

#### **Dementia**

# **Current Awareness Bulletin**

#### November 2024

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#### Galantamine for dementia due to Alzheimer's disease and mild cognitive impairment. [Abstract]

Lim AWY. Cochrane Database of Systematic Reviews 2024;11:CD001747.

[Compared to placebo, galantamine (when given at a total dose of 16 mg to 24 mg/day) slows the decline in cognitive function, functional ability, and behaviour at six months in people with dementia due to Alzheimer's disease. Galantamine probably also slows declines in global function at six months. The changes observed in cognition, assessed with the ADAS-cog scale, were clinically meaningful.]

https://pubmed.ncbi.nlm.nih.gov/39498781/#:~:text=There%20is%20high%2Dcertainty%20evidence,%3D%202.6%2D%20to%204%2Dpoint

#### 1. Impact of Polypharmacy on Symptoms and Health Outcomes in Older Adults With and Without Alzheimer's Disease and Related Dementias

**Authors:** Coates, Martha C.;McClure, Leslie A.;Vader, Daniel;Finley, Margaret;Sefcik, Justine S.;Gitlin, Laura N. and DiMaria-Ghalili, Rose

**Publication Date: 2025** 

Journal: Biological Research for Nursing 27(1), pp. 47–59

Abstract: Background: There is a critical gap in understanding the symptom experience and health outcomes of older adults with and without Alzheimer's Disease and related dementias (ADRD) and polypharmacy (PPY). The primary aim of the study was to compare the number of symptoms experienced over time in older adults with and without ADRD by polypharmacy status. The secondary aim was to examine the trajectory of physical function and health outcomes over time in each group.; Methods: This study utilized longitudinal data from the National Health and Aging Trends Study, a nationally representative sample of Medicare beneficiaries from 2016-2019. The sample was separated into four groups (N = 2,052): neither ADRD or PPY (n = 1,048), PPY only (n = 761), ADRD only (n = 116), and both ADRD and PPY(n = 127).; Results: The overall sample was predominately female (57.9%), White (70.9%), aged 84 or younger (75%), married (46%), and had some college or a college degree (50%). Participants with both ADRD and PPY experienced more symptoms on average, had higher odds of falls, hospitalizations, and mortality than all other groups. Older adults with both ADRD and PPY had lower physical function, needed more assistance with activities of daily living and higher assistive device utilization compared to the other three groups.: Conclusions: Findings indicate that older adults with both ADRD and PPY experience more symptoms, negative health outcomes and physical function decline that can negatively impact their quality of life. Further research is needed to identify strategies for reducing PPY in people with ADRD.; Competing Interests: Declaration of Conflicting InterestsThe author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## 2. Frontotemporal Dementia Differential Diagnosis in Clinical Practice: A Single-Center Retrospective Review of Frontal Behavioral Referrals

**Authors:** Krishnadas, Natasha; Chew, Marcia; Sutherland, Antony; Christensen, Maja; Rogers, Kirrily A.; Kyndt, Christopher; Islam, Fariha; Darby, David G. and Brodtmann, Amy

**Publication Date: 2025** 

**Journal:** Neurology.Clinical Practice 15(1), pp. e200360

**Abstract:** Background and Objectives: Many neurodegenerative syndromes present with impairment of frontal networks, especially frontoinsular networks affecting social and emotional cognition. People presenting with frontal network impairments may be considered for a frontotemporal dementia (FTD) diagnosis. We sought to examine the diagnostic mix of patients referred with frontal network impairments to a single cognitive neurology service.; Methods: A retrospective review was conducted of all patients seen between January 2010 and December 2019 at the Eastern Cognitive Disorders Clinic, a quaternary cognitive neurology clinic in Melbourne, Australia. Patients were included if they met the following criteria: (1) were referred for suspected FTD or with a preexisting diagnosis of a FTD syndrome, (2) were referred for 'frontal behaviors' (i.e., disinhibition, disorganization, poor judgment, loss of empathy, apathy) and/or had an informant report of behavior change, and (3) had available referral documents and clinical consensus diagnosis. Referral diagnosis was compared against final diagnosis adjudicated by a consensus multidisciplinary team. Case details including age of symptom onset, Cambridge Behavioural Inventory-Revised scores, psychiatric history, and Charlson Comorbidity Index were compared against the final diagnosis.; Results: In total, 161 patients aged 42-82 years (mean = 64.5, SD = 9.0; 74.5% men) met inclusion criteria. The commonest final diagnosis was a FTD syndrome (44.6%: 26.7% behavioral variant FTD (bvFTD), 9.3% progressive supranuclear palsy, 6.2% semantic dementia, 1.2% corticobasal syndrome, and 1.2% FTD/motor neuron disease). A primary psychiatric disorder (PPD) was the next commonest diagnosis (15.5%), followed by vascular cognitive impairment (VCI, 10.6%), Alzheimer disease (AD, 9.9%), and other neurologic diagnoses (6.2%). A final diagnosis of bvFTD was associated with higher rates of medical comorbidities and more eating behavior abnormalities compared with a diagnosis of PPD. Screening cognitive tests and preexisting psychiatric history did not distinguish these 2 groups.; Discussion: A broad spectrum of neurologic and psychiatric disorders may present with impairments to frontal networks. Almost half of patients referred had a final FTD syndrome diagnosis, with bvFTD the commonest final diagnosis. People with PPD, VCI, and AD present with similar clinical profiles but are distinguishable using MRI and FDG-PET imaging. Medical and psychiatric comorbidities are common in people with bvFTD.; Competing Interests: The authors report no relevant disclosures. Full disclosure form information provided by the authors is available with the full text of this article at Neurology.org/cp. (Copyright © 2024 The Author(s). Published by Wolters Kluwer Health, Inc. on behalf of the American Academy of Neurology.)

#### 3. Molecular Imaging with PET in the Assessment of Vascular Dementia and Cerebrovascular Disease

**Authors:** Patil, Shiv; Patel, Darshil; Kata, Rithvik; Teichner, Eric; Subtirelu, Robert; Ayubcha, Cyrus; Werner, Thomas and Alavi, Abass

**Publication Date: 2025** 

Journal: PET Clinics 20(1), pp. 121-131

**Abstract:** Vascular dementia (VaD) is a unique form of cognitive decline caused by impairment of blood flow to the brain. Atherosclerosis is strongly associated with VaD as plaque accumulation can lead to tissue hypoperfusion or stroke. VaD and atherosclerosis are both diagnosed relatively late in their disease courses, prompting the need for novel diagnostic approaches such as PET to visualize subclinical pathophysiologic changes. This review discusses the use of PET in the assessment of VaD and cerebrovascular disease, focusing on the application of 18F] fluorodeoxyglucose to study neurometabolism and 18F] sodium fluoride

to quantify arterial calcification.; Competing Interests: Disclosure The authors have no disclosures to declare. (Copyright © 2024 Elsevier Inc. All rights reserved.)

### 4. Dementia Specialty Care Clinicians' Perspectives on Their Role in the Dementia Diagnostic Process and Diagnostic Disclosure

**Authors:** Sideman, Alissa B.;Harrison, Krista L.;Garrett, Sarah B.;Paladino, Joanna;Naasan, Georges and Ritchie, Christine S.

**Publication Date: 2025** 

**Journal:** Journal of Geriatric Psychiatry and Neurology 38(1), pp. 3–12

Abstract: Background: Delivering a diagnosis of Alzheimer's disease and related dementias (ADRD) can be challenging not just for patients and families, but also for clinicians. Our objective was to understand dementia specialty care clinicians' perspectives on their role in diagnosis and diagnostic disclosure in dementia.; Methods: Qualitative interviews with clinicians from a specialty tertiary dementia care center focused on practices, challenges, and opportunities addressing patient and caregiver needs in dementia. Data was analyzed by an interdisciplinary team using thematic analysis.; Results: The 16 participants included behavioral neurologists, social workers, neuropsychologists, and nurses. Themes included the value of providing an accurate diagnosis, the timing and challenges of delivering a diagnosis, the central focus on diagnosis alongside the need for more education on care management, and the role of the interdisciplinary team.; Discussion: We identified areas for improvement and strengths that can be built upon or adapted to other settings, including providing clinicians in specialty and primary care settings more guidance and support when diagnostic challenges arise, strengthening interdisciplinary teamwork, and making dementia diagnosis and care more accessible.; Competing Interests: Declaration of Conflicting InterestsThe author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

#### 5. A realist synthesis of dementia education programmes for pre-registration nurses

Authors: Conway, Aoife; Harkin, Deirdre and Ryan, Assumpta

**Publication Date: 2024** 

**Journal:** Nurse Education Today 143, pp. 106393

Abstract: Aims: The escalating prevalence of dementia globally highlights the urgency for effective nursing care and dementia education. The aim of this review was to synthesize evidence on dementia education programmes for pre-registration nursing, exploring the types implemented, the contexts in which they operate, the mechanisms influencing their success, and their intended and unintended outcomes.; Design: A realist synthesis approach was employed to explore the functioning of complex interventions within specific contexts, acknowledging the intricate nature of dementia education programmes and the diverse settings in which they are implemented.; Data Sources: A rigorous search strategy was implemented across databases including Medline, CINAHL, Scopus, and ProQuest Health and Medical, supplemented by hand searching and citation searching. Preliminary screening and refinement processes ensured comprehensive coverage of relevant literature.; Review Methods: A systematic and iterative approach was adopted, involving quality assessment under the headings of relevance, rigour, and richness. Data extraction and synthesis

processes were focused on identifying contexts, mechanisms, and outcomes relevant to dementia education in nursing.; Results: A total of 25 studies were reviewed. Key findings highlight the effectiveness of narrative-based learning, varied educational methods, and experienced providers in improving nursing students' knowledge, attitudes, and confidence. These approaches influenced care priorities and increased interest in working with people living with dementia. However, there is a noted gap in understanding the long-term benefits and academic impact of these programmes.; Conclusions: Dementia education programmes are pivotal in preparing nursing students for effective dementia care. The co-production and design involvement of people living with dementia in curricula development is recommended to enhance relevance and applicability. We call for further research into the long-term benefits of dementia education, the impact of academic recognition, and the alignment of programmes with nursing curricula.; Competing Interests: Declaration of competing interest None. (Crown Copyright © 2024. Published by Elsevier Ltd. All rights reserved.)

## 6. Association of early- and late-life bipolar disorder with incident dementia. A Danish cohort study

**Authors:** Nielsen, Jane Lykke; Kaltoft, Klara; Wium-Andersen, Ida; Wium-Andersen, Marie and Osler, Merete

**Publication Date: 2024** 

**Journal:** Journal of Affective Disorders 367, pp. 367–373

**Abstract:** Background: This study aimed to explore the association between bipolar disorder and the risk of developing dementia, and whether the risk varies with age at the onset of bipolar disorder.; Methods: In this study, 37,084 individuals with a first-time diagnosis of bipolar disorder diagnosed between 1969 and 2018 and a reference population (n = 189,662) matched on sex, birth year and time of bipolar diagnosis (index date) were followed in nationwide registries for incident dementia until October 2020. Associations were analysed using Cox proportional hazard regression with adjustment for sex, education level, alcohol or drug abuse, traumatic brain injury, ischemic heart disease, stroke and diabetes mellitus.; Results: In total, 6.6 % of individuals with bipolar disorder and 4.0 % in the reference population developed dementia during the mean follow-up of 13.1 years. Compared to the reference population, individuals with bipolar disorder had a higher incidence of dementia during follow-up after adjusting for potential confounders (HR: 2.66, 95 % CI 2.53-2.79]). The strength of this association did not vary among individuals diagnosed with bipolar disorder before and after age 45.; Limitations: The higher risk of dementia identified for individuals with bipolar disorder could be influenced by detection bias and, despite a large cohort, some of the age-stratified analyses were still affected by lack of statistical power.; Conclusion: Individuals with bipolar disorder have a higher risk of developing dementia compared to a reference population without bipolar disorder, independent of the age at the onset of bipolar disorder.; Competing Interests: Declaration of competing interest All authors declare no competing interests. (Copyright © 2024 The Authors. Published by Elsevier B.V. All rights reserved.)

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