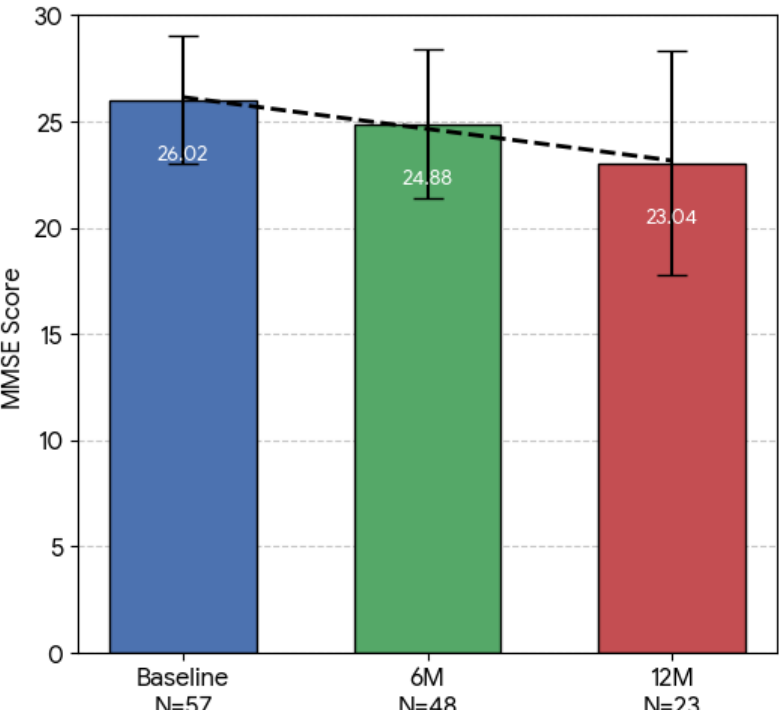
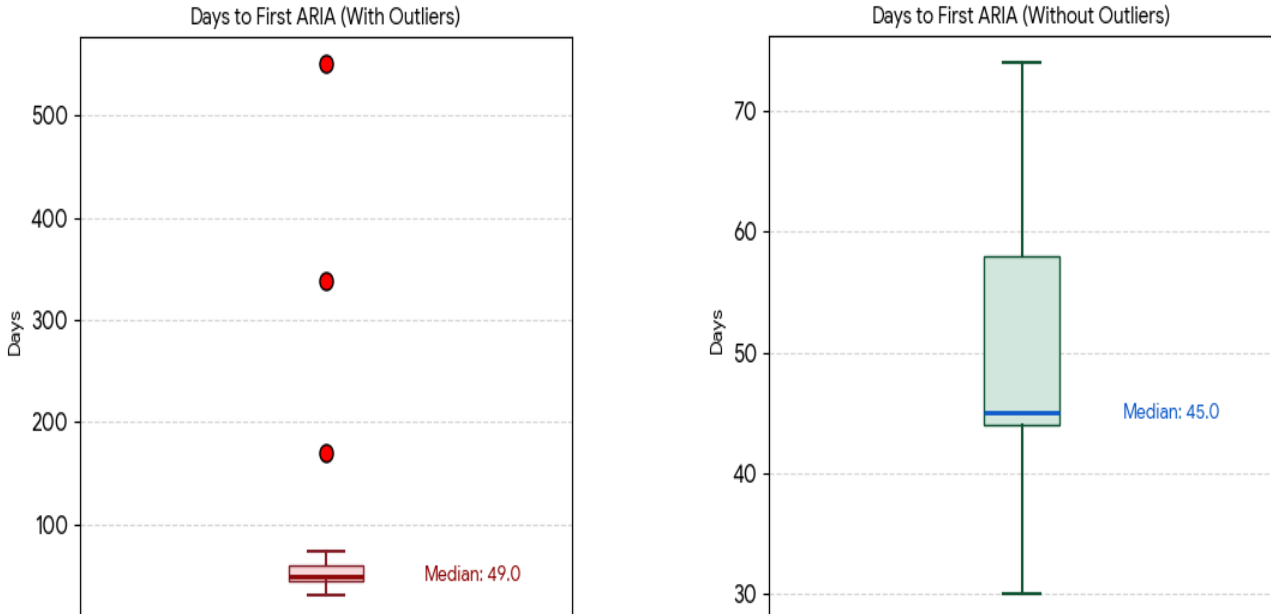


Real-world Data on Use and Safety of Anti-amyloid Monoclonal Antibodies in Alzheimer’s Disease

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INTRODUCTION	METHODS	RESULTS																																																																																																																																																																																																																																																																																													
The recent FDA approval of monoclonal antibody treatments for Alzheimer’s disease has ushered in a new therapeutic paradigm. By directly targeting amyloid pathology, these treatments represent a move toward disease-modifying interventions rather than solely managing symptoms, reshaping both clinical practice and future research directions in neurodegenerative disease. Given the substantial risk of amyloid-related imaging abnormalities (ARIA) including ARIA-E and ARIA-H, careful consideration must be given to balancing therapeutic efficacy with patient safety. Real-world data are critical to understanding these risks. We report our single-center clinical experience with lecanemab and donanemab.	We conducted a single-institution retrospective chart review of patients treated with lecanemab or donanemab between January 1, 2024, and August 31, 2025: Total of 57 patients initiated treatment: 31 received lecanemab 26 received donanemab. The cohort was predominantly Caucasian (n=51) with: 1 African American patient 5 patients with race not reported. Mean baseline Mini-Mental State Examination (MMSE) score was 25.8. Baseline amyloid PET data were available for 44 patients centiloid values ranged from 26.8 to 158.2. APOE E4 status: 39 patients were APOE E4 heterozygous 18 were non-carriers; - No E4 homozygotes received treatment. Approximately 60% of our patients (n=34) were receiving anti-hypertensive treatment at baseline.	The overall ARIA incidence was 38.6%. ARIA frequency: 41% E4 carriers 33% non-carrier ARIA severity ranged from mild to severe - Most events were classified as mild, - Only two cases were classified as severe ARIA and anti-hypertensive treatment: 44% received anti-hypertensive treatment 30% not taking anti-hypertensive medication Baseline demographic and clinical characteristics <table><tr><th>Characteristic</th><th>UH (N=57)</th><th>Lecanemab (N=898)</th><th>Donanemab (N=660)</th></tr><tr><td>Age, mean± SD, years</td><td>73.66±7.75</td><td>71.4±7.9</td><td>73.0±6.2</td></tr><tr><td>Sex, n (%)</td><td></td><td></td><td></td></tr><tr><td>Male</td><td>27 (47.37)</td><td>416 (48.4)</td><td>367 (42.7)</td></tr><tr><td>Female</td><td>30 (52.63)</td><td>443 (51.6)</td><td>493 (57.3)</td></tr><tr><td>Race/Ethnicity, n (%)</td><td></td><td></td><td></td></tr><tr><td>White</td><td>51 (89.5)</td><td>655 (76.3)</td><td>781 (90.9)</td></tr><tr><td>Black/African-American</td><td>1 (1.8)</td><td>20 (2.3)</td><td>19 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<table><tr><th>Characteristic</th><th>UH (N=57)*</th><th>Lecanemab</th><th>Donanemab</th></tr><tr><td>Medication, n (%)</td><td></td><td></td><td></td></tr><tr><td>Lecanemab</td><td>31 (54.39)</td><td></td><td></td></tr><tr><td>Donanemab</td><td>26 (45.61)</td><td></td><td></td></tr><tr><td>Treatment duration in months, mean±SD</td><td></td><td></td><td></td></tr><tr><td>Total</td><td>7.06±4.74</td><td></td><td></td></tr><tr><td>Lecanemab</td><td>8.89±5.33</td><td></td><td></td></tr><tr><td>Donanemab</td><td>4.89±2.58</td><td></td><td></td></tr><tr><td>No. of infusions, mean±SD</td><td></td><td></td><td></td></tr><tr><td>Total</td><td>13.32±10.87</td><td></td><td></td></tr><tr><td>Lecanemab</td><td>19.55±11.24</td><td></td><td></td></tr><tr><td>Donanemab</td><td>5.88±2.64</td><td></td><td></td></tr><tr><td>ARIA, n (%)</td><td>22 (38.60)</td><td>302 (33.6%)</td><td>314 (36.5%)</td></tr><tr><td>Days to 1st ARIA, median</td><td>49</td><td></td><td></td></tr><tr><td>With outliers 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(%)</td><td></td><td></td><td></td></tr><tr><td>Lecanemab</td><td>15/31 (48.39)</td><td></td><td></td></tr><tr><td>Donanemab</td><td>7/26 (26.92)</td><td></td><td></td></tr><tr><td>Treatment discontinuation, n (%)</td><td></td><td></td><td></td></tr><tr><td>ARIA</td><td>13 (22.81)</td><td>62 (6.9%)</td><td>112 (13.1%)</td></tr><tr><td>Infusion-related reaction</td><td>10 (17.54)</td><td>28 (3.1%)</td><td>53 (6.2%)</td></tr><tr><td>Other</td><td>1 (1.75)</td><td>11 (1.2%)</td><td>29 (3.4%)</td></tr><tr><td>Treatment completion</td><td>1 (1.75)</td><td>23 (2.6%)</td><td>30 (3.5%)</td></tr><tr><td></td><td></td><td>-</td><td>-</td></tr><tr><td>MMSE score, mean±SD)</td><td></td><td></td><td></td></tr><tr><td>Baseline (N=57)</td><td>26.02±3.04</td><td></td><td></td></tr><tr><td>6-month (N=48)</td><td>24.88±3.49</td><td></td><td></td></tr><tr><td>12-month (N=23)</td><td>23.04±5.27</td><td></td><td></td></tr></table>	Characteristic	UH (N=57)	Lecanemab (N=898)	Donanemab (N=660)	Age, mean± SD, years	73.66±7.75	71.4±7.9	73.0±6.2	Sex, n (%)				Male	27 (47.37)	416 (48.4)	367 (42.7)	Female	30 (52.63)	443 (51.6)	493 (57.3)	Race/Ethnicity, n (%)				White	51 (89.5)	655 (76.3)	781 (90.9)	Black/African-American	1 (1.8)	20 (2.3)	19 (2.2)	Other/unknown/decline to answer	5 (8.7)			ApoE ε4 status, n (%)				Non-carrier	18 (31.6)	267 (31.1)	259 (30.2)	Heterozygote	39 (68.4)	456 (53.1)	455 (53.1)	Homozygote	0 (0)	136 (15.8)	143 (16.7)	Diagnosis, n (%)				Mild cognitive impairment	39 (68.42)	528 (61.5)	146 (17.0)	Mild dementia	18 (31.58)	331 (38.5)	713 (82.9)	Biomarkers				CSF, n (%)	11 (19.3)			Amyloid PET, n (%)	46 (80.7)			Centiloid, mean ± SD (N=44)	87.13±31.93	77.92±44.84	103.5 (34.5)	MMSE score/equivalent, mean ± SD	25.84±3.13	25.5±2.2	22.4 (3.8)	Baseline microhemorrhage, n (%)	10 (17.54)			Acetylcholinesterase use, n (%)	37 (64.91)	447 (52.0)	521 (60.6)	Memantine use, n (%)	26 (45.61)			SBP, mean ± SD	129.33±15.61			Uncontrolled hypertension (SBP ≥130mmHg), n (%)	27 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(41.03%)			ARIA by drug, no/total no (%)				Lecanemab	15/31 (48.39)			Donanemab	7/26 (26.92)			Treatment discontinuation, n (%)				ARIA	13 (22.81)	62 (6.9%)	112 (13.1%)	Infusion-related reaction	10 (17.54)	28 (3.1%)	53 (6.2%)	Other	1 (1.75)	11 (1.2%)	29 (3.4%)	Treatment completion	1 (1.75)	23 (2.6%)	30 (3.5%)			-	-	MMSE score, mean±SD)				Baseline (N=57)	26.02±3.04			6-month (N=48)	24.88±3.49			12-month (N=23)	23.04±5.27			MMSE scores over time  Time to ARIA from treatment initiat 
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Infusion-related reaction	10 (17.54)	28 (3.1%)	53 (6.2%)																																																																																																																																																																																																																																																																																												
Other	1 (1.75)	11 (1.2%)	29 (3.4%)																																																																																																																																																																																																																																																																																												
Treatment completion	1 (1.75)	23 (2.6%)	30 (3.5%)																																																																																																																																																																																																																																																																																												
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MMSE score, mean±SD)																																																																																																																																																																																																																																																																																															
Baseline (N=57)	26.02±3.04																																																																																																																																																																																																																																																																																														
6-month (N=48)	24.88±3.49																																																																																																																																																																																																																																																																																														
12-month (N=23)	23.04±5.27																																																																																																																																																																																																																																																																																														
CONCLUSIONS																																																																																																																																																																																																																																																																																															
In this real-world cohort, the incidence of ARIA was higher than that reported in prior clinical trials, although most events were mild in severity. Given the modest sample size, these findings may evolve with continued patient accrual. The observed association between ARIA occurrence and antihypertensive use warrants further investigation to clarify potential mechanistic or confounding factors and to inform risk stratification in clinical practice.																																																																																																																																																																																																																																																																																															
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