

# Psychiatry

## Thirteen Things Physicians and Patients Should Question

by

Canadian Academy of Child and Adolescent Psychiatry

Canadian Academy of Geriatric Psychiatry

Canadian Psychiatric Association

Last updated: April 2024



### 1 **Don't use SSRIs as the first-line intervention for mild to moderately depressed teens.**

Evidence clearly indicates that antidepressant medication is less effective in children and adolescents up to the age of 17 years when compared to treatment in adults, and first-line treatment for this group should include cognitive behavioural therapy or interpersonal psychotherapy. Attention should always be focused on children's and teens' environmental safety and adequate parental support to avoid missing cases of neglect, abuse or trauma. Treatment should also include psychoeducation on the importance of regular sleep, diet and exercise to ensure healthy, age-appropriate developmental support.

### 2 **Don't use atypical antipsychotics as a first-line intervention for Attention Deficit Hyperactivity Disorder (ADHD) with disruptive behaviour disorders.**

Treatment of ADHD that is accompanied by disruptive behaviour disorders should include adequate education of patients and their families, behavioural interventions, psychological treatments and educational accommodations first. If this approach is not sufficient, stimulant medication and a behavioural analysis to ensure appropriate support from the parent and classroom is indicated. The use of alpha 2 agonists (such as guanfacine or clonidine) and atomoxetine should be considered before using atypical antipsychotics (such as risperidone) in children with ADHD and comorbid disruptive behaviour disorders (oppositional defiant disorder, conduct disorder). Although risperidone may provide some short-term reduction in aggression and conduct problems in children, its negative metabolic side effects must be balanced against its potential benefits.

### 3 **Don't use psychostimulants as a first-line intervention in preschool children with ADHD.**

Preschool children with ADHD need to be assessed for other neurodevelopmental disorders and consideration given to environmental stressors such as neglect, abuse or exposure to domestic violence. Although there is some evidence supporting the use of stimulants among preschoolers with ADHD, treatment should instead start with adequate education and support of parents followed by advice on behavioural management and community placement, given the potential side effects of stimulants in younger ages.

### 4 **Don't routinely use antipsychotics to treat primary insomnia in any age group.**

Recent research confirms a dramatic increase in the use of atypical antipsychotics with subsequent side-effects including obesity, which is already a major health issue. These drugs carry significant risk of potential side-effects including weight gain and metabolic complications, even at low doses used to treat insomnia. In patients with dementia, they can also potentially cause serious side-effects of increased risk of cerebrovascular event and increased risk of death. It is prudent to pursue nonpharmacological measures first, such as behavioural modifications and ensuring good sleep hygiene (such as eliminating daytime napping and shutting off electronics an hour before bedtime). If these interventions are not successful and with clinician awareness of recent guidelines, medications may be suggested.

### 5 **Don't routinely order qualitative toxicology testing (urine drug screen) on all psychiatric patients presenting to the emergency room.**

There is no evidence to support ordering routine toxicology testing for all patients presenting to the psychiatry emergency room service. Furthermore, routine testing presents the potential for false positives and false negatives. Lastly, testing may delay psychiatric assessment and management.

### 6 **Don't routinely use antidepressants as first-line treatment for mild or subsyndromal depressive symptoms in adults.**

Antidepressant response rates are higher for depression of a moderate to severe nature. For mild or subsyndromal depressive symptoms a complete assessment, ongoing support and monitoring, psychosocial interventions and lifestyle modifications should be the first lines of treatment. This may avoid the side-effects of medication and establish etiological factors important to future assessment and management. Antidepressants are appropriate in cases of persistent mild depression, where there is a past history of more severe depression, or where other interventions have failed.

**7 Don't routinely order brain neuroimaging (CT or MRI) in first episode psychoses in the absence of signs or symptoms suggestive of intracranial pathology.**

Signs and symptoms suggestive of intracranial pathology include headaches, nausea and vomiting, seizure-like activity, and later-age of onset of symptoms. Multiple studies have found that routine neuroimaging in first episode psychoses does not yield findings which alter clinical management in a meaningful way. The risks of radiation exposure and delay in treatment also argue against routine neuroimaging. Although a recent meta-analysis supported the use of MRI for all patients with first episode psychosis, the conclusion is controversial, did not review if clinical signs or symptoms of intracranial pathology were present or not, and based the conclusions on MRI abnormalities in 5.9 per cent of first episode psychosis patients, prompting further neuroimaging or referral to neurology for opinion, rather than changes in the management of the psychosis.

**8 Don't routinely continue benzodiazepines initiated during an acute care hospital admission without a careful review and plan of tapering and discontinuing, ideally prior to hospital discharge.**

Benzodiazepines, while helpful for short-term relief of anxiety and insomnia, are associated with a variety of side-effects and long-term problems including cognitive and psychomotor impairment as well as abuse and dependence. Benzodiazepines are commonly used in hospital to treat anxiety or insomnia in association with either the presenting condition or the hospital environment. Once the presenting condition is treated, benzodiazepines should be tapered and discontinued. For patients who are still on benzodiazepines at the time of discharge, a plan for tapering and discontinuing them after discharge should be completed and specified in the discharge summary and prescription.

**9 Don't routinely prescribe antidepressants as first-line treatment for depression comorbid with an active alcohol use disorder without first considering the possibility of a period of sobriety and subsequent reassessment for the persistence of depressive symptoms.**

The concurrent management of psychiatric illness and alcohol use disorders requires evaluation of the role alcohol plays as a causative factor for depressive symptoms. Studies have found that response rates to antidepressants are higher when antidepressants are reserved for persistence of symptoms after a period of sobriety lasting from two to four weeks. Additionally, studies have demonstrated remission from depressive symptoms with sobriety in the absence of antidepressant treatment in a significant percentage of cases. Management of comorbid psychiatric illness and substance use disorders including alcohol dependence involves assessment and treatment delivered in a concurrent manner.

**10 Don't routinely prescribe high-dose or combination antipsychotic treatment strategies in the treatment of schizophrenia.**

High-dose and combination strategies involving atypical antipsychotics (AAPs) are used in clinical practice for patients with schizophrenia who are inadequately controlled with one or more AAPs used at standard doses. In terms of safety, no clinically significant differences were evident between combination or high-dose therapy in comparison with standard-dose monotherapy. As distinct from routine treatment, treatment resistant or carefully selected patients with schizophrenia may benefit from prescribing regimens involving cautious polypharmacy. Emerging evidence suggests that particular symptom profiles, such as a preponderance of negative symptoms or antipsychotic-induced hyperprolactinemia may benefit from augmentation with a partial dopamine agonist.

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

People with dementia often exhibit challenging behavioural symptoms such as aggression and psychosis. In such instances, antipsychotic medicines may be necessary, but should be prescribed cautiously as they provide limited benefit and can cause serious harm, including premature death. Use of these drugs should be limited in dementia to cases where nonpharmacologic measures have failed, and where the symptoms either cause significant suffering, distress, and/or pose an imminent threat to the patient or others. A thorough assessment that includes identifying and addressing causes of behaviour change can make use of these medications unnecessary. Epidemiological studies suggest that typical (i.e., first generation) antipsychotics (i.e., haloperidol) are associated with at least the same risk of adverse events. This recommendation does not apply to the treatment of delirium or major mental illnesses such as mood disorders or schizophrenia.

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

Nonpharmacological interventions such as cognitive behavioural therapy and brief behavioural interventions have proven benefit in the management of insomnia in older adults. Epidemiological studies have shown 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. Prescribing or discontinuing sedative-hypnotics in hospital can have substantial impact on long-term use. These potential harms and others such as impaired cognition need to be recognized when considering treatment strategies for insomnia. Use of benzodiazepines should be limited to as short a period as possible, in cases where nonpharmacological therapies have failed, and the symptoms of sleep disturbance cause significant suffering or distress.

**13 Don't necessarily conduct in-person visits for psychiatric care when a virtual visit is both clinically appropriate and acceptable to the patient. This is particularly relevant for visits which would otherwise involve lengthy or difficult travel by either the patient or the health care provider.**

Driving is one of the activities with a high carbon footprint. Cars emit an average of 206 g of CO<sub>2</sub> per kilometre. To put this in context a mature tree metabolizes about 20 kg of CO<sub>2</sub> per year, the equivalent of driving less than 100 km. Travel to and from health facilities by patients, visitors and staff accounted for 10 per cent of the UK NHS emissions. Travel is a significant contributor to health care emissions.

In a cross-sectional study of more than 10 million patients and 63 million virtual care visits, virtual care was associated with avoidance of 3.2 billion km of patient travel, 545 to 658 million kg of carbon dioxide emissions, and \$569 to \$733 million (Canadian [US \$465-\$599 million]) in expenses for gasoline, parking, or public transit.

There is an increasing volume of literature which shows that mental health care delivered virtually can be as effective as in-person care.

## How the list was created

The Canadian Psychiatric Association (CPA) determined its *Choosing Wisely Canada* recommendations by establishing a working group that included representatives from the CPA's Professional Standards and Practice Committee, Research Committee, and Member-in-Training Section, as well as the Canadian Academy of Geriatric Psychiatry (CAGP) and the Canadian Academy of Child and Adolescent Psychiatry (CACAP). A person with lived experience from the Canadian Mental Health Association was also a member of the working group. CPA members were invited to provide suggestions for potential list items, as were the provincial psychiatric associations, the Canadian Academy of Psychiatry and the Law (CAPL) and the Canadian Academy of Psychosomatic Medicine (CAPM). The working group considered suggestions received, and assistance was obtained from the Addiction and Mental Health Strategic Clinical Network for Alberta Health Services in conducting rapid literature reviews on a number of potential CPA list items. List items were further refined in subsequent working group teleconferences, and a next-to-final draft was recirculated to the provincial psychiatric associations, CAPL and CAPM for final comments, which were considered by the working group in preparing its final list.

A small subcommittee of the CAGP was organized, with input from representatives from the CAPM and the Canadian Geriatrics Society (CGS). The group reviewed the recommendations made by members of a CPA membership survey, as well as the CGS, AGS and the American Psychiatric Association's (APA) recommendations for Choosing Wisely. Two recommendations were selected and discussed, and minor revisions were made to the paragraphs underneath the recommendations. The CAGP also focused the recommendation about benzodiazepines and other hypnotics on insomnia, rather than on a variety of conditions.

The Executive Committee of the Canadian Academy of Child and Adolescent Psychiatry (CACAP) developed a draft list of items after reviewing recommendations made by members of a CPA membership survey, as well as the American Psychiatric Association's (APA) recommendations for Choosing Wisely. The list was further discussed and refined and additional feedback was obtained from the CACAP Board of Directors, as well as the Section of Child and Adolescent Psychiatry of the Alberta Psychiatric Association and colleagues elsewhere in the country.

## Sources

- 1 Cheung AH, et al. Guidelines for adolescent depression in primary care (GLAD-PC): Part II. Treatment and ongoing management. *Pediatrics*. 2018;141(3):e20174082. PMID : 29483201.  
Hetrick SE, et coll. Newer generation antidepressants for depressive disorders in children and adolescents. *Cochrane Database Syst Rev*. 14 novembre 2012;11:CD004851. PMID : 23152227.  
Korcak DJ, et al. Diagnosis and management of depression in adolescents. *CMAJ*. 2023 May 29;195(21):E739-E746. PMID: 37247881.  
Walter HJ, et al. Clinical Practice Guideline for the Assessment and Treatment of Children and Adolescents With Major and Persistent Depressive Disorders. *J Am Acad Child Adolesc Psychiatry*. 2023 May;62(5):479-502. Epub 2022 Oct 21. PMID: 36273673.  
Zuckerbrodt RA, et al. Guidelines for adolescent depression in primary care (GLAD-PC): Part I. Practice preparation, identification, assessment and initial management. *Pediatrics*. 2018;141(3):e20174081. PMID : 29483200.
- 2 Gorman DA, et coll. Canadian guidelines on pharmacotherapy for disruptive and aggressive behaviour in children and adolescents with attention-deficit hyperactivity disorder, oppositional defiant disorder, or conduct disorder. *Can J Psychiatry*. Février 2015;60(2):62-76. PMID : 25886657.  
Loy JH, et al. Atypical antipsychotics for disruptive behaviour disorders in children and youths. *Cochrane Database Syst Rev*. 2017 Aug 9;8(8):CD008559. PMID: 28791693.  
Pringsheim T, et coll. The Pharmacological Management of Oppositional Behaviour, Conduct Problems, and Aggression in Children and Adolescents With Attention-Deficit Hyperactivity Disorder, Oppositional Defiant Disorder, and Conduct Disorder: A Systematic Review and Meta-Analysis. Part 1: Psychostimulants, Alpha-2 Agonists, and Atomoxetine. *Can J Psychiatry*. 1er février 2015;60(2):42-51. PMID : 25886655.  
Wilkes TCR, Nixon MK. Pharmacological treatment of child and adolescent disruptive behaviour disorders. *Can J Psychiatry*. Février 2015;60(2):39-41.
- 3 Canadian ADHD Resource Alliance. [Canadian ADHD Practice Guidelines, 3rd Edition](#) [Internet]. 2011 [cited 2017 May 5].  
Greenhill L, et al. Efficacy and safety of immediate-release methylphenidate treatment for preschoolers with ADHD. *J Am Acad Child Adolesc Psychiatry*. 2006 Nov;45(11):1284-93. PMID: 17023867.  
March JS. The preschool ADHD treatment study (PATS) as the culmination of twenty years of clinical trials in pediatric psychopharmacology. *J Am Acad Child Adolesc Psychiatry*. 2011 May;50(5):427-30. PMID: 21515189.  
Sugaya LS, et al. Efficacy of stimulants for preschool attention-deficit/hyperactivity disorder: A systematic review and meta-analysis. *JCPP Adv*. 2023 Feb 25;3(3):e12146. PMID: 37720577.
- 4 Agency for Healthcare Quality and Research. [Off-Label Use of Atypical Antipsychotics: An Update](#) [Internet]. 2011 Sep [cited 2017 May 5].  
Coe HV, et al. Safety of low doses of quetiapine when used for insomnia. *Ann Pharmacother*. 2012 May;46(5):718-22. PMID: 22510671.  
Ferracioli-Oda E, et al. Meta-analysis: melatonin for the treatment of primary sleep disorders. *PLoS One*. 2013 May 17;8(5):e63773. PMID: 23691095.  
Hermes ED, et al. Use of second-generation antipsychotic agents for sleep and sedation: a provider survey. *Sleep*. 2013 Apr;36(4):597-600. PMID: 23565006.  
Mindell JA, et al. [A clinical guide to pediatric sleep: Diagnosis and management of sleep problems](#). 2nd edition. Philadelphia (PA): Lippincott Williams & Wilkins; 2010.  
Morgenthaler TI, et al. Practice parameters for behavioral treatment of bedtime problems and night wakings in infants and young children: an American Academy of Sleep Medicine report. *Sleep*. 2006;(29)10:1277-81. PMID: 17068980.  
Owens JA, et al. Pharmacologic treatment of pediatric insomnia. *Child and Adolescent Psychiatric Clinics of North America*. 2009 Oct;18(4):1001-16. PMID: 19836701.  
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 M, et al. 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 Feb 15;13(2):307-49.  
Stepanski EJ, et al. Use of sleep hygiene in the treatment of insomnia. *Sleep Med Rev*. 2003 Jun;7(3):215-25. PMID: 12927121.
- 5 Akosile W, et al. Use of the urine drug screen in psychiatry emergency service. *Australas Psychiatry*. 2015;23:128-131. PMID : 26627350.  
Korn CS, et al. "Medical clearance" of psychiatric patients without medical complaints in the emergency department. *J Emerg Med*. 2000 Feb;18(2):173-176. PMID: 10699517.  
Kroll DS, et al. Drug screens for psychiatric patients in the emergency department: evaluation and recommendations. *Psychosomatics*. 2013;54(1):60-66. PMID: 23194932.  
Olshaker JS, et al. Medical clearance and screening of psychiatric patients in the emergency department. *Acad Emerg Med*. 1997 Feb;4(2):124-128. PMID: 9043539.  
Schiller MJ, et al. Utility of routine drug screening in a psychiatric emergency setting. *Psychiatr Serv*. 2000 Apr;51(4):474-78. PMID: 10737822.  
Tenenbein M. Do you really need that emergency drug screen? *Clin Toxicol*. 2009 Apr;47(4):286-91. PMID: 19514875.

- 6 Barbui C, et al. Efficacy of antidepressants and benzodiazepines in minor depression: systematic review and meta-analysis. *Br J Psychiatry*. 2011 Jan;198(1):11-6. PMID: [21200071](#).
- Cuijpers P, et al. Are psychosocial and pharmacologic interventions equally effective in the treatment of adult depressive disorders? A meta-analysis of comparative studies. *J Clin Psychiatry*. 2008 Nov;69(11):1675-85. PMID: [18945396](#).
- Esposito E, et al. Frequency and adequacy of depression treatment in a Canadian population sample. *Can J Psychiatry*. 2007 Dec;52(12):780-789. PMID: [18186178](#).
- Fournier JC, et al. Antidepressant drug effects and depression severity: a patient-level meta-analysis. *JAMA*. 2010 Jan 6;303(1):47-53. PMID: [20051569](#).
- Kirsch I, et al. Initial Severity and antidepressant benefits: a meta-analysis of data submitted to the Food and Drug Administration. *PLoS Med*. 2008 Feb;5(2):e45. PMID: [18303940](#).
- National Institute for Health and Care Excellence. [Depression in adults: evidence update](#) [Internet]. 2016 Apr [cited 2017 May 5].
- 7 Albon E, et al. Structural neuroimaging in psychosis: a systematic review and economic evaluation. *Health Technol Assess*. 2008 May;12(18):iii-iv, ix-163. PMID: [18462577](#).
- Blackman G, et al. [Prevalence of neuroradiological abnormalities in first-episode psychosis: a systematic review and meta-analysis](#). *JAMA Psychiatry*. 2023 Jul 12; e232225.
- Goulet K, et al. Use of brain imaging (computed tomography and magnetic resonance imaging) in first-episode psychosis: review and retrospective study. *Can J Psychiatry*. 2009 Jul;54(7):493-501. PMID: [19660172](#).
- Khandanpour N, et al. The role of MRI and CT of the brain in first episodes of psychosis. *Clin Radiol*. 2013 Mar;68(3):245-50. PMID: [22959259](#).
- National Institute for Health and Clinical Excellence. [Technology appraisal guidance: Structural neuroimaging in first-episode psychosis](#) [Internet]. 2008 Feb 27 [2017 May 5].
- Williams SR, et al. On the usefulness of structural brain imaging for young first episode inpatients with psychosis. *Psychiatry Res*. 2014 Nov 30;224(2):104-6. PMID: [25174841](#).
- 8 Alessi-Severini S, et al. Use of benzodiazepines and related drugs in Manitoba: A population-based study. *CMAJ Open*. 2014 Oct;2(4):E208-16. PMID: [25485245](#).
- Ashton H. The diagnosis and management of benzodiazepine dependence. *Curr Opin Psychiatry*. 2005 May;18(3):249-55. PMID: [16639148](#).
- Bell CM, et al. Initiation of benzodiazepines in the elderly after hospitalization. *J Gen Intern Med*. 2007 Jul;22(7):1024-29. PMID: [17453266](#).
- Cunningham CM, et al. Patterns in the use of benzodiazepines in British Columbia: Examining the impact on increasing research and guideline cautions against long-term use. *Health Policy*. 2010 Oct;97(2-3):122-9. PMID: [20413177](#).
- Grad R, et al. Risk of a new benzodiazepine prescription in relation to recent hospitalization. *J Am Geriatr Soc*. 1999 Feb;47(2):184-8. PMID: [9988289](#).
- Lader M. Benzodiazepines revisited-will we ever learn? *Addiction*. 2011 Dec;106(12):2086-109. PMID: [21714826](#).
- Olsson M, et al. Benzodiazepine use in the United States. *JAMA Psychiatry*. 2015 Feb;72(2):136-42. PMID: [25517224](#).
- Olsson M, et al. The popularity of benzodiazepines, their advantages, and inadequate pharmacological alternatives—Reply. *JAMA Psychiatry*. 2015 Apr 1. PMID: [25830609](#).
- Swinson R, et al. Clinical practice guidelines: Management of anxiety disorders. *Can J Psychiatry*. 2006 Jul;51 Suppl 2:1S-93S.
- Yokoi Y, et al. Benzodiazepine discontinuation and patient outcome in a chronic geriatric medical/psychiatric unit: a retrospective chart review. *Geriatr Gerontol Int*. 2014 Apr;14(2):388-94. PMID: [24666628](#).
- 9 Foulds JA, et al. Antidepressant therapy for depressed patients with an alcohol use disorder. *Aust N Z J Psychiatry*. 2016;50(3):199-200. PMID: [26460328](#).
- Hashimoto E, et al. Influence of comorbid alcohol use disorder on treatment response of depressive patients. *J Neural Transm*. 2015 Feb;122(2):301-6. PMID: [24928545](#).
- Lingford-Hughes A, et al. [Treatment-resistant mood disorders: towards better understanding and treatment](#). *Br J Psychiatry*. 2019;214(1):A3-A5. doi:10.1192/bjp.2018.266.
- McIntosh C, et al. Treating depression complicated by substance misuse. *Adv Psychiatr Treat*. 2001 Jan;7(5):357-64.
- National Institute for Health and Care Excellence. [Alcohol-use disorders: diagnosis, assessment and management of harmful drinking and alcohol dependence](#) [Internet]. 2011 Feb [cited 2015 May 1].
- Nunes EV, et al. Treatment of co-occurring depression and substance dependence: Using meta-analysis to guide clinical recommendations. *Psychiatr Ann*. 2008 Nov 1;38(11):nihpa128505. PMID: [19668349](#).
- Petrakis IL, et al. Comorbidity of alcoholism and psychiatric disorders. *Alcohol Research and Health*. 2002 Nov;81-9.
- Torrens M, et al. Efficacy of antidepressants in substance use disorders with and without comorbid depression: a systematic review and meta-analysis. *Drug Alcohol Depend*. 2005 Apr 4;78(1):1-22. PMID: [15769553](#).
- 10 Canadian Agency for Drugs and Technologies in Health. [A systematic review of combination and high-dose atypical antipsychotic therapy in patients with schizophrenia](#). Optimal Use Report: CADTH Volume 1, Issue 1B [Internet]. 2011 Dec [cited 2017 May 5].
- Fisher MD, et al. Antipsychotic patterns of use in patients with schizophrenia: polypharmacy versus monotherapy. *BMC Psychiatry*. 2014 Nov 30;14:341. PMID: [25433495](#).
- Lähteenvuo M, et al. [Antipsychotic polypharmacy for the management of schizophrenia: evidence and recommendations](#). *Drugs* 81, 1273–1284 (2021).
- Lu Z, et al. [Pharmacological treatment strategies for antipsychotic-induced hyperprolactinemia: a systematic review and network meta-analysis](#). *Transl Psychiatry* 12, 267 (2022).
- Ortiz-Orendain J, et al. [Combining antipsychotic medication for the treatment of schizophrenia](#). *Cochrane Database of Systematic Reviews*. 2017;6:CD0090005.
- Remington G, et al. Canadian schizophrenia guidelines: Guidelines for the pharmacotherapy of schizophrenia in adults. *Can J Psychiatry*. 2017;62(9):604-616. PMID: [28703015](#).
- Tiihonen J, et al. Association of antipsychotic polypharmacy vs monotherapy with psychiatric rehospitalization among adults with schizophrenia. *JAMA Psychiatry*. 2019;76(5):499-507. PMID: [30785608](#).
- 11 Banerjee S. [The use of antipsychotic medication for people with dementia: Time for action](#) [Internet]. 2009 Oct [cited 2017 May 5].
- Brodsky 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. 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](#).
- 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](#).
- Samokhvalov A, et al. Outcomes of an integrated care pathway for concurrent major depressive and alcohol use disorders: a multisite prospective cohort study. *BMC Psychiatry*. 2018;18(1):189. PMID: [29898697](#).
- 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](#).
- 12 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](#).
- Glass J, et al. Sedative hypnotics in older people with insomnia: meta-analysis of risks and benefits. *BMJ*. 2005 Nov 19;331(7526):1169. PMID: [16284208](#).
- 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](#).
- Rapoport MJ, et al. Benzodiazepines and driving: a meta-analysis. *J Clin Psychiatry*. 2009 Apr 21;70(5):663-673. PMID: [19389334](#).
- Roszkowska J, et al. Management of insomnia in the geriatric patient. *Am J Med*. 2010 Dec;123(12):1087-90. PMID: [20870196](#).

- 13 Bulkes NZ, Davis K, Kay B, Riemann BC. Comparing efficacy of telehealth to in-person mental health care in intensive-treatment-seeking adults. *J Psychiatr Res*. 2022 Jan;145:347-352. Epubl 2021 Nov 3. PMID: 34799124.
- Greenwood H, Krzyzaniak N, Peiris R, Clark J, Scott AM, Cardona M, Griffith R, Glasziou P. Telehealth Versus Face-to-face Psychotherapy for Less Common Mental Health Conditions: Systematic Review and Meta-analysis of Randomized Controlled Trials. *JMIR Ment Health*. 2022 Mar 11;9(3):e31780. PMID: 35275081.
- International Energy Agency. [Fuel economy in major car markets: technology and policy drivers 2005-2017](#).
- Schiller CE, Prim J, Bauer AE, Lux L, Lundegard LC, Kang M, Hellberg S, Thompson K, Webber T, Teklezghi A, Pettee N, Gaffney K, Hodgins G, Rahman F, Steinsiek JN, Modi A, Gaynes BN. Efficacy of Virtual Care for Depressive Disorders: Systematic Review and Meta-analysis. *JMIR Ment Health*. 2023 Jan 9;10:e38955. PMID: 36622747.
- Tennison I, Roschnik S, Ashby B, Boyd R, Hamilton I, Oreszczyn T, Owen A, Romanello M, Ruyssevelt P, Sherman JD, Smith AZP, Steele K, Watts N, Eckelman MJ. Health care's response to climate change: a carbon footprint assessment of the NHS in England. *Lancet Planet Health*. 2021 Feb;5(2):e84-e92. PMID: 33581070.
- Welk B, McArthur E, Zorzi AP. Association of Virtual Care Expansion With Environmental Sustainability and Reduced Patient Costs During the COVID-19 Pandemic in Ontario, Canada. *JAMA Netw Open*. 2022;5(10):e2237545. PMID: 36264577.
- Yellowlees P. Climate Change Impacts on Mental Health Will Lead to Increased Digitization of Mental Health Care. *Curr Psychiatry Rep*. 2022 Nov;24(11):723-730. Epub 2022 Oct 10. PMID: 36214930.

---

### About The Canadian Academy of Child Psychiatry

The Canadian Academy of Child Psychiatry (CACAP) is a proud partner of the Choosing Wisely Canada campaign. CACAP promotes quality care and service to the children, youth and families of Canadians within an approach that includes the biological, the psychological and the social; that works with other professional disciplines; and across many sectors of health and other related service organizations.



---

### About The Canadian Academy of Geriatric Psychiatry

The Canadian Academy of Geriatric Psychiatry (CAGP) is a proud partner of the Choosing Wisely Canada campaign. CAGP is a national organization of psychiatrists dedicated to promoting mental health in the Canadian elderly population through the clinical, educational, research and advocacy activities of its membership. It was founded in 1991, and is recognized as the voice of Geriatric Psychiatry in Canada. The CAGP is a member of the Council of Academies of the Canadian Psychiatric Association. There are over 300 current members.



---

### About The Canadian Psychiatric Association

The Canadian Psychiatric Association (CPA) is a proud partner of the Choosing Wisely Canada campaign. CPA is the national voluntary professional association for Canada's 4,700 psychiatrists and 900 residents. As the national voice of Canada's psychiatrists, the CPA advocates for the professional needs of its members in meeting the mental health needs of Canadians, and promotes excellence in education, research and clinical practice. Its mission is to provide a strong, collective voice for psychiatrists across the country and to foster a community dedicated to ensuring the highest possible standards of professional practice in providing psychiatric services to Canadians.



Canadian Psychiatric Association  
Association des psychiatres 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.

🌐 [ChoosingWiselyCanada.org](https://ChoosingWiselyCanada.org) | ✉ [info@ChoosingWiselyCanada.org](mailto:info@ChoosingWiselyCanada.org) | 🐦 [@ChooseWiselyCA](https://twitter.com/ChooseWiselyCA) | 📘 [/ChoosingWiselyCanada](https://www.facebook.com/ChoosingWiselyCanada)