



Five Things Physicians and Patients Should Question

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.

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, Mossey J, Berlin JA, Boscia J, Levison M, Pitsakis P, 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.
Nicolle LE. Asymptomatic bacteriuria in the elderly. *Infect Dis Clin North Am.* 1997 Sep;11(3):647-62.
Nicolle LE, Bradley S, Colgan R, Rice JC, Schaeffer A, Hooton TM, 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.
Nordenstam GR, Brandberg CA, Oden AS, Svanborg Eden CM, Svanborg A. Bacteriuria and mortality in an elderly population. *N Engl J Med.* 1986 May 1;314(18):1152-6.
- 2** Allain H, Bentue-Ferrer D, Polard E, Akwa Y, Patat A. 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.
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.
Finkle WD, Der JS, Greenland S, Adams JL, Ridgeway G, Blaschke T, 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.
McMillan JM, Aitken E, Holroyd-Leduc JM. Management of insomnia and long-term use of sedative-hypnotic drugs in older patients. *CMAJ.* 2013 Nov 19;185(17):1499-505.
- 3** Allen VJ, Methven L, Gosney MA. 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.
Finucane TE, Christman C, Travis K. Tube feeding in patients with advanced dementia: A review of the evidence. *JAMA.* 1999 Oct 13;282(14):1365-70.
Gabriel SE, Normand SL. Getting the methods right--the foundation of patient-centered outcomes research. *N Engl J Med.* 2012 Aug 30;367(9):787-90.
Hanson LC, Carey TS, Caprio AJ, Lee TJ, Ersek M, Garrett J, 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.
Palecek EJ, Teno JM, Casarett DJ, Hanson LC, Rhodes RL, Mitchell SL. 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.
Teno JM, Mitchell SL, Kuo SK, Gozalo PL, Rhodes RL, Lima JC, et al. Decision-making and outcomes of feeding tube insertion: A five-state study. *J Am Geriatr Soc.* 2011 May;59(5):881-6.
- 4** Brodaty H, Arasaratnam C. Meta-analysis of nonpharmacological interventions for neuropsychiatric symptoms of dementia. *Am J Psychiatry.* 2012 Sep;169(9):946-53.
Gill SS, Bronskill SE, Normand SL, Anderson GM, Sykora K, Lam K, et al. Antipsychotic drug use and mortality in older adults with dementia. *Ann Intern Med.* 2007 Jun 5;146(11):775-86.
Gill SS, Rochon PA, Herrmann N, Lee PE, Sykora K, Gunraj N, et al. Atypical antipsychotic drugs and risk of ischaemic stroke: Population based retrospective cohort study. *BMJ.* 2005 Feb 26;330(7489):445.
Joller P, Gupta N, Seitz DP, Frank C, Gibson M, Gill SS. Approach to inappropriate sexual behaviour in people with dementia. *Can Fam Physician.* 2013 Mar;59(3):255-60.
Lee PE, Gill SS, Freedman M, Bronskill SE, Hillmer MP, Rochon PA. Atypical antipsychotic drugs in the treatment of behavioural and psychological symptoms of dementia: Systematic review. *BMJ.* 2004 Jul 10;329(7457):75.
Rochon PA, Normand SL, Gomes T, Gill SS, Anderson GM, Melo M, et al. Antipsychotic therapy and short-term serious events in older adults with dementia. *Arch Intern Med.* 2008 May 26;168(10):1090-6.
Schneider LS, Dagerman K, Insel PS. 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.
Seitz DP, Brisbin S, Herrmann N, Rapoport MJ, Wilson K, Gill SS, 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.
- 5** 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.
ACCORD Study Group, Gerstein HC, Miller ME, Genuth S, Ismail-Beigi F, Buse JB, et al. Long-term effects of intensive glucose lowering on cardiovascular outcomes. *N Engl J Med.* 2011 Mar 3;364(9):818-28.
Action to Control Cardiovascular Risk in Diabetes Study Group, Gerstein HC, Miller ME, Byington RP, Goff DC, Jr, Bigger JT, et al. Effects of intensive glucose lowering in type 2 diabetes. *N Engl J Med.* 2008 Jun 12;358(24):2545-59.
ADVANCE Collaborative Group, Patel A, MacMahon S, Chalmers J, Neal B, Billot L, 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.
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, Abraira C, Moritz T, Reda D, Emanuele N, Reaven PD, et al. Glucose control and vascular complications in veterans with type 2 diabetes. *N Engl J Med.* 2009 Jan 8;360(2):129-39.
Finucane TE. "Tight control" in geriatrics: The emperor wears a thong. *J Am Geriatr Soc.* 2012 Aug;60(8):1571-5.
Kirkman MS, Briscoe VJ, Clark N, Florez H, Haas LB, Halter JB, et al. Diabetes in older adults: A consensus report. *J Am Geriatr Soc.* 2012 Dec;60(12):2342-56.
Montori VM, Fernandez-Balsells M. Glycemic control in type 2 diabetes: Time for an evidence-based about-face? *Ann Intern Med.* 2009 Jun 2;150(11):803-8.

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.

For more information on *Choosing Wisely Canada* or to see other lists of Five Things Physicians and Patients Should Question, visit www.choosingwiselycanada.org. Join the conversation on Twitter @ChooseWiselyCA.

About The Canadian Geriatrics Society

The Canadian Geriatrics Society (CGS) is a proud partner of the *Choosing Wisely Canada* campaign. 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.