

CADTH RAPID RESPONSE REPORT: SUMMARY OF ABSTRACTS

Patient Navigation Programs for People with Dementia: Clinical Utility, Cost- Effectiveness, and Guidelines

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

Research Questions

1. What is the clinical utility of patient navigation programs for people with dementia?
2. What is the cost-effectiveness of patient navigation programs for people with dementia?
3. What are the evidence-based guidelines regarding the use of patient navigation services for people with any medical condition?

Key Findings

Three systematic reviews (two with a meta-analysis), four randomized controlled trials, and one non-randomized study were identified regarding the clinical utility of patient navigation programs for people with dementia. One economic evaluation was identified regarding the cost-effectiveness of patient navigation programs for people with dementia. Four evidence-based guidelines were identified regarding the use of patient navigation services for people with any medical condition.

Methods

Literature Search Methods

A limited literature search was conducted by an information specialist on key resources including Medline and CINAHL, 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 patient navigation and dementia. For questions #1 and #2, no filters were applied to limit the retrieval by study type. For question #3, a filter was applied to limit the retrieval to guidelines only. The search was also limited to English language documents published between January 1, 2010 and November 16, 2020. Internet links are 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.

Table 1: Selection Criteria

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|----------------------|---|
| Population | Q1-Q2: People with dementia (all types) Q3: People with any medical condition |
| Intervention | Patient navigation programs or services (i.e., care coordination programs) |
| Comparator | Q1-Q2: Usual care; no coordination of care with patient navigation programs Q3: Not applicable |
| Outcomes | Q1: Clinical utility (e.g., quality of life, time to diagnosis and treatment, disease severity, cognitive impairment [e.g., MMSE scores], mortality) Q2: Cost-effectiveness (e.g., cost per quality-adjusted life-year gained) Q3: Recommendations regarding best practices (e.g., appropriate patient populations, implementation considerations, appropriate clinical settings) |
| Study Designs | Health technology assessments, systematic reviews, randomized controlled trials, non-randomized studies, economic evaluations, evidence-based guidelines |

Results

Three systematic reviews¹⁻³ (two with a meta-analysis^{2,3}), four randomized controlled trials,⁴⁻⁷ and one non-randomized study⁸ were identified regarding the clinical utility of patient navigation programs for people with dementia. One economic evaluation⁹ was identified regarding the cost-effectiveness of patient navigation programs for people with dementia. Four evidence-based guidelines¹⁰⁻¹³ were identified regarding the use of patient navigation services for people with any medical condition. No health technology assessments were identified regarding the clinical utility of patient navigation programs for people with dementia.

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

Overall Summary of Findings

Three systematic reviews¹⁻³ (two with a meta-analysis^{2,3}), four randomized controlled trials,⁴⁻⁷ and one non-randomized study⁸ were identified regarding the clinical utility of patient navigation programs for people with dementia. The three identified systematic reviews¹⁻³ all reported positive clinical effects for patient navigation services or programs for patients with dementia. The authors of the systematic reviews found that the care coordination programs were associated with improved quality of life for people living with dementia,¹ a reduced rate of admissions to the healthcare system,^{1,2,3} and a positive impact on patient behaviour.³ The four identified randomized controlled trials⁴⁻⁷ reported positive clinical outcomes regarding the impact of telephone-based collaborative dementia care,^{4,6} palliative care planning coordinators,⁵ and dementia care management computer programs.⁷ The authors found that telephone-based collaborative dementia care programs improved the quality of life of patients with dementia,⁴ reduced visits to the emergency department,⁴ and reduced the severity and frequency of dementia symptoms.⁶ The authors of the study investigating palliative care coordinators reported increased quality of end-of-life care, as well as improvements in pharmacological and non-pharmacological palliative management.⁵ The authors investigating dementia care management computer programs reported decreased behavioral and psychological symptoms of dementia and an increased chance of receiving medication amongst those in the program compared to care as usual.⁷

Additionally, no effect on the overall quality of life or potentially inappropriate medication use was found.⁷ The authors of the non-randomized study⁸ reported that a telephone-delivered collaborative dementia care intervention was found to reduce the frequency of dementia related behaviours compared to clinical evaluation only. Most of the interventions in the identified literature were implemented in community settings,^{2,3,7,8} one was implemented in nursing homes,⁵ and one was implemented in primary care.⁶ Based off the titles and abstracts alone, the setting was unclear for three interventions.^{1,4,9}

The identified economic evaluation¹⁰ reported increased quality-adjusted life years and decreased cost when collaborative dementia care management was used instead of usual care. The authors concluded that collaborative dementia care management was likely to be a cost-effective strategy for treating dementia.¹⁰

Four evidence-based guidelines¹⁰⁻¹³ were identified regarding the use of patient navigation services for people with any medical condition. The authors who conducted a systematic review¹⁰ generated recommendations for patients with mental illnesses, including: the use of case management for people with severe illnesses who are high users of inpatient care, providing case management after discharge from inpatient treatment, and the use of digital technology to enhance care coordination. The guidelines from Cancer Australia¹¹ recommend using trained nurses or lay people as patient navigators in order to assist lung cancer patient's navigation through their treatment pathway, including scheduling appointments and understanding their care pathway. The guidelines from the National Institute for Health and Care Excellence¹² recommend the use of a single named health or social care professional responsible for coordinating care for dementia patients. The authors of the fourth evidence-based guideline¹³ recommend that organizations implement processes that ensure the communication and coordination of relevant information and care planning throughout the course of treatment for patients with delirium, dementia, and depression. The authors¹³ highlight that case management is a supported strategy for individuals with dementia.

References Summarized

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-analyses

1. Butler M, Gaugler JE, Talley KMC, et al. Care interventions for people living with dementia and their caregivers [*Comparative Effectiveness Review, no. 231*]. Rockville, MD: Agency for Healthcare Research and Quality. 2020 Aug: <https://effectivehealthcare.ahrq.gov/sites/default/files/pdf/cer-231-dementia-interventions-final.pdf> Accessed 2020 Nov 24.
2. Lee DA, Tirlea L, Haines TP. Non-pharmacological interventions to prevent hospital or nursing home admissions among community-dwelling older people with dementia: A systematic review and meta-analysis. *Health Soc Care Community*. 2020 Sep;28(5):1408-1429. [PubMed: PM32223022](https://pubmed.ncbi.nlm.nih.gov/32223022/)

3. Backhouse A, Ukoumunne OC, Richards DA, McCabe R, Watkins R, Dickens C. The effectiveness of community-based coordinating interventions in dementia care: a meta-analysis and subgroup analysis of intervention components. *BMC Health Serv Res*. 2017 Nov 13;17(1):717.
[PubMed: PM29132353](#)

Randomized Controlled Trials

4. Possin KL, Merrilees JJ, Dulaney S, et al. Effect of collaborative dementia care via telephone and internet on quality of life, caregiver well-being, and health care use: the care ecosystem randomized clinical trial. *JAMA Intern Med*. 2019 Sep; 179(12):1658-1667.
[PubMed: PM31566651](#)
5. Agar M, Lockett T, Luscombe G, et al. Effects of facilitated family case conferencing for advanced dementia: a cluster randomised clinical trial. *PLoS ONE [Electronic Resource]*. 2017;12(8):e0181020.
[PubMed: PM28786995](#)
6. Mavandadi S, Wright EM, Graydon MM, Oslin DW, Wray LO. A randomized pilot trial of a telephone-based collaborative care management program for caregivers of individuals with dementia. *Psychol Serv*. 2017 Feb;14(1):102-111.
[PubMed: PM28134558](#)
7. Thyrian JR, Hertel J, Wucherer D, et al. Effectiveness and safety of dementia care management in primary care: a randomized clinical trial. *JAMA Psychiatry*. 2017 Oct;74(10):996-1004.
[PubMed: PM28746708](#)

Non-Randomized Studies

8. Mavandadi S, Wray LO, DiFilippo S, Streim J, Oslin D. Evaluation of a telephone-delivered, community-based collaborative care management program for caregivers of older adults with dementia. *Am J Geriatr Psychiatry*. 2017 Sep;25(9):1019-1028.
[PubMed: PM28433550](#)

Economic Evaluations

9. Michalowsky B, Xie F, Eichler T, et al. Cost-effectiveness of a collaborative dementia care management-Results of a cluster-randomized controlled trial. *Alzheimers Dement*. 2019 Oct;15(10):1296-1308.
[PubMed: PM31409541](#)

Guidelines and Recommendations

10. Gaebel W, Kerst A, Janssen B, et al. EPA guidance on the quality of mental health services: a systematic meta-review and update of recommendations focusing on care coordination. *Eur Psychiatry*. 2020 Jul 24;63(1):e75.
[PubMed: PM32703326](#)

11. Cancer Australia. Delivering best practice lung cancer care: a summary for health professionals [*Lung cancer framework*]. Strawberry Hills (New South Wales): Cancer Australia; 2018 Nov: https://www.canceraustralia.gov.au/system/tdf/publications/lung-cancer-framework-resources-health-professional-summary/pdf/lung_cancer_-_framework_resources_-_health_professional_summary.pdf?file=1&type=node&id=6391
 Accessed 2020 Nov 24.
See: "Patient Navigation Methods," p. 3, "Provide training to ensure best practice support for patients," p.9

12. National Institute for Health and Care Excellence. Dementia: assessment, management and support for people living with dementia and their carers. London (UK): National Institute for Health and Care Excellence (UK). 2018 Jun.
[PubMed: PM30011160](https://pubmed.ncbi.nlm.nih.gov/30011160/)

13. Registered Nurses' Association of Ontario. Delirium, dementia, and depression in older adults: assessment and care [*practice guidelines*]. 2nd ed. Toronto (ON): Registered Nurses' Association of Ontario. 2016 Jul: https://rnao.ca/sites/rnao-ca/files/bpg/RNAO_Delirium_Dementia_Depression_Older_Adults_Assessment_and_Care.pdf Accessed 2020 Nov 24.
See: Recommendation 15.4, p.91

Appendix — Further Information

Previous CADTH Reports

14. Patient and family centered care initiatives in acute care settings: a review of the clinical evidence, safety and guidelines [CADTH rapid response report: summary with critical appraisal]. Ottawa (ON): CADTH; 2015 Aug:
<https://www.cadth.ca/sites/default/files/pdf/htis/aug-2015/RC0700%20Patient%20and%20Family%20Centred%20Care%20Final.pdf>
 Accessed 2020 Nov 24.

Systematic Review & Meta-Analyses

Alternative Population

15. McBrien KA, Ivers N, Barnieh L, et al. Patient navigators for people with chronic disease: a systematic review. *PLoS ONE [Electronic Resource]*. 2018;13(2):e0191980.
[PubMed: PM29462179](#)

Randomized Controlled Trials

Alternative Population

16. Van den Block L, Honinx E, Pivodic L, et al. Evaluation of a palliative care program for nursing homes in 7 countries: the PACE cluster-randomized clinical trial. *JAMA Intern Med*. 2020 Feb;180(2):233-242.
[PubMed: PM31710345](#)
17. Plant NA, Kelly PJ, Leeder SR, et al. Coordinated care versus standard care in hospital admissions of people with chronic illness: a randomised controlled trial. *Med J Aust*. 2015 Jul 06;203(1):33-38.
[PubMed: PM26126565](#)

Alternative Intervention

18. Callahan CM, Boustani MA, Schmid AA, et al. Targeting functional decline in Alzheimer disease: a randomized trial. *Ann Intern Med*. 2017 Feb 07;166(3):164-171.
[PubMed: PM27893087](#)

Alternative Outcomes

19. Possin KL, Merrilees J, Bonasera SJ, Bernstein A, Chiong W, Lee K, et al. Development of an adaptive, personalized, and scalable dementia care program: early findings from the care ecosystem. *PLoS Med*. 2017 Mar;14(3):e1002260.
[PubMed: PM28323819](#)

Non-Randomized Studies

No Comparator

20. Lee L, Hillier LM, Molnar F, Borrie MJ. Primary care collaborative memory clinics: building capacity for optimized dementia care. *Healthc Q*. 2017;19(4):55-62.
[PubMed: PM28130953](#)

Alternative Outcomes

21. D'Souza MF, Davagnino J, Hastings SN, Sloane R, Kamholz B, Twersky J. Preliminary data from the Caring for Older Adults and Caregivers at Home (COACH) program: a care coordination program for home-based dementia care and caregiver support in a Veterans Affairs Medical Center. *J Am Geriatr Soc.* 2015 Jun;63(6):1203-1208.
[PubMed: PM26032224](#)

Economic Evaluations

Alternative Comparator

22. Radke A, Michalowsky B, Thyrian JR, Eichler T, Xie F, Hoffmann W. Who benefits most from collaborative dementia care from a patient and payer perspective? A subgroup cost-effectiveness analysis. *J Alzheimers Dis.* 2020;74(2):449-462.
[PubMed: PM32039839](#)

Guidelines & Recommendations

Unclear Intervention

23. Swiss Academy of Medical Sciences. Medical-ethical guidelines: care and treatment of people with dementia. *Swiss Med Wkly.* 2018 Nov;148:w14663.
[PubMed: PM30428121](#)

Unclear Recommendation

24. White-Williams C, Rossi LP, Bittner VA, et al. Addressing social determinants of health in the care of patients with heart failure: a scientific statement from the American Heart Association. *Circulation.* 2020 Jun;141(22): e841-e863.
[PubMed: PM 32349541](#)

Review Articles

25. Heintz H, Monette P, Epstein-Lubow G, Smith L, Rowlett S, Forester BP. Emerging collaborative care models for dementia care in the primary care setting: a narrative review. *Am J Geriatr Psychiatry.* 2020 Mar;28(3):320-330.
[PubMed: PM31466897](#)
26. Wood N, Cairns Y, Sharp B. How collaboration is improving acute hospital admission for people with dementia. *Nurs Older People.* 2017 Oct;29(9):21-25.
[PubMed: PM29124916](#)

Additional References

27. van der Marck MA, Fultz BA, Callahan CM. Geriatric models of care for neurodegenerative disorders. *Handb Clin Neurol.* 2019;167:57-72.
[PubMed: PM31753156](#)

28. Freeman H, Gay R, Stefanacci R, et al. Alzheimer's patient navigation model. Rockville (MD): Otsuka America Pharmaceutical Inc. and Global Council on Alzheimer Disease; 2016 Jan. <https://respectcaregivers.org/wp-content/uploads/2016/04/Alzheimers-Patient-Navigation-Model1.pdf> Accessed 2020 Nov 24.
29. Chappell N, Goodyear R, Bornstein S, et al. Supporting the independence of persons with dementia [*Evidence in context*]. St. John's (NL): Newfoundland and Labrador Centre for Applied Health Research, Memorial University; 2015 Oct: <https://www.nlcahr.mun.ca/CHRSP/IndependencePWD.php> Accessed 2020 Nov 24.