

Geriatrics

Eight Things Physicians and Patients Should Question

by
Canadian Geriatrics Society
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1 **Don't use antimicrobials to treat bacteriuria in older adults unless specific urinary tract symptoms are present.**

Cohort studies have found no adverse outcomes for older men or women associated with asymptomatic bacteriuria. Antimicrobial treatment studies for asymptomatic bacteriuria in older adults demonstrate no benefits and show increased adverse antimicrobial effects. Consensus criteria has been developed to characterize the specific clinical symptoms that, when associated with bacteriuria, define urinary tract infection. Screening for and treatment of asymptomatic bacteriuria is recommended before urologic procedures for which mucosal bleeding is anticipated.

2 **Don't use benzodiazepines or other sedative-hypnotics in older adults as first choice for insomnia, agitation or delirium.**

Large scale studies consistently show that the risk of motor vehicle accidents, falls and hip fractures leading to hospitalization and death can more than double in older adults taking benzodiazepines and other sedative-hypnotics. The number needed to treat with a sedative-hypnotic for improved sleep is 13, whereas the number needed to harm is only 6. Older patients, their caregivers and their health care providers should recognize these potential harms when considering treatment strategies for insomnia, agitation or delirium. Use of benzodiazepines should be reserved for alcohol withdrawal symptoms/delirium tremens or severe generalized anxiety disorder unresponsive to other therapies. Prescribing or discontinuing sedative-hypnotics in hospital can have substantial impact on long-term use. Cognitive behavioural therapy, brief behavioural interventions and benzodiazepine-tapering protocols have proven benefit in sedative-hypnotic discontinuation. These non-pharmacologic interventions are also beneficial in improving sleep.

3 **Don't recommend percutaneous feeding tubes in patients with advanced dementia; instead offer oral feeding.**

Careful hand-feeding for patients with severe dementia is at least as good as tube-feeding for the outcomes of death, aspiration pneumonia, functional status and patient comfort. Food is the preferred nutrient. Use of oral nutritional supplements may be beneficial. Tube-feeding is associated with agitation, increased use of physical and chemical restraints and worsening pressure ulcers.

4 **Don't use antipsychotics as first choice to treat behavioural and psychological symptoms of dementia.**

People with dementia often exhibit aggression, resistance to care and other challenging or disruptive behaviours. In such instances, antipsychotic medicines are often prescribed, but they provide limited benefit and can cause serious harm, including premature death. Use of these drugs should be limited to cases where non-pharmacologic measures have failed and patients pose an imminent threat to themselves or others. Identifying and addressing causes of behaviour change can make drug treatment unnecessary.

5 **Avoid using medications known to cause hypoglycemia to achieve hemoglobin A1c <7.5% in many adults age 65 and older; moderate control is generally better.**

There is no evidence that using medications to achieve intense glycemic control in older adults with type 2 diabetes is beneficial (A1c under 7.0%). Among non-older adults, except for long-term reductions in myocardial infarction and mortality with metformin, using medications to achieve glycated haemoglobin levels less than 6 % is associated with harms, including higher mortality rates. Intense control has been consistently shown to produce higher rates of hypoglycemia in older adults. Given the long timeframe (approximately 8 years) to achieve theorized benefits of intense control, glycemic targets should reflect patient goals, health status, and life expectancy. Reasonable glycemic targets would be 7.0 – 7.5% in healthy older adults with long life expectancy, 7.5 – 8.0% in those with moderate comorbidity and a life expectancy < 10 years, and 8.0 – 8.5% in those with multiple morbidities and shorter life expectancy.

6 Avoid the use of physical restraints to manage behavioural symptoms of delirium and dementia (BPSD).

Restraints in seniors who are hospitalized with delirium are associated with complications associated with immobilization, such as decubitus ulcer, aspiration pneumonia and injuries which can cause death. Restraints can increase agitation, limit access to food and water such that all attempts should be made to adopt the least restrictive measures possible to manage such patients. Provision of support from family members, volunteers, sitters is advised instead. If agitation is placing the team and patient at risk, adopt the least restrictive measures as per institutional policies.

7 Don't continue cholinesterase inhibitors or memantine for dementia without periodic reassessment for perceived benefits (cognitive, functional, behavioural) and adverse effects, and consider deprescribing if the risks outweigh the benefits.

Cholinesterase inhibitors and memantine may be prescribed in several dementia syndromes, but in some circumstances, they do not confer any meaningful benefit, and in other circumstances significant side effects limit their use. Furthermore, their risk to benefit ratio can change with long-term use, and patients stand to benefit from regular reassessment of their indication, side effect profile, and consideration of deprescription. A risk/benefit discussion and trial of deprescription may be considered in patients who were prescribed the drug without an appropriate indication, those whose risks or side effects outweigh the benefits, or patients whose dementia has advanced to a point where there is no appreciable benefit to preserving cognition or functional ability.

8 Don't prescribe a medication without conducting a medication reconciliation review, and consider opportunities for deprescribing at interfaces of care.

Older patients disproportionately use more prescription and non-prescription drugs than other populations, increasing the risk for side effects and inappropriate prescribing. Polypharmacy may lead to diminished adherence, adverse drug reactions and increased risk of cognitive impairment, falls and functional decline. Medication review identifies high-risk medications, drug interactions and those continued beyond their indication. Deprescribing offers an opportunity to stop unnecessary medications, optimize doses and reduce medication burden.

How the list was created

The Canadian Geriatrics Society (CGS) established its Choosing Wisely Canada Top 5 recommendations by first establishing a small group of its Council members and Committee chairs to evaluate the American Geriatrics Society (AGS) Choosing Wisely® list. Feeling confident that the AGS recommendations reflected geriatric care in Canada, the list was presented to the CGS executive. After initial review by the CGS executive, each topic was reviewed in detail by selected Canadian geriatricians and other specialists with the relevant research and clinical expertise. This process was undertaken to ensure the recommendations and background information for each topic were valid and relevant for Canadian patients and our health care system. Ultimately, all five items were adopted with permission from the Five Things Physicians and Patients Should Question, © 2012 American Geriatrics Society.

Sources

- 1** Abrutyn E, et al. Does asymptomatic bacteriuria predict mortality and does antimicrobial treatment reduce mortality in elderly ambulatory women? *Ann Intern Med.* 1994 May 15;120(10):827-33. [PMID: 7818631](#).
Nicolle LE. Asymptomatic bacteriuria in the elderly. *Infect Dis Clin North Am.* 1997 Sep;11(3):647-62. [PMID: 9378928](#).
Nicolle LE, et al. Infectious diseases society of America guidelines for the diagnosis and treatment of asymptomatic bacteriuria in adults. *Clin Infect Dis.* 2005 Mar 1;40(5):643-54. [PMID: 15714408](#).
Nordenstam GR, et al. Bacteriuria and mortality in an elderly population. *N Engl J Med.* 1986 May 1;314(18):1152-6. [PMID: 3960089](#).
- 2** Allain H, et al. Postural instability and consequent falls and hip fractures associated with use of hypnotics in the elderly: A comparative review. *Drugs Aging.* 2005;22(9):749-65. [PMID: 16156679](#).
American Geriatrics Society 2012 Beers Criteria Update Expert Panel. American Geriatrics Society updated Beers Criteria for potentially inappropriate medication use in older adults. *J Am Geriatr Soc.* 2012 Apr;60(4):616-31. [PMID: 22376048](#).
Finkle WD, et al. Risk of fractures requiring hospitalization after an initial prescription for zolpidem, alprazolam, lorazepam, or diazepam in older adults. *J Am Geriatr Soc.* 2011 Oct;59(10):1883-90. [PMID: 22091502](#).
McMillan JM, et al. Management of insomnia and long-term use of sedative-hypnotic drugs in older patients. *CMAJ.* 2013 Nov 19;185(17):1499-505. [PMID: 24062170](#).
- 3** Allen VJ, et al. Use of nutritional complete supplements in older adults with dementia: Systematic review and meta-analysis of clinical outcomes. *Clin Nutr.* 2013 Dec;32(6):950-7. [PMID: 23591150](#).
Finucane TE, et al. Tube feeding in patients with advanced dementia: A review of the evidence. *JAMA.* 1999 Oct 13;282(14):1365-70. [PMID: 10527184](#).
Gabriel SE, et al. Getting the methods right--the foundation of patient-centered outcomes research. *N Engl J Med.* 2012 Aug 30;367(9):787-90. [PMID: 22830434](#).
Hanson LC, et al. Improving decision-making for feeding options in advanced dementia: A randomized, controlled trial. *J Am Geriatr Soc.* 2011 Nov;59(11):2009-16. [PMID: 22091750](#).
Palecek EJ, et al. Comfort feeding only: A proposal to bring clarity to decision-making regarding difficulty with eating for persons with advanced dementia. *J Am Geriatr Soc.* 2010 Mar;58(3):580-4. [PMID: 20398123](#).
Teno JM, et al. Decision-making and outcomes of feeding tube insertion: A five-state study. *J Am Geriatr Soc.* 2011 May;59(5):881-6. [PMID: 21539524](#).
- 4** Brodaty H, et al. Meta-analysis of nonpharmacological interventions for neuropsychiatric symptoms of dementia. *Am J Psychiatry.* 2012 Sep;169(9):946-53. [PMID: 22952073](#).
Gill SS, et al. Atypical antipsychotic drug use and mortality in older adults with dementia. *Ann Intern Med.* 2007 Jun 5;146(11):775-86. [PMID: 17548409](#).
Gill SS, et al. Atypical antipsychotic drugs and risk of ischaemic stroke: Population based retrospective cohort study. *BMJ.* 2005 Feb 26;330(7489):445. [PMID: 15668211](#).
Joller P, et al. Approach to inappropriate sexual behaviour in people with dementia. *Can Fam Physician.* 2013 Mar;59(3):255-60. [PMID: 23486794](#).
Lee PE, et al. Atypical antipsychotic drugs in the treatment of behavioural and psychological symptoms of dementia: Systematic review. *BMJ.* 2004 Jul 10;329(7457):75. [PMID: 15194601](#).
Rochon PA, et al. Antipsychotic therapy and short-term serious events in older adults with dementia. *Arch Intern Med.* 2008 May 26;168(10):1090-6. [PMID: 18504337](#).
Schneider LS, et al. Efficacy and adverse effects of atypical antipsychotics for dementia: Meta-analysis of randomized, placebo-controlled trials. *Am J Geriatr Psychiatry.* 2006 Mar;14(3):191-210. [PMID: 16505124](#).
Seitz DP, et al. Efficacy and feasibility of nonpharmacological interventions for neuropsychiatric symptoms of dementia in long term care: A systematic review. *J Am Med Dir Assoc.* 2012 Jul;13(6):503,506.e2. [PMID: 22342481](#).
- 5** ACCORD Study Group, et al. Long-term effects of intensive glucose lowering on cardiovascular outcomes. *N Engl J Med.* 2011 Mar 3;364(9):818-28. [PMID: 21366473](#).
Action to Control Cardiovascular Risk in Diabetes Study Group, et al. Effects of intensive glucose lowering in type 2 diabetes. *N Engl J Med.* 2008 Jun 12;358(24):2545-59. [PMID: 18539917](#).
ADVANCE Collaborative Group, et al. Intensive blood glucose control and vascular outcomes in patients with type 2 diabetes. *N Engl J Med.* 2008 Jun 12;358(24):2560-72. [PMID: 18539916](#).
Canadian Diabetes Association. 2013 Clinical practice guidelines for the prevention and management of diabetes in Canada. *Can J Diabetes.* 2013 April 1;37:S1-212.
Duckworth W, et al. Glucose control and vascular complications in veterans with type 2 diabetes. *N Engl J Med.* 2009 Jan 8;360(2):129-39. [PMID: 19092145](#).
Effect of intensive blood-glucose control with metformin on complications in overweight patients with type 2 diabetes (UKPDS 34). UK prospective diabetes study (UKPDS) group. *Lancet.* 1998 Sep 12;352(9131):854-65. [PMID: 9742977](#).
Finucane TE. "Tight control" in geriatrics: The emperor wears a thong. *J Am Geriatr Soc.* 2012 Aug;60(8):1571-5. [PMID: 22881447](#).
Kirkman MS, et al. Diabetes in older adults: A consensus report. *J Am Geriatr Soc.* 2012 Dec;60(12):2342-56. [PMID: 23106132](#).
Montori VM, et al. Glycemic control in type 2 diabetes: Time for an evidence-based about-face? *Ann Intern Med.* 2009 Jun 2;150(11):803-8. [PMID: 19380837](#).

- 6 Abraham J, Hirt J, Richter C, Köpke S, Meyer G, Möhler R. Interventions for preventing and reducing the use of physical restraints of older people in general hospital settings. *Cochrane Database of Systematic Reviews* 2022, Issue 8. Art. No.: CD012476. DOI: 10.1002/14651858.CD012476.pub2. [PMID: 36004796](#).
Flaherty JH, Little MO. Matching the environment to patients with delirium: lessons learned from the delirium room, a restraint-free environment for older hospitalized adults with delirium. *J Am Geriatr Soc*. 2011 Nov;59Suppl 2:S295–300. [PMID: 22091576](#).
Sharifi, A., Arsalani, N., Fallahi-Khoshknab, M. et al. The principles of physical restraint use for hospitalized elderly people: an integrated literature review. *Syst Rev* 10, 129 (2021). <https://doi.org/10.1186/s13643-021-01676-8>. [PMID: 33931096](#).
- 7 Birks J. Cholinesterase inhibitors for Alzheimer's disease. *Cochrane Database Syst Rev*. 2006 Jan 25;(1):CD005593. PMID: 16437532.
Buckley JS, Salpeter SR. A risk-benefit assessment of dementia medications: systematic review of the evidence. *Drugs Aging* 2015; 32: 453– 467. [PMID: 25941104](#).
Courtney C, Farrell D, Gray R, Hills R, Lynch L, Sellwood E, Edwards S, Hardyman W, Raftery J, Crome P, Lendon C, Shaw H, Bentham P; AD2000 Collaborative Group. Long-term donepezil treatment in 565 patients with Alzheimer's disease (AD2000): randomized double-blind trial. *Lancet*. 2004 Jun 26;363(9427):2105–15. [PMID: 15220031](#).
Howard R, McShane R, Lindesay J, Ritchie C, Baldwin A, Barber R, Burns A, Dening T, Findlay D, Holmes C, Hughes A. Donepezil and memantine for moderate-to-severe Alzheimer's disease. *New England Journal of Medicine*. 2012 Mar 8;366(10):893-903. [PMID: 22397651](#).
Kaduszkiewicz H, Zimmermann T, Beck-Bornholdt HP, van den Bussche H. Cholinesterase inhibitors for patients with Alzheimer's disease: systematic review of randomized clinical trials. *BMJ*. 2005 Aug 6;331(7512):321–7. [PMID: 16081444](#).
Reeve E, Farrell B, Thomson W, Herrman N, Sketris I, Magin PJ, Chenoweth L, Gorman M, Quirke L, Bethune G, Hilmer SN. Deprescribing cholinesterase inhibitors and memantine in dementia: guideline summary. *Med. J.Aust*. 2019 Feb 16; 210: 174-179. [PMID: 30771226](#).
Reeve E, Farrell B, Thompson W, et al. [Evidence-based clinical practice guideline for deprescribing cholinesterase inhibitors and memantine](#). Sydney: University of Sydney, 2018.
- 8 Farrell B, Mangin D. Deprescribing is an essential part of good prescribing. *Am Fam Physician*. 2019; 99(1):7-9. [PMID: 30600973](#).
Hajjar ER, Cafiero AC, Hanlon JT. Polypharmacy in elderly patients. *Am J Geriatr Pharm*. 2007 Dec;5(4):345–51. [PMID: 18179993](#).
Steinman MA, Hanlon JT. Managing medications in clinically complex elders: "There's got to be a happy medium". *JAMA*. 2010 Oct 13;304(14):1592–1601. [PMID: 20940385](#).

About the Canadian Geriatrics Society

The CGS has 375 members who have an interest in the health care of the elderly. This includes specialists in geriatrics and care of the elderly, family physicians and allied health professionals. The objectives of the CGS are to promote excellence in the medical care of older Canadians, promote a high standard of research in the field of geriatrics/gerontology and improve the education provided to Canadian physicians on aging and its clinical challenges.



About Choosing Wisely Canada

Choosing Wisely Canada is a campaign to help physicians and patients engage in conversations about unnecessary tests, treatments and procedures, and to help physicians and patients make smart and effective choices to ensure high-quality care.

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