
Pharmacist

Eleven Things Pharmacists and Patients Should Question

by
Canadian Pharmacists Association
Last updated: April 2024



1 **Don't use a medication to treat the side effects of another medication unless absolutely necessary.**

Side effects of drugs are often misdiagnosed as symptoms of another medical condition, and as a result is that, patients are may be prescribed one or more drugs to treat the adverse drug reactions (ADRs). This is called a prescribing cascade. Prescribing cascades may contribute to unnecessary or potentially unsafe medication use. polypharmacy, which This has several associated risks, such as drug interactions, increased frequency or severity of further side effects, unnecessary drug costs, and poor medication adherence. Prescribing cascades can also They can also exacerbate the harmful effects of unrecognized ADRs, impact a patient's quality of life and lead to avoidable emergency room visits, hospital admissions and health system costs. Health practitioners should always investigate question whether a new symptom or problem is a potential side effect of a current medication the possibility of an ADR presenting itself as a new symptom, especially in older adults, and avoid prescribing additional or recommending additional drug treatment until this possibility has been thoroughly investigated.

2 **Don't recommend the use of over-the-counter non-prescription medications containing codeine for the management of acute or chronic pain. Counsel patients against their use and recommend safe alternatives.**

There is no evidence to support the use of low-dose codeine pain medication over non-opioid analgesics. Codeine also has potential for abuse and dependence within a short time frame of regular or excessive use. Non-prescription codeine products are often supplied in combination with non-opioid analgesics (i.e., NSAIDs and acetaminophen). In addition to concerns regarding codeine abuse and dependence, misuse of these codeine-containing combination analgesics may also result in serious adverse effects due to high doses of the non-opioid analgesic component (ibuprofen, acetaminophen or ASA), which may include liver toxicity, gastric perforation, haemorrhage and peptic ulcer, renal failure, chronic blood loss anaemia and low blood potassium (with potential fatal heart and neurological complications), as well as the potential for allergic reactions in some populations (those with asthma). In addition, a high percentage of patients may not metabolize codeine to active morphine due to an altered CYP2D6 enzyme, which may increase the risk of adverse effects from codeine.

3 **Don't start or renew drug therapy unless there is an appropriate indication and reasonable expectation of benefit in the individual patient.**

One in four Canadians over the age of 65 are prescribed 10 or more different medications. With each new drug, the risk of adverse drug reactions and subsequent hospitalization of the patient increases. In order to ensure the safety and appropriateness of therapy, all health care practitioners should assess to the therapeutic indication for a patient's drug therapy and start or renew medication only once they have determined that the benefits of therapy outweigh the risks to the patient. Remember the acronym IESU -Indicated/ Effective/ Safety/ (Patient) Use.

4 **Don't renew long-term proton pump inhibitor (PPI) therapy for gastrointestinal symptoms without an attempt to taper and stop, or reduce the dose, at least once per year for most patients.**

Proton pump inhibitors (PPIs) are among the most commonly prescribed drugs in Canada, and many are becoming available as non-prescription medications. While generally safe and well-tolerated for short-term use/ as needed use in treating gastro-esophageal reflux disease (GERD), PPIs are often used longer than needed. Further, PPIs have been associated with a number of adverse effects which may increase with a patient's age or long-term use though the causality of many of these adverse effects is uncertain. Some adverse effects associated with long-term use of PPIs include increased risk of fracture, Clostridium difficile infection and diarrhea, community-acquired pneumonia (CAP), vitamin B12 deficiency, and hypomagnesemia. Guidelines recommend short-term use of PPIs (e.g. < 8-12 weeks) for most patients treated for GERD or peptic ulcer disease. They also suggest regular attempts at deprescribing PPIs when patients do not have a valid indication for continued use. This might include reducing the dose, tapering and stopping, or switching to on-demand PPI use. These guidelines do not apply to patients with Barrett esophagus, severe esophagitis grade C or D, chronic NSAID/anticoagulant use with bleeding risk, a documented history of bleeding gastrointestinal ulcers, or those on triple antithrombotic therapy, who have an indication for continued PPI use.

5 Question the use of antipsychotics to treat insomnia in any age group.

Between 2005 and 2012, the sedating properties of certain atypical antipsychotics have led to a 300% increase in their off-label use for insomnia. Guidelines report a lack of evidence of benefit for atypical antipsychotics for the treatment of insomnia and warn against their possible adverse effects, including weight gain, fall risk and metabolic disorders. While antipsychotics may be appropriate in some patients with insomnia when there is another indication for their use (e.g., as adjunctive treatment in depression), the use of these medications as first-line therapy for insomnia is discouraged due to potential harm that outweighs their benefits. Deprescribing guidelines suggest that antipsychotics used for insomnia can be safely stopped with or without taper.

6 Don't prescribe or dispense benzodiazepines without building a discontinuation strategy into the patient's treatment plan (except for patients who have a valid indication for long-term use).

Benzodiazepines are commonly prescribed drugs in Canada for anxiety disorders and insomnia. Strong evidence shows that long-term use of benzodiazepines in older persons is associated with tolerance, dependence and adverse effects, including sedation, impaired memory and cognition, falls, hip fractures, depression, and increased hospital admissions. Use in younger persons can lead to chronic dependence. Prescribing guidelines recommend exploring alternative non-pharmacological such as cognitive behavioural therapy for insomnia (CBT-I) prior to prescribing benzodiazepines for insomnia. If determined to be beneficial for the patient, benzodiazepines should not usually be prescribed for long-term use and discontinuation strategies should be built into the patient's treatment plan, such as gradual dose tapering.

7 Don't prescribe greenhouse gas-intensive metered-dose inhalers (MDIs) for asthma and/ or COPD where an alternative inhaler with a lower carbon footprint (e.g. dry powder inhaler (DPI), soft-mist inhaler, or MDI with a low greenhouse gas potential propellant) containing medications with comparable efficacy is available, and where the patient has demonstrated adequate technique and patient preference has been considered.

Before prescribing or recommending inhalers, providers should ensure a confirmed objective diagnosis of asthma and/ or COPD exists to reduce unnecessary inhaler use and patient exposure. When inhalers are indicated, consider patient-specific factors and preferences to determine if lower carbon intensive inhaler device(s) (Dry Powder Inhalers (DPIs), or soft-mist inhalers (SMIs)) is clinically appropriate as both are often preferred by patients and are as effective as MDIs. Once a device has been selected, ensure the patient is trained on proper inhaler device technique, and technique is reviewed intermittently, as inhaler education programs have shown to reduce exacerbation rates. Additionally, non-pharmacologic strategies (e.g. education, trigger avoidance, action plans) should also be included in airway management, as they not only improve patient outcomes, but can also reduce rescue inhaler use.

MDIs which contain hydrofluoroalkane (HFA) propellants known to contribute to climate change, account for 0.03% of global gas emissions annually. Thus prescribing low carbon footprint inhalers when medically indicated, ensuring adequate patient inhaler technique and incorporating nonpharmacologic strategies into airway management, can lead to better patient outcomes with environmental co-benefits.

8 Don't start or continue medications without an indication or where the risks outweigh the benefits.

Optimizing medication usage yields positive clinical outcomes for patients. In 2021, 25% of Canadian older adults were prescribed 10 or more medication classes, leading to polypharmacy and increased healthcare costs, adverse reactions, and potential interactions. Re-evaluating prescriptions to discontinue unnecessary medications can reduce adverse events, healthcare burdens, and enhance quality of patient care. Addressing polypharmacy enhances individual and healthcare system efficiency and sustainability. Furthermore, optimizing medication use reduces pharmaceutical waste and environmental impact. Close to 100000 million tonnes of CO2 emissions are released from unused medications and pharmaceutical waste every year. Medications account for a quarter of carbon emissions within the healthcare sector. By avoiding the prescribing of unnecessary or unindicated prescriptions healthcare providers may contribute to reducing the overall demand for raw materials and energy-intensive processes involved in pharmaceutical production.

9 Don't pour any pharmaceuticals or chemicals down sinks, toilets, or drains or dispose of in the trash.

Ensuring proper medication disposal is crucial to minimize health risks, preventing misuse and adverse effects. Less than 1% of patients return unused medication, increasing the likelihood of accidental ingestion by children and pets. Flushing medications down the toilet, a prevalent disposal method, poses risks of antibiotic resistance and water contamination. The improper disposal introduces pharmaceutical residue into water systems, threatening aquatic life. Education on safe disposal and encouraging return to designated collection sites can reduce these risks. Regulatory measures, such as those implemented in British Columbia, aim to address pharmaceutical waste through recycling regulations, highlighting the importance of comprehensive strategies to minimize environmental harm.

10 Don't print prescription or educational materials when providers and patients have access to digital communication.

Reducing paper usage has been shown to minimize the risk of prescription errors. Decreasing paper prevents waste and recycling needs, hence is environmentally beneficial.

11 Don't use disposable gloves when standard hand hygiene disinfection practices are safe and sufficient.

In pharmacy settings, when the risk of body fluids exposure and infection transmission is low, maintaining safety standards in most routine healthcare interactions can most often be achieved by using proper hand hygiene without additional precautions. Do not use gloves in place of hand hygiene or when hand hygiene alone is sufficient. The pharmacy staff should reserve the use of gloves to situations in which the safeguard of pharmacy staff is required due to risk of infection, or to comply with infection prevention and control (IPAC) and National Association of Pharmacy Regulatory Authorities (NAPRA) standards and/or guidelines. Refraining from using latex or nitrile gloves when not medically necessary is an important aspect of environmental stewardship to be considered by healthcare professionals. Minimizing the use of gloves can help reduce environmental waste associated with disposable medical supplies, contributing to sustainability efforts in healthcare facilities. Approximately 500 boxes of gloves were found to emit 2 tonnes of CO₂ emissions. Limiting the use of gloves is highly effective in promoting environmental sustainability.

How the list was created

The Canadian Pharmacists Association (CPhA) established its Choosing Wisely Canada top six recommendations in two phases. The first phase comprised a call to pharmacists and pharmacy researchers from across Canada for recommendations in the fall of 2016. During the second phase, an expert committee was formed to review and finalize the recommendations submitted from the call to pharmacists. The committee was composed of CPhA member association representatives, pharmacy researchers, CPhA Board of Directors and staff who have broad knowledge and experience in pharmacy practice and quality improvement. Criteria used by the committee to finalize the list included relevance to practising pharmacists, impact and the available evidence to support each recommendation. The final list was approved by CPhA member associations and Board of Directors.

Sources

- 1** Cadogan CA, et al. Appropriate Polypharmacy and Medicine Safety: When Many is not Too Many. *Drug Saf.* 2016 Feb;39(2):109-16. PMID: 26692396.
Gill SS, et al. A prescribing cascade involving cholinesterase inhibitors and anticholinergic drugs. *Arch Intern Med.* 2005 Apr 11;165(7):808-13. PMID: 15824303.
Hsu HF, Chen KM, Belcastro F, Chen YF. Polypharmacy and pattern of medication use in community-dwelling older adults: A systematic review. *J Clin Nurs.* 2021;30(7-8):918-28. PMID: 33325067.
Nguyen PV, et al. Prescribing cascade in an elderly woman. *Can Pharm J (Ott).* 2016;149(3):122-4. PMID: 27212961.
Rochon PA, et al. The prescribing cascade revisited. *Lancet.* 2017 May;389(10081):1778-80. PMID: 28495154.
Savage RD, Visentin JD, Bronskill SE, et al. Evaluation of a Common Prescribing Cascade of Calcium Channel Blockers and Diuretics in Older Adults With Hypertension. *JAMA Intern Med.* 2020;180(5):643-651. doi:10.1001/jamainternmed.2019.7087. PMID: 32091538.
Sherman JJ, Davis L, Daniels K. [Addressing the Polypharmacy Conundrum](#). *US Pharm.* 2017;42(6):14-20.
Singh S, Cocoros NM, Haynes K, et al. Antidopaminergic-Antiparkinsonian Medication Prescribing Cascade in Persons with Alzheimer's Disease. *J Am Geriatr Soc.* 2021;69(5):1328-1333. doi:10.1111/jgs.17013. PMID: 33432578.
Sternberg SA, Guy-Alfandary S, Rochon PA. Prescribing cascades in older adults. *CMAJ.* 2021;193(6):E215. doi:10.1503/cmaj.201564. PMID: 33558408.
Trenaman SC, Harding A, Bowles SK, Kirkland SA, Andrew MK. A Prescribing Cascade of Proton Pump Inhibitors Following Anticholinergic Medications in Older Adults With Dementia. *Front Pharmacol.* 2022;13:878092. Published 2022 Jun 22. Doi:10.3389/fphar.2022.878092. PMID: 35814221.
- 2** Cazet L, Bulteau S, Evin A, et al. Interaction between CYP2D6 inhibitor antidepressants and codeine: is this relevant?. *Expert Opin Drug Metab Toxicol.* 2018;14(8):879-886. doi:10.1080/17425255.2018.1496236. PMID: 29963937.
Frei MY, et al. Serious morbidity associated with misuse of over-the-counter codeine-ibuprofen analgesics: a series of 27 cases. *Med J Aust.* 2010 Sep 6;193(5):294-6. PMID: 20819050.
McAvoy BR, et al. Over-the-counter codeine analgesic misuse and harm: characteristics of cases in Australia and New Zealand. *N Z Med J.* 2011 Nov 25;124(1346):29-33. PMID: 22143850.
Robinson GM, et al. Misuse of over-the-counter codeine-containing analgesics: dependence and other adverse effects. *N Z Med J.* 2010 Jun 25;123(1317):59-64. PMID: 20657632.
Van Hout MC, et al. Misuse of non-prescription codeine containing products: Recommendations for detection and reduction of risk in community pharmacies. *Int J Drug Policy.* 2016 Jan;27:17-22. PMID: 26454626.
Young C, Loshak H. [Medications containing low-dose codeine for the treatment of pain and coughs](#). *CADTH Health Technology Review.* 2021 Aug; 1(8).
- 3** Birtcher K, Allen L, et al. 2022 ACC Expert Consensus Decision Pathway for Integrating Atherosclerotic Cardiovascular Disease and Multimorbidity Treatment: A Framework for Pragmatic, Patient-Centered Care. *J Am Coll Cardiol.* 2023 Jan, 81 (3) 292-317. <https://doi.org/10.1016/j.jacc.2022.08.754>. PMID: 36307329.
Canadian Institute for Health Information. [Drug use among seniors in Canada](#). Accessed August 30, 2023.
Frank C, et al. Deprescribing for older patients. *CMAJ.* 2014 Dec 9;186(18):1369-76. PMID: 25183716.
Hilmer SN, et al. Thinking through the medication list: appropriate prescribing and deprescribing in robust and frail older patients. *Aust Fam Physician.* 2012 Dec;41(12):924-8. PMID: 23210113.
Holmes HM. Rational prescribing for patients with a reduced life expectancy. *Clin Pharmacol Ther.* 2009 Jan;85(1):103-7. PMID: 19037198.
Jetha S. Polypharmacy, the Elderly, and Deprescribing. *Consult Pharm.* 2015;30(9):527-532. doi:10.4140/TCP.n.2015.527. PMID: 26350893.
Lee SJ, Kim CM. Individualizing Prevention for Older Adults. *J Am Geriatr Soc.* 2018;66(2):229-234. doi:10.1111/jgs.15216. PMID: 29155445.
Nusair MB, et al. How pharmacists check the appropriateness of drug therapy? Observations in community pharmacy. *Res Social Adm Pharm.* 2017 Mar - Apr;13(2):349-357. PMID: 27102265.
- 4** Choosing Wisely Canada. [Bye-bye PPI](#) [Internet]. 2017 July [cited 2017 Jun 26].
Farrell B, et al. Deprescribing proton pump inhibitors: Evidence-based clinical practice guideline. *Can Fam Physician.* 2017 May;63(5):354-64. PMID: 28500192.
Islam MM, Poly TN, Walther BA, et al. Adverse outcomes of long-term use of proton pump inhibitors: a systematic review and meta-analysis. *Eur J Gastroenterol Hepatol.* 2018;30(12):1395-1405. doi:10.1097/MEG.0000000000001198. PMID: 30028775.
Poly TN, Islam MM, Yang HC, Wu CC, Li YJ. Proton pump inhibitors and risk of hip fracture: a meta-analysis of observational studies. *Osteoporos Int.* 2019;30(1):103-114. doi:10.1007/s00198-018-4788-y. PMID: 30539272.
Shanika LGT, Reynolds A, Pattison S, Braund R. Proton pump inhibitor use: systematic review of global trends and practices [published online ahead of print, 2023 Jul 7]. *Eur J Clin Pharmacol.* 2023;10.1007/s00228-023-03534-z. PMID: 37420019.
Turner JP, Thompson W, Reeve E, Bell JS. Deprescribing proton pump inhibitors. *Aust J Gen Pract.* 2022;51(11):845-848. doi:10.31128/AJGP-07-22-6497. PMID: 36310001.
Targownik LE, Fisher DA, Saini SD. AGA Clinical Practice Update on De-Prescribing of Proton Pump Inhibitors: Expert Review. *Gastroenterology.* 2022;162(4):1334-1342. doi:10.1053/j.gastro.2021.12.247. PMID: 35183361.

- 5 Anderson SL, Vande Griend JP. Quetiapine for insomnia: A review of the literature. *Am J Health Syst Pharm*. 2014;71(5):394-402. doi:10.2146/ajhp130221. PMID: 24534594.
- Bjerre LM, Farrell B, Hogel M, et al. Deprescribing antipsychotics for behavioural and psychological symptoms of dementia and insomnia: Evidence-based clinical practice guideline. *Can Fam Physician*. 2018;64(1):17-27. PMID: 29358245.
- Canadian Psychiatric Association. First-line treatment for insomnia should not include routine use of antipsychotics, say Canadian psychiatrists [Internet]. 2015 Jun [cited 2017 Jun 26].
- Coe HV, et al. Safety of low doses of quetiapine when used for insomnia. *Ann Pharmacother*. 2012 May;46(5):718-22. PMID: 22510671.
- Modesto-Lowe V, Harabasz AK, Walker SA. Quetiapine for primary insomnia: Consider the risks. *Cleve Clin J Med*. 2021;88(5):286-294. Published 2021 May 3. doi:10.3949/ccjm.88a.20031. PMID: 33941603.
- Shah C, et al. Controversies in the use of second generation antipsychotics as sleep agent. *Pharmacol Res*. 2014 Jan;79:1-8. PMID: 24184858.
- Sateia MJ, Buysse DJ, Krystal AD, Neubauer DN, Heald JL. Clinical Practice Guideline for the Pharmacologic Treatment of Chronic Insomnia in Adults: An American Academy of Sleep Medicine Clinical Practice Guideline. *J Clin Sleep Med*. 2017;13(2):307-349. Published 2017 Feb 15. doi:10.5664/jcsm.6470. PMID: 27998379.
- Thompson W, et al. Atypical antipsychotics for insomnia: a systematic review. *Sleep Med*. 2016;12(6):13-17. PMID: 27544830.
- 6 Ashton H. The diagnosis and management of benzodiazepine dependence. *Curr Opin Psychiatry*. 2005 May;18(3):249-55. PMID: 16639148.
- Baillargeon L, et al. Discontinuation of benzodiazepines among older insomniac adults treated with cognitive-behavioural therapy combined with gradual tapering: a randomized trial. *CMAJ*. 2003;169(10):1015-20. PMID: 14609970.
- Chang F. Strategies for benzodiazepine withdrawal in seniors: Weaning patients off these medications is a challenge. *Can Pharm J*. 2005 Nov 1; 138(8):38-40.
- Chen L, et al. Discontinuing benzodiazepine therapy: An interdisciplinary approach at a geriatric day hospital. *Can Pharm J*. 2010 Nov 1;143(6):286-95.
- Gallagher HC. Addressing the issue of chronic, inappropriate benzodiazepine use: how can pharmacists play a role? *Pharmacy*. 2013;1(2):65-93.
- Qaseem A, Kansagara D, Forcica MA, Cooke M, Denberg TD; Clinical Guidelines Committee of the American College of Physicians. Management of Chronic Insomnia Disorder in Adults: A Clinical Practice Guideline From the American College of Physicians. *Ann Intern Med*. 2016;165(2):125-133. doi:10.7326/M15-2175. PMID: 27136449.
- Pottie K, et al. Deprescribing benzodiazepine receptor agonists: Evidence-based clinical practice guideline. *Can Fam Physician*. 2018;64(5):339-351. PMID: 29760253.
- Wang Y, Wilson DL, Fernandes D, et al. Deprescribing Strategies for Opioids and Benzodiazepines with Emphasis on Concurrent Use: A Scoping Review. *J Clin Med*. 2023;12(5):1788. Published 2023 Feb 23. doi:10.3390/jcm12051788. PMID: 36902574.
- 7 Canadian Thoracic Society. Respiratory Medicine: Seven Tests and Treatments to Question. Choosing Wisely Canada, last updated December 2022.
- Gupta, S, Couillard S, Digby G, Tse SM, Green S, Aceron R, Carlsten C, Hubick J, Penz E. Canadian Thoracic Society Position Statement on Climate Change and Choice of Inhalers for Patients with Respiratory Disease. *Canadian Journal of Respiratory, Critical Care, and Sleep Medicine*. 2023. doi: 10.1080/0/24745332.2023.2254283.
- Lee Fidler, Samantha Green and Kimberly Wintemute. Pressurized meter-dose inhalers and their impact on climate change. *CMAJ* March 28, 2022 194 (12) E460; DOI: <https://doi.org/10.1503/cmaj.211747>. PMID: 35347049.
- Tiago Maricoto, Luís Monteiro, Jorge M.R. Gama, Jaime Correia-de-Sousa, and Luís Taborda-Barata. Inhaler Technique Education and Exacerbation Risk in Older Adults with Asthma or Chronic Obstructive Pulmonary Disease: A Meta-Analysis. *J Am Geriatr Soc* 67:57–66, 2019. <https://doi.org/10.1111/jgs.15602>. PMID: 30291745.
- 8 Canadian Institute for Health Information. Changes in drug prescribing to seniors in Canada. Accessed February 12, 2024.
- Duncan P, Duerden M, Payne RA. Deprescribing: a primary care perspective. *Eur J Hosp Pharm*. 2017;24(1):37-42. doi:10.1136/ehjpharm-2016-000967. PMID: 31156896.
- Mangoni AA, Walker LE. Avoiding harm from overprescribing: What are the challenges and how do we overcome them? *Br. J. Clin. Pharmacol*. Published December 17, 2020. doi:10.1111/bcp.14696. PMID: 33336507.
- Richie C. Environmental sustainability and the carbon emissions of pharmaceuticals. *J Med Ethics*. Published April 14, 2021. doi:10.1136/medethics-2020-106842. PMID: 33853877.
- 9 Afanasjeva J, Gruenberg K. Pharmacists as environmental stewards: Strategies for minimizing and managing drug waste. *Sustainable Chemistry and Pharmacy*. 2019;13:100164. doi:10.1016/j.scp.2019.100164. ISSN 2352-5541.
- Haas C. Environmental Paper Organization. Ending 90 Billion Sheets: The Environmental Impact of Pharmaceutical Paper Waste. 2023; September.
- Insani WN, Qonita NA, Jannah SS, et al. Improper disposal practice of unused and expired pharmaceutical products in Indonesian households. *Heliyon*. 2020;6(7):e04551. Published 2020 Jul 29. doi:10.1016/j.heliyon.2020.e04551. PMID: 32760838.
- Owens L, Anand S. MEDICATION DISPOSAL SURVEY Final Report. December 2009. University of Illinois Survey Research Laboratory.
- Qadar SMZ, Thane G, Haworth-Brockman M. A Call to Action: An Evidence Review on Pharmaceutical Disposal in the Context of Antimicrobial Resistance in Canada. National Collaborating Centre for Infectious Diseases; January 2021. ISBN: 978-1-927988-68-8.
- 10 Haas C. Environmental Paper Organization. Ending 90 Billion Sheets: The Environmental Impact of Pharmaceutical Paper Waste. 2023; September.
- Osmani F, Arab-Zozani M, Shahali Z, Lotfi F. Evaluation of the effectiveness of electronic prescription in reducing medical and medical errors (systematic review study). *Ann Pharm Fr*. 2023;81(3):433-445. doi:10.1016/j.pharma.2022.12.002. PMID: 36513154.
- 11 CASCADES. Campaigns for appropriate glove use. Quebec campaign - Les gants, pas tout le temps!
- Lindberg M, Skytt B, Lindberg M. Continued wearing of gloves: a risk behaviour in patient care. *Infect Prev Pract*. 2020;2(4):100091. Published 2020 Sep 17. doi:10.1016/j.infpip.2020.100091. PMID: 34368725.

About the Canadian Pharmacists Association

TSince 1907, CPhA, a national, non-profit organization, has charted the course through many developments in pharmacy, and continues to be the national voice of Canadian pharmacists.



CANADIAN
PHARMACISTS
ASSOCIATION

ASSOCIATION DES
PHARMACIENS
DU CANADA

About Choosing Wisely Canada

Choosing Wisely Canada is the national voice for reducing unnecessary tests and treatments in health care. One of its important functions is to help clinicians and patients engage in conversations that lead to smart and effective care choices.