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Exploring the Impact of Social Determinants of Health on Time to Diagnosis, Treatment Access, and Outcomes in Myasthenia Gravis Patients

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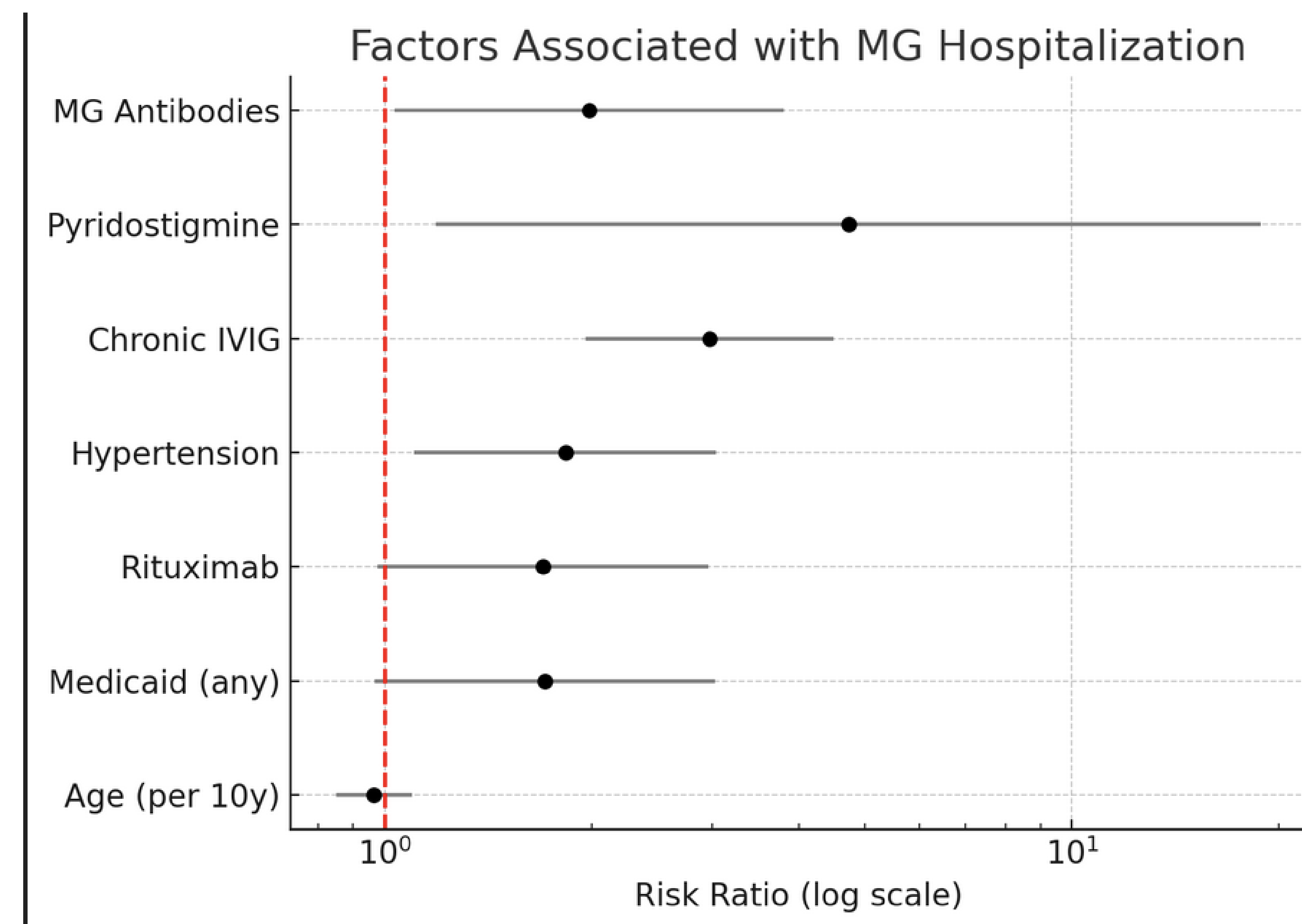
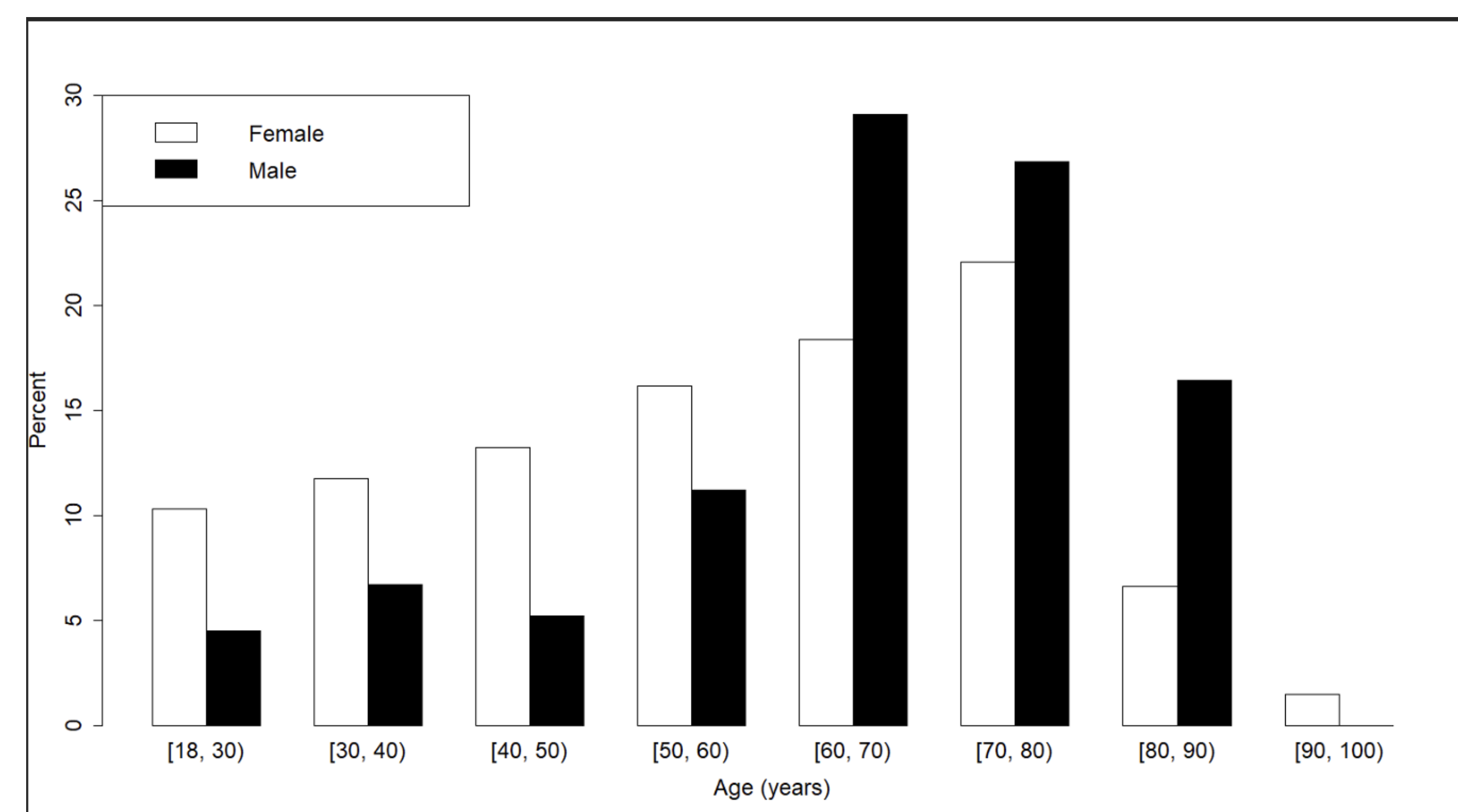
Background

- Racial and socioeconomic disparities significantly affect access, treatment, and outcomes in myasthenia gravis (MG). In a cohort of 270 actively treated patients, non-white and Medicaid-insured individuals were younger and experienced higher rates of hospitalization compared to privately insured patients. Diagnosis delays at our center range from 2 weeks to 8 years, suggesting that social determinants of health (SDOH) play a major role in timely access to care.
- This study integrates quantitative chart review with semi structured patient interviews to capture both measurable disparities and lived experiences. By exploring barriers to diagnosis and treatment from multiple perspectives, our goal is to identify actionable strategies to improve equity, reduce delays, and optimize care for MG patients in Colorado.

Methods

- A retrospective cohort of MG patients seen at UCHHealth previously identified (COMIRB 21-3588) and a subset of 100 patients with generalized myasthenia gravis (gMG) will be confirmed by manual chart review analyzing SDOH factors, clinical outcomes and time to diagnosis as listed below.
- 20 participants with generalized MG who have received care at the UCHHealth Neurology Clinic within the past two years will be purposively sampled to reflect diversity in socioeconomic background and treatment history. Interviews will be conducted to explore diagnostic experiences, access to specialty care, and treatment perceptions. Interviews will be recorded, transcribed, and analyzed using qualitative thematic methods.
- Patient-reported assessments of disease control and treatment efficacy from patients included in Aim 2 will be compared to objective clinical data from the retrospective cohort. Statistical analyses will assess the relationship between SDOH factors and discrepancies between perceived and actual outcomes and identify predictors of poor access or delayed diagnosis.

Results



Next steps

- Retrospective analysis of comorbidities associated with MG hospitalizations.
- Analysis of average time to diagnosis Age, sex, antibody type, race/ethnicity, insurance type, social vulnerability index (SVI), comorbid conditions, and MG-related procedures
- Completion and analysis of semi-structured interviews with consideration of with focus of other SDOH including race, insurance, socioeconomic status, and access to healthcare,

Conclusion

- Preliminary analyses indicate that men are diagnosed with myasthenia gravis significantly earlier than women, suggesting potential gender-based disparities in diagnostic recognition or healthcare access. These findings align with existing literature documenting sex differences in presentation and care-seeking behaviors across neuromuscular and autoimmune conditions. Given these results, we anticipate observing similar disparities across other social dimensions including race, socioeconomic status, and geographic location which may reflect systemic inequities in healthcare utilization and diagnostic evaluation. Understanding how these factors intersect to influence diagnostic timelines is critical for improving health equity and outcomes in patients with MG. Our ongoing work aims to explore these relationships through both quantitative analyses of patient data and qualitative interviews that capture lived experiences and barriers to timely diagnosis.