World Dementia Council
Leading the Global Action Against Dementia

Dialogue on diagnostics and treatments in India

Report and Transcript

16 September 2025

Foreward

The World Dementia Council was established by the UK government following the G8 Dementia Summit held in London in 2013. Its mission is twofold: first, as a think tank to shape and strengthen global public policy on dementia; and second, to connect a diverse and international community committed to this goal, from bench scientists and health system leaders to advocates and community activists.

Today, we are at a pivotal moment in the trajectory of our field. Scientific progress has brought us to an inflection point. In prevention, we now understand that the risk of Alzheimer's disease and other dementias can be meaningfully reduced through public health interventions. In diagnosis and treatment, a revolution in diagnostics is underway that promises to transform how and when people are diagnosed.

With these breakthroughs comes a clear and urgent challenge: ensuring that the benefits of scientific research are translated into real-world impact for people everywhere, regardless of geography. Scientific progress must translate into real-world outcomes. This new phase demands a new approach for our global community.

We must think longitudinally, about how to sustain innovation and strengthen global advocacy over time. But we must also consider how global advances are implemented through national and regional policies that deliver measurable outcomes.

The World Dementia Council is working in both domains. In India, our focus is on the latter: translating innovation into policy and practice. This virtual meeting was the second in a series of engagements aimed at exploring public policy implementation in India. The first was held on brain health earlier in the year. In November, in partnership with the Alzheimer's Association, we will convene an in-person workshop in Kolkata on securing public policy advances. We hope the conversation captured in this transcript contributes to the broader global effort to secure advances for people living with dementia today and in the future.

Lenny Shallcross
Executive Director,
World Dementia Council

Dr Joanne Pike
Chair, World Dementia Council and President & CEO, Alzheimer's Association

Foreward

It was a pleasure to co-chair this World Dementia Council virtual roundtable on the potential of new diagnostics and treatments for Alzheimer's disease and the implications for countries like India.

The scientific landscape has shifted. For decades, the dementia field has worked to understand the biological basis of the disease and to build tools capable of identifying it with accuracy. Today, for the first time, we have blood-based biomarkers that can reliably indicate Alzheimer's pathology, and disease-modifying therapies that when given at the early symptomatic stage slow the disease trajectory. This represents a profound moment — not just scientifically, but clinically and socially.

However, scientific progress alone does not ensure patient benefit. The question now is how these advances can be delivered safely, equitably, and sustainably across diverse health systems. In a country as large and varied as India, the challenge is not only to make diagnostics and disease modifying treatments available, but to do so in a way that recognises the realities of geography, cost, awareness, workforce capacity, and the central role of family caregivers.

During the discussion, we heard clearly that India has strong foundations to build upon: national diagnostic frameworks; clinical expertise in neurological care; research leaders; and an increasing recognition at state level that dementia must be treated as a public health priority. Yet there are also gaps — from strengthening early detection in primary care to developing national treatment guidelines, expanding access to biomarker testing, and ensuring that the introduction of therapies does not deepen existing inequities in care.

Implementation is the bridge between scientific capability and meaningful patient impact. Getting it right will require coordinated planning, collaboration across sectors, and a commitment to ensuring that innovation is introduced responsibly and inclusively.

We hope that the insights from this roundtable will support policymakers, clinicians, researchers, and civil society partners in shaping the next phase of India's dementia response — one in which scientific progress is matched with systems that are ready to deliver it.

Professor Suvarna Alladi
Professor of Neurology, National Institute of Mental Health and Neurosciences (NIMHANS)

Dr Heather Snyder
Senior Vice President, Medical & Scientific Relations, Alzheimer's Association

Dialogue on on diagnostics and treatments in India

Summary and recommendations

Overview

Dementia is an escalating public health challenge in India. A 2023 study estimated that 7.4% of adults aged 60 and older — nearly 9 million people — are currently living with dementia. The economic toll is significant: dementia costs the Indian economy over $3 billion annually, and for individual households, accounts for nearly one-fifth of health spending. The complexity of India's demographic, linguistic, and socio-economic landscape, alongside wide disparities in health access and outcomes, requires policy approaches tailored to local realities.

Globally, as the burden of dementia shifts to low- and middle-income countries, India's response will be critical. At the same time, new treatments, diagnostic tools, and prevention strategies are emerging. The World Dementia Council convened this meeting, part of a three-part series including two virtual sessions and one in-person event, to explore how the dementia policy agenda can move forward in India, drawing on both international insight and local expertise.

1. Framing the Moment: From Scientific Insight to Public Policy Action

Opening the discussion, Lenny Shallcross (World Dementia Council) and Heather Snyder (Alzheimer's Association) emphasised that the field is now at a turning point: the science required to diagnose and treat Alzheimer's disease more accurately is in place, but the challenge lies in translating these advances into routine clinical delivery. Both highlighted that this phase is defined not only by innovation in biomarkers and disease-modifying therapies, but by the need to reshape health system pathways, workforce structures and policy frameworks so that these tools can reach the patients who stand to benefit.

Professor Suvarna Alladi (National Institute of Mental Health and Neurosciences) situated this moment within India, noting that while diagnostic frameworks and clinical expertise have grown substantially, many patients still present late and access to specialist care varies across regions. She underscored that progress will depend on strengthening early detection, building capacity beyond tertiary centres, and working closely with caregivers and advocacy organisations.

2. Global Context: Scientific Progress and a New Phase in Dementia Diagnostics and Treatments

Across the discussion, participants highlighted that dementia diagnostics and treatments have entered a new phase in which accurate identification of Alzheimer's disease pathology and disease-modifying therapy are now possible. Professor Suzanne Schindler (Washington University in St. Louis) described the strong performance of blood-based biomarkers, particularly p-tau217, which she noted can match the diagnostic accuracy of CSF assays in confirming Alzheimer's disease pathology. The availability of disease-modifying therapies such as lecanemab has reinforced the importance of confirming pathology early, especially in individuals with mild cognitive symptoms where the greatest treatment benefit has been observed.

At the same time, the shift from scientific discovery to real-world delivery is now a central challenge for health systems. Drawing on experience from the Indiana University Brain Health Program, Professor Donna Wilcock detailed how the introduction of disease-modifying therapies required redesigning patient pathways and clinical workflows. She explained that delivering treatment safely demanded coordinated referral models, infusion capacity, access to MRI for ARIA monitoring, and dedicated roles such as brain health navigators and pre-authorization support. Professor Wilcock highlighted that patients receiving treatment had shown encouraging stability in cognition in real-world settings, particularly when treated early, though outcomes varied according to disease stage. She also noted emerging innovations—such as subcutaneous administration and biomarker-based monitoring—that could reduce treatment burden and expand access over time.

3. The Landscape in India

In considering how scientific progress translates into practice, Professor Manjari Tripathi (All India Institute of Medical Sciences) highlighted the particular landscape in India. She noted that many individuals present only once the disease is well advanced, reducing eligibility for early-stage disease-modifying treatments. In response, India has made significant progress in establishing national screening frameworks and diagnostic pathways, including cognitive assessment tools adapted into multiple regional languages and versions designed specifically for individuals who are illiterate. These efforts represent substantial steps toward culturally and linguistically appropriate early detection. However, Professor Tripathi emphasised that workforce capacity, variable uptake across regions, and the uneven distribution of specialist services continue to limit consistent early diagnosis.

Building on this context, Dr Faheem Arshad (National Institute of Mental Health and Neurosciences) addressed the practical challenges of implementing biomarker-based diagnosis and treatment pathways in low- and middle-income settings. He observed that widespread misconceptions—including the belief that dementia is a normal part of ageing—remain common among the public and some health professionals, contributing to delayed presentation and limited treatment readiness. While plasma biomarkers offer a feasible alternative to PET or CSF in expanding diagnostic reach, Dr Arshad emphasised that their use will require validation in local populations, workforce training, and integration into existing referral and care pathways. He noted that registry data from India suggest that only 10–15% of patients currently seen in memory clinics may meet eligibility criteria for monoclonal antibody therapies, largely due to late presentation and high rates of vascular co-pathology. To address this, he argued that earlier detection pathways and system-wide preparedness will be essential to ensure equitable access as new therapies become available.

4. Critical Reflections: Access, Prevention and System Readiness

Across the discussion, participants emphasised that the promise of new diagnostics and treatments will only be realised if questions of access, affordability and system preparedness are addressed directly. While the approval of disease-modifying therapies in India would be a significant milestone, the high cost of diagnostic confirmation, repeated imaging, and treatment itself currently places these interventions out of reach for many families. Professor Tripathi noted that, in the absence of widespread insurance coverage, careful and transparent patient selection is essential to avoid deepening inequities in care. Participants widely agreed that national treatment guidelines will be necessary to establish consistent eligibility criteria, define required clinical and imaging assessments, and guide risk management, including protocols for stroke management where thrombolysis may be contraindicated for patients receiving anti-amyloid therapy.

At the same time, speakers stressed that treatment cannot stand alone. Given that a large share of dementia risk is tied to modifiable factors such as diabetes, hypertension, sensory loss, nutrition, and social isolation, prevention and risk reduction remain central to improving outcomes at scale. Both Professor Tripathi and Dr Arshad highlighted that informal caregivers continue to provide the majority of dementia support in India, often at significant emotional and economic cost. Strengthening caregiver education, respite support, and community-based programmes will therefore remain essential, even as new therapies become available.

Policy developments indicate that momentum toward system-level change is beginning. Dr Arshad described how Karnataka's designation of dementia as a public health priority has enabled the creation of brain health clinics and statewide awareness campaigns, suggesting a model that could be adapted elsewhere. However, further work will be required to integrate dementia into primary care training, expand access to validated biomarker testing, build referral and monitoring pathways, and prepare health systems to deliver treatment safely and equitably.

Taken together, the discussion underscored that scientific progress has created the possibility of earlier and more accurate diagnosis and treatment, but the benefit will only be realised if health systems evolve in tandem. Ensuring equitable access, strengthening prevention and caregiver support, and building the infrastructure and workforce needed for safe delivery are now as important as the scientific breakthroughs themselves.

Conclusions and recommendations

1. Build early detection and referral pathways across primary care.

India's ability to realise the benefits of new diagnostics and treatments depends on identifying individuals earlier in the disease course. Strengthening awareness among frontline providers, enabling cognitive assessment in primary and district health settings, and establishing clear referral routes to specialist services will be central to increasing the number of patients who are clinically eligible for disease-modifying therapies.

2. Establish national guidance to ensure equitable and appropriate use of new therapies.

As disease-modifying treatments become available, shared clinical criteria and monitoring protocols are needed to ensure that treatment decisions are consistent, transparent and based on evidence. National guidelines should clarify the role of plasma biomarkers, imaging requirements, eligibility thresholds, and risk-management pathways, helping to safeguard both patient safety and fair access.

3. Pair treatment readiness with investment in prevention and caregiver support.

Even as new therapies emerge, most people living with dementia will continue to rely on risk reduction, community support and family caregiving. Strengthening public health strategies for managing vascular and lifestyle risk factors, expanding access to sensory health interventions, and supporting caregivers with training and respite services will remain essential to improving outcomes at scale.

Dialogue on diagnostics and treatments in India

Meeting transcript

Lenny Shallcross, *Executive Director World Dementia Council*

Thank you, everyone. I'm Lenny Shallcross, Executive Director of the World Dementia Council. The Council was set up by the UK government, and I'm speaking to you from London. It brings together leaders from around the world to develop public policy solutions.

Over the coming year, we're focusing on several themes, many linked to implementation and public policy challenges. One is the introduction of diagnostics and treatments into health systems; another is equity. Today's discussion addresses those questions around diagnostics and treatments at a unique moment for the field — reflecting the extraordinary progress made over the last century.

There is a long line of people who have gone before, but this is the first generation that can genuinely say it can prevent disease, diagnose disease accurately and cheaply with a decent prognosis, and treat disease. We're not yet where we want to be scientifically, but we're in a much better place. I use the language of "we can do these things" because we truly have the opportunity to do them. This is the first generation with that opportunity — and, I would say, the privilege — to prevent, diagnose and treat disease. But the challenge now is implementation.

It's that transition from science into delivery that the Council is focused on. We run a range of activities — from virtual dialogues like this, to insight meetings open to a wider audience, to exchange lunches at UNGA and CTAD, and public summits. In 2026, we'll hold our annual Summit in London in October, and we'll host a Satellite Summit ahead of the Alzheimer's Association International Conference Satellite Symposium. In addition, we'll host one in China in November.

Through all of these sessions — having already done one on brain health, this one on diagnostics and treatments, and an in-person meeting in India later this year — we are exploring how to turn science into delivery.

After today we'll produce a transcript and a short paper summarising the discussion with recommendations. You can see the first of these, on brain health, on our website. I'll also be reaching back to anyone who spoke in the meeting to check that you're happy with what is included.

With that, thank you very much to everyone for taking part, and thank you to our speakers, chairs and Heather. Heather, over to you.

Dr Heather Snyder, *Senior Vice President, Medical & Scientific Relations, Alzheimer's Association*

Thank you so much, Lenny, and good morning, good afternoon, good evening, wherever you may be joining us from. It's an absolute pleasure to co-chair today. I'm Heather Snyder, the Senior Vice President of Medical and Scientific Relations at the Alzheimer's Association, and thank you to the World Dementia Council for hosting today's discussion.

As you heard, this conversation helps to lay the foundation for sharing and knowledge exchange around the world as we see advances in treatments and diagnostics. Today, we will learn from one another as we think about and talk about the implementation of these newer diagnostics and treatments in real-world clinical settings, and the implications and considerations for countries around the world who may be just coming on board, such as India.

I also want to take a moment to thank my co-chair, Professor Suvarna Alladi, for her leadership in India and globally to help make this conversation happen. And as you heard from Lenny, it will inform a later in-person convening by the World Dementia Council in November as we dive deeper into diagnostics and treatment.

Looking at the list of attendees today and seeing all of you on the screen, it's inspiring to see such a strong representation from India but also from around the world, because this is a global conversation, and it's essential that we have the opportunity to adapt and apply learnings and share them with one another. This is a tremendous opportunity, but there are also real-world challenges. How can we learn from one another and ultimately benefit our patients in the long term?

India in particular stands at a critical juncture —there is the growing public health challenge of the numbers of individuals facing dementia and the first approved disease-targeting treatment just coming into the mix. The sharing of lessons in the real world is more relevant and timely than ever.

This brings us to diagnostics. We'll hear about these new tools, particularly blood-based biomarkers, because early detection and diagnosis for those who may benefit from these first treatments is even more important today than it may have been in years past. We'll hear about those experiences, the adaptations and some of the early learnings that clinics across India have experienced.

With that, I'll go ahead and start to set the stage for our speakers, because we do have an exceptional line-up and I want to take no more time from them. We'll start with Professor Suzanne Schindler from Washington University in St. Louis. Dr. Schindler will discuss advances in blood-based biomarkers and blood tests, and talk about real-world implementation in the treatment clinic.

Then we'll hear from Professor Donna Wilcock from Indiana University, who will share the opportunities and challenges they have faced at their centre in the delivery of these disease-targeting treatments to patients in the clinic, and some of those learnings from their centre and what they're seeing in real-world practice.

Next we're delighted to hear from Professor Manjari Tripathi, Professor and Head of the Department of Neurology at All India Institute of Medical Sciences, to share the context for considerations as we think about treatment in India, the scope and scale of the need and the opportunity.

And last but not least, we'll hear from Dr. Faheem Arshad, Assistant Professor of Neurology at the National Institute of Mental Health and Neurosciences, who will share some of the early lessons in the clinic as they bring biomarkers and treatments into practice.

Without further ado, I'll ask Professor Schindler to go ahead and begin today's discussion.

Professor Suzanne Schindler, *Professor of Neurology WashU Medicine*

Advances in blood tests and treatments for Alzheimer's Disease

September 16, 2025

Washington University in St. Louis School of Medicine

Suzanne E. Schindler, MD, PhD
Associate Professor of Neurology

Knight ADRC Alzheimer's Disease Research Center Washington University St. Louis

Thank you for that wonderful introduction, Lenny and Heather. I'm so privileged to join the World Dementia Council and the Alzheimer's Association today. Several years ago, I visited India for a friend's wedding, and I just loved the people, the culture and especially the food. I'm very happy to share with you some of our experiences with blood tests and treatments, and I'm excited for you, because this is really a new era in Alzheimer's disease diagnosis and care, and it's great that you're working to bring these advances to your patients.

What is the difference between dementia and Alzheimer's disease?

- **Dementia** is an umbrella term that refers to a decline in memory and thinking that impairs function in everyday activities; there are many causes of dementia
- **Alzheimer's disease (AD)** is a specific brain disease that is defined by brain pathology (amyloid plaques and tau neurofibrillary tangles)
- Alzheimer's pathology is the most common cause of dementia, but there are **complexities**
  - Other conditions may cause symptoms that "look" like Alzheimer's
  - Many patients with Alzheimer's pathology have additional conditions contributing to their cognitive impairment

Dementia

Alzheimer disease

I'm going to start briefly at a very basic level to define some terms. Dementia is an umbrella term that refers to a decline in memory and thinking that impairs function in everyday activities. It describes the clinical syndrome. Alzheimer's disease is a specific brain disease defined by pathology — amyloid plaques and tau neurofibrillary tangles. Alzheimer's disease pathology is the most common cause of dementia, but there are complexities that make diagnosis more difficult: other conditions may look like they're caused by Alzheimer's when they're not, and many patients who have Alzheimer's pathology also have additional conditions contributing to cognitive impairment. These factors make it essential to use biomarkers to achieve an accurate Alzheimer's diagnosis.

Biomarkers are required for an accurate diagnosis

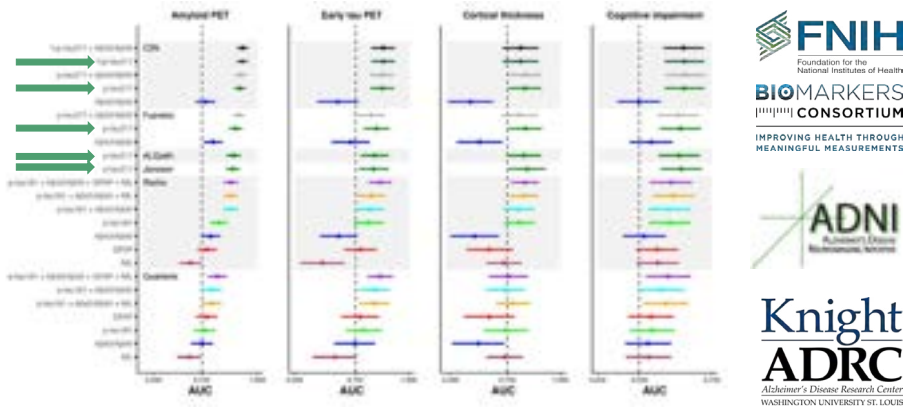
- Even after completing the traditional evaluation, the diagnosed cause(s) of cognitive impairment is often uncertain or incorrect
- Alzheimer's disease is mis-diagnosed (or not diagnosed) in ~30-40% of patients![1-3]

- **Biomarkers are tests used to determine whether Alzheimer's disease pathology is present and may be causing or contributing to cognitive impairment**

[1]Rabinovici *et al. JAMA* 2019 [2]Karran *et al. NEJM* 2014 [3]Palmqvist *et al. JAMA* 2024

Even after completing the traditional evaluation, the diagnosed cause of cognitive impairment is often incorrect. Studies have shown that Alzheimer's disease is frequently misdiagnosed or not diagnosed — probably in about 30–40% of patients who don't receive biomarker tests. Biomarker testing is therefore essential to determining whether Alzheimer's pathology is present and may be causing or contributing to cognitive impairment.

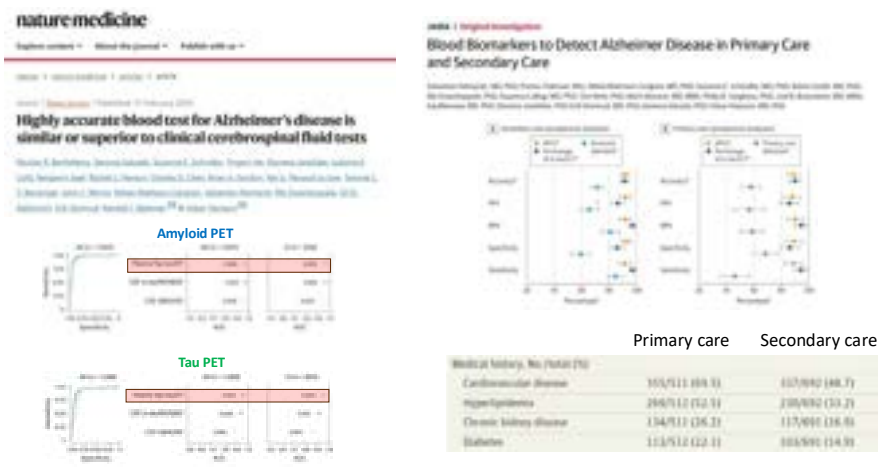
All roads lead to plasma p-tau217



Schindler *et al., Alzheimer's and Dementia 2024*

Fortunately, we now have very good biomarkers of Alzheimer's disease pathology, including highly accurate blood tests, especially for something called p-tau217. In a head-to-head study comparing leading blood tests, p-tau217 performed best. It classified patients not only for amyloid positivity but also for tau pathology, cortical thickness and cognitive impairment. These tests are very good at determining whether patients have Alzheimer's disease pathology. Tests for Aß42:40 do not perform as well, so I recommend using p-tau217 to diagnose Alzheimer's disease rather than Aß42:40.

Plasma p-tau217-based tests are highly accurate



We've done very large validation studies of p-tau217 and compared it directly to FDA-approved CSF tests. For classification accuracy of amyloid PET status, plasma p-tau217 performed identically to high-performing FDA-approved CSF tests in 1,000 people. Interestingly, the blood test performed better than older-generation CSF tests for classification of tau PET status. Other studies showed that clinicians doing a standard work-up are not very accurate in diagnosing Alzheimer's— either in secondary care or primary care. But adding blood tests improved diagnostic accuracy to over 90%. These findings held true in secondary care settings like memory clinics and in primary care, and even in patients with a high prevalence of medical comorbidities such as chronic kidney disease.

Blood test results must interpreted in the context of clinical symptoms

	Pre-test probability of amyloid pathology	Positive biomarker result	Negative biomarker result
75-year-old patient with a typical AD dementia syndrome	85%	98% of patients have a true positive result (have amyloid pathology)	61% of patients have a true negative result (do not have amyloid pathology)
		2% of patients have a false positive result (do not have amyloid pathology)	39% of patients have a false negative result (have amyloid pathology)
60-year-old patient with subjective cognitive decline	20%	69% of patients have a true positive result (have amyloid pathology)	97% of patients have a true negative result (do not have amyloid pathology)
		31% of patients have a false positive result (do not have amyloid pathology)	3% of patients have a false negative result (have amyloid pathology)

The AD biomarker test is assumed to have 90% sensitivity and specificity for amyloid pathology.

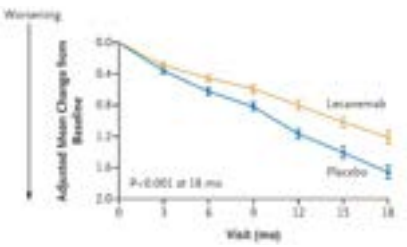
Treat the patient, not the test!

VandeVrede and Schindler, *Alzheimer's and Dementia 2024*

However, you still have to be a doctor and integrate the clinical symptoms with the blood test results. For example, an older patient with a typical Alzheimer's dementia syndrome and a positive result is almost certain to have Alzheimer's pathology; a very high positive predictive value. A younger patient — say 60 years old — with no objective cognitive impairment and a negative biomarker result is very unlikely to have amyloid pathology; a high negative predictive value. But if your clinical suspicion doesn't align with the biomarker result, you need further testing because of the risk of false positives or negatives. Treat the patient, not the test.

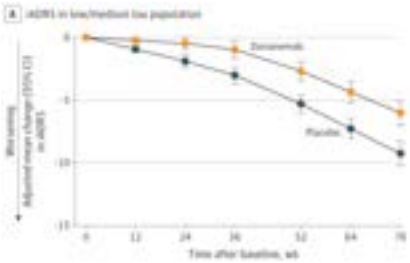
The era of disease-modifying treatments for Alzheimer's

Lecanemab/Leqembi®



van Dyck *et al. NEJM* 2023

Donanemab/Kisunla™



Sims *et al. JAMA* 2023

This high diagnostic certainty is especially important now that we have disease-modifying treatments for Alzheimer's disease. We have lecanemab and donanemab available now in our clinic. We've initiated treatment with lecanemab in 385 patients and with donanemab in about 57 patients (approved about a year later). Treatment of appropriate patients has been integrated into our standard of care.

Our experience at Washington University

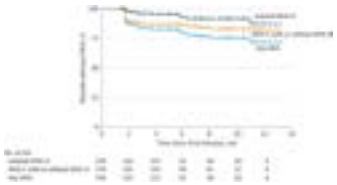
- We have initiated treatment with lecanemab in ~385 patients and with donanemab in ~57 patients (donanemab was approved later)
- Treatment of appropriate patients has been integrated into our standard of care
- Detailed our experience in our first 234 patients treated with lecanemab in a paper published in *JAMA Neurology* in May 2025
- Focused on feasibility and safety of treatment
- Biomarkers used to confirm amyloid pathology
  - CSF: 139 (59%)
  - Amyloid PET: 55 (24%)
  - **Blood test (PrecivityAD2): 40 (17%); only biomarker in 37**

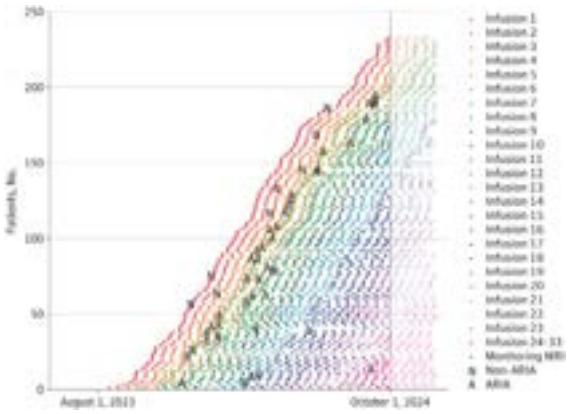
Paczynski *et al. JAMA Neurol 2025*

We published a paper in *JAMA Neurology* in May detailing our experience with the first 234 patients we treated. It describes the infrastructure needed and how we set up our clinic — focused on feasibility and safety of treatment. We used blood tests to confirm amyloid pathology in 40 of these patients. In many patients with a typical Alzheimer's dementia syndrome we have very clear-cut positive results and high confidence just on the basis of a blood test.

Lecanemeb treatment is manageable

- Most patients keep coming in every two weeks for their infusion (only 10% discontinued treatment)
- There is a fair amount of Amyloid Related Imaging Abnormalities (ARIA) early on, but then rates are low

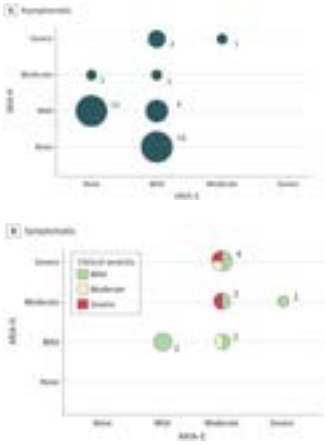


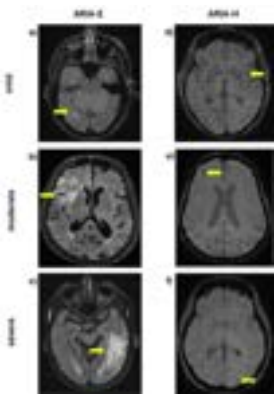


Paczynski *et al. JAMA Neurol 2025*

Most patients tolerate treatment well. This plot shows the number of patients receiving infusions over time — each row one patient and infusion. Most come every two weeks. About 10% discontinue for various reasons; 90% continue and do quite well. We do see ARIA early on in some patients, but after the first few months the rates go down. In our clinic we've found a 23% overall rate of ARIA, but most are mild and asymptomatic. We use high-resolution scans, so we're probably calling findings that other clinics might not.

23% overall rate of ARIA, most is mild and asymptomatic





Paczynski *et al. JAMA Neurol 2025*

This slide shows cases of ARIA in asymptomatic patients — ARIA-A and ARIA-E. Often you may have trouble even seeing the lesion, just a small T2 hyperintensity or one or two microhaemorrhages. More than half of the ARIA cases are like this–tiny findings on MRI but without symptoms, and we continue treatment and it resolves on its own. We worry about ARIA because some people can have more significant effects that cause symptoms. In our cohort only 11 out of 194 patients had symptomatic ARIA, and even then most had mild symptoms like a headache or increased confusion. We had two patients with severe ARIA who were hospitalised and monitored — one recovered completely, one had minor residual effects. The rate of these severe ARIA cases is about 1%, and the symptoms still typically resolve over time.

Key points

- Biomarker testing is currently only recommended in patients who have cognitive impairment as part of a comprehensive evaluation
- Biomarkers are required to establish that Alzheimer's pathology is likely to be the cause of cognitive impairment
- Multiple blood tests based on p-tau217 with accuracy similar to CSF tests are clinically available and one is now FDA-approved
- Amyloid-targeted treatments (lecanemab and donanemab) slow progression of early symptomatic Alzheimer's
- Careful monitoring of patients receiving amyloid-targeted treatments is required because of occasional (~1%) cases of severe ARIA, but most patients tolerate treatments well

Here are some key points about biomarker testing and treatments. We currently do biomarker testing only in patients with cognitive impairment as part of a comprehensive evaluation; we don't recommend testing cognitively unimpaired patients. The new blood tests are performing very well in many studies with accuracy similar to clinically available CSF tests, and we now even have an FDA-approved blood test in the US.

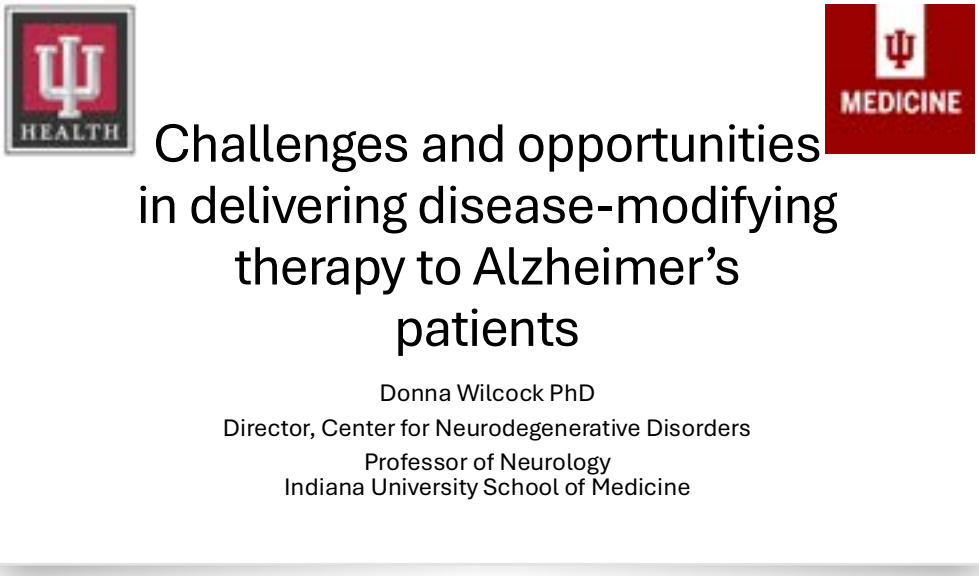
We know these treatments slow the progression of early symptomatic Alzheimer's disease. They're most effective the earlier you start them. Careful monitoring is required because of occasional severe ARIA, but the vast majority of patients tolerate these amyloid-targeted treatments very well. We're overall very happy to be treating patients with these therapies, and our use is increasing over time as we become more comfortable with them.

Thank you for your attention, and I'll be happy to discuss this after the other presentations.

Dr Heather Snyder, *Senior vice president, Medical & Scientific Relations Alzheimer's Association*

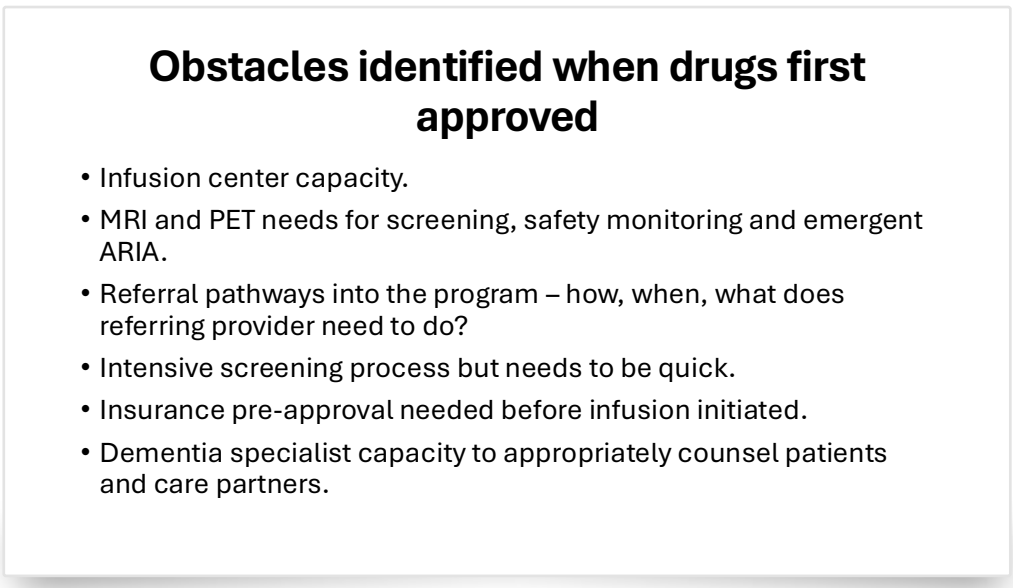
Thank you so much, Suzanne, for that presentation and for the comprehensive overview of the practice and clinical applications you're seeing at Wash U. We're going to hold all questions and comments until the end of the discussion, after we've heard from all four speakers. I'm delighted there's already some discussion starting, and we'll return to it when my co-chair, Professor Alladi, leads the discussion portion. Moving from Wash U to another model that has also been successful in implementation, though in a different way and with some different components, we'll now hear from Professor Donna Wilcock, who will share the example and experiences of Indiana University.

Professor Donna Wilcock, *Professor of Neurology Indiana University School of Medicine*



Thank you so much, Heather. Thank you to Lenny and Suzanne for setting this up. I am excited to share some of our experiences that we've had with lecanemab, how we set up our system to deliver these therapies, and how we've tried to integrate this into our overall dementia care system.

Some of this will be useful as India sets out to deliver these therapies, this is, as was said, a really exciting time. And just to begin by echoing what you heard from Suzanne, which is we've been very happy with our overall experience giving these drugs to patients. And patients are very eager and excited to be taking this journey, and the optimism and hope that patients have when they qualify for these is just it's really heartening to see. We're finally making some progress.

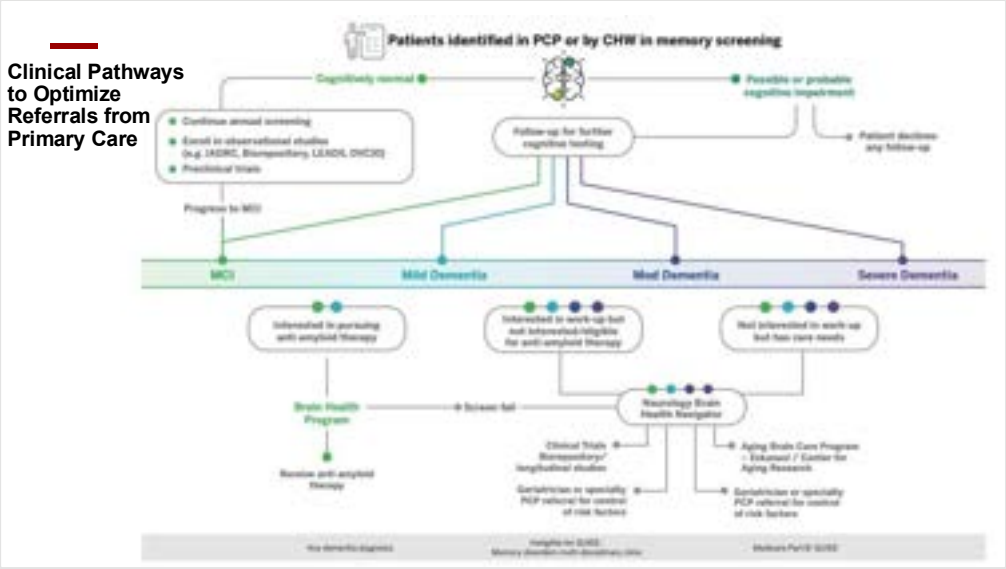


When we knew that these drugs were going to get approval, we identified what we thought the obstacles were within our system. It required some of the walls within the health care system to come down, and different departments and units to try and work together and help each other. That was my job. When I first came to Indiana University it was to try and tear down some of those walls. I think I had been there maybe one or two days when they asked me to figure out how we were going to do this!

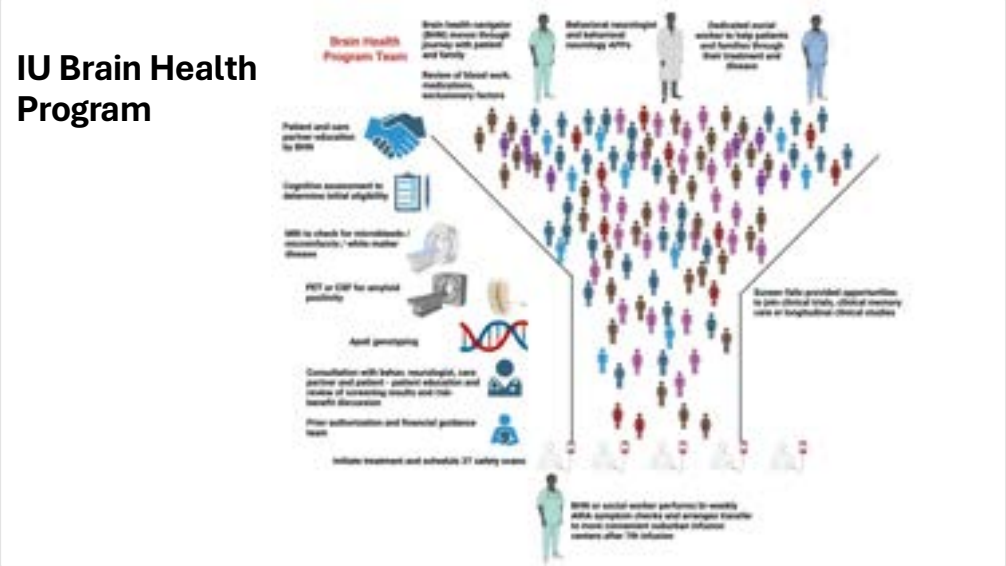
The obstacles we identified were the capacity within our infusion centers to have these patients in for infusions every two weeks. The capacity of our imaging, clinical imaging units, to perform the MRI and PET needs, both for screening, safety monitoring. And their availability for any or symptoms that would need an MRI within a short space of time. We had to figure out what the referral pathways were going to be into the program. How are we going to accept referrals? When do we accept the referrals? And what do we want the referring providers to do when they send these patients over to our treatment program?

It is an intensive screening process, but we also identified a need for this screening process to be quite fast, both for the patients and for that and for the insurance. How were we going to do that in the U.S.? We needed to make sure that we had a dedicated person in our pre-authorization team in neurology that would take care of the insurance pre-approvals that are needed before we could start any of this.

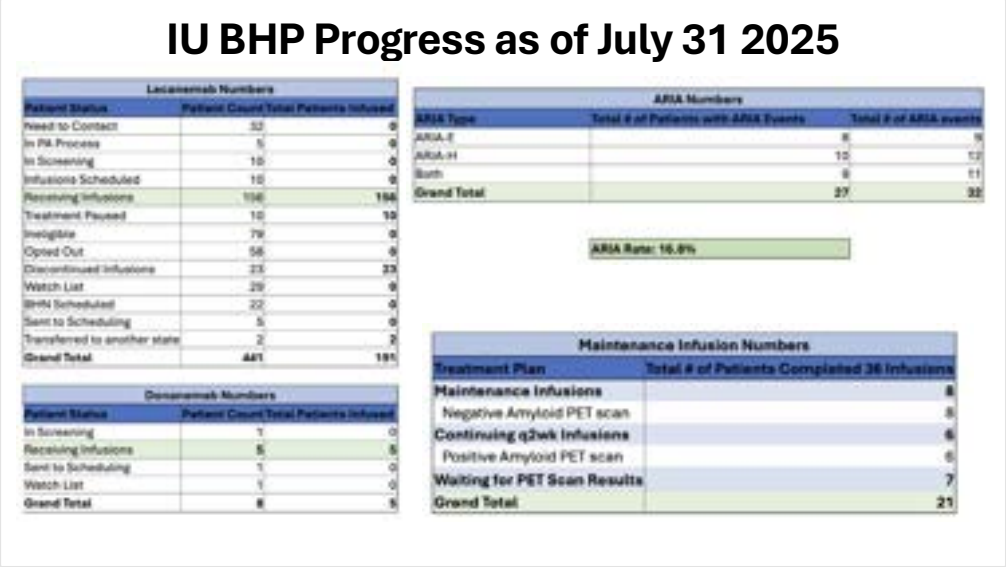
We needed to have the specialists with the time to appropriately counsel the patients and the care partners, because this is kind of a need before the drug is delivered.



This is the system that we have built at Indiana University; we had to put the pieces of this together. We have, for a long time, had an innovative collection of studies, including from the Davos Alzheimer's Initiative, on how to identify patients in the primary care setting for early detection. That piece existed.



We had a brain health navigator that lives in primary space that helps with that identification of whether someone is cognitively normal or they have possible or probable cognitive impairment. Sometimes, when that's identified, the patient doesn't want to follow up, and that's perfectly okay. That's their decision, but if they agree to follow up for further cognitive testing, they obviously fall into one of these four categories you can see on the slide — MCI, mild, moderate or severe dementia. We're hoping with our primary care programs, we're catching a lot more in the MCI and mild stages.



If someone has MCI or mild dementia, they are asked if they have any interest in pursuing the anti-amyloid therapies, on the left of the slide there, in which case we have a direct line from that brain health navigator. We treat APOE-4 heterozygotes, the majority of our patients are actually APOE3/4. Everything is based on the individual outcomes of those screenings. We don't eliminate anyone simply for their APOE status.

We are now transitioning patients to maintenance dosing. If they have an amyloid PET scan that comes up negative at 18 months, we move them to maintenance infusions. If they're positive, they continue every two weeks. And you can see that, the numbers are low, but over half are reading amyloid negative at 18 months. Those numbers are coming in thick and fast now that patients are moving past the 18-month time point.

Obstacles for widespread adoption of ATTs

- Need for amyloid PET or CSF for qualification. The advent of blood-based biomarkers for amyloid positivity will decrease cost and increase accessibility. Also, referring physicians can order and confirm amyloid positivity prior to referral.
- Need for 3T safety MRIs. Blood-based biomarker predictors of who is at highest risk of ARIA are needed, as are blood-based biomarkers of ARIA that can be assessed easily during treatment.
- Need for IV infusion. FDA just approved subcutaneous lecanamab for maintenance dosing (post-18 mo infusions). Subcutaneous lecanamab on the horizon will make these medicines much more accessible to rural and underserved communities.

Some of the obstacles that we think exist for the widespread adoption of these therapies. And I think the first of these is going to go away pretty quickly, as you heard from Suzanne, and that's the need for amyloid PET or CSF for qualification. I think the advent of blood-based biomarkers will both decrease the cost and increase accessibility to these therapies, and it will also cut down on the burden of our actual brain health program, because referring physicians can order this and confirm that amyloid positivity before they refer into the treatment program.

We do have a need for three safety MRIs. My hope is that we get to a point soon where we have blood-based biomarker predictors of who is at the highest risk of ARIA. And hopefully we can cut down on the number of MRI scans by having baseline predictors of who is at the highest risk and thus only need to do MRIs on those individuals. Again, blood-based biomarkers, I think there's a lot of interest in, can we assess something in the blood longitudinally that will help us know that someone is on a journey to developing ARIA and pause treatment before that ARIA appears.

There's also the need for IV infusion, which is time-consuming. The FDA did just approve subcutaneous lecanemab for maintenance dosing over here, and that is self-dosing, this will be a relief to our patients, I'm sure. Subcutaneous lecanemab for initiation is on the horizon, and obviously that will make these medicines much more accessible to those in rural and underserved communities, although it still doesn't eliminate the need to travel for that MRI scan right now.

On the horizon

- Subcutaneous ATTs that are self-delivered for initiation of treatment. Lecanamab will be coming soon. Next generation to donanemab; remternetug, will be subcutaneous administration (currently in Ph3 testing, anticipated completion Spring 2026).
- Blood-based biomarkers for prediction and tracking of ARIA. Basic and translational science is giving insights into potential mechanisms of ARIA. This will drive biomarker discovery, as will real-world studies in clinical populations being treated right now.
- Next generation ATTs that do not cause ARIA. Trontinemab uses brain shuttle technology that seems to avoid ARIA in Ph2 studies (ARIA<5%).

On the horizon, these are where I think we're going. Obviously, subcutaneous anti-amyloid therapies that are self-delivered for initiation of treatment are going to make these therapies much more accessible. Lecanemab is coming very soon for initiation, I think. The next generation to donanemab, which is called remternetug, will initiate subcutaneously, and that's currently in Phase 3 with an expected completion of that Phase 3 in the spring of 2026.

I think blood-based biomarkers for prediction and tracking of ARIA are going to be necessary so that we can eliminate that need for widespread MRI during treatment. And I think this is where we can really leverage what Suzanne and myself and many other academic systems are building. We're banking blood on all of our treated patients for research use, and now that we're reaching a critical number, we can start doing some biomarker work. But I think bringing groups together and having that critical mass to look at this is going to be really important. ALZ-NET is going to be really important for us to understand ARIA in the real world.

We also, on the horizon, have next-generation anti-amyloid therapies that don't seem to cause ARIA, and this is really exciting. The most advanced that I'm familiar with is trontinemab, which uses a brain shuttle technology attached to the antibody, and at least in their Phase 1b/2 studies, their ARIA rate was lower than 5%, much lower than 5% actually. This seems to avoid ARIA by getting into the brain at a different vessel type that doesn't typically have cerebral

amyloid angiopathy (CAA). We think that's why at any rate. They're going to be setting on a Phase 3, and hopefully in a few years, we'll be able to not have to worry about ARIA with these therapies, which would be fantastic.

And with that, I will hand back to the co-chairs for the next speaker. Thank you for your attention.

Dr Heather Snyder, *Senior vice president, Medical & Scientific Relations Alzheimer's Association*

Thank you so much, Donna. There's been so much discussion in the chat — many learnings and exchanges of information, and an appreciation for the understanding that both you and Suzanne have shared from your experience, and how that could potentially translate into different types of clinical settings. Keep those conversations going.

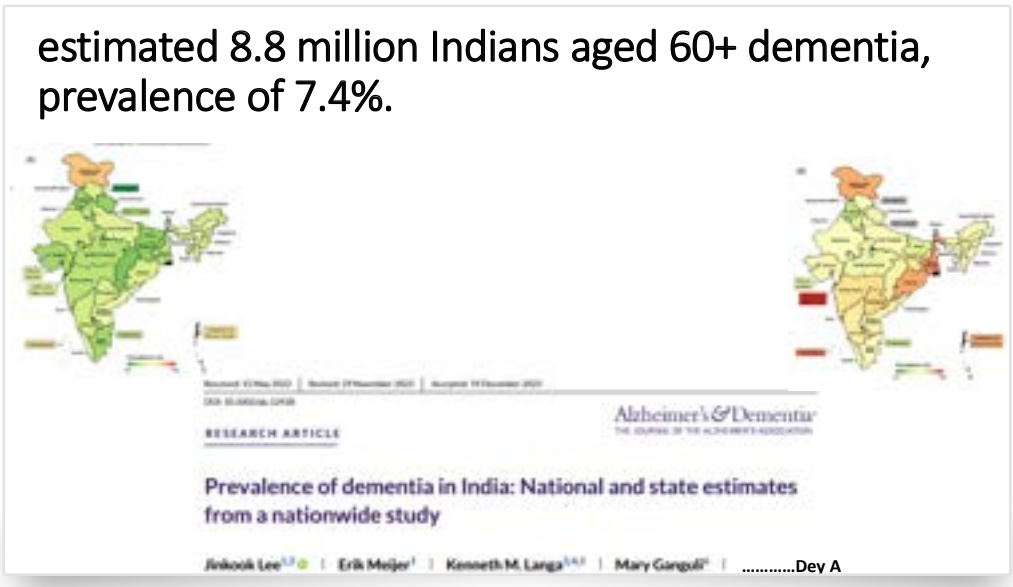
Donna, you mentioned ALZ-NET, which is something that the Alzheimer's Association is heavily involved in within the United States, but there's also ALZ-NET International, and most recently one of those included a team in Chile. As we're starting to see that real-world data expand globally, the opportunities for learning and understanding will continue to grow.

With that in mind, and thinking about the context of care and how these considerations are applied, it's an absolute pleasure to introduce Professor Manjari Tripathi, Professor and Head of the Department of Neurology at AIIMS, to share more from her perspective.

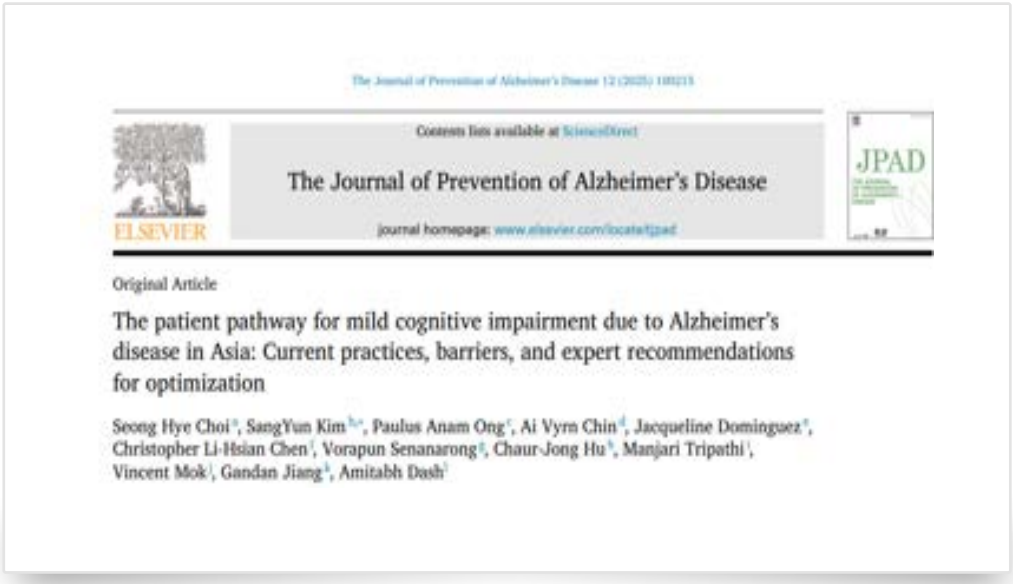
Professor Manjari Tripathi, *Professor and Head of the Department of Neurology at AIIMS*

Well, thank you to all the people at the WDC and, of course, Dr Suvarna. We are a tight-knit team of cognitive disorder specialists in India and have been working together for more than two decades. I'll share the Indian perspective.

I must thank all of you for the great work that you have done, from which we benefit in our part of the world. The research ongoing, particularly in plasma and blood biomarkers as well as the new monoclonals is going to benefit us.



There are approximately 8.8 million Indians with dementia, with a prevalence of around 7.4%. The reality is that many, if not most, come very late to us. That is the first challenge we face — we have to do a lot of groundwork to make sure the person comes early in the disorder or cognitive impairment for us to provide the benefit of new therapies.

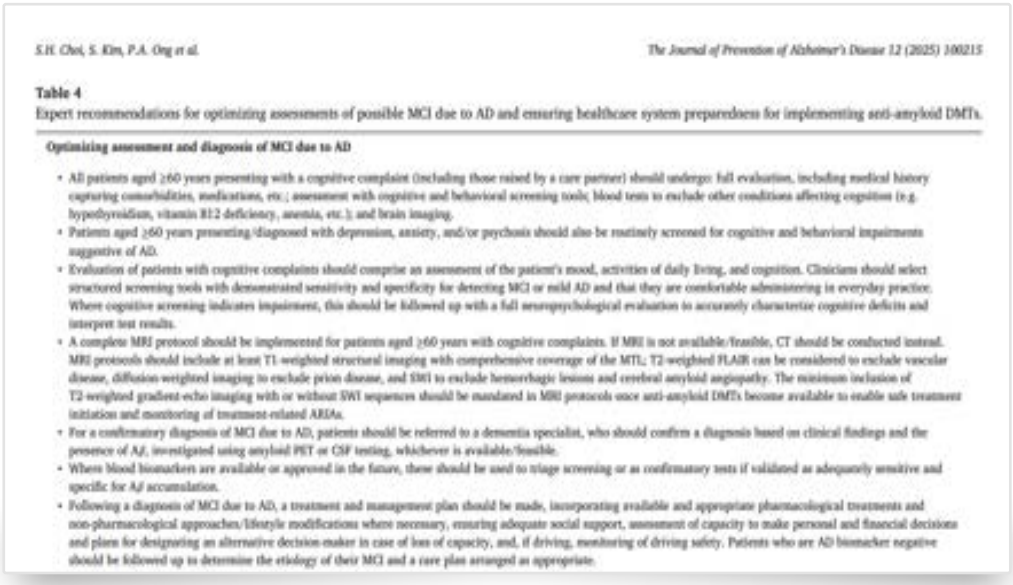


To look into this, we in the Asian part of the world sat together about a year and a half back. We had extensive discussions on patient pathways, especially when they are in the mild stage of the disease, current practices, barriers and recommendations for optimization. Specialists in the cognitive disorders field from almost all countries in Asia contributed.

Recommendations

- **"Screening & diagnostic processes in Asia should be optimized to improve the detection of MCI due to AD**
- **reduce the time to diagnosis.**
- **Efforts should also be made to educate patients and caregivers, improve the diagnostic capabilities of primary & secondary healthcare providers, & reinforce capacity in cognitive screening services.**
- **Finally, the provision & reimbursement of confirmatory tests of amyloid burden should be expanded across Asia to facilitate access for patients to new, innovative amyloid-targeting treatments."**

We recommended, based on several observations, that screening and diagnostic processes in Asia need to be optimized. We need to reduce the time to diagnosis, educate patients and caregivers, improve the diagnostic capabilities of primary and secondary health care providers, reinforce the capacity of cognitive screening, and provide reimbursement for confirmatory tests as well as the expensive therapies coming forth.

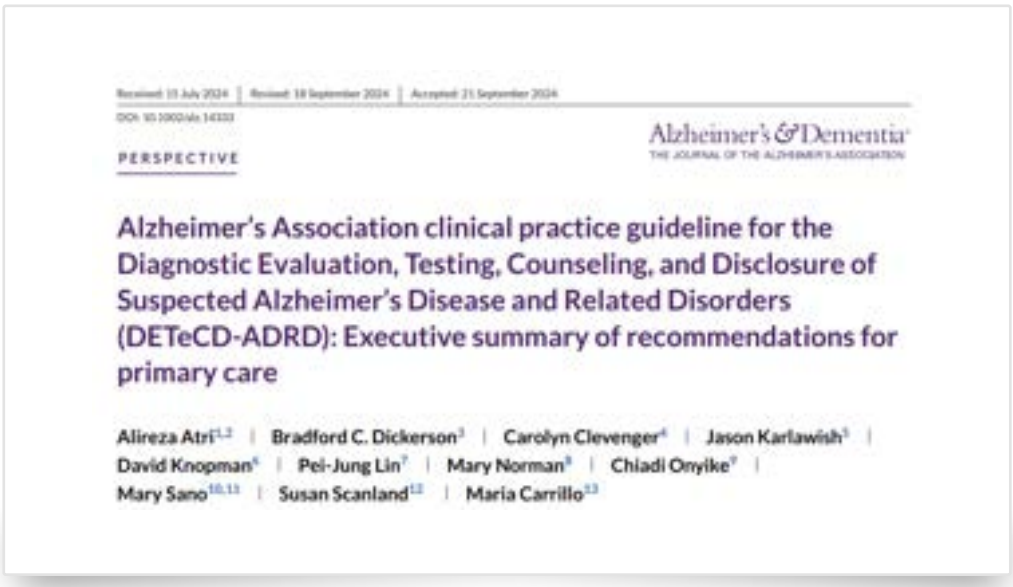


S.H. Choi, S. Kim, P.A. Ong et al. The Journal of Prevention of Alzheimer's Disease 12 (2025) 100215

Table 4
Expert recommendations for optimizing assessments of possible MCI due to AD and ensuring healthcare system preparedness for implementing anti-amyloid DMTs.

Optimizing assessment and diagnosis of MCI due to AD
• All patients aged ≥60 years presenting with a cognitive complaint (including those raised by a care partner) should undergo: full evaluation, including medical history capturing comorbidities, medications, etc.; assessment with cognitive and behavioral screening tools; blood tests to exclude other conditions affecting cognition (e.g. hypothyroidism, vitamin B12 deficiency, anemia, etc.); and brain imaging.
• Patients aged ≥60 years presenting/diagnosed with depression, anxiety, and/or psychosis should also be routinely screened for cognitive and behavioral impairments suggestive of AD.
• Evaluation of patients with cognitive complaints should comprise an assessment of the patient's mood, activities of daily living, and cognition. Clinicians should select structured screening tools with demonstrated sensitivity and specificity for detecting MCI or mild AD and that they are comfortable administering in everyday practice. Where cognitive screening indicates impairment, this should be followed up with a full neuropsychological evaluation to accurately characterize cognitive deficits and interpret test results.
• A complete MRI protocol should be implemented for patients aged ≥60 years with cognitive complaints. If MRI is not available/feasible, CT should be conducted instead. MRI protocols should include at least T1-weighted structural imaging with comprehensive coverage of the MTL; T2-weighted FLAIR can be considered to exclude vascular disease, diffusion-weighted imaging to exclude prion disease, and SWI to exclude hemorrhagic lesions and cerebral amyloid angiopathy. The minimum inclusion of T2-weighted gradient-echo imaging with or without SWI sequences should be mandated in MRI protocols once anti-amyloid DMTs become available to enable safe treatment initiation and monitoring of treatment-related ARIAs.
• For a confirmatory diagnosis of MCI due to AD, patients should be referred to a dementia specialist, who should confirm a diagnosis based on clinical findings and the presence of Aβ, investigated using amyloid PET or CSF testing, whichever is available/feasible.
• Where blood biomarkers are available or approved in the future, these should be used to triage screening or as confirmatory tests if validated as adequately sensitive and specific for Aβ accumulation.
• Following a diagnosis of MCI due to AD, a treatment and management plan should be made, incorporating available and appropriate pharmacological treatments and non-pharmacological approaches/lifestyle modifications where necessary, ensuring adequate social support, assessment of capacity to make personal and financial decisions and plans for designating an alternative decision-maker in case of loss of capacity, and, if driving, monitoring of driving safety. Patients who are AD biomarker negative should be followed up to determine the etiology of their MCI and a care plan arranged as appropriate.

These tables can be read in the article we have written; it covers the diagnostic process from clinical to imaging to blood tests and then looks at system preparedness in Asia — patient identification, treatment management, infrastructure and resources, patient education, collaboration and communication, and research and quality improvement.



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DOI: 10.1002/alz.14333

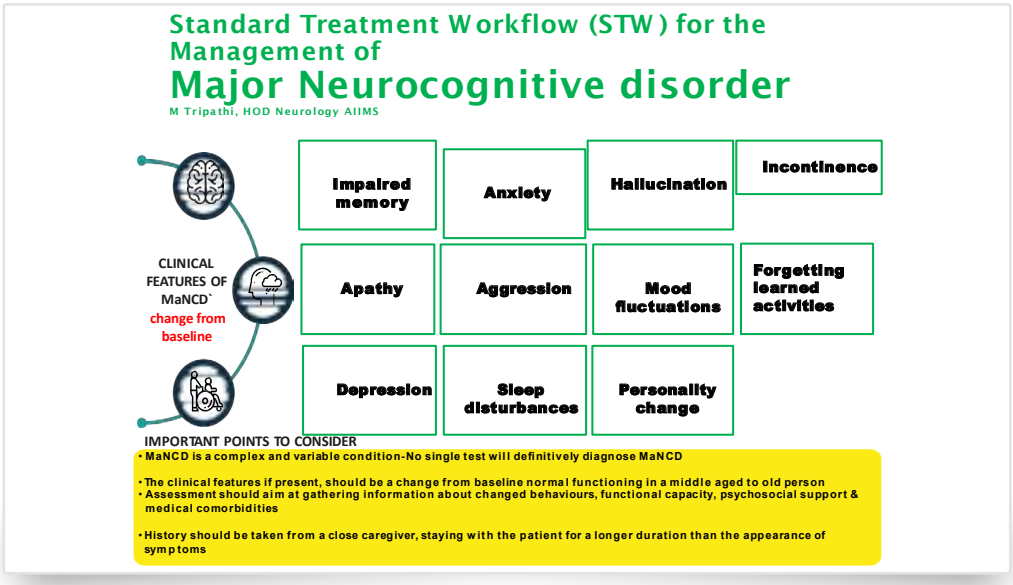
PERSPECTIVE

Alzheimer's & Dementia®
THE JOURNAL OF THE ALZHEIMER'S ASSOCIATION

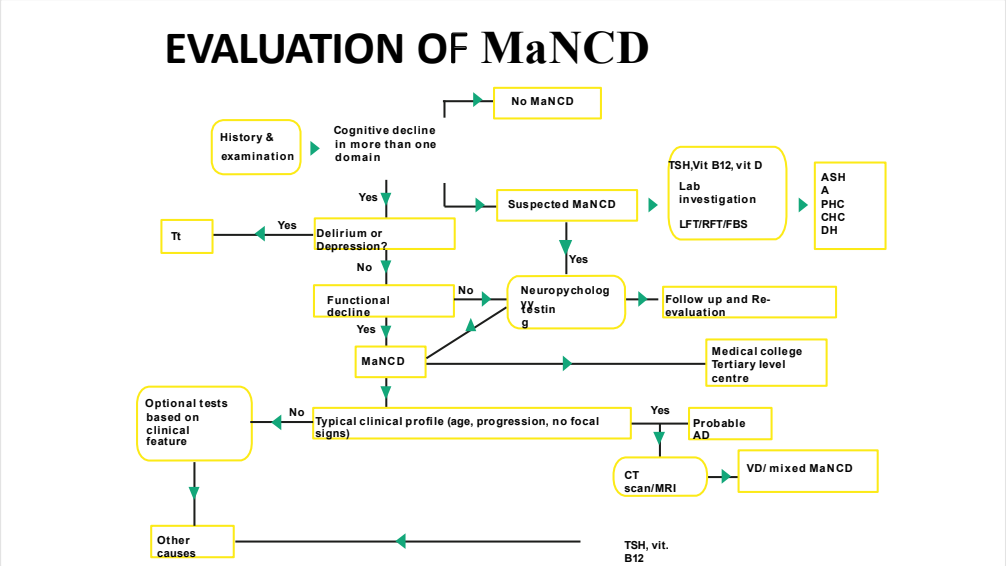
Alzheimer's Association clinical practice guideline for the Diagnostic Evaluation, Testing, Counseling, and Disclosure of Suspected Alzheimer's Disease and Related Disorders (DETeCD-ADRD): Executive summary of recommendations for primary care

Alireza Atri[1,2] | Bradford C. Dickerson[3] | Carolyn Clevenger[4] | Jason Karlawish[5] | David Knopman[6] | Pei-Jung Lin[7] | Mary Norman[8] | Chiadi Onyike[9] | Mary Sano[10,11] | Susan Scanland[12] | Maria Carrillo[13]

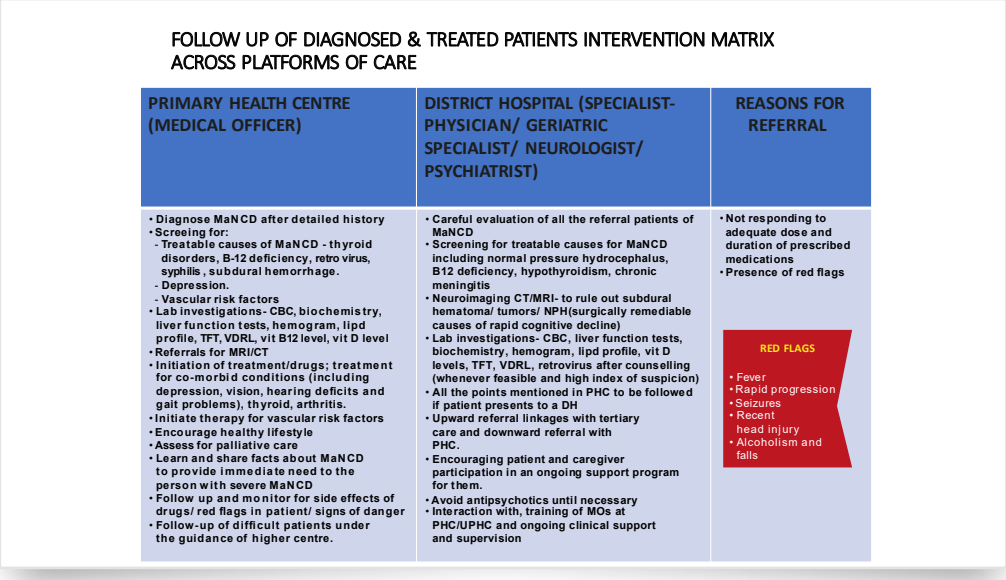
Going into the summary by Maria and Atri, where there were recommendations for primary care.



Do we have them in India? Yes. The Indian Council of Medical Research, with the National Health Systems, has allowed us to create a framework for early diagnosis in rural settings at the primary health centre and district health centre levels.



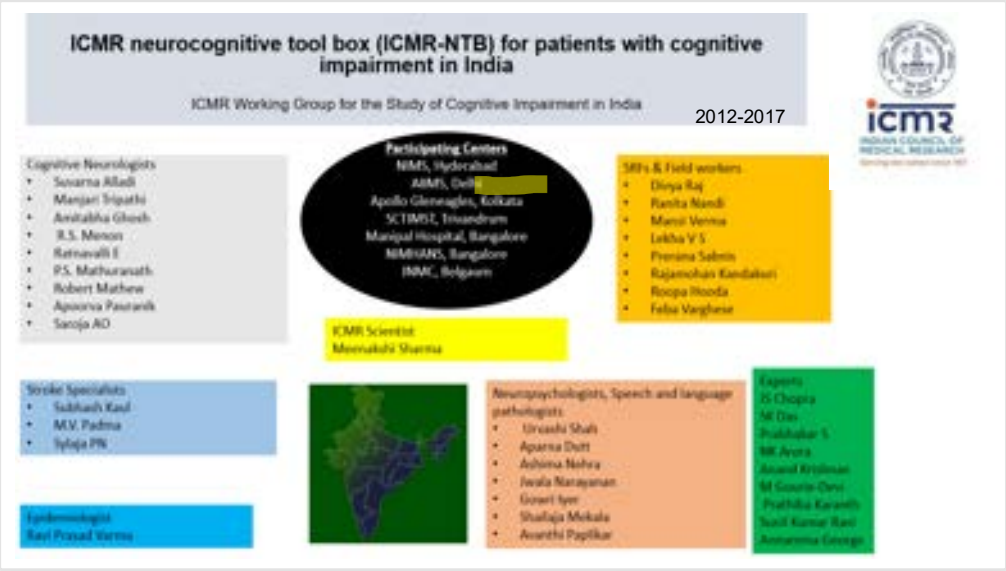
I was privileged to be associated with the standard treatment workflow where the symptom complex was described for training purposes, as well as the algorithm for diagnosis of minor and major neurocognitive disorders, the blood tests to be done at the PHC level, a minimum CT at primary health centre level, and when the patient should be referred to us.



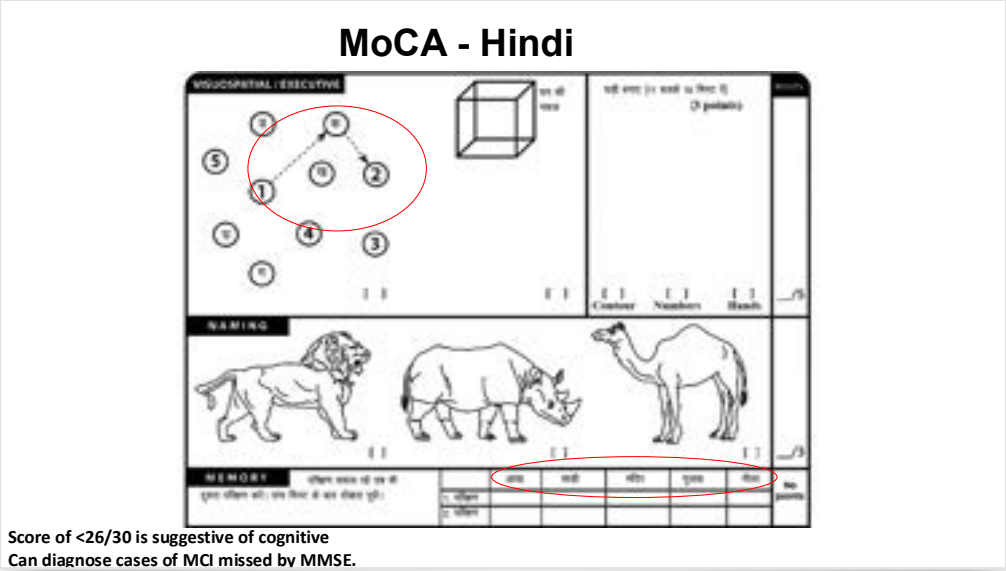
FOLLOW UP OF DIAGNOSED & TREATED PATIENTS INTERVENTION MATRIX ACROSS PLATFORMS OF CARE

PRIMARY HEALTH CENTRE (MEDICAL OFFICER)	DISTRICT HOSPITAL (SPECIALIST-PHYSICIAN/ GERIATRIC SPECIALIST/ NEUROLOGIST/ PSYCHIATRIST)	REASONS FOR REFERRAL
• Diagnose MaNCD after detailed history • Screeing for: - Treatable causes of MaNCD - thyroid disorders, B-12 deficiency, retro virus, syphilis , subdural hemorrhage. - Depression. - Vascular risk factors • Lab investigations- CBC, biochemistry, liver function tests, hemogram, lipd profile, TFT, VDRL, vit B12 level, vit D level • Referrals for MRI/CT • Initiation of treatment/drugs; treatment for co-morbid conditions (including depression, vision, hearing deficits and gait problems), thyroid, arthritis. • Initiate therapy for vascular risk factors • Encourage healthy lifestyle • Assess for palliative care • Learn and share facts about MaNCD to provide immediate need to the person with severe MaNCD • Follow up and monitor for side effects of drugs/ red flags in patient/ signs of danger • Follow-up of difficult patients under the guidance of higher centre.	• Careful evaluation of all the referral patients of MaNCD • Screening for treatable causes for MaNCD including normal pressure hydrocephalus, B12 deficiency, hypothyroidism, chronic meningitis • Neuroimaging CT/MRI- to rule out subdural hematoma/ tumors/ NPH(surgically remediable causes of rapid cognitive decline) • Lab investigations- CBC, liver function tests, biochemistry, hemogram, lipd profile, vit D levels, TFT, VDRL, retrovirus after counselling (whenever feasible and high index of suspicion) • All the points mentioned in PHC to be followed if patient presents to a DH • Upward referral linkages with tertiary care and downward referral with PHC. • Encouraging patient and caregiver participation in an ongoing support program for them. • Avoid antipsychotics until necessary • Interaction with, training of MOs at PHC/UPHC and ongoing clinical support and supervision	• Not responding to adequate dose and duration of prescribed medications • Presence of red flags RED FLAGS • Fever • Rapid progression • Seizures • Recent head injury • Alcoholism and falls

We have guidelines for diagnosis at primary health care centre level and at district hospital level, and the reasons for referral. What we do not yet have is enough primary health care workers, physicians and neurologists to deliver this at the village and city levels. The guidelines exist but coverage is still a challenge.

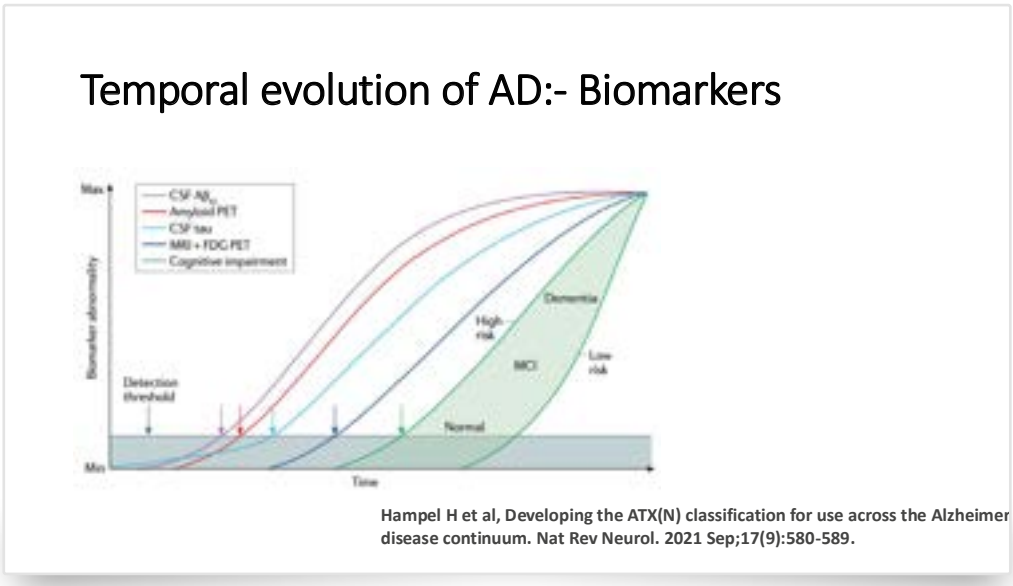


Suvarna and all of us then tried to harmonize the cognitive tools. We didn't even have cognitive tools, brief or detailed, before. The detailed tools are there now, known as the Mudra Toolbox. It contains all domains and can be administered in about an hour and a half.



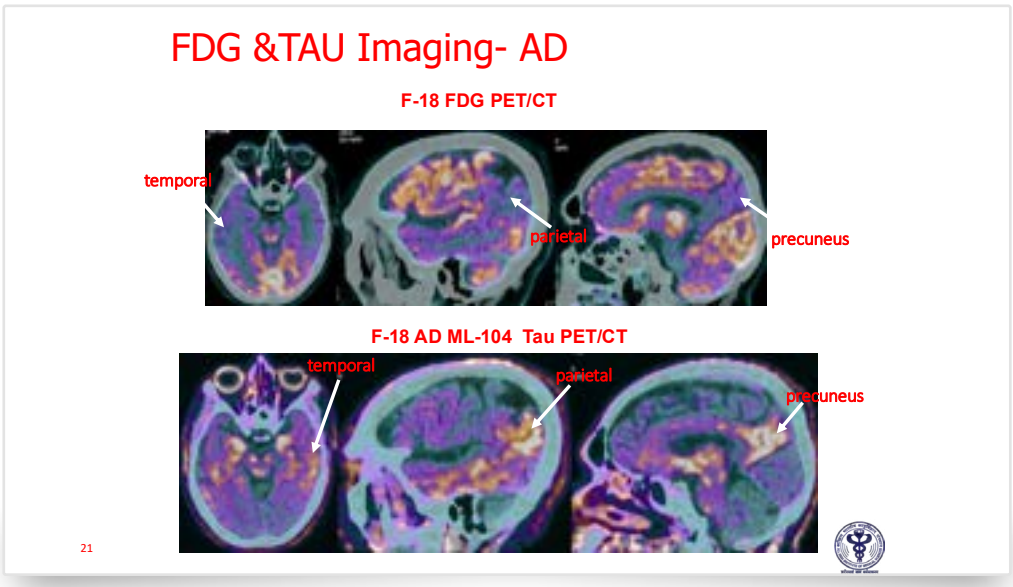
We also adapted the MoCA into Hindi and other Indian languages — five languages across India — so that testing can be harmonized in local languages. This is now widely used.

We have a huge illiterate population, so there are tests in this toolbox tailored for illiterate patients by using simple tasks, developed with the help of the Kolkata team.

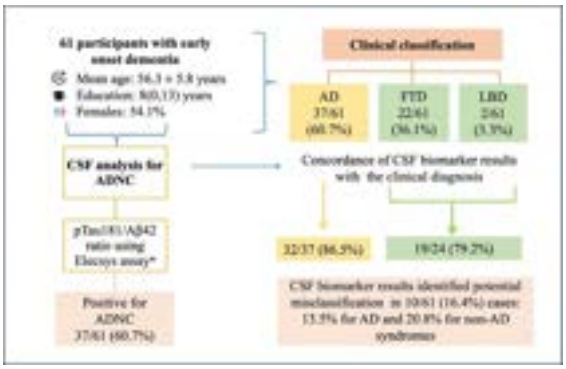


Hampel H et al, Developing the ATX(N) classification for use across the Alzheimer disease continuum. Nat Rev Neurol. 2021 Sep;17(9):580-589.

We know biomarker-based diagnosis of dementia is far ahead of where it used to be. In the past, when I was doing my training, definite Alzheimer's was by histopathology, autopsy or biopsy. CSF biomarkers are a game changer; blood biomarkers, now approved, are a double game changer.

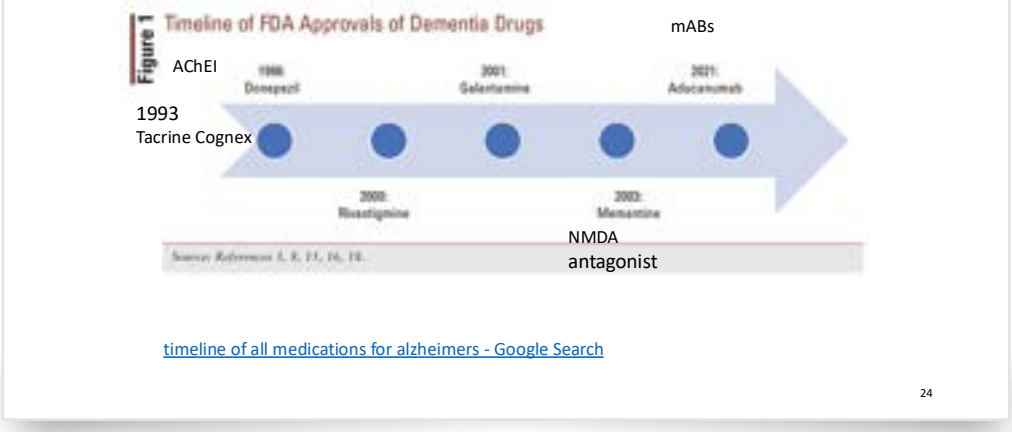


Can we do it in India? Yes. We have tau PET and FDG PET, but we do not have amyloid PET; the challenges are availability, cost and shelf life.



Summary of study flow and salient findings
*** A CSF p-tau181/ Aβ42 ratio greater than 0.023 was indicative of ADNC**
CSF: cerebrospinal fluid, ADNC: Alzheimer's disease neuropathologic change, pTau181: phosphorylated tau-181, Aβ42: β-Amyloid (1-42), AD: Alzheimer's disease, FTD: Frontotemporal dementia, LBD: Lewy Body dementia.

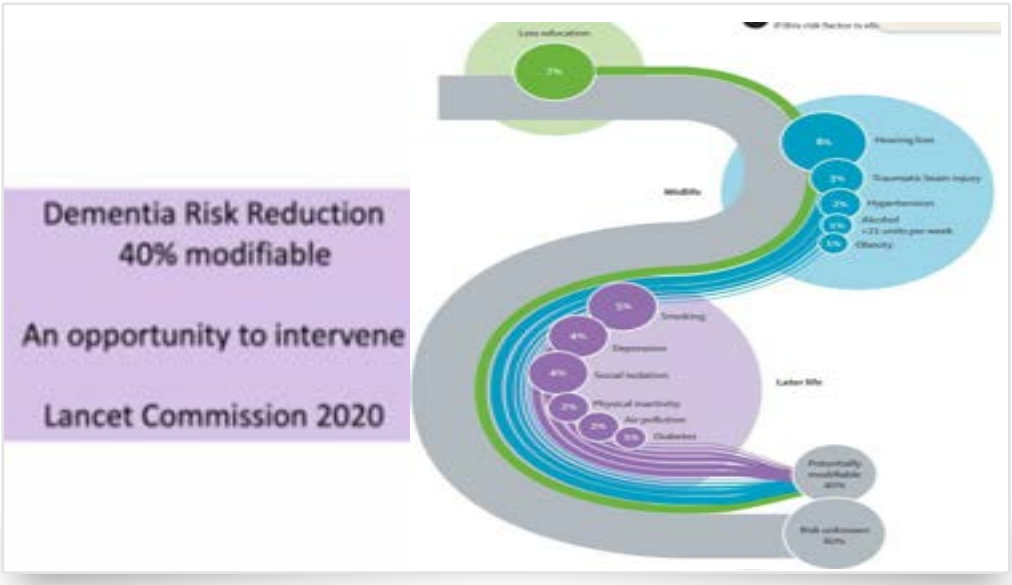
This is just a concluded study of a small sample of 61 patients at our centre, led by Dr. Anu and our team, where we found that the presence of an amyloid beta ratio (P-tau 181 by amyloid beta 42) helped us identify potential misclassification in 16% of patients. We have the capability of doing these CSF tests in our setup at least.



As far as therapy is concerned, we have donepezil, rivastigmine and memantine, and we are waiting for lecanemab, which has just been approved.

- **Lecanemab & donanemab have been recently approved, and both of these drugs, in general, slow disease progression by about 30%. - benefit is disease slowing over approximately 18 months.**
- **There are risks associated with these drugs, specifically what is known as amyloid-related imaging abnormalities or ARIA. The majority of the time ARIA is asymptomatic. But there are certain instances where patients may present with neurological symptoms.**
- **Apo E4**

We know it slows progression, about 30%. We know we need to do APOE4 testing because those people have a higher risk of ARIA, and this is what we have learned from you all.



We also know that along with these monoclonals, we need intense lifestyle modification. As the Lancet Commission reports, about 40% of dementia risk is modifiable — hearing aids, vision, hypertension, etc.

Aging & Mental Health
2011, 1–8, iFirst

Risk factors of dementia in North India: a case-control study

Manjari Tripathi, Deepti Vibha, Praveen Gupta, Rohit Bhatia, M.V. Padma Srivastava, S. Vivekanandhan, Mamta Bhushan Singh, Kameshwar Prasad, Sanita Dergalur and Mario F. Mendez

[a]Department of Neurology, All India Institute of Medical Sciences, New Delhi 110029, India; [b]Department of Neurobiochemistry, All India Institute of Medical Sciences, New Delhi 110029, India; [c]Clinical Pharmacist of Neurology and Neurosurgery, West Los Angeles VA Healthcare Center, Los Angeles, CA 90073, USA; [d]Neurology and Psychiatry & Biobehavioral Sciences, UCLA School of Medicine, Neurobehavior Unit, Greater Los Angeles VA Medical Center, Los Angeles, CA 90073, USA

We had already, back in 2011, looked at risk and preventive factors in the North Indian population.

Table 3. Odds ratios of factors after multivariate analysis.

Risk/protective factors	Adjusted odds ratio (95% CI)	Significance *p*-value
Urban living	3.83 (1.68–8.77)	0.001
Lack of socialization	0.33 (0.15–0.72)	0.006
Lack of exercise	2.85 (1.34–5.84)	0.003
Participation in cognitively stimulating activities	0.35 (0.17–0.71)	0.004
Diabetes	4.20 (1.75–10.08)	0.001
Depression	4.53 (1.95–10.55)	<0.001
Pickles (daily)	3.90 (1.66–9.15)	0.002
Oil (rich in saturated fatty acids/trans unsaturated fatty acids)	3.59 (1.46–8.86)	0.005
Oil (vegetable refined oil rich in PUFA)	0.22 (0.07–0.66)	0.007
Salad (daily)	0.30 (0.14–0.67)	0.003
One fruit daily/juices (more than twice a week)	0.28 (0.12–0.65)	0.003
BMI (>25 kg/m^2)	2.24 (1.10–4.55)	0.026
APOE (ε3/4, ε4/4) genotype	3.35 (1.35–8.29)	0.009
Homocysteine (>15)	3.86 (1.8–8.1)	0.001
LDL cholesterol (>100 mg/dL)	2.47 (1.42–4.30)	0.001
Total cholesterol (>160 mg/dL)	5.30 (1.44–19.93)	0.012
LDL-HDL ratio (>3.5)	6.37 (1.29–31.33)	0.023

And we found exactly the same thing: diabetes, depression, high salt intake in pickles, saturated fats, higher BMI, and APOE4 were at higher risk of Alzheimer's. Other lifestyle factors also help — networking, environmental stimulation, avoiding stress, exercise, diet, etc. In our interviews we found toxic stress and stressful life events associated with increased conversion to dementia in our population. There is rich potential for prevention alongside monoclonal therapies.

G8 UK
UNITED KINGDOM 2013

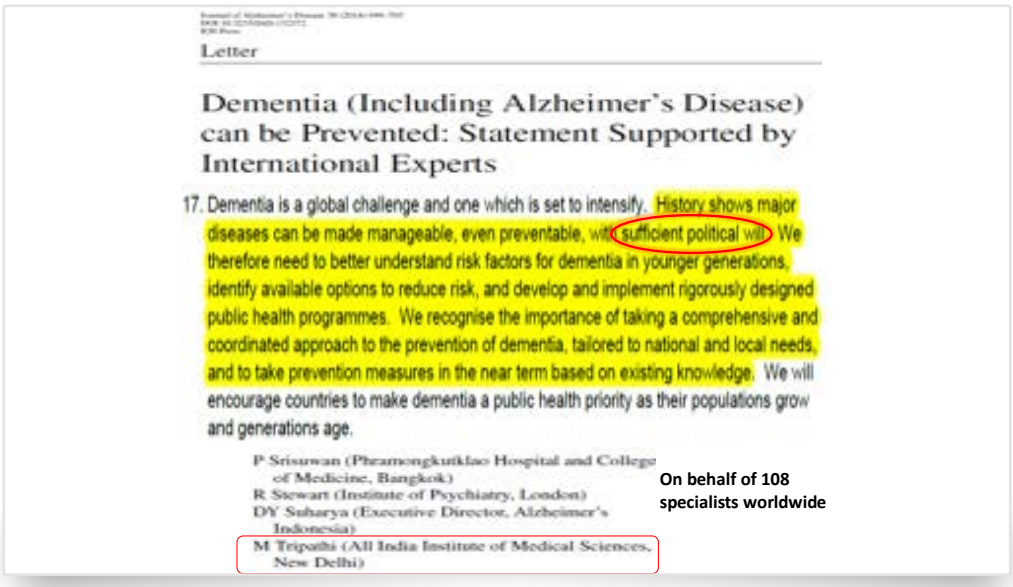
2013

Global action against dementia

G8 DEMENTIA SUMMIT COMMUNIQUE

10. We acknowledge the need to attract new investors and the need to support the disruptive technology and innovation in companies and academia that is currently being postponed or shelved because of the technical and financial threat of failure. We recognise that both public and industry-led research and capacity must be encouraged to enable new approaches to be identified and developed. We must explore all avenues of innovation. Priorities for investment include:
    - Research to elucidate the mechanisms underlying the initiation and progression of neurodegeneration as a basis for identifying new targets for therapeutic development;
    - Prevention of dementia;
    - Making timely diagnosis and early intervention feasible, affordable and cost effective;
    - Facilitating the integration of care and helping individuals and their carers access care and social services in their homes and communities; and
    - Making care homes more responsive to needs.

I have been fortunate to be on board the 2013 G8 UK priorities for investment note, where we worked on the language to use to secure political will.



Letter

Dementia (Including Alzheimer's Disease) can be Prevented: Statement Supported by International Experts

17. Dementia is a global challenge and one which is set to intensify. History shows major diseases can be made manageable, even preventable, with sufficient political will. We therefore need to better understand risk factors for dementia in younger generations, identify available options to reduce risk, and develop and implement rigorously designed public health programmes. We recognise the importance of taking a comprehensive and coordinated approach to the prevention of dementia, tailored to national and local needs, and to take prevention measures in the near term based on existing knowledge. We will encourage countries to make dementia a public health priority as their populations grow and generations age.

P Srisuwan (Phramongkutklao Hospital and College of Medicine, Bangkok)
R Stewart (Institute of Psychiatry, London)
DY Suharya (Executive Director, Alzheimer's Indonesia)
M Tripathi (All India Institute of Medical Sciences, New Delhi)

On behalf of 108 specialists worldwide

For whatever we do, lecanemab, lifestyle changes at older age, we need advocacy and political support. We have been working on dementia reports to sensitize political and health ministry personnel; cost was the most important factor.

● Current perception/awareness level of MCI/ dementia/ AD among the general public in India

Asian Journal of Psychiatry
Volume 3, Issue 3, September 2010, Pages 112-116

Assessment of burden in caregivers of Alzheimer's disease from India

R.D. Pattanayak, R. Jena, M. Tripathi, S.K. Khandelwal

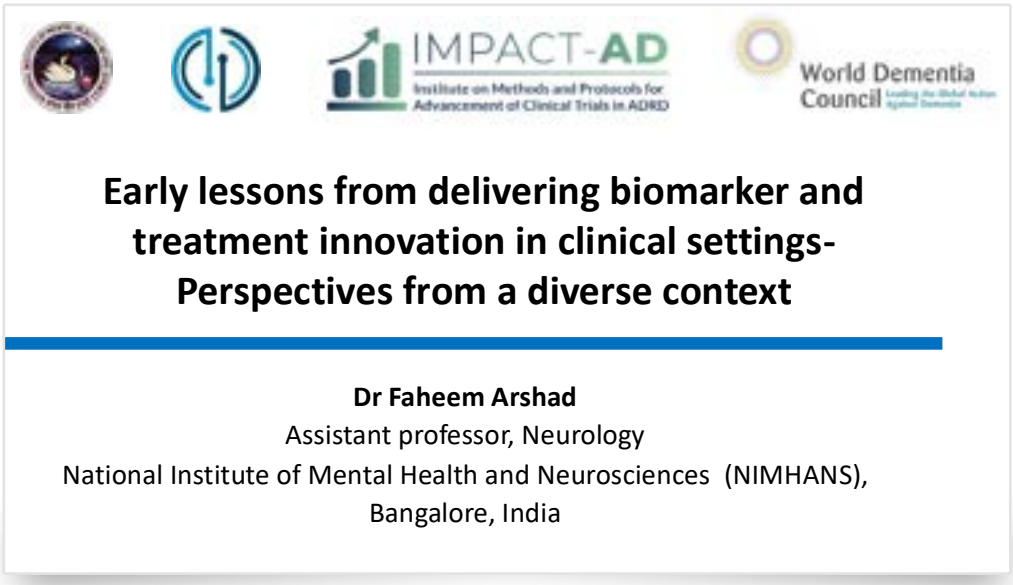
The cost of caregiving and therapy is not small in a country like India. While we are very interested in having therapy and staving off dementia, we also have to address the cost of caregiving — some people are even unable to afford the most inexpensive therapies. For us, the focus is not just the patient but the burden of caregiving which comes with the patient, which sometimes makes their day not 24 hours but 36 hours.

With this, I'd like to conclude and will be glad to take any questions later. Thank you.

Dr. Heather Snyder, *Senior Vice President, Medical & Scientific Relations, Alzheimer's Association*

Thank you so much, and I think putting into context the first half of this discussion with your outline and with, really, the considerations that you bring forth is so important to the conversation, and so I'm really looking forward to the second half of our discussion today. Without further ado, I'm going to introduce our final, but our last but not least, speaker, Dr. Faheem Arshad, the Assistant Professor of Neurology at the National Institute of Mental Health and Neurosciences.

Dr Faheem Arshad, *Assistant Professor of Neurology at the National Institute of Mental Health and Neurosciences (NIMHANS)*



Thank you very much, everyone, and thanks to the World Dementia Council, Lenny and Dr Suvarna for having this dementia dialogue today.

I'm going to share insights from our experience in bringing biomarkers and treatment innovations into routine dementia care. What I want to highlight is not just science, but how science translates into real-world clinical settings, especially in low- and middle-income

countries like ours. These settings often face structural, cultural and economic barriers, as Dr Manjari already mentioned, that differ from high-income contexts. And yet, they also provide unique opportunities for scalable and cost-effective solutions. I'll be discussing more of the challenges that we usually face in our clinics.

The Trillion $$$ question?? Worried well caregiver

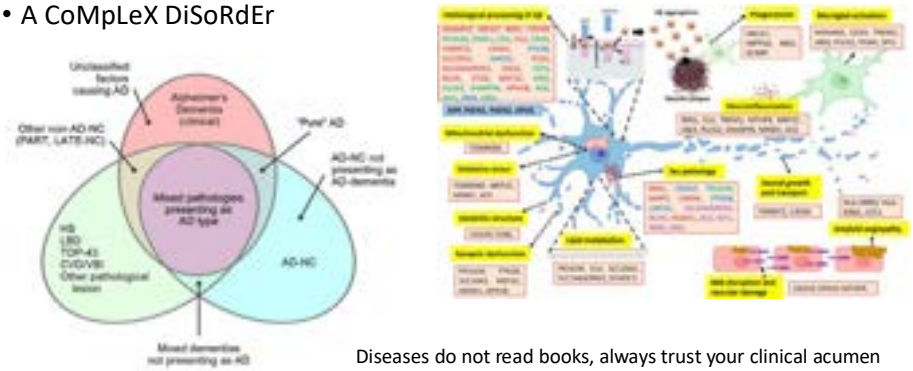
- What is dementia?
- Was the diagnosis made by the first doctor correct
- What is the final diagnosis now?
- Is there a cure?

Arshad F, Alladi S. The Most Difficult Question in a Cognitive Disorders Clinic. JAMA Neurol. 2024 Mar

To illustrate this journey, we are often asked some of the most difficult and complex questions, with no easy answers, by our caregivers. This highlights the enormous economic, social and emotional burden that dementia places on families, especially in contexts with limited resources. They're often curious to ask, "What is dementia? Is this the final diagnosis? Is there a cure?" These questions are difficult precisely because dementia itself is a very complex condition.

Dementia/Neurocognitive disorders

- A CoMpLeX DiSoRdEr

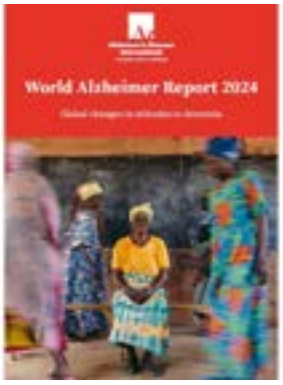


Diseases do not read books, always trust your clinical acumen

Jellinger K. A. *J. Neural Transm. 2022;* Ferencz, B.,et al., Neuropsychol Rev 2015

It comes with overlapping symptoms and diverse pathologies. No patients look exactly alike. Diseases do not read textbooks. This means our clinical judgment, built on our experience, remains crucial even as biomarkers advance. The complexity of dementia is why both diagnosis and management continue to challenge clinicians worldwide, and this complexity is being made worse by the widespread misunderstanding of what dementia actually is.

Global attitudes to dementia



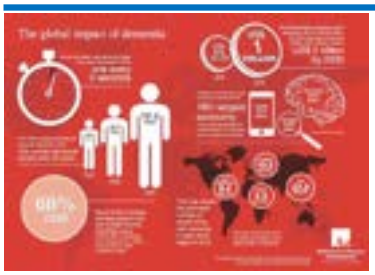
Key Highlights

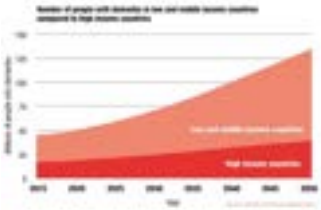
- **80%** of the general public think dementia is a normal part of ageing, a dramatic increase compared to **66%** in 2019
- **65%** of health and care professionals (HCPs) believe dementia is a normal part of ageing, up from **62%** in 2019

Launched on 20 September 2024

A recent global survey in 2024 found that 80% of the general public think dementia is a normal part of aging — a dramatic increase compared to 66% in 2019. Unfortunately, this is true for health care professionals as well, where it rose from 62% in 2019 to 65% in 2024. If dementia is seen as normal, then it will never receive the policy or the research attention it really requires. Changing perceptions is therefore foundational to progress, and this matters even more when we consider the enormous and growing impact of dementia worldwide, especially in low- and middle-income countries.

Global and Local Impact of dementia





'Much of the increase will take place in low- and middle-income countries. In 2015, **58% of all people with dementia live in LMICs rising to 68% in 2050'**

Estimated dementia prevalence for 60+ in India is **7.4%**
Lee et al, 2021

Worldwide, every three seconds one patient develops dementia, and most of this increase is going to happen in low- and middle-income countries. Already around 60% of people with dementia live in low-income countries, a figure projected to rise to 68% by the year 2050. In India, as Dr. Manjari mentioned, we have a prevalence of 7.4%, translating into millions of affected families. This is not only a health crisis but a looming economic and social challenge. The scale of the problem forces us to think beyond individual clinics and towards systemic change.

This recognition has already influenced policy at both the global and local levels. We have a global action plan for dementia with seven action areas, calling for all governments to prioritize dementia as a public health challenge. I'm really happy to share that Karnataka has become the first Indian state to formally declare dementia as a public health priority. This landmark moment happened in 2023, showing that advocacy and evidence can translate into concrete policy change. It also highlights how local action can align with global frameworks. Such policies are critical to creating ecosystems needed for innovation to reach patients.

Alongside this policy milestone, we also carried out mass awareness and screening programs across all the districts of Karnataka, thanks to a novel and large program by Dr. Suvarna. Because of this program, we have brain health clinics across all the districts of Karnataka, and we raised awareness last year across the community as well as the district hospitals. This initiative aligns with the second action plan of the WHO Dementia Action Plan, which emphasizes that dementia awareness, early recovery and risk reduction are important. These efforts not only build public understanding but also strengthen early detection pathways at the grassroots level.

Paradigm shift- evolving…..

Clifford R JacK et al., 2024 Alzheimer's and dementia

At the same time, shifting gears to the scientific understanding of Alzheimer's — as you already heard from the previous speakers — the understanding of Alzheimer's dementia has itself undergone a paradigm shift. Previously, we diagnosed patients clinically; now we are moving towards a biomarker-based definition using amyloid markers to make a precise and early diagnosis. This shift allows for more personalized care and is essential for the use of disease-modifying therapies. However, implementing biomarker-driven care in LMICs remains an enormous challenge, including in India.

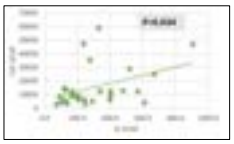
Challenges in Biomarkers diagnosis- Global South

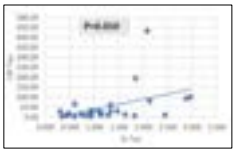
- Standardization
- Validation.
- Lack of longitudinal analyses.
- Cost effectiveness
- Awareness.
- Accessibility

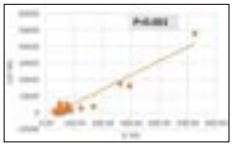
McGlinchey, E., Duran-Aniotz, C., Akinyemi, R., Arshad, F., et al., (2024). Biomarkers of neurodegeneration across the Global South. The lancet. Healthy longevity, 100616.

I feel the science is advancing faster than our health systems can adapt. Let's look closely at the specific challenges in applying these biomarkers to the Indian context. We did a systematic review to see what is happening in the Global South in terms of challenges in using biomarkers. The barriers are the same: lack of standardization, lack of infrastructure, lack of validation, limited longitudinal studies, questions of cost effectiveness and, importantly, accessibility and awareness. This raises an important question: can we still adapt biomarker strategies to the Indian context?

Diagnostic value of fluid-based biomarkers in dementias in Indian Context







- Serum GFAP and NfL levels were significantly greater in patients with dementia than in HC
- Significant association between the serum and CSF levels of GFAP, NfL and t-tau
- Levels of serum biomarkers were related to the severity of dementia

Arshad F, Samim MM, Borse PR, Alladi S et al. Alzheimers Dement (Amst). 2025

We did a study — ours was a non-amyloid study — where we used non-validated markers like serum GFAP and NfL. There were three important findings: these correlated well with the CSF biomarkers, with the disease severity, and they were able to differentiate between dementia and healthy controls. This opens the door for more feasible blood-based biomarkers for dementia in India, where CSF and PET imaging are less accessible, but we are on track to bring these imaging biomarkers in, including amyloid and tau imaging.

As all previous speakers mentioned — Dr Suzanne mentioned that all the roads lead to P217 — we're also moving towards that path. The journey may take a different route, but it will lead us to the same destination. We've already analyzed some patient samples for P217 and should have the results in the coming two to three months.

Breakthrough in Alzheimer's Disease Treatment

7th June 2021

FDA approved Aducanumab for Alzheimer's Disease
Accelerated Approval Pathway

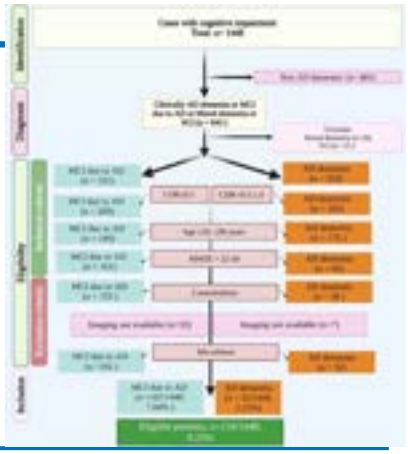
6th Jan 2023

2nd July 2024

But diagnosis is only part of the journey. Treatment breakthroughs, as you saw from the previous speakers, are emerging globally. The approval of these drugs has been heralded as a breakthrough in Alzheimer's treatment. For the first time we have disease-modifying options, not just symptomatic therapies. This is a turning point in the field, but these drugs raise new challenges. Who will qualify? What does it mean for patients in India and other LMICs? Can health systems afford them? Will patients in LMICs ever be able to access them?

Real-World Eligibility for Anti-amyloid Therapy in the Indian Dementia Cohort

- 80.75% of dementia patients from LMICs may be ineligible for lecanemab due to diagnostic and resource limitations.
- 20.8% of clinically diagnosed AD could potentially be eligible with biomarker testing.
- Efforts to enhance
  - biomarker availability,
  - Improve early detection, and
  - Reduce economic barriers
- Crucial to enable equitable access to emerging AD therapies in LMICs.
- Cost-effective strategies for integrating disease modifying drugs for AD into healthcare systems.



To explore this, we examined eligibility in our dementia cohort, where we have a registry of more than 3,000 patients. We saw that 80% of participants with dementia were ineligible for lecanemab due to reasons such as multiple haemorrhages in the brain or severe vascular risk factors. We applied the appropriate use recommendations for lecanemab and found only 10–15% might qualify if the biomarkers become widely available. This makes it clear that without changes in system infrastructure, these innovations will not reach populations who need them the most, highlighting the urgent need to expand biomarker availability, improve early detection, and develop cost-effective pathways to integrate these treatments.

Dementia clinical trials uneven globally

- Despite the recent increase in the number of clinical trials in dementia, ethno racially diverse individuals remain underrepresented
- Only a fraction of dementia clinical trials are conducted in **LMIC (2%)** and there is a gross under-representation of LMICs in historical and ongoing clinical trials
- Limited research evidence for effective disease modifying drugs in LMIC
- Highlighting the pressing need for clinical trial globalization.

Franzen, S. et al. Alzheimer's Dement. (2021), Alladi S, Kalkonde et al Stroke (2021)

This inequity is also reflected in how clinical trials themselves are distributed globally. We did a systematic review with our international colleagues and found that despite the expansion of clinical trials in dementia, low- and middle-income countries, including India, have been grossly underrepresented. Very few clinical trials, just 2%, are represented by LMICs, and there is minimal ethno-racial diversity. This means that the evidence base for new drugs may not apply to the majority of the world's patients. Without inclusion of underrepresented populations, global dementia research risks being unrepresentative and inequitable.

Emerging realities of Dementia in LMICs-India

Challenges

1. Infrastructure- limited dementia clinics, Clinical trial units
2. Poor awareness and Stigma-delayed diagnosis
3. Affordability and equity
4. Limited availability of amyloid/tau PET
5. Insurance systems are not in place
6. Inadequate human resources

Opportunities

1. Lower trial costs attract international collaborations
2. Scope for public-private partnership
3. Diverse populations- unique datasets, improving generalizability of AD research
4. Training of GP, nurses, non-medicals – dementia screening and referral
5. National dementia action plan – momentum trough 'dementia friendly policy makers'

Models of low-cost scalable solutions for Alzheimer's globally

Zooming in on India, there are challenges, no doubt, as we heard from Dr Manjari. Dementia services are still limited to tertiary centres, there's stigma, poor awareness, delayed diagnosis until late stages, and costs fall largely on families. There's no insurance coverage. We also face a shortage of trained healthcare providers, neurologists, psychiatrists, nurses, who can deliver dementia care.

These systemic gaps highlight the urgency of innovation tailored to low- and middle-income countries. But alongside these challenges, there are opportunities unique to our context. India offers a low trial cost that attracts international collaborations, making it a potential hub for dementia research. Our population diversity provides a unique dataset that can improve the generalisability of findings worldwide. Training non-specialist providers like general practitioners, nurses and community health workers can expand screening and referral pathways and improve fragmented pathways. With a Dementia National Action Plan on the horizon, the policy environment is becoming increasingly supportive, especially with dementia-friendly political leaders.

Cost effective Disease modifying treatment option
The PARAM Trial- India

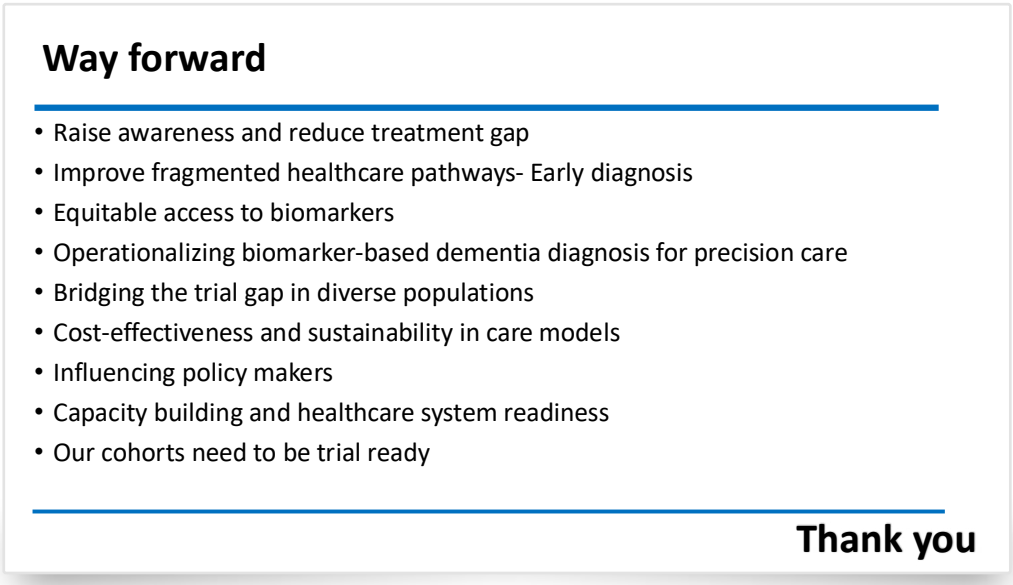

Alzheimer's & Dementia

A randomized, controlled clinical trial of plasma exchange with albumin replacement for Alzheimer's disease: Primary results of the AMBAR Study

"…….suggests that PE with albumin replacement could slow cognitive and functional decline in AD, although further studies are warranted"

Transforming dementia care through cost-effective, accessible innovative approaches

To address these, India and other low-income countries can become scalable models of low-cost solutions. One very simple example is a trial called AMBA, which used plasma exchange to treat patients with dementia. They found it was able to slow cognitive and functional decline in participants. There is still a multi-centric international trial ongoing, and we did a similar study here in India called the PARAM trial, funded by ICMR and still ongoing. This represents a kind of low-cost intervention compared to the costly monoclonal antibodies. Innovation can emerge from LMICs and solutions designed for scalability and equity. Such models can transform dementia care globally, not just locally.



This brings us to the bigger picture — what needs to happen next. Moving forward, we need to raise awareness to close the diagnostic and treatment gaps, improve health care pathways for early diagnosis, make biomarkers equitably accessible and operationalize them in clinical practice. Bridging the trial gap by including diverse populations will make therapies more generalizable. Finally, building suitable, sustainable care models and engaging dementia-friendly policymakers is crucial to making dementia care both equitable and resilient.

Importantly, our population needs to be trial-ready for disease-modifying drugs. In order to reach India effectively, we must build infrastructure and train clinicians to deliver these drugs. Without trial readiness, even if drugs are approved, our patients may not benefit. Together, we can transform these daunting challenges into opportunities and learn from people in high-income countries — especially Professor Suzanne Schindler and Professor Donna Wilcock — how to redefine dementia care in LMICs so that it becomes a global model of resilience, innovation, equity and a beacon of hope for millions.

The fight against dementia cannot be won by science alone. It requires society, policy and innovation to come together. I hope the lessons from India resonate internationally and inspire collaborations towards a more inclusive future for dementia care. Thank you very much, and I look forward to the brainstorming discussion.

Dr. Heather Snyder, *Senior Vice President, Medical & Scientific Relations, Alzheimer's Association*

Thank you so much for the points and the discussion. I know there is much more to discuss than we have time for, but I'm going to pass it to my co-chair, Dr. Suvarna Alladi, to take it away and open up the discussion. A huge thank you to all of our speakers.

Professor Suvarna Alladi, *Professor of Neurology, National Institute of Mental Health and Neurosciences, Bangalore, India*

Thank you very much, Heather, for being here for the World Dementia Council, Thanks to Suzanne, Donna, and to friends outside India and within India. It is indeed a turning point for us in India for dementia diagnosis and treatment, and I think the discussion so far has said it all, so well.

We have with us today neurologists who have been pioneers in India in stroke treatment - by giving thrombolysis, similarly neurologists treat multiple sclerosis with disease-modifying agents and we also have cognitive neurologists who've been waiting for this day, to treat Alzheimer's disease with newer therapies. We also have neurologists and psychiatrists who've developed dementia care models for Indian context.

We also have advocacy organisations such as ARDSI, and I think that's the strength of this group. There are also young researchers as well on this call. So, as we start this discussion, I would encourage you to raise your hand and say what you would like to say in response to all that we heard.

You can also put in your question in the chat box. There has already been a parallel discussion between Suzanne, Donna, and the cognitive neurologists going on, but I would really like to talk about some of the things that have already been discussed in the chat box. I think Zul has had his hand up firts. We have 15 minutes for the discussion, so I request every one of you to restrict your comment to 30 -45 seconds. You can address the question to any of the panellists.

Professor Zul Merali, *Founding Director, Brain and Mind Institute, Aga Khan University*

Thank you. It was a fantastic presentation, thank you. I was just curious; we didn't talk much about the clinical outcomes. We talked about feasibility trials and implementation of treatments, but we talked very little about outcomes, and I was just curious about what your reflections are.

Professor Donna Wilcock, *Professor of Neurology, Indiana University School of Medicine*

I can make a quick comment, and maybe Suzanne wants to add her experience too. Anecdotally, we're pulling together some of this data right now. We have someone working on it, but anecdotally we have a number of patients who have remained completely stable in their MoCA scores over the 18 months of treatment, which is fantastic — they are thrilled.

We've had a number of patients who have shown a decline over the 18 months that we would probably expect without treatment, and then we have people in the middle, across this whole span. As we have more patients and more longitudinal data, we'll be able to identify who is most likely to respond well. But I'll let Suzanne add some of her experience.

Professor Suzanne Schindler, *Professor of Neurology, WashU Medicine*

Yes, I would echo what Donna just said–we've seen the same thing. Of course, the trials found about 30% slowing over 18 months. But it's important to note that it takes about 12 months to clear amyloid from the brain. The trials are actually very short, and we're hoping that with longer follow-up, we'll see even longer effects. The open-label extension studies have looked pretty promising.

The one thing I would add is that, at least in my patients, I've noticed that the patients that I started with very mild symptoms have done very well. And then the ones that were at the edge of eligibility are the ones that have declined. That echoes what we've seen in other data sets. Again, the key is starting these treatments as early as possible.

Professor Suvarna Alladi, *Professor of Neurology, National Institute of Mental Health and Neurosciences, Bangalore, India*

Thank you, Donna and Suzanne. I think your talks were very positive and reassuring to most clinicians here, but both Manjari and Faheem have stressed the importance of equitable distribution of treatments.

We heard from Donna about how wonderfully they set up their infrastructure to deliver drugs, including brain health navigators. But we in India have to develop our own system. The future will look interesting as we discuss obstacles to how we implement treatment strategies in India.

Dr. Ratnavalli, your hand is up?

Dr. Ratnavalli Ellajosyula, *Specialist in Cognitive Neurology, Manipal Hospital*

Thanks for this wonderful panel and the work which the World Dementia Council and Alzheimer's Association are doing. Fantastic talks. Apart from emphasizing the same issues, lack of accessibility, affordability and resources, I think there are a few things which are specific to India.

One would be the lack of insurance: patients have to pay for all the investigations as well as the treatment, which is important. Another point is the huge vascular burden in India. Normally we do limited MRIs, which are not very expensive; but now we have to do SWI and GRE in our setting to rule out microbleeds and significant vascular burden. That's an important consideration for which patients also have to pay.

When we're talking about treatment that is so expensive, which gives mild-modest benefit, the selection of patients will be crucial in the Indian setting. I don't think we should treat every patient the same; an 85- or 90-year-old versus somebody in their 70s makes a difference when choosing treatment. We should also emphasize prevention, not only preventing dementia but also preventive measures in patients who come with early onset of cognitive symptoms. That should go hand in hand with treatment.

We're already seeing people being treated because relatives are very concerned. Patients who are not meeting criteria are being given treatment, — relatives are getting the drug imported. We should have very clear-cut guidelines because a lot of patient evaluation and management happens in private hospitals, not in public hospitals. It's a very diverse setting, without clear guidelines, so some patients may be able to take the treatment and others not. We should have national guidelines for ensuring equitable treatment, selection of the right patients etc.

We should judge cost-effectiveness in our patients, because the cultural concept of aging itself is very different. People still have a lot of support from their families in India; they live among families, so a mild memory deficit is not as crucial to daily living as it would be in the West. We have to keep all this in consideration when we select patients for treatment.

Thank you very much.

Professor Donna Wilcock, *Professor of Neurology, Indiana University School of Medicine*

I think those are great comments, and I actually just wanted to say Suvarna and I have been having a side conversation about a potential special issue at Alzheimer's & Dementia focused on South Asia, which we haven't done yet. We have a Global Spotlight series and we've done several different geographic regions. We have not done South Asia.

We're probably going to put that together and launch a call very soon. Suvarna's going to help me immensely, I hope, with that. But that may be a venue, if you pull people together at your upcoming conference, taking the appropriate use guidelines that were published in the U.S. and maybe developing national guidelines for India based on what you've just discussed. Maybe that special issue is a good venue to publish your national guidelines.

Professor Suvarna Alladi, *Professor of Neurology, National Institute of Mental Health and Neurosciences, Bangalore, India*

Thank you, Donna for this offer. Donna Wilcock,is the editor of Alzheimer's & Dementia, and we have Heather Snyder here, who leads medical and scientific affairs for the Alzheimer's Association. I think this is a fantastic opportunity for showcasing research and challenges unique to the South Asian context. So thank you Donna.

There are some comments in the chat box which I think we should discuss because of their importance. Firstly, the lack of amyloid imaging in our country. I know that plasma biomarkers are being touted as equivalent and adequate for initiating treatment, but I'd like both Suzanne and Donna to tell us a little bit about what their opinion is about not doing amyloid imaging prior to starting treatment.How do you see this impacting clinical practice here?

Professor Suzanne Schindler, *Professor of Neurology, WashU Medicine*

At Wash U, we've been very involved with developing and validating these blood tests, so we believe in them very strongly because we've seen really good data showing that they perform just as well as CSF tests — especially when you use them in the appropriate context, which is cognitively impaired individuals. I feel very comfortable using blood tests to start anti-amyloid treatments.

There are some exceptions. We had some discussion in the chat about this: if a patient has something structural going on in their brain — an arachnoid cyst, ventricular enlargement out of proportion, or severe chronic kidney disease — then I'm not going to rely on a blood test. That's where the PET scan is really helpful, but that's a small number of patients.

Another situation where a blood test isn't sufficient is when people have intermediate values; that's maybe 15–20% of patients. We actually see that a lot of our patients have really high levels of p-tau217, so we have very little doubt that they're positive. I think blood tests will probably work in about 80% of patients — that's what we see in our clinic — and PET or CSF can be used in selected patients for specific reasons.

Again, I think the blood tests can work very well. There are caveats: you need to test them in your local clinic and validate them locally, but the data supporting their use is growing all the time. I don't know if Donna has thoughts about that.

Professor Donna Wilcock, *Professor of Neurology, Indiana University School of Medicine*

I think the blood tests are great for identifying patients. I don't think we have enough data yet to use them to longitudinally track amyloid clearance by these drugs. For example, when we think about donanemab and stopping donanemab when someone becomes amyloid-negative — I don't think we're at the point where we can use a blood-based biomarker for that yet.

For lecanemab — someone asked this question, so just to clarify — we're offering amyloid PET scans at 18 months to the patients. If they're still positive, we offer them the choice of whether they want to transition to maintenance or stay on the every-two-weeks dosing. But that's not required; everyone can transition at 18 months without an amyloid PET scan.

From a clinical-requirement standpoint, I think we're on a good path now to being able to do lecanemab without any need for a PET scan. And as Suzanne said, I agree that the majority of our patients will be able to use blood-based biomarkers without the need for CSF or PET.

Professor Suvarna Alladi, *Professor of Neurology, National Institute of Mental Health and Neurosciences, Bangalore, India*

Right. I'll take this opportunity to ask one question that I've been thinking about. We have people with AD, who are potentially at risk of developing a stroke —they could have either carotid artery or intracranial large artery disease. How do we explain to them that, if we treat them with antiamyloid therapies, and they develop a stroke, we can't thrombolysis them? Is there experience with patients who are at high risk of developing a stroke and also have Alzheimer's disease, and maybe be eligible for these drugs?

Professor Suzanne Schindler, *Professor of Neurology, WashU Medicine*

I really agree with everything that Donna just said about the monitoring, but I'm not completely sure that we have to do monitoring. The donanemab appropriate-use recommendations say that you can just stop at 18 months without a scan or testing.

About the stroke question — that's a tough one. Obviously, we're treating older individuals who have a higher rate of stroke. However, the people at highest risk for strokes are excluded from treatment because we exclude people who have severe white matter disease or prior infarcts per the appropriate-use recommendations.

In terms of what happens if they do have a stroke, at this point thrombolysis is really absolutely contraindicated in patients on these drugs, especially early in treatment. Their symptoms may be a result of ARIA, and the catastrophic cases that have happened have been in that context — giving patients with ARIA thrombolytics. We don't recommend that.

There are things you can do as a neurologist, though, if you have a patient on these amyloid-targeted treatments and you're worried about a stroke. You can do a perfusion scan to see if this is really a large-vessel stroke or ARIA. And at least in the U.S. there's mechanical thrombectomy that we can sometimes perform. This is, of course, an urgent situation and requires advanced imaging and potentially neurointerventional care — pretty high-level care that may or may not be available in many locations.

However, the percentage of patients who are going to develop strokes is very small, especially after excluding people with severe white matter disease or prior infarcts. It is a real issue, but how many patients will it actually impact? At Wash U, we have not yet had to deal with this — we've been expecting it but haven't encountered it yet. I don't know about Indiana. It's certainly a theoretical issue, but it's going to be a low rate.

Professor Donna Wilcock, *Professor of Neurology, Indiana University School of Medicine*

We've had one instance that was thought to be a stroke but ended up being ARIA.

In our system, I'm not sure how Suzanne's system handles this, but all of our patients, their care partners and anyone else in their family they want to give one to — we provide them with a little credit-card-sized card. We tell them if they see any other physician, especially at an urgent care or emergency-room visit, they should show this card.

The card tells the physician that the patient is on anti-amyloid therapy, at high risk for cerebrovascular events, and that if a stroke is suspected a high-resolution MRI should be done before any thrombolysis is performed. Thrombolysis is completely contraindicated.

Our neurologists have all been educated, and we have a 24/7 on-call number that any emergency-room physician can call to get guidance. This has been really helpful, because we've had a number of patients go into hospital for different conditions, and they've all shown their card — which is great.

Professor Suvarna Alladi, *Professor of Neurology, National Institute of Mental Health and Neurosciences, Bangalore, India*

Thank you. I think we really need to strengthen our health systems and our referral pathways — this is what I hear from you and from Dr Faheem. Most of us work in tertiary centres but when a patient develops a stroke they might go to a secondary-level hospital.

We don't have electronic health records, so there are risks involved. These are some of the problem we will have to grapple with and find solutions for, by strengthening health care pathways

This is just one question Dr Amitabha Ghosh has asked,, Suzanne: would you treat people on aspirin with anti-amyloid therapies? And what about anticoagulants?

Professor Suzanne Schindler, *Professor of Neurology, WashU Medicine*

I'll address that briefly. The appropriate-use recommendations say "no," but at Wash U we are actually treating selected patients. If they're otherwise perfect candidates for these treatments but they're on anticoagulation, we are treating them — and we haven't had any bad outcomes yet, although it's theoretically possible.

In the clinical trials the risks were very small, but they were there. So again, it can happen, but the rate is very low.

Professor Donna Wilcock, *Professor of Neurology, Indiana University School of Medicine*

Yes, and I believe our approach is a little similar to yours, Suzanne. We're especially more open to the newer-generation anticoagulants, as opposed to warfarin or coumadin. But it's on a case-by-case basis, in discussion with the physician and with the patient's openness to the risk. Appropriate counselling is important before they start treatment.

Professor Suvarna Alladi, *Professor of Neurology, National Institute of Mental Health and Neurosciences, Bangalore, India*

Thank you very much. I would like to bring the discussion back to the caregiver and the advocacy organisations that are here with us today. Renu Vohra heads our Alzheimer's Disease Society, so I am sure she will be taking all of this discussion, back to the caregiver and patient advocacy communities, which I think is amazing. This awareness is going to be built, since we want people to come in earlier.

With this, I'd like to hand over to Lenny, but before that, I'm really grateful to Heather, Suzanne, and Donna for generously sharing your experience with us. We look forward to having you with us, as we start this journey in India. Thank you very much.

Thanks to Manjari and Faheem for sharing insights about the Indian contextAnd to all the people who joined as well, thank you for the very interesting discussion. Over to you, Lenny.

Lenny Shallcross, *Executive Director, World Dementia Council*

I want to add my thanks. As Suvarna said, we are organising a third of these in-person with the Alzheimer's Association. And, the Association's Dr Maria Carrillo will be coming out for our in-person meeting in November at the conference — you saw Suvarna drop it into the chat.

With that, thank you all for participating, and I hope you have a great rest of your day, evening or morning, wherever you are. Thanks very much.

Dialogue on on diagnostics and treatments in India

Meeting chat

[initial chat did not save]

Professor Suzanne Schindler: For IVD tests (e.g. Fujirebio Lumipulse p-tau217), local cut-offs are used. However, there is a big fold change in p-tau217 (compared to other biomarkers), often 4–5-fold normal levels, so many patients with AD are very positive. This makes the exact cut-offs somewhat less important. If a patient is borderline, I do a second test, but this is typically <15–20% of patients.

Atanu Biswas: Great talk, Suzanne. As few of your patients are <65 years, it is interesting to know whether these include atypical AD as well.

Amitabha Ghosh: That's very useful and increases confidence in doing plasma alone. Thanks.

Professor Suzanne Schindler, Plasma p-tau217 decreases on a group level with treatment, but changes in p-tau217 do not have a very strong correlation with changes in amyloid PET centiloid. Right now PET is really the only sure way of tracking amyloid removal. However, I'm not truly convinced that monitoring amyloid clearance is necessary (it's nice to know, but not essential).

Ramshekhar: Hi… great talk! How do the patients with atypical AD subtypes such as logopenic PPA and PCA respond cognitively to the treatment? Do the young-onset patients respond better and do they have higher risk of complications?

Dr. Ratnavalli Ellajosyula: From Donna's talk, I gathered that maintenance therapy duration is based on whether amyloid is clearing or not on the amyloid PET — to continue beyond 18 months.

Ramshekhar: How mandatory would it be to do serial blood and CSF biomarkers when we don't have amyloid PET?

Renu Vohra: Biomarker-based diagnostics and currently available therapies remain costly and largely inaccessible in India. There is an urgent need for low-cost, scalable and culturally adaptable interventions.

Professor Suzanne Schindler: How the atypical AD subtypes and younger patients respond is a very interesting question, but we don't know yet. It takes time to get enough data to understand this.

Professor Suzanne Schindler: Yes, it is very nice to know whether amyloid is cleared and we are trying to scan patients at 18 months to guide maintenance. However, even in the US we can't get an 18-month PET on all patients (insurance sometimes refuses to pay). Also, we end up moving almost everyone to maintenance anyway (or patients decide they want to stop regardless). So I think there are a limited % of patients where the 18-month PET makes a difference.

Professor Suzanne Schindler: We are not doing serial blood or CSF except for research studies. We only do tests when we think they will affect management in some way (e.g. starting or stopping treatments). When we have well-validated tests that tell us actionable information about monitoring, we will use them, but we are not there yet.

Professor Donna Wilcock (replying to Ratnavalli): This is something we have put in place and is not a requirement of transition to maintenance. All of our patients are given the choice to undergo an amyloid PET, and also given the choice of transition to maintenance or to continue on treatment every two weeks.

Bina Berry: For us in India, the challenge is not just the large population and meeting the costs involved; it is also navigating the myriad cultures. Implementation of any one policy or regulation is a mammoth task.

Mohamed Arif: Dr. Manjari, our formulation is under affordable health care — safe and highly effective — highly suitable especially for our population in India.

Madhur Basnet, *GBHI Fellow, Nepal*: You hit the bull's eye, Faheem… so well stated.

Amitabha Ghosh: I think one of the most effective ways for cost-effective treatment in India and other LMICs is to encourage pharmaceutical research groups to do their original research studies in India and such countries.

Suman Kushwaha: For India specifically, we need to concentrate on controlling the modifiable risk factors until we are prepared for recent treatments.

RBI: With limited access to amyloid studies, is it justified to treat with anti-amyloid therapies based on clinical and MRI features?

Gautam Das: All the topics discussed are important. Lowering cost is of prime importance. All states have their own line of preventing dementia.

Ramshekhar: Great talk, Faheem. Do you think we can do away with blood or CSF biomarkers in typical early AD based on MRI characteristics once long-term data is available from countries where mAbs are being administered, or do you think it will continue to be mandatory at baseline inclusion?

Swati Bajpai: Fantastic presentation! While you covered the latest pharmacological interventions, I feel we need to emphasise holistic, non-pharmacological approaches — especially in the pre-clinical stages. This is crucial for countries like India, where the patient load is high and access to doctors is limited. Strengthening community-based programmes and caregiver training could bridge this gap and make dementia care more sustainable.

Sonal Chitnis: Wonderful session. Need of the hour to bring best policies from early primary care to end-of-life care in dementia. How can we integrate rehabilitation from the beginning across LMICs at primary care? Can we have KABHI-like models as well as efficient pharmacological treatment too?

Professor Suvarna Alladi: (Shared link) https://cnaannualsummit.in/

Sinjan Ghosh: It was a wonderful session and extremely important and relevant talks.

Keerthana Umapathy: Insightful session. While pharmacological treatments are important, sustainable dementia care — especially in countries like India — must prioritise holistic, community-based approaches. Empowering caregivers, training community health workers and promoting low-cost, non-pharmacological interventions can greatly enhance early support and improve quality of life. This integrated model is crucial for managing the growing dementia burden in resource-limited settings.

Saadiya Hurzuk (ARDSIHyd): In LMIC contexts like India, especially among poor and uneducated communities, what is the possibility — can we move towards non-paper-and-pen dementia screenings and therapies that are both cost-effective and culturally adaptive?

Renu Vohra: Informal caregivers are the backbone of dementia care in India, yet their well-being and needs are often overlooked.

Dr. Faheem Arshad: Thanks Dr. Ramshekhar. I feel minimum blood-based biomarkers — especially p-tau217 or the newer ones — will at least be required for confirmation even in the long run when we start giving mAbs. For our NIMHANS cohort also p-tau217 results are very encouraging.

Dr. Ratnavalli Ellajosyula: Considering that stroke frequency is high in India — an important consideration. I have heard sessions in ISTAART where they demonstrated cases; they recommended ablation for AF before putting them on anti-amyloid treatment.

Amitabha Ghosh: As a follow-up to Dr. Suvarna's question, would you treat those with CAD who are on anti-platelets?

Professor Suzanne Schindler: Yes, many of our treated patients are on aspirin.

Amitabha Ghosh: Great, thanks. What about anticoagulants for AF? Sorry to be persistent!

Professor Suzanne Schindler: Yes — with very careful discussions.

Dr. Ratnavalli Ellajosyula: Thanks to all the speakers and the panellists and WDC.

Irene Meier: Thank you for all the great presentations and fruitful discussion.

Usha Dhakal (She/Her/Hers): Thank you.

Sonal Chitnis: Grateful for such engaging and scholarly discussion and information, WDC team.

Dr. Heather Snyder: Thank you all! Great discussion. Great presentations.

World Dementia Council
Leading the Global Action Against Dementia

The World Dementia Council (WDC) is an international charity. It consists of senior experts and leaders drawn from research, academia, industry, governments and NGOs in both high-income and low- and middle-income countries, including two leaders with a personal dementia diagnosis. The WDC has an executive team based in London, UK.

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