

Letter

Interpreting evolving evidence in Alzheimer's disease: implications for dementia clinicians

Ivan Koychev, James B. Rowe, Jay Amin, Dag Arsland, Hilary Archer, Robert Barber, Alistair Burns, Elizabeth Coulthard, Charlotte Deasy, Ross Dunne, Nick Fox, Sara Helen Humphrey, Josie Jenkinson, Danielle Jones, Sean Kennelly, Farooq Khan, M. Santhana P. Krishnan, Paresh Malhotra, Brady McFarlane, Bernadette McGuinness, Catherine Mummery, Catherine Pennington, John R. Perry, Gosia Raczek, Jill Rasmussen, Craig Ritchie, John-Paul Taylor, Benjamin R. Underwood, Ashwin V. Venkataraman and Vanessa Raymont

Keywords

Evidence-based mental health; dementias/neurodegenerative diseases; experimental design; meta-analysis; old age psychiatry.

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The recent Cochrane systematic review of amyloid-targeting therapies for early-stage Alzheimer's disease¹ has understandably received a great deal of public interest. Unfortunately, its interpretation risks misrepresenting the current state of therapeutic development in this field. The central concern is the aggregation of data from very different agents. The meta-analysis pools early, largely negative trials with studies of later agents with different targets. The later agents have demonstrated efficacy in larger phase 3 trials and have received regulatory approval from bodies including the Medicines and Healthcare products Regulatory Agency, the US Food and Drug Administration, and the European Medicines Agency. Although systematic reviews are inclusive by definition, the absence of meaningful stratification by developmental phase, mechanism or trial design introduces a substantial interpretive limitation. In addition, the conclusion of the review that 'amyloid removal' does not produce clinical benefits does not fit with the stated aim of the review, which was to test whether monoclonals produced clinical benefit, with some of the monoclonals assessed having absolutely no effect on amyloid.

Alzheimer's disease trials have also evolved in terms of design. Early trials were often conducted without biomarker confirmation, with suboptimal dosing or with incomplete understanding of target engagement. Later-phase trials of currently approved therapies have differed with respect to patient selection, methodological rigour and biological precision. Treating these distinct trials as directly comparable conflates early exploratory failure with later positive phase 3 outcomes. Although the review also examined the subgroup of agents that subsequently received regulatory approval, pooled estimates alone may not fully capture differences in biological target engagement, trial methodology and duration of follow-up that are relevant to interpretation of treatment effects. For clinicians working with people with or at risk of dementia, this distinction is critical. Decision-making increasingly depends on nuanced interpretation of evolving evidence, particularly where disease-modifying therapies are concerned. Analyses that do not adequately distinguish between different generations of trials and therapeutic approaches risk obscuring clinically relevant effects that have met contemporary regulatory standards.

The Cochrane review also discusses the meaningfulness of the drugs' benefits. Assessment of meaningfulness should incorporate the perspectives of people living with Alzheimer's disease and their families, while remaining grounded in outcomes directly supported by randomised trial evidence. The broader implications are also significant. Cochrane reviews carry considerable weight in shaping public discourse and policy. It is therefore unsurprising that patient organisations and charities have responded with caution. There is a risk that such analyses may be used by payers or decision makers as justification to restrict access to approved treatments, particularly if the conclusions do not sufficiently distinguish between exploratory and confirmatory phases of drug development.

The review provides a valuable synthesis of available evidence, but its interpretation may understate important differences between therapeutic generations and patterns of target engagement. Critical evaluation of amyloid-targeting therapies is essential and entirely appropriate. However, analyses should distinguish between agents that failed to engage their biological target and those that have demonstrated substantial amyloid removal and subsequently received regulatory approval. Greater attention to biological target engagement, trial design and therapeutic generation would provide a more clinically informative synthesis of the available evidence. The field would also benefit from full publication of long-term extension analyses, including comparisons between early- and delayed-treatment groups, to clarify the durability and cumulative clinical impact of treatment effects.

Ivan Koychev , Department of Brain Sciences, Imperial College London, UK; Department of Psychiatry, University of Oxford, UK; and Department of Psychological Medicine, Oxford University Hospitals NHS Foundation Trust, Oxford, UK; **James B. Rowe**, Department of Clinical Neurosciences, University of Cambridge, UK; **Jay Amin** , School of Clinical and Experimental Sciences, University of Southampton, UK; **Dag Arsland**, Department of Old Age Psychiatry, King's College London, UK; **Hilary Archer**, Department of Neurology, North Bristol NHS Trust, Bristol, UK; **Robert Barber** , Older People's Mental Health Services, Cumbria, Northumberland, Tyne and Wear NHS Foundation Trust, Newcastle upon Tyne, UK; **Alistair Burns** , Division of Neuroscience, University of Manchester, UK; and Department of Care of the Elderly, Oxford University Hospitals NHS Foundation Trust, Oxford, UK; **Elizabeth Coulthard**, Bristol Medical School, University of Bristol, UK; **Charlotte Deasy**, Older People's Mental Health Services, Cumbria, Northumberland, Tyne and Wear NHS Foundation Trust, Newcastle upon Tyne, UK; **Ross Dunne** , Department of Old Age Psychiatry, Greater Manchester Mental

Health NHS Foundation Trust, Manchester, UK; **Nick Fox**, Dementia Research Centre, UCL Queen Square Institute of Neurology, University College London, UK; **Sara Helen Humphrey** , Faculty of Health Studies, University of Bradford, UK; **Josie Jenkinson** , Department of Psychiatry, Surrey and Borders Partnership NHS Foundation Trust, Leatherhead, UK; **Danielle Jones**, Westcliffe Health Innovations Ltd, Abingdon, UK; **Sean Kennelly**, Department of Geriatric Medicine, Tallaght University Hospital, Dublin, Ireland; **Farooq Khan**, Ashcroft Unit, Birmingham and Solihull Mental Health NHS Foundation Trust, Birmingham, UK; **M. Santhana P. Krishnan** , Older People's Mental Health Services, Tees, Esk and Wear Valleys NHS Foundation Trust, Darlington, UK; **Paresh Malhotra**, Department of Brain Sciences, Imperial College London, UK; and Department of Neurology, Imperial College Healthcare NHS Trust, London, UK; **Brady McFarlane**, Older Persons Mental Health Services, Southern Health NHS Foundation Trust, Southampton, UK; **Bernadette McGuinness**, Centre for Public Health, Queen's University Belfast, UK; **Catherine Mummery**, Department of Cognitive Neurology, National Hospital for Neurology and Neurosurgery, London, UK; **Catherine Pennington**, Centre for Clinical Brain Sciences, The University of Edinburgh, UK; **John R. Perry**, Department of Brain Sciences, Imperial College London, UK; and Department of Neurology, Imperial College Healthcare NHS Trust, London, UK; **Gosia Raczek**, Department of Brain Sciences, Imperial College London, UK; **Jill Rasmussen**, Medical Affairs, Psi-napse, Bristol, UK; **Craig Ritchie**, School of Medicine, University of St Andrews, UK; **John-Paul Taylor**, Institute of Neuroscience, Newcastle University, UK; **Benjamin R. Underwood** , Department of Psychiatry, University of Cambridge, UK; and Department of Psychiatry, Cambridgeshire and Peterborough NHS Foundation Trust, Cambridge, UK; **Ashwin V. Venkataraman** , Department of Old Age Psychiatry, Institute of Psychiatry, Psychology & Neuroscience, King's College London, UK; and Department of Psychological Medicine, South London and Maudsley NHS Foundation Trust, London, UK; **Vanessa Raymont**, Department of Psychiatry, University of Oxford, UK

Correspondence: Ivan Koychev. Email: i.koychev@imperial.ac.uk.

First received 23 Apr 2026 UTC, final revision 12 Jun 2026 UTC, accepted 4 Jul 2026 UTC

Author contributions

I.K. drafted the letter. J.B.R., J.A., D.A., H.A., R.B., A.B., E.C., C.D., R.D., N.F., S.H.H., J.J., D.J., S.K., F.K., M.S.P.K., P.M., B. McFarlane, B. McGuinness, C.M., C.P., J.R.P., G.R., J. Rasmussen, C.R., J.-P.T., B.R.U., A.V.V. and V.R. reviewed or edited it and approved the final version.

Funding

This work received no specific grant from any funding agency, commercial or not-for-profit sectors.

Declaration of interest

I.K. has received grant funding for an investigator-initiated study from Novo Nordisk; consultation fees from Novo Nordisk, Zylorion, and Johnson and Johnson (J&J); and speaker fees for non-promotional educational events by Novo Nordisk and Eisai. I.K. is also a paid medical advisor for medical device companies in the dementia field (Five Lives, Prima Mente, Oxford Brain Diagnostics) and is on the international editorial board of the *British Journal of Psychiatry*. J.B.R. has undertaken consultancy for Astex, AviadoBio, Astronaut, Alector, Asceneuron, Booster Therapeutics, CumulusNeuro, Clinicalink, Curasen, Eisai, Ferrer, UCB, Prevail and SV Health. P.M. declares that he is national specialty lead for Dementia and Neurodegeneration within the National Institute for Health and Care Research (NIHR) Research Delivery Network, honorary consultant neurologist at Imperial College Healthcare National Health Service (NHS) Trust, group leader at the UK Dementia Research Institute (UK DRI) and service practice consultant neurologist at Cleveland Clinic London; and is a member of NHS England Working Groups on Lecanemab and Amyloid PET and the Task and Finish Group for the Modern Service Framework, a Trustee of the Alzheimer's Society, a Clinical Committee member for Alzheimer's Research UK (ARUK), a recipient of an NIHR 'Drugs Only' grant (Shire/Takeda), and an independent data monitoring committee member for J&J, and has received research funding from NIHR, ARUK, Alzheimer's Society, Medical Research Council, Dementias Platform UK, the British Heart Foundation, LifeArc, FIFA, the Football Association and UK DRI. M.S.P.K. has received consultation fees and honoraria for educational materials from Novo-Nordisk, Eli Lilly, Roche, Eisai, Biogen and Nutricia. C.P. declares paid consultancy work for Alzheimer's Scotland and funding through the Chief Scientist Office. G.R. has received speaker fees for non-promotional educational events by GE Healthcare. J.-P.T. has consulted for Eisai in reference to UK recommendations for use of lecanemab. B.R.U. is NIHR dementia and neurodegeneration lead for the East of England and lead for mental health for the Cambridge Biomedical Research Centre. He is the Vice Chair of the Faculty of Old Age Psychiatry at the Royal College of Psychiatrists and is on the editorial board of the *British Journal of Psychiatry*. His institution has received funding from Gnodde Goldman Sachs GIVES and Altos Labs, and he has served on paid advisory boards for TauRx and Eli Lilly. B. McGuinness has received consultation fees from Eisai and Eli Lilly. A.B. is a consultant to Lilly, Eisai/Biogen and TauRx. He does private medico-legal reports and is the director of Memory Assessment Experts and a consultant to Berkeley Psychiatrists. R.B. has had past advisory roles for Biogen and Roche. C.R. is Chief Executive Officer, founder and majority shareholder of Scottish Brain Sciences. All authors acknowledge affiliation with the UK Brain Health Coalition. L.C. declares consultancy funding and educational activities through Eisai, Biogen and Eli Lilly. I.K. and B.R.U. did not take part in the review or decision-making process for this the paper.

Reference

- 1 Nonino F, Minozzi S, Sambati L, Del Giovane C, Baldin E, Bassi MC, et al. Amyloid-beta-targeting monoclonal antibodies for people with mild cognitive impairment or mild dementia due to Alzheimer's disease. *Cochrane Database Syst Rev* 2026; **4**: CD016297.