

Hospital Pharmacy

Six Things Clinicians and Patients Should Question

by
Canadian Society of Hospital Pharmacists
Last updated: August 2022



1 **Don't continue medications that are no longer indicated or where the risks outweigh the benefits.**

Polypharmacy, often defined as taking five or more medications at the same time, has been associated with a variety of adverse health outcomes. Therapy with a medication is initiated when the patient and care team conclude that the benefits of taking the medication outweigh the risks of not starting therapy. However, over time, patients and their conditions or goals of care change, new evidence is discovered, and other factors can tip the balance, such that the benefits no longer outweigh the risks or burdens of continued treatment. Few, if any, medications should be continued on a lifelong basis. Patients and caregivers should be made aware of the planned duration of therapy and the outcomes desired, and should feel empowered to follow up with providers to ensure that the benefits of therapy continue to outweigh the risks. The performance of medication reconciliation and transitions of care—such as admission to or discharge from a hospital—may serve as critical activities for deciding whether to continue therapy or create a plan to safely stop a medication.

2 **Don't use a medication for long-term risk reduction if life expectancy is shorter than the time to benefit of the medication.**

The “time to benefit” is the period between initiation of an intervention (in this case, a medication) and the point when the patient begins to experience a benefit. This period varies from one medication to another. Treatment with a medication is usually not indicated unless the “time to benefit” is clearly shorter than the patient's life expectancy and any potential adverse effects are deemed manageable. These factors are particularly relevant for older adults and those receiving palliative care.

3 **Don't continue a proton pump inhibitor at discharge unless there is a compelling reason to continue therapy.**

In many cases, a proton pump inhibitor (PPI) is initiated for a valid indication, in cases where the benefits outweigh the risks. During a hospital stay, PPIs may be started for stress ulcer prophylaxis or for patients who will receive certain treatments that increase the likelihood of high-risk gastrointestinal conditions. After the patient's risk for stress ulcer returns to baseline the PPI should be stopped. In addition, patients who did not require a PPI before their hospital admission typically will not need to continue taking one of these drugs after the underlying reason for PPI therapy has been addressed. Long-term adverse effects associated with the acid inhibition caused by PPIs are now emerging. Patients should talk to their healthcare team and only continue taking PPIs if the benefits truly outweigh the risks and to obtain advice on how to taper the dose towards discontinuation if warranted.

4 **Don't start or prolong broad-spectrum antibiotic treatment unless clinically indicated.**

Broad-spectrum antibiotics are effective in treating bacterial infections, particularly life-threatening infections such as sepsis or febrile neutropenia. In certain high-risk situations, these drugs may be clinically indicated and started at the first signs or symptoms of an infection. Broad-spectrum antibiotics should be stopped as soon as the causative pathogen is known or suspected. Targeted antibiotic therapy should begin as soon as possible. When a broad-spectrum antibiotic is deemed necessary, it should be used for the shortest possible duration, according to guideline recommendations and the patient's clinical response.

5 **Don't routinely prescribe benzodiazepines or other sedative-hypnotics for promotion of sleep without first a trial of non-pharmacologic interventions.**

Non-pharmacologic options to treat insomnia, such as sleep hygiene and cognitive behavioural therapy, are less harmful than drugs, and should be first line therapy.

6 **Don't initiate or escalate opioid doses for chronic non-cancer pain before optimizing non-opioid pharmacotherapy and non-pharmacologic therapy.**

Evidence shows that opioids are not more effective than other analgesics for certain chronic pain conditions. Furthermore, evidence is mounting that the risks of opioid treatment, including opioid use disorder, overdose, and other previously under-recognized side effects (e.g., hyperalgesia, psychomotor impairment [which can increase the risk of fractures], myocardial infarction, sexual dysfunction) support the use of non-opioid therapy. Thorough patient-centred discussion about risks, benefits, and expectations is essential.

How the list was created

The Canadian Society of Hospital Pharmacists (CSHP) formed a working group of pharmacists who practice in a variety of settings (e.g., hospital, primary care). Members of CSHP were invited to contribute recommendations to CSHP, via email, an online survey, and paper forms distributed at national and regional conferences. The suggested recommendations were reviewed by the working group: duplicate and similar recommendations were combined and recommendations that did not meet criteria (i.e., those that could not be written as a “don’t” statement) were removed. Two lists of recommendations resulted: “medication-based” (consisting of 17 items) and “practice-based” (consisting of 14 items). CSHP members were asked to identify their “top 5” recommendations in each of those two categories. The results of the survey were reviewed by the working group. A shortened set of recommendations was created by identifying the recommendations that had support from at least 40% of the respondents.

Evidence supporting each of CSHP’s proposed recommendations was gathered, and Choosing Wisely Canada’s recommendations from other organizations were reviewed to identify if similar recommendations already exist. The proposed recommendations were compared to each other to remove any obvious duplication. CSHP’s Board voted on the draft set of recommendations in October 2018. After the recommendations were approved by Choosing Wisely Canada, CSHP’s Board approved the final set of recommendations in January 2019.

Sources

- 1** Barnsteiner JH. [Medication Reconciliation: Transfer of medication information across settings-keeping it free from error](#). Am J Nursing. 2005 Mar; 105(3 Suppl):31-36.
Bootsma N, et al. [Deprescribing: Managing Medications to Reduce Polypharmacy](#). Institute for Safe Medication Practice Canada. [Internet]. 28 Mar 2018. [Accessed 17 Jul 2018].
Cipolle RJ, et al. [Pharmaceutical care practice: the patient-centred approach to medication management services](#). 3rd ed. New York: McGraw-Hill; 2012.
De Vries, TPGM, et al. [“Step 6: Monitor \(and stop?\) the treatment”](#). Guide to good prescribing: a practical manual. Geneva: World Health Organization. 1994:79-83. [Internet]. [Accessed 20 Dec 2018].
Garfinkel D, et al. [Routine deprescribing of chronic medications to combat polypharmacy](#). Ther Adv Drug Saf. 2015 Dec;6(6):212-233. PMID: 26668713.
Halapy H, et al. [Ascertaining Problems with Medication Histories](#). Can J Hosp Pharm. 2012 Sep;65(5):360-367. PMID: 23129864.
ISMP Canada. [Five Questions to Ask about your Medications](#). [Internet]. [Accessed 20 Dec 2018].
- 2** Holmes HM, et al. [Rationalizing Prescribing for Older Patients with Multimorbidity: Considering Time to Benefit](#). Drugs Aging. 2013 Sep;30(9):655-666. PMID: 23749475.
- 3** Boghossian TA, et al. [Deprescribing versus continuation of chronic proton pump inhibitor use in adults](#). Cochrane Database Syst Rev. 2017 Mar 16;3:CD011969. PMID: 28301676.
Cochrane. [Stopping or reducing vs continuing long-term proton-pump inhibitor use in adults](#). [Internet]. 2017 Mar 16. [Accessed 20 Dec 2018].
[Deprescribing Guidelines and Algorithms](#). [Internet]. [Accessed 20 Dec 2018].
Kinoshita Y, et al. [Advantages and Disadvantages of Long-term Proton Pump Inhibitor Use](#). J Neurogastroenterol Motil. 2018 Apr 30;24(2):182–196. PMID: 29605975.
Therapeutics Initiative: Independent Healthcare Evidence. [Deprescribing Proton Pump Inhibitors](#). [Internet]. 26 Jun 2018. [Accessed 20 Dec 2018].
- 4** Centers for Disease Control and Prevention. [Antibiotic Prescribing and Use in Hospitals and Long-Term Care](#). [Internet]. Updated 11 Apr 2017. [Accessed 29 Jan 2019].
Government of Canada. [Antibiotic \(antimicrobial\) resistance: Protecting yourself and your family](#). [Internet]. Updated 13 Nov 2018. [Accessed 20 Dec 2018].
Hildreth CJ, et al. [Inappropriate Use of Antibiotics](#). JAMA. 2009 Aug 19;302(7):816.
Isturiz RE. [Optimizing Antimicrobial Prescribing](#). Int J Antimicrob Agents. 2010 Nov;36 Suppl 3:S19-22. PMID: 21129628.
Zalmanovici Trestioreanu A, et al. [Antibiotics for asymptomatic bacteriuria](#). Cochrane Database Syst Rev. 2015 Apr 8;4:CD009534. PMID: 25851268.
- 5** Canadian Agency for Drugs and Technologies in Health. [Sleep Medications for Adults Diagnosed with Insomnia: Clinical Evidence and Harms](#). [Internet]. 29 Apr 2013. [Accessed 20 Dec 2018].
Canadian Agency for Drugs and Technologies in Health. [Current Practice Analysis: Interventions for Insomnia Disorder](#). [Internet]. June 2017. [Accessed 20 Dec 2018].
Fick DM, et al. [American Geriatrics Society 2015 Updated Beers Criteria for Potentially Inappropriate Medication Use in Older Adults](#). J Am Geriatr Soc. 2015 Nov;63(11):2227-2246. PMID: 26446832.
Soong C, et al. [Less Sedatives for Your Older Relatives: A toolkit for reducing inappropriate use of benzodiazepines and sedative-hypnotics among older adults in hospitals](#). [Internet] July 2017. [Accessed 20 Dec 2018].
- 6** Busse JW, et al. [Guideline for opioid therapy and chronic noncancer pain](#). CMAJ. 2017 May 8;189(18):E659-E666; PMID: 28483845.
Busse JW, et al. [Opioids for Chronic Noncancer Pain: A Systematic Review and Meta-analysis](#). JAMA. 2018 Dec 18;320(23):2448-2460. PMID: 30561481.
Canadian Agency for Drugs and Technology in Health. [Evidence Bundles: Alternatives to Opioids](#). [Internet]. [Accessed 20 Dec 2018].
Canada Agency for Drugs and Technology in Health. [Opioids for the Treatment of Pain](#). [Internet]. September 2018. [Accessed 20 Dec 2018].
The Institute for Safe Medication Practices Canada. [Opioid Pain Medicines Information for Patients and Families](#). [Internet]. March 2017. [Accessed 20 Dec 2018].
Krebs EE, et al. [Effect of Opioid vs Nonopioid Medications on Pain-Related Function in Patients With Chronic Back Pain or Hip or Knee Osteoarthritis Pain: The SPACE Randomized Clinical Trial](#). JAMA. 2018 Mar 6;319(9):872-882. PMID: 29509867.

About the Canadian Society of Hospital Pharmacists

The Canadian Society of Hospital Pharmacists is the national voluntary organization of pharmacists committed to patient care through the advancement of safe, effective medication use in hospitals and other collaborative healthcare settings.

Canadian Society of
Hospital Pharmacists



Société canadienne des
pharmaciens d’hôpitaux

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.