

CADTH Reference List

Bupropion for Major Depressive Disorder, Dysthymia, or Treatment-Resistant Depression

May 2021

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Cite As: *Bupropion for Major Depressive Disorder, Dysthymia, or Treatment-Resistant Depression*. (CADTH reference list: summary of abstracts). Ottawa: CADTH; 2021 May

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Funding: CADTH receives funding from Canada's federal, provincial, and territorial governments, with the exception of Quebec.

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Key Message

- Four relevant evidence-based guidelines were identified regarding the use of bupropion for patients with major depressive disorder.

Research Question

What are the evidence-based guidelines regarding the use of bupropion in major depressive disorder, dysthymia, or treatment-resistant depression?

Methods

Literature Search Methods

A limited literature search was conducted by an information specialist on key resources including MEDLINE, Embase, PsycINFO, the Cochrane Database of Systematic Reviews, the international HTA database, the websites of Canadian and major international health technology agencies, as well as a focused internet search. The search strategy comprised both controlled vocabulary, such as the National Library of Medicine's MeSH (Medical Subject Headings), and keywords. The main search concepts were bupropion and major depressive disorders. Search filters were applied to limit retrieval to guidelines. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2016 and April 27, 2021. Internet links were provided, where available.

Selection Criteria and Summary Methods

One reviewer screened literature search results (titles and abstracts) and selected publications according to the inclusion criteria presented in Table 1. Full texts of study publications were not reviewed. The Overall Summary of Findings was based on information available in the abstracts of selected publications. Open access full-text versions of evidence-based guidelines were reviewed when abstracts were not available, and relevant recommendations were summarized.

Results

Four relevant evidence-based guidelines¹⁻⁴ regarding the use of bupropion for patients with major depressive disorder were identified.

Additional references of potential interest that did not meet the inclusion criteria are provided in Appendix 1.

Table 1: Selection Criteria

Criteria	Description
Population	Adults with major depressive disorder, dysthymia (persistent depressive disorder), or treatment-resistant depression, with or without comorbid conditions
Intervention	Bupropion, as a single ingredient, as primary therapy or adjunct to other pharmaceutical therapy, all formulations and all routes of administration
Comparator	Not applicable
Outcomes	Recommendations on appropriate use and place in therapy
Study designs	Evidence-based guidelines

Overall Summary of Findings

A guideline from Kaiser Permanente¹ recommends the use of bupropion as a second-line treatment for adults with major depression. The guideline recommends that bupropion should not be used by patients with anxiety disorders.¹ The bupropion systematic review recommended to start with an initial dose of 150 mg daily in the morning for 7 days, then increase to 150 mg twice a day; if the response is not satisfactory within 2 to 4 weeks, it is recommended to titrate to 200 mg twice a day.¹ For bupropion extended release, it is recommended to start with an initial dose of 150 mg daily in the morning and increase to 300 mg daily if the response is not satisfactory within 2 to 4 weeks.¹ A guideline from the Canadian Network for Mood and Anxiety Treatments (CANMAT)² recommends the use of bupropion in adults with major depressive disorder who experience fatigue and/or cognitive dysfunction. A guideline from the Institute for Clinical Systems Improvement (ICSI)³ recommends bupropion as a first-line anti-depressant treatment, as an augmentation therapy, and as a second-line treatment if a patient is not improving on their initial treatment (e.g., switching). A guideline from the Department of Veterans Affairs and the Department of Defense (VA/DoD)⁴ also recommends bupropion as a first-line anti-depressant treatment for patients with uncomplicated mild to moderate major depressive disorder.

References

Guidelines and Recommendations

1. Sparks A, Cohen A, Adjao S, et al. Adult & Adolescent Depression Screening, Diagnosis, and Treatment Guideline. Renton (WA): Kaiser Permanente; 2021. <https://wa.kaiserpermanente.org/static/pdf/public/guidelines/depression.pdf> Accessed 10 May 2021.
See: Table 6, page 11; Table 7, page 13.
2. Canadian Network for Mood and Anxiety Treatments (CANMAT) 2016 Clinical Guidelines for the Management of Adults with Major Depressive Disorder: Section 3. Pharmacological Treatments. *Can J Psychiatry*. 2016;61(9):540-560. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4994790/pdf/10.1177_0706743716659417.pdf Accessed 10 May 2021. [PubMed](#)
See: Table 5. Recommendations for Clinical Specifiers and Dimensions of Major Depressive Disorder, page 545.
3. Trangle M, Gursky J, Haight R, et al. Depression, Adult in Primary Care. Bloomington (MN): Institute for Clinical Systems Improvement; 2016. <https://www.icsi.org/guideline/depression/> Accessed 10 May 2021.
See: Classes of Medications Selective serotonin reuptake inhibitors (SSRIs) and other antidepressants, page 38; 7d. If Patient is Not Improving on Initial Treatment, Utilize Stepped Care Approach, bullet 3, page 52; Augmentation Therapy, page 53.
4. The Management of Major Depressive Disorder Working Group. VA/DoD Clinical Practice Guideline for the Management of Major Depressive Disorder. Washington (DC): Department of Veterans Affairs, Department of Defense; 2016. <https://www.healthquality.va.gov/guidelines/MH/mdd/> Accessed 10 May 2021.
See: VII. Recommendations, 8, page 18; Recommendation 8, page 30 to 31.

Appendix 1: References of Potential Interest

Guidelines and Recommendations

Methodology Not Specified

5. Clinical Practice Review for Major Depressive Disorder. Silver Spring (MD): Anxiety and Depression Association of America; 2020. <https://adaa.org/resources-professionals/practice-guidelines-mdd> Accessed 10 May 2021.
6. Guidelines for prescribing bupropion. Aylesford (UK): Kent and Medway NHS and Social Care Partnership Trust; 2017. <https://www.kmptformulary.nhs.uk/media/1020/bupropion-guidelines-for-prescribing-oct-17.docx> Accessed 10 May 2021.
7. Management of Major Depressive Disorder. Washington (DC): Federal Bureau of Prisons; 2017. <https://www.bop.gov/resources/pdfs/depression.pdf> Accessed 10 May 2021.

Recommendation Not Specific to Bupropion

8. Malaysian Health Technology Assessment Section. Management of Major Depressive Disorder (Second Edition). *Clinical Practice Guidelines MOH/P/PAK/423.19(GU)-e*. Putrajaya (MY): Ministry of Health Malaysia; 2019. [https://www.moh.gov.my/moh/resources/Penerbitan/CPG/Psychiatry%20&%20Mental%20health/CPG_Management_of_MDD_\(Second_Edition\)_04092020.pdf](https://www.moh.gov.my/moh/resources/Penerbitan/CPG/Psychiatry%20&%20Mental%20health/CPG_Management_of_MDD_(Second_Edition)_04092020.pdf) Accessed 10 May 2021.
See: Recommendation 13 and 14.

Consensus Statements

9. Lee WK, Au Yeung KL, Lam HB, et al. Consensus statements on the clinical understanding and use of bupropion in Hong Kong. *CNS Neurosci Ther*. 2021 Mar;27(S1):20-24. [PubMed](#)

Network Meta-Analysis Protocol

10. Luo Y, Chaimani A, Kataoka Y, et al. Evidence synthesis, practice guidelines and real-world prescriptions of new generation antidepressants in the treatment of depression: A protocol for cumulative network meta-analyses and meta-epidemiological study. *BMJ Open*. 2018;8(12):e023222. [PubMed](#)

Review Articles

11. Torrens M, Tirado-Munoz J, Fonseca F, et al. Clinical practice guideline on pharmacological and psychological management of adult patients with depression and a comorbid substance use disorder. *Adicciones*. 2021 Mar 12;0(0):1559. [PubMed](#)

Additional References

12. Treatment of Adult Major Depressive Disorder (MDD) Tool. Toronto (ON): Centre for Effective Practice; 2019. https://cep.health/media/uploaded/CEP_MDD_2019.pdf Accessed 10 May 2021.