the barriers and facilitators that arise when moving deprescribing guidelines into frontline practice. Participants identified 8 broad challenges and problem areas. These included challenges and barriers that arise in the daily practices of pharmacists and prescribers and in other health care settings, and those related to existing policies, processes, and financial structures. They also identified 10 factors that facilitated implementation efforts, including: educating patients, caregivers, health care providers (HCPs) and staff; improving collaboration across practice disciplines; expanding the evidence for deprescribing; and fostering organizational cultures of deprescribing. The results indicate that participants are committed to deprescribing and are moving forward with efforts to bring about change. Participants recognize that the implementation of deprescribing is best conceived of as a comprehensive systems change, and that patients and the public need to be involved in deprescribing processes and activities.

1. Introduction

An interactive discussion was held during the Bruyère Evidence-Based Deprescribing Guideline Symposium held in March 2018 that focused on implementing deprescribing guidelines into practice. Participants shared ideas about engaging the public, implementing deprescribing guidelines in clinical practice sites, incorporating the guidelines into curricula, and collaborating on a deprescribing research agenda.

The symposium focused in part on implementing deprescribing guidelines and knowledge translation. The implementation science literature shows that knowledge is shared and moved into action through complex processes of human interaction, where people are able to form relationships, share perspectives and experiences, and problem solve together about relevant and puzzling situations.[1–10] When designing implementation-related activities for the symposium, planners considered the following general objectives: 1) create a community of people—including HCPs, educators, researchers, policy makers, administrators, and (importantly) members of the public—committed to defining and advancing the deprescribing agenda; 2) facilitate knowledge exchange among stakeholders in ways that could expand the spread, adoption, and use of evidence-based deprescribing guidelines; 3) identify useful strategies for engaging with the public around the importance of deprescribing; and 4) inspire and support individuals interested in taking specific actions to help to integrate deprescribing into routine medication management.

2. How the session worked

Session designers opted for a unique design (drawing on World Café and Open Space approaches) that combined efficiency, interaction, and empowerment.[11]

The day began with presentations by expert speakers who shared their guideline implementation experiences. After this, session participants gathered at tables for 75 minutes of facilitated discussion around the subject of implementing deprescribing. Session organizers pre-assigned participants to tables to ensure that each discussion would benefit from a variety of perspectives. There were 9 tables in total and

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Table 1
Participant background.

Profession	No. of Attendees
Physician (including medical students)	11
Pharmacist (including pharmacy students)	59
Nurse (including nursing students)	1
Nurse Practitioner (including nurse practitioner students)	3
Government and Policy (e.g. CADTH, CIHI, CFHI)	11
Researchers (not a nurse, pharmacist or physician; not with government or policy, identifies as a 'researcher' or 'research assistant')	6
Other (e.g. business development people, marketing, administrators from FHT's and members of the public)	16

between 8 and 12 participants (including facilitators and note-takers) at each table. A total of 107 people participated in the session, including physicians, nurses, policy makers, members of the public, and others from around the world (Table 1). A facilitator guided the discussions at each table, and notetakers used a template to capture major ideas and perspectives.

The working group session began with an icebreaker exercise to facilitate introductions. Table facilitators then guided the conversations through 4 questions:

1. What are the challenges and problem areas that can be encountered when implementing deprescribing guidelines (or other similar improvements) in your organization or practice?
2. What have you found that facilitates implementing deprescribing guidelines (or other similar improvements) in your organization or practice?
3. What conditions need to be created or put in place (by health system leaders, professional bodies, policymakers, etc.) to help organizations and practices accept and implement describing guidelines?
4. What 2 or 3 pieces of advice would you recommend to people who are considering implementing deprescribing guidelines?

After the symposium concluded, the notetakers delivered their notes to the session planners. One of the present authors then read through the material and created a summary of the different ways in which participants responded to the questions. Participants were invited to complete a session evaluation survey distributed via the internet at the end of the day. This commentary presents the main ideas captured by the notetakers during the working group session and responses shared by individual participants in the online evaluation.

3. Themes that characterized the discussions

The table discussions generated ideas and insights that clustered into 2 broad areas:

- Challenges and problem areas that can be encountered when implementing improvements such as deprescribing guidelines in an organization or practice
- Factors that facilitate implementing improvements such as deprescribing guidelines in an organization or practice

3.1. Challenges and problem areas

Participants highlighted broad challenges and problem areas that they had encountered when implementing deprescribing guidelines (or similar improvements) in their organizations or practices:

- Challenges experienced when working with patients and caregivers on deprescribing initiatives
- Barriers faced by pharmacists in their daily practice
- Barriers faced by prescribers in their daily practice
- Challenges associated with interpersonal interactions between health care practitioners
- Challenges to deprescribing that are directly linked to specific health care settings
- Policies, protocols, and processes that hinder (or at least do not facilitate) deprescribing
- Barriers linked to financial structures and business/profit-related motivations
- Issues specific to the resources available for and the culture of prescribing and deprescribing

Participants described several challenges they had experienced when **working with patients and caregivers** on deprescribing initiatives. Some participants pointed out that both patients and caregivers sometimes resist deprescribing because of fears about changing a medication or because of worries about seeming to question their doctor's decisions. Some also argued that patients and family members are currently not sufficiently engaged in the deprescribing process.

Participants also acknowledged that **pharmacists often face barriers to deprescribing** in their daily practice. Some pharmacists are overwhelmed by existing workplace demands, and find that their practice is driven more by productivity and less by clinical interactions and decision-making with patients. In some pharmacies patients interact largely with pharmacy assistants and must request to speak to a pharmacist, and high staff turnover in some practices makes it difficult to change existing practice policies and processes.

Similarly, participants acknowledge that **prescribers also face barriers** in their daily practice. Some prescribers are reluctant to adopt deprescribing. For example, they may have legal and liability concerns, or they may be reluctant to change a medication prescribed by a colleague. A "prescribing culture" has a strong hold on some practices, and this culture is supported by the pharmaceutical industry. Some prescribers may not have the time or resources to engage in deprescribing. Others may be concerned that they will be judged for acting in ways that can appear to be against treatment guidelines.

Participants also indicated that some challenges had to do with the **interpersonal interactions** between health care practitioners. The collaboration needed to introduce deprescribing into practices requires more time, effort, and persistence than some HCPs are able to bring to bear. Allied health professionals are sometimes not included on teams or in decision-making, and thus are unable to promote deprescribing. HCPs also struggle to communicate across fields, specializations, and health care settings, and this can inhibit the adoption of deprescribing practices. Some suggest that electronic medical records (EMRs) can be lacking or deficient. Finally, participants indicated that HCPs can have strong and conflicting views about deprescribing.

Other challenges to deprescribing are directly linked to specific **health care settings**. For example, acute care stays are typically short and focused on the reason for admission, and thus deprescribing is not a priority for this setting. In long-term care homes, HCPs have large caseloads and limited resources (including time). Community pharmacies also struggle to deprescribe as patients tend to visit multiple pharmacies and records at different sites are not complete.

Participants also pointed to **policies, protocols, and processes** that hinder (or at least do not facilitate) deprescribing. Most practices and facilities lack policies to promote medication reviews or deprescribing. Deprescribing is not yet a priority for institutions, so there is limited motivation to create and enforce policies around deprescribing.

Financial structures and business/profit-related motivations can also act as barriers to the implementation of deprescribing guidelines. Today, there are no (or few) monetary incentives for deprescribing, and HCPs are reluctant or unable to implement deprescribing without funding. Existing pharmacy business models are based on dispensing, not deprescribing.

Finally, participants also described **issues that are specific to the**

resources available for and the culture of prescribing and deprescribing. For example, deprescribing guidelines do not meet the needs of all contexts. That is, a limited number of guidelines are currently available, the guidelines that do exist do not always include non-pharmacological approaches to health management, and some believe that research evidence related to the guidelines is limited. Participants also pointed out that while prescribing guidelines are well-funded and well-promoted, they rarely include information about deprescribing. Consumers face pervasive drug advertising campaigns that encourage patients to ask to be prescribed new medications. This leads some to believe that prescribing is embedded in our current professional cultures. Prescribing is habitual, easy, and efficient, and there are no requirements to document initial reasons for prescribing. This can result in a situation in which it is common to see "cascading prescribing" where medications are added to "fix" adverse effects of other medications.

3.2. Facilitating deprescribing

Participants highlighted 10 factors that facilitate implementing deprescribing guidelines (or similar improvements) in their organizations or practices:

- Educate, involve, and empower patients and caregiver advocates
- Educate HCPs and staff to create more awareness and skill in deprescribing
- Support and promote advocacy movements led by HCPs
- Improve collaboration and communication within and across practice disciplines
- Inspire and instigate top-down initiatives to promote deprescribing at different macro levels
- Improve financial or business-related incentives so deprescribing is a viable and appealing corporate practice
- Support initiatives to expand the evidence base for deprescribing
- Create a culture of deprescribing within organizations
- Foster and implement a patient-centred approach to health care provision
- Focus on and derive inspiration from the existing momentum to expand deprescribing

Participants said that deprescribing can be advanced by **educating, involving, and empowering patient and caregiver advocates**. Deprescribing leaders could consider hosting patient and public information sessions to increase awareness. This could include using social media and advertising, connecting with older adults in venues such as community centres, and encouraging patients to ask their HCPs about deprescribing. It may also be helpful to identify and support patient and family champions who can take ownership over acquiring funding, mentoring, and initiating deprescribing programs. Participants suggested specific advocacy groups such as Patient Voices Network, Patients for Patient Safety Canada, and Choosing Wisely, as well as disease advocacy groups such as the National Alzheimer's Strategy and the Ontario Dementia Strategy. Patient advocates can be encouraged and supported to attend symposiums and conferences, and patients and caregivers could be encouraged to become members of the health care team.

Participants also highlighted the importance of building awareness and skills for deprescribing through **education for HCPs**. This could involve adopting and teaching a common deprescribing language (terminology and definitions) that can be used consistently with HCPs and patients/families. Consistent training at different stages of health professions development is needed to ensure success from university/college health professional curricula, continuing education opportunities, and academic detailing in practice. New interprofessional education initiatives might reduce the reliance on prescribing and shift people towards non-pharmacological interventions, which is a key goal for success in deprescribing.

Participants identified the need to support and promote **advocacy movements led by HCPs**. HCPs who champion deprescribing can promote changes and inspire enthusiasm for deprescribing within their institutions. It may be useful, then, to identify disciplinary champions who can advocate for practical systemic change.

Deprescribing could be enhanced by improving **collaboration and communication within and across professional and practice disciplines**. This may involve creating a culture of collaboration (including family physicians, specialists, pharmacists, nurses, occupational therapists, personal support workers, etc.) where trusting relationships can be cultivated, and also including family members on the care team. Professional roles and responsibilities (including specialists) must be clear, and techniques such as huddle conversations may help to identify candidates for deprescribing. People who are slow to adopt deprescribing may benefit from mentoring and coaching. A provincial electronic medical records system might create a platform for facilitating new behaviour such as deprescribing.

Deprescribing could also be facilitated through the use of **top-down initiatives** to promote deprescribing at different levels within the health system. A systems approach can help to ensure that the introduction of deprescribing is sustainable, and could foster motivation and support from leaders and decision-makers. Changes could be pursued with professional regulatory bodies, accreditation organizations, medication insurance programs (public and private), government and regulatory bodies (for example, to implement driving restrictions on people taking benzodiazepines, as is the case in Denmark). Deprescribing may also be advanced by encouraging changes within institutions and in the health system as a whole (e.g. by requiring routine medication reviews rather than waiting for a medical incident as a catalyst for intervention).

Participants suggested that **financial or business-related incentives** be improved so deprescribing would be seen as a viable and appealing corporate practice. This could include a "fee-for-service" approach with an added billing code for deprescribing. Deprescribing advocates could also talk to patients, government, and insurance companies about cost savings related to deprescribing. For example, insurance/medication coverage could be adjusted/discontinued when a medication is used for longer than deemed appropriate.

Proponents of deprescribing could also support initiatives that enhance the **evidence base** for deprescribing. This may include observational studies, engagement research, resource development, and testing the efficacy of deprescribing guidelines. It could also include a single open-access platform with a library of deprescribing resources, including more decision-aides, as well as new research to create additional evidence for deprescribing and a repository of research initiatives to promote connections, relationships, and sharing of resources.

Participants suggested there is a need to create a **culture of deprescribing** in organizations where deprescribing could be part of routine practice. This would involve changing attitudes and increasing acceptance of deprescribing. Some suggest that deprescribing be framed as part of medication optimization or a public health issue (e.g. the opioid crisis). It would also be helpful to ensure that the right people are initiating and moving forward deprescribing initiatives (e.g. medication reviews or Ontario's MedsCheck program). Others pointed out that the right time to think about deprescribing is at the time of prescribing. Prescriber routines should include checking to ensure that prescribing cascades do not occur, and planning ahead of time for tapering or stopping medications.

Deprescribing could be enhanced by continuing to build and implement a **patient-centred approach** to health care provision. This begins with the identification of patient goals and values, and treating the patient as a whole person rather than as a sum of disease states. The patient's quality of life should be at the heart of all health decisions, and thus family members and HCPs who are close to patients should be invited to help with challenging conversations.

Finally, participants said that during this lengthy and challenging process to bring about system change deprescribing advocates should **not be discouraged** by small setbacks and should focus on **the growing momentum** to advance the cause of deprescribing. Change is underway, and deprescribing can be moved forward by focusing on one medication, one decision-maker, one stakeholder group at a time.

4. Evaluation of the session/day

A session evaluation survey was distributed via the internet to participants at the close of the day, and 34% of participants submitted responses. Most respondents indicated that the table discussions (i.e. working groups) were worthwhile, and many mentioned specific ideas concerning the involvement of the public in deprescribing initiatives and the implementation of deprescribing in communities.

Respondents contributed ideas about how the public, including patients and families, can help to implement deprescribing. The following summarizes the suggestions that were received:

- Empower patients and caregivers with knowledge and confidence so they can share their stories, ask questions, and advocate for themselves
- Invite patients, caregivers, and members of the public to:
  - o assist in grassroots awareness campaigns in their communities
  - o become involved in development/testing/implementation of guidelines, and create deprescribing advocacy groups that have the ability to exert real influence
- Demonstrate that deprescribing produces tangible, positive results for patients
- Take steps to ensure that deprescribing becomes an integral part of care plans

Respondents shared ideas about implementing deprescribing guidelines. Responses highlighted the importance of educating stakeholders about insights and methods generated through implementation science, and identified 3 broad areas for action:

- Design and implement awareness raising and communication campaigns:
  - o Share informative videos, news articles, and other information with both the public (including patients, families, and caregivers) and HCPs
  - o Ensure consistent messaging
  - o Use social media and blogging (with an international reach) to spread the message and generate commitment
- Prepare stakeholders to initiate and participate in the deprescribing conversation:
  - o Convince physicians to educate their patients, perhaps by providing a pamphlet with relevant points to raise
  - o Encourage patients to be proactive with their physicians, perhaps by providing pamphlets with questions to ask
- Encourage community and collaborations:
  - o Encourage collaboration among investigators and multidisciplinary HCP teams
  - o Support the development of a community of practice for connections and virtual collaboration
  - o Hold annual meetings (like this symposium)
  - o Develop and support an online communication network
  - o Develop a registry of stakeholders
  - o Identify and support opinion leaders who can stimulate new thinking

5. What does it all mean?

The notes from the table discussions and the information gathered through the evaluation suggest that despite significant challenges, stakeholders are committed, engaged, and moving forward. Table discussions were well-attended and discussions were animated. The notes suggest that participants had a balanced view of the effort needed to bring about change. Existing mindsets, procedural routines, and even organizational and practice structures and cultures can make it difficult for prescribers and patients to consider the value of deprescribing. At the same time, however, there are leverage points that can be used to move the agenda forward. There is a growing coalition of people—including members of the public, researchers, and HCPs—who have aligned with the deprescribing agenda. The recent growth in patient advocacy and patient involvement bodes well for those who are moving forward with deprescribing. Moreover, there are indications that some simple structural changes may help to make deprescribing a routine part of medication management.

The discussions also indicate that many stakeholders recognize that the implementation of deprescribing is not a linear cause-and-effect intervention, but must be conceived of as a comprehensive systems change. Action must be taken simultaneously at different levels, and it is important to take action now. Interventions aimed at the public, patients, community pharmacies, primary care physicians, hospitals, long-term care homes, policy makers, and others, are needed to create the mindsets, behaviours, supportive structures, and underlying culture that will bring deprescribing into daily practice.

Also noteworthy is the extent to which participants recognized and insisted that patients and the public be involved in deprescribing processes and activities. Patients and the public were not seen as merely targets of communication campaigns, but as full partners in the deprescribing movement. More than one participant quoted the oft-heard maxim, “nothing for us without us,” and both researchers and HCPs were called upon to make more efforts to include and partner with patients and the public. Some also stated that it would be useful to support the formation of an independent patient advocacy group that is able to influence progress on important health issues.

Finally, the themes arising from these table discussions are consistent with the literature on implementing improvements and innovations in health settings. Symposium participants recognized the importance of becoming aware of both the barriers and facilitators to implementing deprescribing, and research has shown that successful change is often based on a clear awareness of these constraints and affordances.[12–14] The call for systems change suggests a need for multilevel and multi-faceted interventions, and these approaches have been considered by numerous researchers (though with mixed results).[15–18] Finally, the calls for public engagement and knowledge user involvement are consistent with research into factors that are often present in successful change initiatives.[19–21]

6. What's next?

The Deprescribing Guidelines team, based out of the Bruyère Research Institute, along with the people from across Canada and around the world who travelled to Ottawa to participate in the symposium, is committed to bringing deprescribing into practice. A broad social movement is taking shape that is working to improve the health and wellbeing of patients, especially the frail elderly, by ensuring that unnecessary (and sometimes harmful) medications and other health treatments are minimized or discontinued.[22] This push for deprescribing can be seen as part of an even larger social movement that is militating for more rational and sustainable forms of life, wherein wasteful and harmful practices are identified and mitigated wherever possible.

Changing human behaviour is often difficult, even when the change brings clear benefits. Health services researchers have been developing frameworks and models that may help scientists and clinicians to understand these difficulties and to design interventions that may move important change initiatives forward.[23–25] Public representatives made impressive contributions during the table discussions described in this

commentary and also at other moments during the symposium. Some argue that changing the behaviour of people can be accomplished through a push and/or a pull strategy. Change agents can try to "push" or impose deprescribing on prescribers, and/or they can encourage the public to pull for deprescribing, to create a demand for deprescribing that HCPs will feel impelled to meet.

The Bruyère Deprescribing team is currently exploring community engagement approaches to encourage deprescribing. This includes identifying champions and assembling a local team in eastern Ontario to tackle the problem of polypharmacy as it is experienced in one community. Ultimately, deprescribing will occur when prescribers and patients co-create a conversation about the patient's existing medication regime, and about whether it might be beneficial to reduce or stop some medications. Evidence-based deprescribing guidelines can provide a solid platform for the changes that are needed, and a community engagement approach may encourage the creation of new behaviours on this platform. The Bruyère team looks forward to reporting in a few years on the challenges encountered and successes created though this new approach.

Conflicts of interest

Dr. Farrell has received honoraria for deprescribing presentations from the College of Psychiatric and Neurologic Pharmacists, the European Association of Hospital Pharmacists, and the Nova Scotia College of Pharmacists. Drs. Farrell and Conklin received a stipend from the Institute for Healthcare Improvement for advice and review of documents related to introducing deprescribing into the US healthcare system. Dr. Suleman received salary from related grants.

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Appendix A. Supplementary data

Supplementary data related to this article can be found at https://doi.org/10.1016/j.sapharm.2018.08.012.

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