

Real-world Data Analysis Of Post 18-months Lecanemab, Anti-amyloid Therapy From A Cognitive Disorders Clinic

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❖ In this real-world sample of patients who have completed 18-months of lecanemab therapy, **50%** reached normalization of AD biomarkers via CSF or amyloid-PET, a lower rate than what was observed in CLARITY AD

INTRODUCTION	METHODS	RESULTS	CONCLUSIONS	REFERENCES																																								
Lecanemab, an amyloid targeting therapy, received U.S. FDA approval in July 2023 for mild cognitive impairment to mild dementia due to Alzheimer’s disease (AD).¹ Real-world data on its outcomes after 18 months of treatment is limited. We analyzed clinical outcomes of patients who have completed 18 months of lecanemab therapy at our cognitive disorders clinic.	Retrospective chart review was used to collect information on demographics, Apolipoprotein E (ApoE) genotype, Montreal Cognitive Assessment (MoCA),² Functional Activities Questionnaire (FAQ),³⁻⁴ amyloid-related imaging abnormalities (ARIA), and amyloid-beta pathology (assessed via cerebrospinal fluid analysis [CSF] or amyloid positron emission tomography [PET]) pre- and post-18 months of lecanemab treatment.	At the time of analysis, 18 patients (mean age [SD] 74.06 [4.95] years, 50% female, 100% White) have completed 18 months of lecanemab treatment and had pre- and post- CSF or amyloid PET AD biomarker data. The patients ApoE ε4 status were as follows: 61.11% heterozygotes, 16.67% homozygotes, and 22.22% non-carriers. Six (33.33%) patients developed ARIA. The baseline and post-treatment mean MoCA score was 19.5 (SD 3.66) and 17.53 (SD 5.58), respectively. The baseline and post-treatment mean FAQ score was 6 (SD 6.58) and 13.56 (SD 8.02), respectively. Nine patients (50%) of which 6 (66.67%) were females and 3 males reached normalization of AD biomarker (via CSF or amyloid-PET) after 18 months of lecanemab treatment. The clinic utilizes the Appropriate Use Recommendations for lecanemab⁵; thus, none of the patients were on any anticoagulants. <table><tr><th>Patient characteristics</th><th>Total sample (N = 18)</th></tr><tr><td>Age, years (min, max) mean (SD)</td><td>(66, 84) 74.06 (4.95)</td></tr><tr><td>ApoE ε4 status, freq. (%)</td><td></td></tr><tr><td>Heterozygotes</td><td>11 (61.11)</td></tr><tr><td>Homozygotes</td><td>3 (16.67)</td></tr><tr><td>Non-carriers</td><td>4 (22.22)</td></tr><tr><td>Sex, freq. (%)</td><td></td></tr><tr><td>Female</td><td>9 (50.0)</td></tr><tr><td>Male</td><td>9 (50.0)</td></tr><tr><td>Race, freq. (%)</td><td></td></tr><tr><td>White/Caucasian</td><td>18 (100.0)</td></tr></table> <table><tr><th>Clinical Data</th><th>Total sample (N = 18)</th></tr><tr><td>Emergence of amyloid-related imaging abnormality (ARIA), freq. (%)</td><td>6 (33.33) - ARIA-H, microhemorrhage: 5 (83.33); asymptomatic - ARIA-H microhemorrhage & superficial siderosis: 1 (16.67); mild intermittent headache - Heterozygotes: 5 (83.33) - Homozygotes: 1 (16.67) </td></tr><tr><td>Montreal Cognitive Assessment (MoCA)</td><td></td></tr><tr><td>Baseline (min, max) mean (SD)</td><td>(12, 26) 19.5 (3.66)</td></tr><tr><td>Post-treatment (min, max) mean (SD)</td><td>(9, 26) 17.53 (5.58)</td></tr><tr><td>Functional Activities Questionnaire (FAQ)</td><td></td></tr><tr><td>Baseline (min, max) mean (SD)</td><td>(0, 18) 6 (6.58)</td></tr><tr><td>Post-treatment (min, max) mean (SD)</td><td>(0, 25) 13.56 (8.02)</td></tr><tr><td>Normalization of AD biomarker (via cerebrospinal fluid (CSF) or amyloid positron emission tomography (PET), freq. (%)</td><td>9 (50.0) - Female: 6 (66.67) - Male: 3 (33.33) </td></tr></table>	Patient characteristics	Total sample (N = 18)	Age, years (min, max) mean (SD)	(66, 84) 74.06 (4.95)	ApoE ε4 status, freq. 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(%)	9 (50.0) - Female: 6 (66.67) - Male: 3 (33.33)	❑ In this small sample of patients who have completed 18-months of lecanemab therapy, 50% reached normalization of AD biomarkers via CSF or amyloid-PET, a lower rate than what was observed in CLARITY AD.¹ ❑ Approximately 66.67% of patients who reached normalization of AD biomarkers were women. ❑ Larger real-world data is needed to confirm our preliminary findings.	- van Dyck, C. H., Swanson, C. J., Aisen, P., Bateman, R. J., Chen, C., Gee, M., ... & Iwatsubo, T. (2023). Lecanemab in early Alzheimer’s disease. <i>New England Journal of Medicine</i>, 388(1), 9-21. - Nasreddine, Z. S., Phillips, N. A., Bédirian, V., Charbonneau, S., Whitehead, V., Collin, I., ... & Chertkow, H. (2005). The Montreal Cognitive Assessment, MoCA: A brief screening tool for mild cognitive impairment. <i>Journal of the American Geriatrics Society</i>, 53(4), 695-699. - Pfeffer, R. I., Kurosaki, T. T., Harrah Jr, C. H., Chance, J. M., & Filos, S. (1982). 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