

CADTH RAPID RESPONSE REPORT: REFERENCE LIST

Screening for Cognitive Impairment in Asymptomatic Community-Dwelling Older Adults: Clinical Utility and Guidelines

Service Line: Rapid Response Service
Version: 1.0
Publication Date: October 2, 2020
Report Length: 6 Pages

Authors: Holly Gunn, Shannon Hill, Charlene Argáez

Cite As: *Screening for Cognitive Impairment in Asymptomatic Community-Dwelling Older Adults: Clinical Utility and Guidelines*. Ottawa: CADTH; 2020 Oct. (CADTH rapid response report: reference list).

Disclaimer: The information in this document is intended to help Canadian health care decision-makers, health care professionals, health systems leaders, and policy-makers make well-informed decisions and thereby improve the quality of health care services. While patients and others may access this document, the document is made available for informational purposes only and no representations or warranties are made with respect to its fitness for any particular purpose. The information in this document should not be used as a substitute for professional medical advice or as a substitute for the application of clinical judgment in respect of the care of a particular patient or other professional judgment in any decision-making process. The Canadian Agency for Drugs and Technologies in Health (CADTH) does not endorse any information, drugs, therapies, treatments, products, processes, or services.

While care has been taken to ensure that the information prepared by CADTH in this document is accurate, complete, and up-to-date as at the applicable date the material was first published by CADTH, CADTH does not make any guarantees to that effect. CADTH does not guarantee and is not responsible for the quality, currency, propriety, accuracy, or reasonableness of any statements, information, or conclusions contained in any third-party materials used in preparing this document. The views and opinions of third parties published in this document do not necessarily state or reflect those of CADTH.

CADTH is not responsible for any errors, omissions, injury, loss, or damage arising from or relating to the use (or misuse) of any information, statements, or conclusions contained in or implied by the contents of this document or any of the source materials.

This document may contain links to third-party websites. CADTH does not have control over the content of such sites. Use of third-party sites is governed by the third-party website owners' own terms and conditions set out for such sites. CADTH does not make any guarantee with respect to any information contained on such third-party sites and CADTH is not responsible for any injury, loss, or damage suffered as a result of using such third-party sites. CADTH has no responsibility for the collection, use, and disclosure of personal information by third-party sites.

Subject to the aforementioned limitations, the views expressed herein do not necessarily reflect the views of Health Canada, Canada's provincial or territorial governments, other CADTH funders, or any third-party supplier of information.

This document is prepared and intended for use in the context of the Canadian health care system. The use of this document outside of Canada is done so at the user's own risk.

This disclaimer and any questions or matters of any nature arising from or relating to the content or use (or misuse) of this document will be governed by and interpreted in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein, and all proceedings shall be subject to the exclusive jurisdiction of the courts of the Province of Ontario, Canada.

The copyright and other intellectual property rights in this document are owned by CADTH and its licensors. These rights are protected by the Canadian *Copyright Act* and other national and international laws and agreements. Users are permitted to make copies of this document for non-commercial purposes only, provided it is not modified when reproduced and appropriate credit is given to CADTH and its licensors.

About CADTH: CADTH is an independent, not-for-profit organization responsible for providing Canada's health care decision-makers with objective evidence to help make informed decisions about the optimal use of drugs, medical devices, diagnostics, and procedures in our health care system.

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

Questions or requests for information about this report can be directed to requests@cadth.ca

Research Questions

1. What is the clinical utility of screening for cognitive impairment in asymptomatic community-dwelling older adults?
2. What are the evidence-based guidelines regarding the use of screening for cognitive impairment in asymptomatic community-dwelling older adults?

Key Findings

One systematic review with meta-analysis and one randomized controlled trial were identified regarding the clinical utility of screening for cognitive impairment in asymptomatic community-dwelling older adults. Six evidence-based guidelines were identified regarding the use of screening for cognitive impairments in asymptomatic community-dwelling older adults.

Methods

Literature Search Methods

A limited literature search was conducted by an information specialist on key resources including Medline and PsycInfo via OVID, the Cochrane Library, the University of York Centre for Reviews and Dissemination (CRD) databases, the websites of 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 cognitive impairment testing in community-dwelling elderly. No filters were applied to limit the retrieval by study type. The search was also limited to English language documents published between January 1, 2015 and September 29, 2020. A supplemental search was run on September 30, 2020 to capture any articles on the concept of primary care. Internet links are provided where available.

Selection Criteria

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. Open access full-text versions of evidence-based guidelines were reviewed when abstracts were not available.

Table 1: Selection Criteria

Population	Community-dwelling adults (age 65 years or older) without symptoms of cognitive impairment
Intervention	Screening for dementia or mild cognitive impairment using a clinician- or self-administered instrument
Comparator	Q1: No screening Q2: Not applicable
Outcomes	Q1: Clinical utility (e.g., health care utilization, health effects of false positive or negative test result, cognitive function, quality of life, depression, anxiety, mortality, harms) Q2: Recommendations regarding the appropriate use of screening for dementia or mild cognitive impairment (e.g., whether to screen, and at what time intervals)
Study Designs	Health technology assessments, systematic reviews, randomized controlled trials, evidence-based guidelines

Results

One systematic review with meta-analysis¹ and one randomized controlled trial² were identified regarding the clinical utility of screening for cognitive impairment in asymptomatic community-dwelling older adults. Six evidence-based guidelines³⁻⁸ were identified regarding the use of screening for cognitive impairments in asymptomatic community-dwelling older adults. No health technology assessments were identified regarding the clinical utility of screening for cognitive impairment in asymptomatic community-dwelling older adults.

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

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-analyses

1. Patnode CD, Perdue LA, Rossom RC, Rushkin MC, Redmond N, Thomas RG, Lin JS. Screening for Cognitive Impairment in Older Adults: An Evidence Update for the U.S. Preventive Services Task Force. Rockville (MD): Agency for Healthcare Research and Quality (US); 2020 Feb.
[PubMed: PM32129963](#)

Randomized Controlled Trial

2. Fowler NR, Perkins AJ, Gao S, Sachs GA, Boustani MA. Risks and Benefits of Screening for Dementia in Primary Care: The Indiana University Cognitive Health Outcomes Investigation of the Comparative Effectiveness of Dementia Screening (IU CHOICE) Trial. *J Am Geriatr Soc*. 2020 Mar;68(3):535-543.
[PubMed: PM31792940](#)

Guidelines and Recommendations

3. National Institute for Health and Care Excellence. Dementia: assessment, management and support for people living with dementia and their carers. (*NICE guideline NG97*); 2018 Jun.
<https://www.nice.org.uk/guidance/ng97/resources/dementia-assessment-management-and-support-for-people-living-with-dementia-and-their-carers-pdf-1837760199109>
See: Section 1.2 "Diagnosis" (p. 14-18)
4. Petersen RC, Lopez O, Armstrong MJ, Getchius TSD, et al. Practice guideline update summary: mild cognitive impairment: report of the Guideline Development, Dissemination, and Implementation Subcommittee of the American Academy of Neurology. *Neurology*. 2018 Jan 16;90(3):126-35.
<https://pubmed.ncbi.nlm.nih.gov/29282327/>
See: Major recommendations
5. Toward Optimized Practice (TOP). Cognitive impairment – part 1: symptoms to diagnosis. (*Clinical practice guideline*); 2017 Feb.
<https://actt.albertadoctors.org/CPGs/Lists/CPGDocumentList/Cogn-Imp-1-Symptoms-to-Diagnosis.pdf>
See: "Gather Information" (p. 3-4)

6. World Health Organization. Integrated care for older people: guidelines on community-level interventions to manage declines in intrinsic capacity; 2017.
<https://apps.who.int/iris/bitstream/handle/10665/258981/9789241550109-eng.pdf?sequence=1>
See: "Considerations for recommendation 5" (p. 14), Box 4 (p. 15)
7. Canadian Task Force on Preventive Health Care, et al. Recommendations on screening for cognitive impairment in older adults. *CMAJ*; 2016 Jan;188(1):37-46.
<https://www.cmaj.ca/content/cmaj/188/1/37.full.pdf>
See: Conclusion
8. Registered Nurses' Association of Ontario. Delirium, Dementia, and Depression in Older Adults: Assessment and Care, Second Edition; 2016.
<https://rnao.ca/bpg/guidelines/assessment-and-care-older-adults-delirium-dementia-and-depression> Full-text: https://rnao.ca/sites/rnao-ca/files/bpg/RNAO_Delirium_Dementia_Depression_Older_Adults_Assessment_and_Care.pdf
See: Summary of recommendations (p. 10)

Appendix — Further Information

Health Technology Assessment – Unclear Methodology

9. Cognitive Impairment Assessment (CIAR) Working Group. Review of Cognitive Impairment Assessment Tools for New Zealand Primary Care; 2020 Apr.
<https://www.nzdementia.org/Portals/0/LiveArticles/1189/CIAR%20Report%203%20April%202020%20for%20release.pdf?ver=2020-07-20-103120-740>
See: Recommendations (p. 5)

Guidelines and Recommendations – Mixed Population

10. BC Guidelines and Advisory Committee. Cognitive Impairment - Recognition, Diagnosis and Management in Primary Care; 2016 Jun.
<https://www2.gov.bc.ca/gov/content/health/practitioner-professional-resources/bc-guidelines/cognitive-impairment>
See: Key recommendations

Review Articles

11. Arias F, Wiggins M, Urman RD, et al. Rapid In-Person Cognitive Screening in the Preoperative Setting: Test Considerations and Recommendations from the Society for Perioperative Assessment and Quality Improvement (SPAQI). *Perioper Care Oper Room Manag.* 2020 Jun;19.
[PubMed: PM32342018](#)
12. Scott J, Mayo AM. Instruments for detection and screening of cognitive impairment for older adults in primary care settings: A review. *Geriatr Nurs.* 2018 May - Jun;39(3):323-329.
[PubMed: PM29268944](#)

Additional References

13. Recognising and managing early dementia. *Best Practice Journal.* 2020 Feb.
<https://bpac.org.nz/2020/docs/dementia.pdf>
See: Cognitive screening and assessment (p. 5)
14. Hantke NC, Gould C. Examining older adult cognitive status in the time of COVID-19. *J Am Geriatr Soc.* 2020 2020;68(7):1387-1389.
[PubMed: PM32343394](#)
15. Ismail Z, Mortby ME. Cognitive and Neuropsychiatric Screening Tests in Older Adults. In: Chiu H., Shulman K., eds. *Mental Health and Illness of the Elderly.* Singapore: Springer. 2017.
https://doi.org/10.1007/978-981-10-2414-6_16