Royal United Hospitals Bath
NHS Foundation Trust

Dementia

Current Awareness Bulletin

May 2025

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- **Bitesize searching databases for evidence: a quick guide to help you develop your literature searching skills**
  45 minutes. Learn how to transform a question into a search strategy, and how to find the best evidence in a database.

  Next sessions: 9th June @ 3pm, 22nd July @ 4pm & 27th August @ 1pm

- **Simple and painless evidence into practice (BMJ Best Practice and the LKS Hub)**
  30 minutes. Learn about quick and hassle-free ways to seamlessly incorporate evidence into your daily work.

  Next sessions: 3rd June @ 2pm, 9th July @1pm & 7th August @ 3pm

- **Quickfire health literacy: communicating with patients more effectively**
  30 minutes. Learn about the communication barriers patients may encounter, and ways to ensure they get the most from their care.

  Next sessions: 13th June @ 3pm, 7th July @ 4pm & 12th August @ 9am

Book a session today at https://forms.office.com/e/HyiSXfDaYV (these sessions will be held on a monthly basis)

The role of EPRs in dementia care

Health Tech World, 15 May 2025

Bolton NHS Foundation Trust is improving dementia care through early detection and patient support using the Sunrise Electronic Patient Record. Patients with dementia are flagged on admission, enabling timely intervention by clinicians and Admiral Nurses. These nurses support both patients and families with guidance, referrals, and discharge planning. Built-in tools prompt screening for delirium, enhancing diagnosis and treatment. The system improves communication among care teams, reduces hospital stays, and eases readmissions. It also streamlines audits, supporting efficient, holistic, and compassionate care.

Health and social care support for people with dementia

This is a report on the experiences of individuals with dementia interacting with health and social care services in England, and how these services are responding. The CQC will use the findings in this report – alongside working closely with people with lived experience, charities and support organisations, and wide-ranging stakeholders with dementia expertise – to develop its dementia strategy. This work will include producing guidance for providers on how to best care for people with dementia throughout health and social care.

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1. **DEprescribing and Care to reduce Antipsychotics in DEmentia (DECADE)—A Hybrid Effectiveness-Implementation Pilot Study**

Authors: Birke, Hanne;Jørgensen, Sidsel Maria;Lech, Laura Victoria Jedig;Andersen, Jon Trærup;Karstoft, Kristian;Schiøtz, Michaela L.;Hansen, Stine Vest;Kjergaard, Inger Kathrine;Andersen, Tina and Vermehren, Charlotte

Publication Date: 2025

Journal: American Journal of Geriatric Psychiatry 33(7), pp. 730–745

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2. **Association between frailty and the progression trajectories of stroke and dementia**

comorbidity: insights from observational and genetic analyses

Authors: Chen, Dongze;Zhang, Yali;Ji, Zhiqiang;Zhou, Yi and Liang, Zhisheng

Publication Date: 2025

Journal: Archives of Gerontology and Geriatrics 134, pp. 105862

Abstract: Competing Interests: Declaration of competing interest The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.; Background: The relationship between frailty and the progression trajectories of stroke-dementia comorbidity remains inconclusive. This study aimed to determine whether there are associations between frailty and the progression trajectories of stroke-dementia comorbidity, including the transitions from enrollment to incident stroke/dementia, progression to stroke-dementia comorbidity, and ultimately to mortality.; Methods: This prospective study was conducted based on the UK Biobank cohort. Frailty was assessed using the frailty index (FI) and categorized as robust (FI ≤ 0.10), prefrail (0.10 0.25). We used multi-state models and one-sample Mendelian randomization (MR) to investigate the relationships between frailty and the progression trajectories of stroke-dementia comorbidity. Population attributable fraction (PAF) analyses were conducted to assess the attributable risks of frailty and its components.; Results: The final analysis included 459,924 participants. In comparison to the robust, the frail group significantly elevated the risk of transitioning from enrollment to stroke HR(95 %CI): 2.32(2.19-2.45)], from enrollment to dementia 2.56(2.31-2.83)], from enrollment to mortality 2.32(2.23-2.42)], from stroke to stroke-dementia comorbidity 1.59(1.23-2.05)], from dementia to stroke-dementia comorbidity 1.79(1.29-2.48)], and from stroke to mortality 1.25(1.11-1.40)]. MR analyses revealed that genetically predicted FI was causally associated with higher risks of stroke-dementia comorbidity. PAF analyses indicated that hypertension, diabetes, lung disease, and visual impairment were significant contributors to the risk of progression to stroke-dementia comorbidity.; Conclusion: Our findings revealed that frailty status increases the risk of post-stroke dementia, offering important insights for the clinical management and public health strategies.

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3. **Development, validation, and clinical utility of a risk prediction model to identify older women with dementia for proactive palliative care**

Authors: Gebresillassie, Begashaw Melaku;Attia, John;Cavenagh, Dominic and Harris, Melissa L.

Publication Date: 2025

Journal: Archives of Gerontology & Geriatrics 134, pp. N.PAG

Abstract: • A new risk prediction tool was developed to predict one-year mortality in older women with dementia. • The model utilises readily available, low-cost predictors, measurable in any setting. • The model demonstrated strong predictive performance and clinical utility in identifying high-risk patients. • To demonstrate its applicability, the model was translated into an online risk calculator. Accurately estimating one-year mortality risk in older women with dementia can inform clinical decision-making, facilitate timely advanced care planning, and optimise palliative care delivery. This study aimed to develop, validate, and assess the clinical utility of a prediction model for one-year all-cause mortality in this population using a nationally representative Australian cohort. This prognostic study utilised data from the 1921–26 cohort of the nationally representative, population-based Australian Longitudinal Study on Women's Health (ALSWH) and linked national and state-based administrative health records. Candidate predictors were identified through a systematic review and expert consultation, then refined using a data-driven statistical approach. A multivariable binary logistic regression model was developed and validated to predict one-year all-cause mortality. The analysis included 1576 older women with dementia (mean age, 72.6 ± 1.5 years). The model demonstrated good discrimination (AUC: 75.1 %, 95 % CI: 72.7 %–77.5 %) and excellent calibration (slope = 1.00, 95 % CI: 0.87–1.13; intercept = 0.00, 95 % CI: 0.11 – 0.11). Model validation using both 10-fold cross-validation and 1000 bootstrap iterations showed minimal optimism in its predictive performance, with AUC optimism of 0.0047 and

0.0042, respectively. Decision curve analysis indicated a net benefit across probability thresholds from 0.24 to 0.88, supporting the model's clinical utility for guiding palliative care decisions. This prediction model, incorporating readily available predictors, demonstrated compelling performance and clinical utility for identifying older women with dementia at high risk of one-year mortality. The model has the potential to facilitate timely palliative care interventions and is publicly accessible via a web-based calculator. Further external validation in diverse populations and healthcare settings is warranted to confirm its generalisability.

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4. **Associations of metabolic dysfunction-related fatty liver disease and dementia risk: A prospective study based on the UK biobank**

Authors: Geng, Chaofan;Gao, Peiyang and Tang, Yi

Publication Date: 2025

Journal: Archives of Gerontology and Geriatrics 135, pp. 105845

Abstract: Competing Interests: Declaration of competing interest The authors declared that they had no conflicts of interest.; Background: Metabolic dysfunction-associated fatty liver disease (MAFLD) has garnered increasing attention for its potential link with dementia. This study aims to investigate the association between MAFLD and dementia, including its subtypes, to address existing knowledge gaps.; Methods: A total of 415,116 participants from the UK Biobank were included, with standardized screening criteria used to determine MAFLD diagnosis. Cox regression was employed to assess the relationship between MAFLD and dementia risk. Subgroup analyzes were conducted to provide further insights into the impact of MAFLD on dementia risk, and the mediation effect of inflammation was evaluated.; Results: Among the 150,509 MAFLD patients, there was a significantly elevated risk of dementia, with hazard ratios (HR) of 1. 526 (95 % CI = 1. 460-1. 596) for all-cause dementia, 1. 356 (95 % CI = 1. 266-1. 453) for Alzheimer's disease (AD), and 2. 206 (95 % CI = 2. 000-2. 434) for vascular dementia (VaD). MAFLD patients showed a significant reduction in gray matter volume in MAFLD patients (β = -0. 07, 95 % CI = -0. 17, -0. 01) and a marked increase in deep white matter lesion volume (P < 0. 001). Elevated inflammatory markers in MAFLD patients accounted for a mediation effect of 30. 8 %.; Conclusion: MAFLD substantially increases the risk of dementia, underscoring the importance of early intervention and prevention strategies targeting MAFLD to reduce dementia incidence.

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5. **Exploring the perceptions and experiences of caregivers with the application of socially assistive robots in dementia care: A systematic review of qualitative studies**

Authors: Shi, Wen;Zhou, Wenlu;Wang, Rui;Shen, Haifei;Xu, Niying and Wang, Junjie

Publication Date: 2025

Journal: International Journal of Nursing Studies 167, pp. 105084

Abstract: Competing Interests: Declaration of competing interest The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.; Background: The use of socially assistive robots in dementia care is growing, aimed at improving patient well-being and alleviating caregiver burden. Refining the utilisation of robotic assistance in individuals with dementia is critical, drawing on feedback and insights from caregivers. While numerous qualitative studies have examined how caregivers view and interact with socially assistive robots, a comprehensive synthesis of these insights is missing. This study seeks to integrate existing research on caregiver perceptions and experiences regarding socially assistive robots, offering guidance for applying and developing such technology in dementia care.; Methods: A computerised search of the Cochrane Library, PubMed, Embase, CINAHL, Web of Science Core Collection, CNKI, Wanfang, Vip and SinoMed was conducted to identify relevant qualitative studies. The search covered the period from establishing each database until July 2024. The Joanna Briggs Institute criteria for qualitative research were utilised to evaluate the quality of the studies, and a

thematic synthesis approach was employed to integrate the findings.; Results: A total of 15 studies were included, yielding four new integrated findings: (1) mixed attitudes of caregivers towards socially assistive robots, (2) perceived benefits of using socially assistive robots in people with dementia from caregivers, (3) realistic barriers in applying socially assistive robots for dementia care, and (4) future expectations for socially assistive robots from caregivers. Most caregivers actively embrace socially assistive robots, while a minority express concerns and doubts. These devices have significantly improved the psychological and physical conditions of people with dementia, concurrently reducing the burden for caregivers. However, the current models of these robots still exhibit several shortcomings and technical limitations, and caregivers maintain high expectations for their improvement.; Conclusion: During the implementation of socially assistive robots, the requirements and intentions of people with dementia and their caregivers must be addressed. This involves conducting essential knowledge dissemination and relevant educational activities to enhance user acceptance of these robotic assistants. Simultaneously, efforts should be made to improve the functionality and design aesthetics of these robots, refine the social support system and further enhance the quality of care for people with dementia while alleviating caregiver burden.; Registration: PROSPERO CRD42024511500.; Tweetable Abstract: Socially assistive robots improve the well-being of people with dementia.

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6. **The Financial Capacity of Individuals With Dementia: A Narrative Review**

Authors: Sun, Weiyi;Matsuoka, Teruyuki;Kato, Yuka;Hiyama, Masami and Narumoto, Jin

Publication Date: 2025

Journal: Psychogeriatrics : The Official Journal of the Japanese Psychogeriatric Society 25(4), pp. e70052

Abstract: The prevalence of dementia is rising globally, with significant consequences for society. This increase not only places a substantial financial strain on caregivers and families but also adds a growing economic burden on societies and governments. In this context, improving the financial capacity of dementia patients is critical, as it can help mitigate the risk of financial exploitation and improve their quality of life. Financial competence is a complex and evolving concept, encompassing specific financial transaction behaviours and cognitive skills, such as mathematical ability and financial knowledge. Some recent studies have proposed a people-centred approach, emphasising that financial capacity should be understood through observation and aligned with individuals' personal values and life experiences. In this review, we outline the definition of financial capacity, especially in relation to dementia patients. Despite the importance of this area, tools specifically designed to measure financial capacity in dementia patients are still limited. The early decline of financial capacity is a common and notable trend among individuals with various types of dementia, underscoring its potential as an important marker for dementia diagnosis. For this reason, it is essential for clinicians to recognise the early signs of diminished financial ability, enabling them to offer timely guidance and support to patients and their families. The present review also provides insights from Japanese clinicians on managing patients who exhibit impaired financial capacity. In Japan, dementia prevalence is rising rapidly due to an aging population, making it critical to focus on research and practical solutions to address the financial challenges faced by these patients. Greater attention should be paid to developing strategies that safeguard the financial well-being of dementia patients, supporting them in managing their finances as independently as possible while protecting them from exploitation. (© 2025 Japanese Psychogeriatric Society.)

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7. **Association between a healthy lifestyle and dementia in older adults with obesity: A prospective study in the UK biobank**

Authors: Wang, Junru;Zhang, Jiahui;Zhu, Yongbin;Ma, Xiaojun;Wang, Yali;Liu, Kai;Li, Zhuoyuan;Wang, Jing;Liang, Renzhang;He, Shulan and Li, Jiangping

Publication Date: 2025

Journal: Journal of Affective Disorders 380, pp. 421–429

Abstract: Competing Interests: Declaration of competing interest There exist no competing interests linked to the dissemination of this manuscript; this document has received approbation from all contributors for dissemination.; Background: The impact of adherence to low-risk lifestyle factors on dementia risk in individuals with obesity remains unclear. We aimed to explore the association between healthy lifestyles with dementia in obese participants.; Methods: Dementia-free participants from the UK Biobank, aged 50 years or older with obesity (BMI ≥30 kg/m 2) at baseline were included. A weighted healthy lifestyle score was calculated incorporating both traditional and emerging lifestyle factors. The primary outcome was all-cause dementia and its subtypes (Alzheimer's disease and Vascular dementia). Cox regression models analyzed the association between healthy lifestyle scores and dementia risk. Restricted cubic splines tested the dose-response. We also examined the effect of lifestyle scores on dementia risk in individuals with normal weight and overweight.; Results: A total of 54,365 participants were included at baseline. During a median follow-up of 14.4 years, 1271 participants developed all-cause dementia, including 537 cases of Alzheimer's disease and 343 cases of vascular dementia. A 20 % increase in the lifestyle score was associated with a 7 % reduction in dementia risk (HR: 0.93; 95 % CI: 0.91,0.96) and a 4 % reduction in Alzheimer's disease risk (HR: 0.96; 95 % CI: 0.92,1.00). The association was stronger in overweight and obese participants. No significant link was found for vascular dementia.; Limitations: Information on lifestyle behaviors was self-reported and might be prone to measurement error.; Conclusions: Adherence to a healthy lifestyle may reduce the risk of dementia and Alzheimer's disease in older obese individuals, with a stronger effect observed in those with higher lifestyle scores. (Copyright © 2024. Published by Elsevier B.V.)

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8. **Development and validation of a convenient dementia risk prediction tool for diabetic population: A large and longitudinal machine learning cohort study**

Authors: Yang, Pei;Xiao, Xuan;Li, Yihui;Cao, Xu;Li, Maiping;Liu, Xinting;Gong, Lianggeng;Liu, Feng and Dai, Xi-Jian

Publication Date: 2025

Journal: Journal of Affective Disorders 380, pp. 298–307

Abstract: Competing Interests: Declaration of competing interest The authors declare that they have no conflict of interest to this work.; Background: Diabetes mellitus has been shown to increase the risk of dementia, with diabetic patients demonstrating twice the dementia incidence rate of non-diabetic populations. We aimed to develop and validate a novel machine learning-based dementia risk prediction tool specifically tailored for diabetic population.; Methods: Using a prospective from 42,881 diabetic individuals in the UK Biobank, a rigorous multi-stage selection framework was implemented to optimize feature-outcome associations from 190 variables, and 32 predictors were final retained. Subsequently, eight data analysis strategies were used to develop and validate the dementia risk prediction model. Model performance was assessed using area under the curve (AUC) metrics.; Results: During a median follow-up of 9.60 years, 1337 incident dementia cases were identified among diabetic population. The Adaboost classifier demonstrated robust performance across different predictor sets: full model with 32 predictors versus streamlined simplified model with 13 predictors selected through forward feature subset selection algorithm (AUC: 0.805 ± 0.005 vs. 0.801 ± 0.005; p = 0.200) in model development employing an 8:2 data split (5-fold cross-validation for training). To facilitate community generalization and clinical applicability, the simplified model, named DRP-Diabetes, was deployed to a visual interactive web application for individualized dementia risk assessment.; Limitations: Some variables were based on self-reported.; Conclusions: A convenient and reliable dementia risk prediction tool was developed and validated for diabetic population, which could help individuals identify their potential risk profile and provide guidance on precise and timely actions to promote dementia delay or prevention. (Copyright © 2025 Elsevier B.V. All rights reserved.)

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9. **Transforming dementia research into practice: a multiple case study of academic research utilization strategies in Dutch Alzheimer Centres**

Authors: Zhu, Eden Meng;Buljac-Samardžić, Martina;Ahaus, Kees and Huijsman, Robbert

Publication Date: 2025

Journal: Health Research Policy & Systems 23(1), pp. 1–18

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