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Introduction

- Patients with chronic rhinosinusitis (CRS) have prevalence of depression and anxiety of 25% and 29% respectively, versus 5-10% in general population^{1,2}
- CRSwNP has high burden related to healthcare utilization and health-related quality of life (HRQoL)^{3,4}
- Prior studies of monoclonal antibodies for CRSwNP have reported improvements in depressive or anxiety symptoms and HRQoL primarily through patient reported outcomes⁵⁻⁷

Objective
Evaluate whether dupilumab use is associated with fewer documented depressive episodes and acute care utilization 6- to 12-month after initiation among patients with CRSwNP and preexisting depression.

Methods

- Adult CRSwNP patients identified from 1/1/2015 to 12/31/2024 using the TriNetX Network by presence of both ICD-10-CM codes J32 & J33, and documented depression
- Excluded patients with cystic fibrosis (E84) and congenital respiratory malformations (Q34.8)
- Stratified into 2 cohorts based on initiation of dupilumab with 1:1 propensity-score matching performed based on age at index, sex, race, and ethnicity
- Index date defined as dupilumab initiation date or matched encounter date
- Comparison of the following outcomes at 6 to 12 months after index date:
 - Depressive episodes (F32)
 - Other anxiety disorders (F41)
 - Emergency department (ED) visits, defined using the TriNetX CPT concept 1013711
 - Inpatient encounters, defined using the TriNetX visit concept

Results

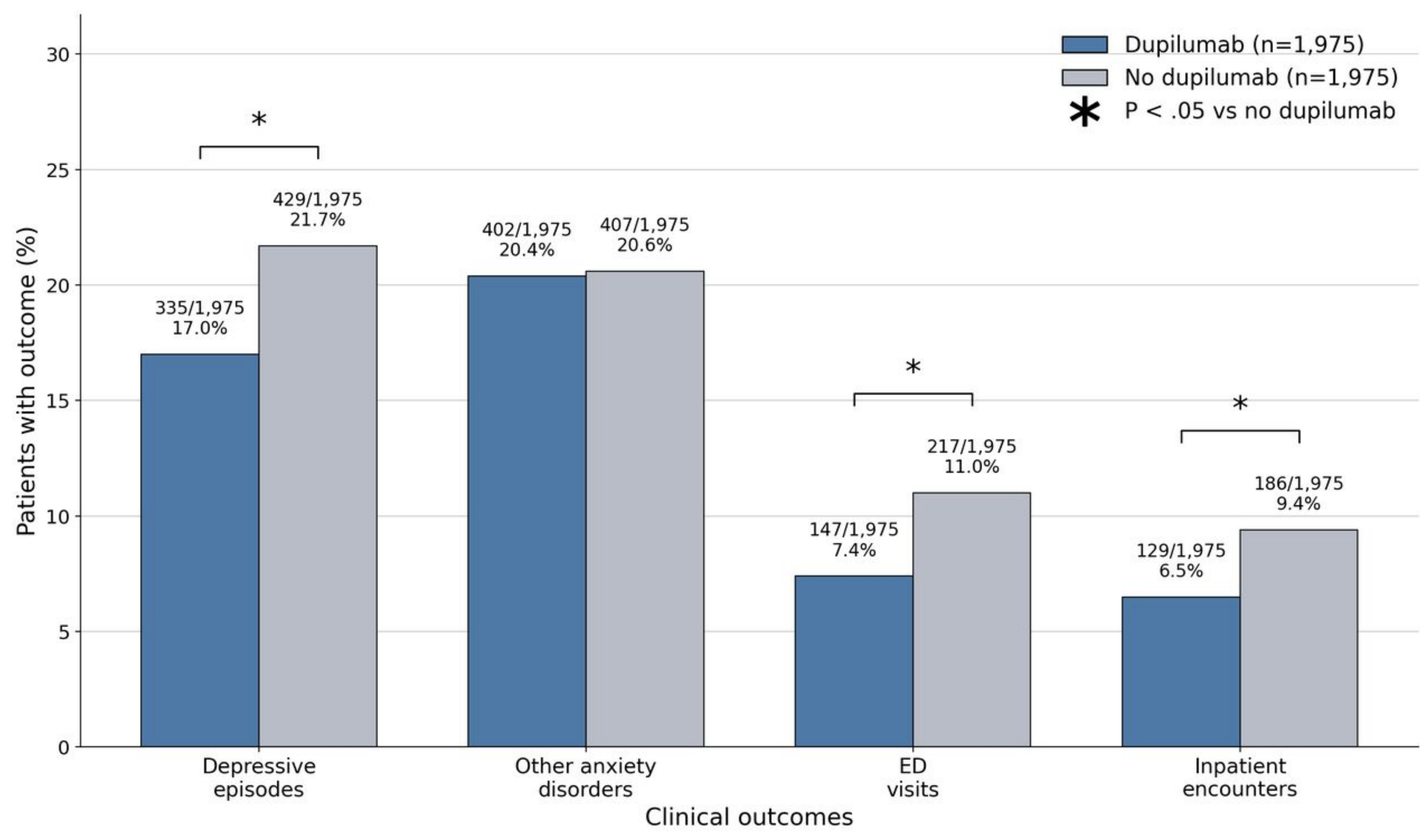


Figure 1. Outcome rates after PSM among CRSwNP patients treated with dupilumab versus no dupilumab during 6 to 12-mo follow-up

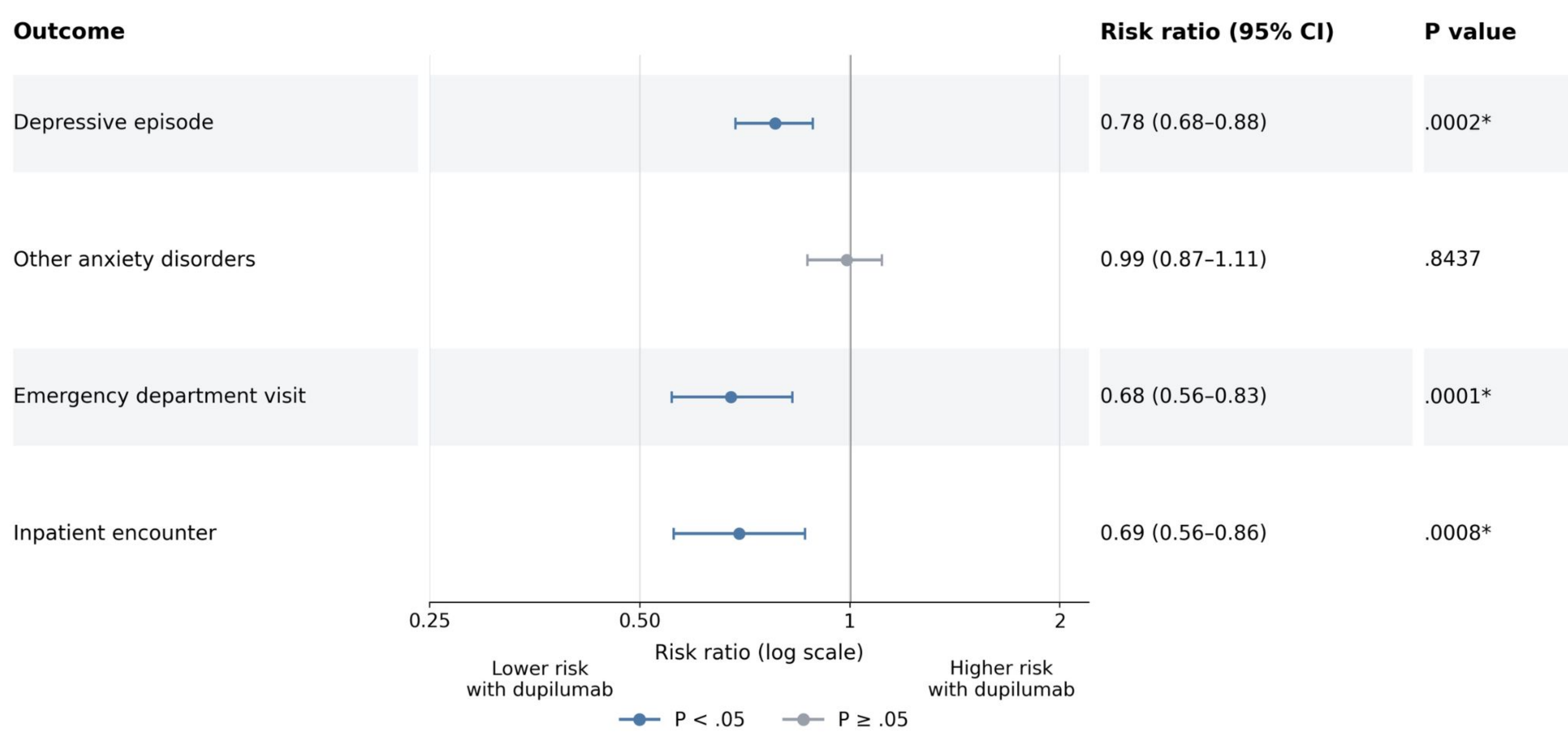


Figure 2. Risk ratios for clinical outcomes within 12 months after PSM

Discussion

- Patients with CRS and comorbid depression have been shown to experience worse disease-specific quality of life, poorer sleep quality, increased medication use, and decreased productivity.
- Improvement in depression following treatment of CRS has also been associated with improvements in sinonasal quality of life and sleep.⁸
- Treatment response in CRSwNP has traditionally focused on sinonasal symptoms, polyp burden, olfaction, and the need for additional medical or surgical therapy
- The use of clinically coded psychiatric outcomes and acute care utilization complements prior work that has primarily relied on patient-reported measures of depression and anxiety.

Conclusion

- Mental health and healthcare utilization are important secondary outcomes when evaluating the burden and treatment of CRSwNP.
- Future prospective studies combining validated psychiatric measures with objective measures of CRSwNP severity and treatment response needed to define relationship between sinonasal disease control, mental health, and healthcare utilization

References

