

Early Adoption of Amyloid-targeting Therapies for Alzheimer’s Disease: Utilization Patterns and Demographic Differences in Epic Cosmos



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Key Finding: Despite early predictions of significant spending on new Alzheimer’s medications, fewer than 1% of MCI or AD-diagnosed patients initiated amyloid treatment between 2022-25. Differences in demographics are evident in early treatment adoption which may reflect clinically appropriate decision-making and/or structural barriers to accessing care.

Background and Significance

The Problem

- Medicare approved coverage of amyloid-targeting Alzheimer’s therapies Lecanemab in 2023 and Donanemab in 2024
- These medications are expensive and require early diagnosis, biomarker confirmation, and safety monitoring
- Centers for Medicare & Medicaid Services (CMS) estimated costs of between \$2 billion and \$5 billion annually from such treatments

The Gap

Limited data exists on these treatments and their real-world implementation

Research Objective
To examine utilization trends in clinical practice across the care cascade, from diagnosis to neurology referral to treatment

Study Design and Setting

- Retrospective cohort design. Epic electronic health record-enrolled and participating hospitals, Jan 1, 2022-Dec 31, 2025.
- Age 65+ with new diagnosis of mild cognitive impairment (MCI) or Alzheimer’s Disease (AD)

Data Sources

Epic Cosmos Dataset: large US electronic health record network representing approximately half of US health systems

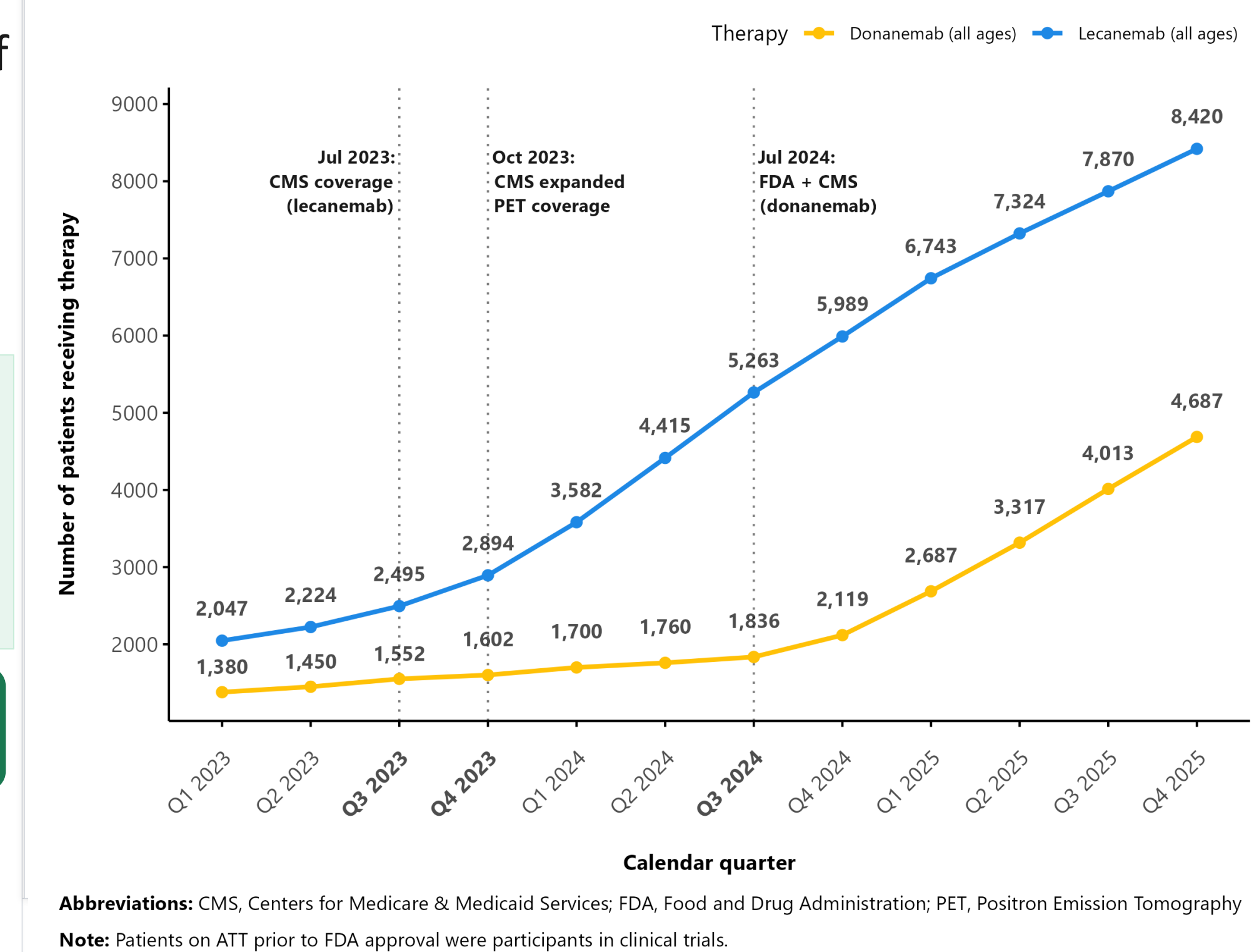
Statistical Approach

- Examined sociodemographic at specific stages of treatment:**
- Diagnosis (Mild Cognitive Impairment or Alzheimer’s using ICD-10)
 - Neurologist referral (<3 months and <6 months)
 - Treatment (Lecanemab or Donanemab)

Results: amyloid treatment uptake and pathway (2022-2025)

Figure 1 (right). Alzheimer’s Amyloid Treatment Pathway (1.2022-12.2025)

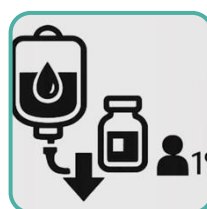
Figure 2 (below). Alzheimer’s Amyloid Treatment Uptake Over Time (1.2023-12.2025)



Outcome	Initial diagnosis n = 1,667,913	Neuro ≤3 mo, n (%) n = 586,332 (35.2%)	Neuro ≤6 mo, n (%) n = 649,820 (39.0%)	ATT, n (%) n = 14,628 (0.88%)	Lower ATT	Higher ATT	ATT RR
Diagnosis code							
MCI (G31.84)	906,697	398,628 (44.0%)	434,739 (47.9%)	9,755 (1.08%)		Yellow diamond	1.68
No MCI (ref)	761,216	187,704 (24.7%)	215,081 (28.3%)	4,873 (0.64%)			1.00
Age group							
<65 years	190,105	102,439 (53.9%)	111,850 (58.8%)	1,746 (0.92%)	Blue diamond		0.57
65–74 years (ref)	401,349	179,361 (44.7%)	197,088 (49.1%)	6,481 (1.61%)			1.00
75–84 years	652,796	223,512 (34.2%)	248,769 (38.1%)	5,846 (0.90%)	Blue diamond		0.56
≥85 years	426,661	81,021 (19.0%)	92,113 (21.6%)	555 (0.13%)	Blue diamond		0.08
Legal sex							
Female	987,120	333,968 (33.8%)	370,283 (37.5%)	8,314 (0.84%)	Blue diamond		0.90
Male (ref)	680,793	252,364 (37.1%)	279,537 (41.1%)	6,314 (0.93%)			1.00
Race/ethnicity							
Black or African American	187,568	60,934 (32.5%)	68,462 (36.5%)	424 (0.23%)	Blue diamond		0.22
White (ref)	1,249,172	447,487 (35.8%)	496,113 (39.7%)	12,949 (1.04%)			1.00
All remaining groups	241,389	81,509 (33.8%)	89,279 (37.0%)	1,302 (0.54%)	Blue diamond		0.52
Rurality							
Metropolitan (ref)	1,396,600	493,695 (35.3%)	548,006 (39.2%)	12,480 (0.89%)			1.00
Micropolitan	135,569	47,118 (34.8%)	51,854 (38.2%)	1,164 (0.86%)	Blue diamond		0.97
Small town/isolated rural	111,421	38,188 (34.3%)	41,883 (37.6%)	840 (0.75%)	Blue diamond		0.83
Social vulnerability index							
High SVI (75–100)	510,854	166,586 (32.6%)	185,095 (36.2%)	3,002 (0.59%)	Blue diamond		0.49
Medium SVI (25–75)	815,204	290,955 (35.7%)	322,356 (39.5%)	7,667 (0.94%)	Blue diamond		0.78
Low SVI (0–25) (ref)	313,459	120,307 (38.4%)	133,046 (42.4%)	3,793 (1.21%)			1.00
Medication use							
Cholinesterase inhibitor	700,754	290,446 (41.4%)	322,523 (46.0%)	11,032 (1.57%)		Yellow diamond	4.23
No cholinesterase inhibitor (ref)	967,159	295,886 (30.6%)	327,297 (33.8%)	3,596 (0.37%)			1.00

Abbreviations: ATT, anti-amyloid therapy; MCI, mild cognitive impairment; Neuro, neurology visit; RR, risk ratio of receiving ATT treatment; SVI, social vulnerability index (100 = most vulnerable).
Note: Risk ratios are plotted on a logarithmic scale. Blue markers indicate ATT risk ratios < 1.0; yellow markers indicate RR > 1.0. The dashed vertical line represents RR = 1.0 (reference).

Discussion

-  Of over 1,667,913 patients diagnosed between 2022 and 2025, only 14,628 (or 0.88%) received Alzheimer’s amyloid treatment. This number was higher (1.08%) among those with an MCI diagnosis vs (0.64%) without. Approximately 39% of patients saw a neurologist within six months of an initial MCI or Alzheimer’s diagnosis.
-  Patients aged 85+ had substantially lower treatment rates (RR: 0.08) compared to those aged 65-74, Black or African American patients also had lower treatment rates (RR: 0.22) compared to White patients. Differences by sex or rurality were small.
-  Use of Lecanemab doubled in its first year of approval (2,495 to 5,263) with Donanemab uptake also doubling in its first year (1,836 to 4,013) but uptake for both medications remains low.