

BACKGROUND

- Statins are largely prescribed for cardiovascular risk reduction and are known to have immunomodulatory properties. Previous studies,¹ suggest a possible link between statin use and increased incidence of atopic dermatitis (AD).

AIM

- To evaluate whether statin-use is associated with an increased incidence of new-onset AD in adults

METHODS

- We queried COSMOS Slicer Dicer for adult patients (age ≥45) with at least two encounters within a two-year period between January 1st, 2016 and December 31st, 2024. Patients with a prior history of AD were excluded. The statin-exposed cohort included patients with a statin prescription that preceded a diagnosis of AD. The comparison group included patients with no history of statin use. AD diagnoses were identified using ICD-9/10 codes, and outcome rates were compared using Odds Ratio (OR) and chi-square testing.

RESULTS

- A total of 27,521,697 **statin-exposed** patients and 90,197,064 **statin-naïve** patients met inclusion criteria. Among statin users, 310,878 (1.13%) developed AD following statin initiation, compared to 593,257 (0.66%) in the statin-naïve group. This resulted in an odds ratio of 1.72 (P-value <0.0001). The association was statistically significant and suggests a strong correlation between statin use and increased incidence of subsequent AD diagnosis.

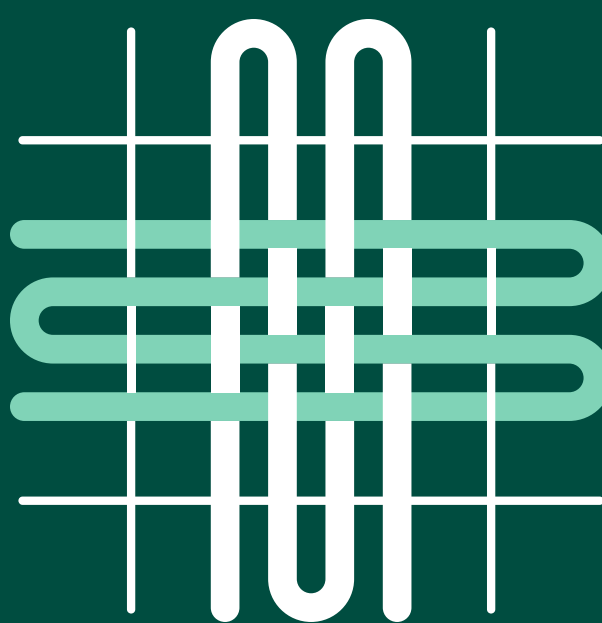
CONCLUSIONS

- Statin use was associated with a significantly increased incidence of new-onset atopic dermatitis. These findings support prior observations and raise questions regarding the potential immunologic and dermatologic side effect profile of statins. Further research controlling for confounders (e.g., comorbidities, healthcare utilization) and examining dose-response relationships is warranted.

Association between Statin Use and New-Onset Atopic Dermatitis
A retrospective cohort study

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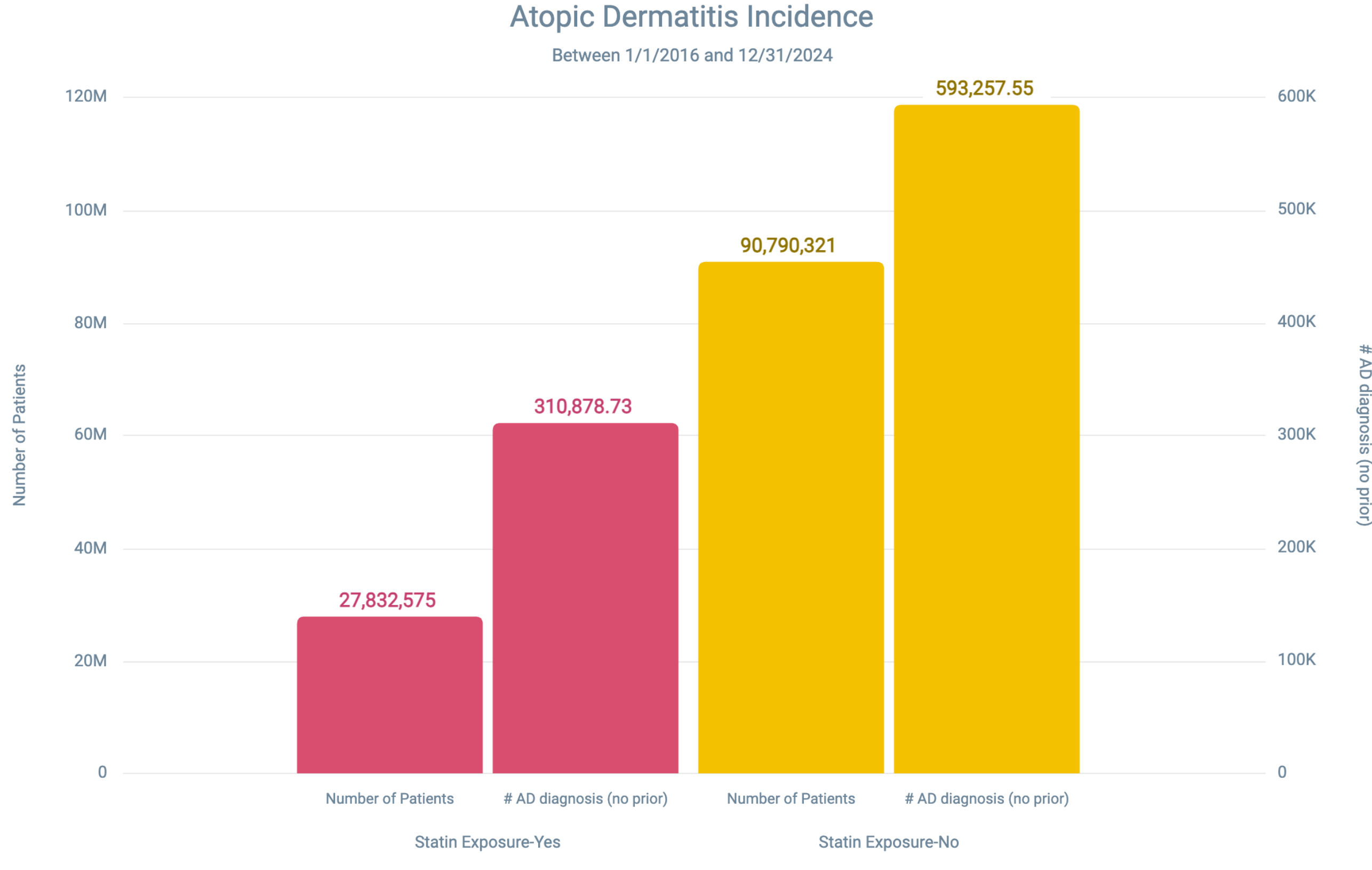
Statins may increase the
likelihood of developing
Atopic Dermatitis



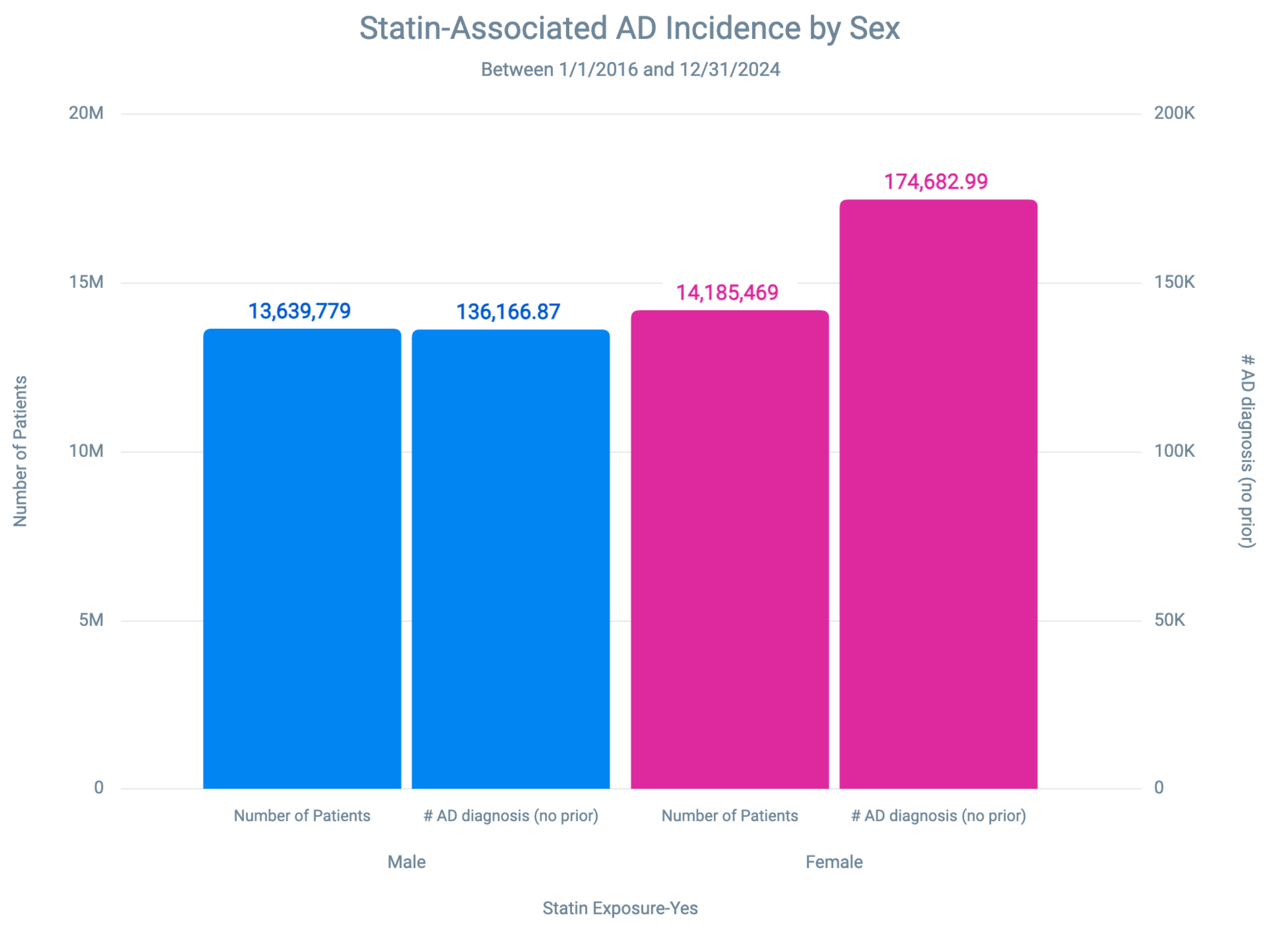
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Description
Created using Epic Cosmos. Analysis performed by Dominique Fontaine and internally reviewed by Lynn Foster-Johnson at Dartmouth Health in September of 2025.



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ACKNOWLEDGEMENTS

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Data used in this study came from Epic Cosmos, a dataset created in collaboration with a community of health systems using Epic, representing more than 300 million patient records from over 1,809 hospitals and 41.5,000 clinics as of October 2025. The community represents patients from all 50 states, D.C., Canada, Lebanon, and Saudi Arabia. The current counts values for patients, hospitals, and clinics are available on cosmos.epic.com.

REFERENCES

1. Cheung K, Powers EM, McKillip J, Powers JG. Effect of Statin Use on Incidence of Eczema and Atopic Dermatitis: A Retrospective Cohort Study. *J Am Acad Dermatol*. 2021;84(2):534-535. doi:10.1016/j.jaad.2020.05.015