

How to navigate drug shortages with patients in primary care

Beneficial opportunities may exist beyond initial frustrations

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Shortages of prescription and nonprescription drugs are a persistent problem in Canada and can be difficult to navigate.^{1,2} Between 2022 and 2023 Health Canada received more than 2700 reports of drug shortages.³ Canadian pharmaceutical companies must report shortages each time they cannot fully meet demand for a drug. This information is available through the Drug Shortages Canada website (<https://www.drugshortagescanada.ca/>).⁴

The top 3 reasons reported for shortages are manufacturing problems, unexpected increases in demand, and shipping delays.³ The average duration of a drug shortage in Canada from 2022 to 2023 was approximately 98 days.³ While many drug shortages do not result in patient care issues, there are instances where shortages can have a substantial impact on patients. An example of the latter is shortages of semaglutide⁵ that began in 2022 and have continued into 2024. Often pharmacists can substitute available alternatives to mitigate any clinical impact, but with semaglutide few options are available to patients. This may relate to drug cost and coverage issues or to concerns about switching to a different drug that may not be equally effective for a specific health condition, may require dose titration, or for which there may be insufficient evidence for clinical outcomes important to patients such as reduced morbidity or mortality.

At the same time, drug shortages may also provide opportunities for us, as primary care providers, to enhance patient care.

Three questions to consider

Is this an opportunity to reduce the patient's dose? Some patients may be taking medications for which a dose reduction could be warranted. Examples include overtreatment of hypertension, use of proton pump inhibitors to control acid reflux, and antidepressant therapy.

Using semaglutide as an example, what if a patient has achieved a hemoglobin A_{1c} level below 7%? If that patient has been taking 1 mg of semaglutide subcutaneously weekly, it may be reasonable to reduce their dose to 0.5 mg weekly during a period of drug shortage. A temporary reduction may provide insight into what dose would be optimal for the patient, not only to control glucose but also to get the best value per dollar in preventing complications of diabetes.

Might deprescribing this medication be an option for the patient? Many patients take 1 or more medications on a long-term basis without specific timelines in place for reassessing whether these medications are still required. This may apply to antidepressants, antihypertensive medications, antihyperglycemic agents, pain control medications, and sleep aids, to name a few.

An opportunity to explore deprescribing tamsulosin, used to treat benign prostatic hypertrophy, arose during a shortage of the drug in Canada⁶ that began in 2023. Some patients take dutasteride, a drug that works by a different mechanism, alone or in combination with tamsulosin to treat symptoms of benign prostatic hypertrophy. During a shortage of tamsulosin, a trial of dutasteride alone might show that it is similarly effective to combination therapy in achieving some treatment goals.⁷

Is it time to reevaluate the patient's therapy based on their goals and values? Many patients take 1 or more medications without periodically assessing whether there may be evidence that a different drug therapy better aligns with their health goals and comorbid conditions. This may be an opportunity for reassessment.

There may also be times when the burden of treatment exceeds the burden of disease for the patient. This may be an ideal time to discuss the patient's goals of therapy and their experience with the medication to inform whether it should be continued or deprescribed.

Approach

In the following steps we describe an innovative strategy that primary care providers could use to manage drug shortages affecting their patients.

Check the Drug Shortages Canada website for the estimated shortage end date.⁴ This can help you determine whether it is reasonable to simply hold or reduce the medication in the short term until the shortage has been resolved (ie, within a few weeks) or if an alternative therapy needs to be considered (ie, the shortage is anticipated to last longer than 1 or 2 months).

Connect with the patient's community pharmacy to see what alternatives are available to them. This can vary depending on local supplies. There are times when a different strength of a medication is available or a


compounded product may be an option as a bridge for the patient until the shortage is resolved.

It is important to note that the date provided on the Drug Shortages Canada website regarding resolution of a drug shortage does not translate to the exact availability of the medication in a patient's pharmacy. Owing to drug distribution processes, there is often a slight delay between availability from the manufacturer and when the patient can obtain a medication supply from their pharmacy.

When a drug change is required, connect with the patient and discuss treatment alternatives. Prescribe a 1-month supply and then reassess the situation. There are times when a switch may work better for the patient and they will not need to return to the product that had been in short supply.

Consider deprescribing. There is substantial evidence illustrating the benefits of deprescribing medications for patients where possible (eg, antidepressants, anti-hypertensive medications, proton pump inhibitors, non-steroidal anti-inflammatory drugs).^{8,9} A useful Canadian resource is the website [Deprescribing.org](https://www.deprescribing.org), which has algorithms and guidelines to help practitioners and patients with deprescribing.¹⁰ Collaborating with the patient's community pharmacist may also increase the chances of deprescribing successfully.

Conclusion

Drug shortages are expected to present ongoing challenges in the future.² While they can be disruptive and may lead to negative patient experiences, drug shortages may also offer positive opportunities for clinicians and patients to reevaluate the necessity of the medication in short supply. Potentially this could improve outcomes for patients through deprescribing, reducing doses, or in some cases switching to a more effective therapy based on current evidence. 

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Competing interests

None declared

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