Insight Brief

From Early Detection to Disease Modification: Preparing for the Future of Alzheimer's Disease Management

Key takeaways from the IQVIA Webinar

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Executive summary

The field of Alzheimer's Disease (AD) is at a turning point, as disease-modifying therapies and next-generation diagnostics reshape both research and clinical care. IQVIA's webinar brought together leading voices to discuss what these innovations mean for clinical practice and how to ensure healthcare systems are ready to adapt.

- Advances in therapies and diagnostics are offering promises of earlier intervention and improved outcomes in Alzheimer's disease, with the greatest impact when applied in the earliest stages
- Primary care and AI-driven risk models are increasingly central to identifying at-risk individuals and supporting proactive management, helping to realise the full potential of these advances
- There is a critical need for more sensitive, reliable, and scalable Clinical Outcome Assessments (COAs), as existing measures are often burdensome and insufficiently sensitive for early disease, limiting their ability to easily capture the full spectrum of patient experience and disease progression
- Piloting innovations in real-world healthcare settings through implementation science is essential to integrating new tools into clinical workflows while optimising the allocation of healthcare resources across the AD care pathway. This supports healthcare system readiness as earlier risk identification scales

Alzheimer's disease begins decades before symptoms appear — shifting diagnosis and treatment upstream is no longer optional, but essential.

The changing landscape of Alzheimer's disease

Prof. Vanessa Raymont (Dementias Platform UK) started the session by reflecting on the remarkable progress in Alzheimer's disease clinical research over the past decades. She noted that up to 45% of dementia cases may be preventable through addressing modifiable risk factors. This effort will be accelerated by the arrival of disease-modifying therapies, and breakthroughs in blood-based biomarkers could enable earlier identification of at-risk individuals. As understanding deepens, it's clear that AD begins long before symptoms appear — sometimes decades earlier. This insight is reshaping priorities, pushing diagnosis and treatment upstream to preclinical and prodromal stages where interventions may have the greatest impact.

Yet challenges persist: diagnosis rates remain low, and care providers will need greater support and resources to harness early clinical markers effectively. Currently, biomarkers are primarily tested in symptomatic patients in clinical care, and there's limited evidence on how these tests perform in those who are in preclinical stages of the disease. As more individuals are identified as at risk or in early stages, healthcare systems must develop new ways to support them not only through access to emerging drug therapies, but also comprehensive approaches to risk management, ongoing monitoring, education, and psychosocial care to address the broader needs of patients and their families throughout the disease continuum. The field is at a critical inflection point — promising, but dependent on coordinated actions.

Primary care at the forefront of dementia detection

A future where primary care transitions from reactive referral to proactive risk management — through scalable AI-driven and digital assessments of routinely collected health data.

Dr. Jill Rasmussen (psi-napse) highlighted the pivotal and evolving role of primary care in dementia detection and risk assessment. Dementia management in primary care in the UK is currently shaped by a referral-based pathway. When cognitive impairment is suspected, primary care clinicians initially assess and treat non-dementia causes, followed by brief interviews and basic cognitive testing to screen for clinical dementia. Commonly used, relatively blunt tools include the Six-Item Cognitive Impairment Test and the Mini-Mental State Examination (MMSE). While practical for busy clinics, these tools often lack the sensitivity to detect subtle or early changes, meaning many cases are only identified once symptoms become more pronounced. Patients flagged by these initial assessments are typically referred to specialist memory assessment services for more comprehensive evaluation.

Looking ahead, Dr. Rasmussen outlined a future where primary care moves beyond reactive referrals to proactive, holistic management. With the advent of blood-based biomarkers and emerging digital assessments — including speech and cognitive markers — primary care could not only identify individuals at an earlier stage of the disease, but also integrate dementia risk assessment into routine annual reviews for chronic conditions associated with increased dementia risk, such as diabetes and cardiovascular disease. There is growing interest in leveraging routinely collected data — such as age, education, blood pressure, BMI, cholesterol, and physical activity — to identify at-risk individuals earlier. The Cardiovascular Risk Factors, Aging and Dementia (CAIDE) risk score was highlighted as a potential tool for earlier identification in primary care. Elements in the CAIDE are routinely captured in primary care

settings and could be readily identified through analysis of electronic patient records. Digital technologies and AI are expected to support this shift by helping clinicians identify such risks without adding to their workload. This approach would enable clinicians to address dementia risk alongside other health factors, making prevention and early intervention a standard part of everyday care and catching cognitive decline earlier.

Closing the diagnosis gap will require more than new technology. Primary care teams need education, resources, and system-level support to confidently use emerging tools and adapt to expanded responsibilities. Overcoming stigma and helping patients understand the value of early diagnosis are also critical. Ultimately, the shift will mean primary care clinicians are not just gatekeepers, but active partners in dementia prevention, risk assessment, and ongoing support.

Leveraging population-level predictive models to identify at-risk individuals for Alzheimer's disease

Dr. Amir Glik (ALZAI Health) drew on his experience with building predictive models using routine blood counts and biochemistry to describe how the models can help identify individuals at increased risk of Alzheimer's long before symptoms appear. Validation using longitudinal data from Israel's largest public health service — encompassing half a million subjects tracked over 20 years — demonstrated that AI-driven analysis of existing clinical data can not only pinpoint those at risk, but also estimate when the disease is likely to develop.

By leveraging data already collected in routine care, these AI tools offer a highly scalable and practical solution for real-world healthcare settings. Dr. Glik emphasised that, given the scale of underdiagnosis and limited infrastructure to scale the clinical adoption of innovations at present, such AI tools are essential for selecting the right individuals for formal diagnostics and those most likely to benefit from early intervention or treatment. This approach has the potential to shorten the patient journey and ensure that disease-modifying therapies reach those who need them sooner, thereby realising the full potential of emerging Alzheimer's therapies.

Rethinking how we measure outcomes

What matters most in disease outcomes is not just cognition — but how people feel, function, and live.

Dr. Stella Karantzoulis (IQVIA) emphasised the unmet need for Clinical Outcome Assessments (COAs) that are both sensitive and meaningful for early Alzheimer's detection and management. Traditional tools like the MMSE and MoCA are often time-consuming, require specialist training, and can be inconsistent across settings. They also focus mainly on cognitive performance but do not capture how a person living with Alzheimer's disease feels and functions in their everyday life. Real-world insights — such as the earliest changes in mood, apathy, irritability, anxiety, physical activity, and social engagement — are crucial for understanding the impact of Alzheimer's on everyday life across the disease spectrum.

The field is moving toward patient-centred, innovative measurement strategies, including digital tools like speech and voice analysis apps, wearable sensors, and passive monitoring for scalable, real-world data collection. The aim is to develop an integrated, biomarker-based ecosystem of COAs that combine cognitive scores, biomarker data, and patient-reported outcomes to capture the full disease impact. Importantly, qualitative research — interviews and direct feedback from patients and carers — ensures these tools are practical, relevant, and culturally appropriate. Realising this vision will require collaboration and a shift from burdensome assessments to solutions that are biologically aligned, digitally enriched, and truly meaningful — enabling earlier intervention and more personalised care.

From innovation to implementation

Without implementation science, innovations remain theoretical — real-world pilots operationalise them within care delivery, where system-level impact can be realised.

Dr. Jie Yeap (IQVIA) recognised that transforming routine dementia care requires close collaboration among researchers, healthcare practitioners, patients, and healthcare resource managers. She stressed that implementation science is crucial for bridging the gap between innovation and practical, sustainable integration into clinical workflows.

Piloting new interventions in real-world healthcare settings — collecting feedback on clinician time, workflow integration, patient acceptance, and cost effectiveness — will determine whether these innovations can be embedded sustainably. Ultimately, real-world pilots are vital for evaluating how best to combine advances such as risk-stratification algorithms, blood-based biomarker diagnostics, and digital assessment tools into a seamless pathway that improves patient outcomes and reduces strain on healthcare systems. This ensures innovation is not just theoretical but genuinely embedded in care delivery, benefitting all patients and practitioners.

Dr. Yeap and colleagues are working with innovation partners to develop implementation science research concepts (Figure 1) and invite collaborators to join this exciting opportunity.

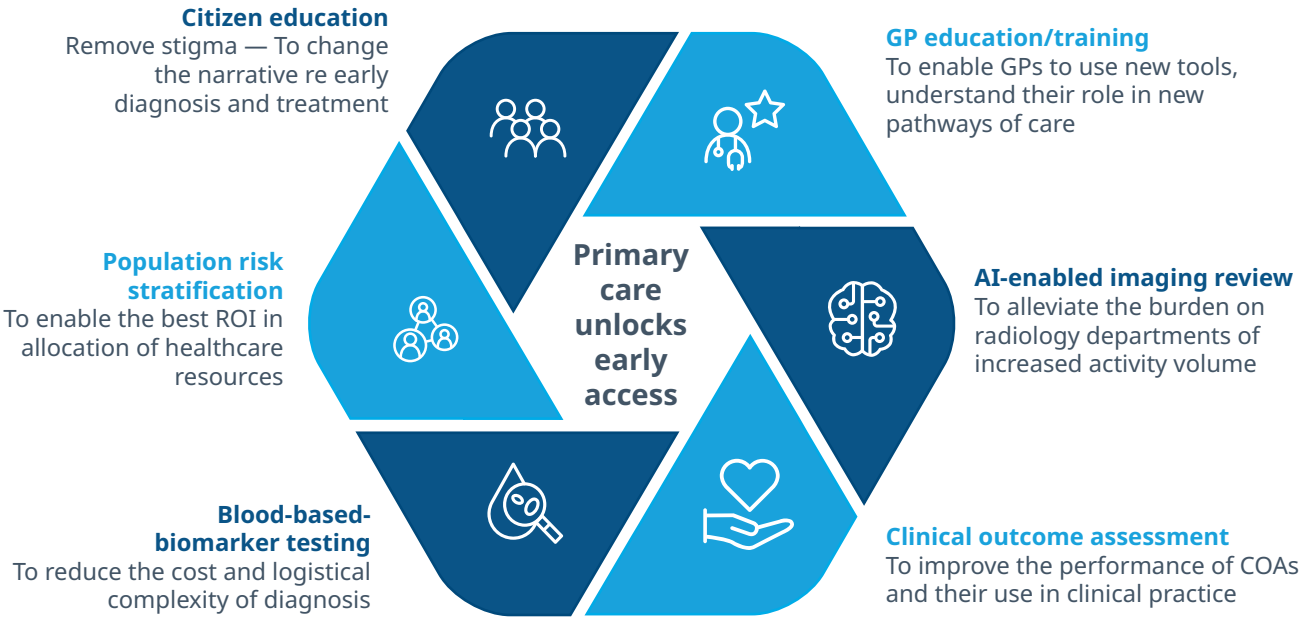
A collaborative path forward for the management of Alzheimer's disease

We stand at a transformative juncture in the battle against Alzheimer's disease. Breakthroughs in innovative therapies, diagnostic approaches, and digital technologies are paving the way for earlier detection and more effective management. Panellists underscored the urgency of prioritising early intervention and ensuring health system preparedness, acknowledging that real progress hinges on close collaboration between clinicians, researchers, policymakers, industry leaders, and patient advocates.

Implementation science and real-world pilots will be essential to ensure that innovations are practical and sustainable in everyday care. At IQVIA, we are committed to working with partners across the Alzheimer's ecosystem to accelerate readiness for new therapies and support health systems as they adapt. Together, we can build a future where Alzheimer's disease is detected earlier, treated more effectively, and managed with greater understanding and compassion.

To watch the full webinar, please register your details here

Figure 1: Modularised clinical care pathway transformation in dementia and Alzheimer's Disease through implementation science



GP: general practitioner; ROI: return on investment; AI: artificial intelligence; COA: clinical outcome assessment

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