



# Novelties in the early detection, treatment, and lifestyle interventions for Alzheimer's disease



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## SCAN

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## Session Summary

Alzheimer's disease represents one of the most significant public health challenges of our time and there is an urgent need for innovative approaches for detection and treatment. This webinar discussed the pathophysiology of AD and highlighted its multifactorial nature. It also addressed recent advancements in approaches for early detection and treatment (both pharmacological and non-pharmacological), and the challenges and opportunities for their incorporation into clinical practice.

## Key Points



### Alzheimer's Disease is a Multifactorial Disease:

Multiple biological mechanisms are involved in the development and progression of Alzheimer's disease, that jointly form a biological cascade.



### Barriers to Early Detection:

Challenges in identifying Alzheimer's disease at an early stage include the need for research in more diverse populations and validation of biomarkers in unselected cohorts.



### Lifestyle Interventions:

In addition to pharmacological approaches, there is increasing evidence for the effectiveness of non-pharmacological approaches (like exercise and diet) that may help manage or slow disease progression.

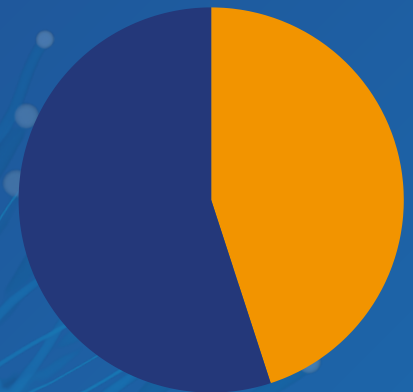


### Strong Advances in Diagnostic Tools:

We have come a long way since the initial description of AD as a clinical concept, and now know it as a clinical-biological concept that can be captured via qualitative and quantitative methods including the use of biomarkers.

 Potentially Preventable Cases

 Non Preventable Cases



Around 45% of cases of dementia are potentially preventable by addressing 14 modifiable risk factors – including lifestyle factors – at different stages during the lifespan (Livingston et al., 2024).

## Actionable Recommendations



01.

### Multitiered Approach:

Given the complex pathologic and biologic cascade of AD, a multitiered approach to diagnostics and treatment is necessary.

02.

### Increasing Diversity:

Research in more diverse populations is urgently needed for the diagnosing and staging of AD, as this will enable rational drug development using biomarkers for screening, identifying patients, target engagement, and treatment effects.

## Additional Resources

- Galvin, J. E. (2017). Prevention of Alzheimer's disease: lessons learned and applied. *Journal of the American Geriatrics Society*, 65(10), 2128-2133.
- Livingston, G., Huntley, J., Liu, K. Y., Costafreda, S. G., Selbæk, G., Alladi, S., ... & Mukadam, N. (2024). Dementia prevention, intervention, and care: 2024 report of the Lancet standing Commission. *The Lancet*, 404(10452), 572-628.