

CADTH RAPID RESPONSE REPORT: REFERENCE LIST

Smaller Quantity Benzodiazepine Prescribing for the Elderly or Patients with Mental Illness: Clinical Effectiveness and Guidelines

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Research Questions

1. What is the clinical effectiveness of prescribing benzodiazepines in smaller quantities for elderly patients or patients with mental illness?
2. What are the evidence-based guidelines associated with benzodiazepine prescribing for elderly patients or patients with mental illness?

Key Findings

One non-randomized study and three evidence-based guidelines were identified regarding benzodiazepine prescribing in smaller quantities for elderly patients or patients with mental illness.

Methods

A limited literature search was conducted by an information specialist on key resources including PubMed, the Cochrane Library, University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. The search strategy was comprised of both controlled vocabulary, such as the National Library of Medicine's MeSH (Medical Subject Headings), and keywords. The main search concepts were benzodiazepine prescribing patterns and elderly/adults only. Search filters were applied to limit retrieval to health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, and guidelines. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2014 and June 17, 2019. Internet links were provided, where available.

Selection Criteria

One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

Table 1: Selection Criteria

Population	Adults (≥65 years of age) in the community or long-term care settings Adults (≥18 years of age) requiring treatment for mental illness in community or outpatient settings
Intervention	First or subsequent prescriptions of benzodiazepines in a small quantity (short-term prescribing)
Comparators	Q1: Prescribing of benzodiazepines for any length of time (including longer-term, larger quantity prescriptions); No comparator Q2: No comparator
Outcomes	Q1: Clinical effectiveness (e.g., lower likelihood of developing Benzodiazepine dependence, occurrence of adverse events), safety Q2: Guidelines
Study Designs	Health technology assessments, systematic reviews, meta-analyses, randomized-controlled trials, non-randomized studies, evidence-based guidelines

Results

Rapid Response reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials, non-randomized studies and evidence-based guidelines.

One non-randomized study and three evidence-based guidelines were identified regarding benzodiazepine prescribing in smaller quantities for elderly patients or patients with mental illness.

Additional references of potential interest are provided in the appendix.

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-analyses

No literature identified.

Randomized Controlled Trials

No literature identified.

Non-Randomized Studies

1. Duan Y, Wei J, Geng W, et al. The effect of short-term use of benzodiazepines on cognitive function of major depressive disorder patients being treated with antidepressants. *J Affect Disord.* 2019 May 28;256:1-7.
PubMed: [PM31154087](https://pubmed.ncbi.nlm.nih.gov/31154087/)

Guidelines and Recommendations

2. Rolland B, Paille F, Gillet C, et al. Pharmacotherapy for alcohol dependence: the 2015 recommendations of the French Alcohol Society, issued in partnership with the European Federation of Addiction Societies. *CNS Neurosci Ther.* 2016 Jan;22(1):25-37.
PubMed: [PM26768685](https://pubmed.ncbi.nlm.nih.gov/26768685/)
3. American Geriatrics Society abstracted clinical practice guideline for postoperative delirium in older adults. *JAGS.* 2015 Jan;63:142-150:
<https://onlinelibrary.wiley.com/doi/pdf/10.1111/jgs.13281>
Accessed 2019 Jun 20.
See: XIII – Benzodiazepines, p147
4. Department of Veteran Affairs, Department of Defense. VA/DOD clinical practice guideline for the management of substance use disorders. Washington, DC: Department of Veteran Affairs. 2015 Dec:
<https://www.healthquality.va.gov/guidelines/MH/sud/VADoDSUDCPGRevised22216.pdf>
Accessed 2019 Jun 20.
See: Recommendation 36

Appendix — Further Information

Previous CADTH Reports

5. Treatment of older adults with insomnia, agitation, or delirium with benzodiazepines: clinical effectiveness and guidelines. Ottawa (ON): CADTH; 2016 Jan:
<https://cadth.ca/sites/default/files/pdf/htis/jan-2016/RC0744%20Sedatives%20in%20older%20adults%20Final.pdf>
Accessed 2019 Jun 20.
6. Discontinuation strategies for patients with long-term benzodiazepine use: a review of clinical evidence and guidelines. Ottawa (ON): CADTH; 2015 Jul:
https://cadth.ca/sites/default/files/rc0682-bzd_discontinuation_strategies_final_0.pdf
Accessed 2019 Jun 20.

Non-Randomized Studies

Withdrawal Use of Medications

7. Lahteenmaki R, Neuvonen PJ, Puustinen J, et al. Withdrawal from long-term use of zopiclone, zolpidem and temazepam may improve perceived sleep and quality of life in older adults with primary insomnia. *Basic Clin Pharmacol Toxicol*. 2019 Mar;124(3):330-340.
[PubMed: PM30295409](#)
8. Yokoi Y, Misal M, Oh E, Bellantoni M, Rosenberg PB. Benzodiazepine discontinuation and patient outcome in a chronic geriatric medical/psychiatric unit: a retrospective chart review. *Geriatr Gerontol Int*. 2014 Apr;14(2):388-394.
[PubMed: PM24666628](#)

Patient Related Health Outcomes Not Specified

9. Davies SJC, Jacob B, Rudoler D, Zaheer J, de Oliveira C, Kurdyak P. Benzodiazepine prescription in Ontario residents aged 65 and over: a population-based study from 1998 to 2013. *Ther Adv Psychopharmacol*. 2018 Mar;8(3):99-114
[PubMed: PM29492258](#)
10. Del Giorno R, Greco A, Zasa A, et al. Combining prescription monitoring, benchmarking, and educational interventions to reduce benzodiazepine prescriptions among internal medicine inpatients; a multicenter before and after study in a network of Swiss Public Hospitals. *Postgrad Med*. 2018 Sep;130(7):627-636.
[PubMed: PM30044682](#)
11. Panes A, Pariente A, Benard-Laribiere A, et al. Use of benzodiazepines and z-drugs not compliant with guidelines and associated factors: a population-based study. *Eur Arch Psychiatry Clin Neurosci*. 2018 Dec 11.
[PubMed: PM30539229](#)

Clinical Practice Guidelines – Methodology Not Specified

12. Kaiser Permanente, Guideline Oversight Group. Benzodiazepine and z-drug safety guideline. Seattle (WA): Kaiser Foundation Plan of Washington; 2019 Jan: <https://wa.kaiserpermanente.org/static/pdf/public/guidelines/benzo-zdrug.pdf>
Accessed 2019 Jun 20.
13. Markota M, Rummans TA, Bostwick JM, Lapid MI. Benzodiazepine use in older adults: dangers, management, and alternative therapies. *Mayo Clinic Proc.* 2016 Nov;91(11):1632-39: [https://www.mayoclinicproceedings.org/article/S0025-6196\(16\)30509-2/fulltext](https://www.mayoclinicproceedings.org/article/S0025-6196(16)30509-2/fulltext)
Accessed 2019 Jun 20.

Review Articles

14. Curkovic M, Dodig-Curkovic K, Eric AP, Kralik K, Pivac N. Psychotropic medications in older adults: a review. *Psychiatria Danubina.* 2016 Mar;28(1):13-24.
[PubMed: PM26938816](#)

Additional References

15. Guaiana G, Barbui C. Discontinuing benzodiazepines: best practices. *Epidemiol Psychiatr Sci.* 2016 Jun;25(3):214-216.
[PubMed: PM26818890](#)