



Title:Real-World Clinical Experience with more than Thousand ALZpath Plasma p-tau217 Testing in a Canadian Diagnostic Laboratory

Ali Mousavi^{1,2}, Pankaj Kumar^{1,2}, Mary Encarnacion², YiLiang (Betty) Zhang², Ryan Conkling², Hans Frykman^{1,2,3}

1. Department of Medicine, University of British Columbia, Vancouver, Vancouver, BC, Canada 2. BC Neuroimmunology lab, Vancouver, BC, Canada 3.Neurocode USA, Bellingham, WA, USA

Background

- Plasma phosphorylated tau 217 (p-tau217) is a robust biomarker for the diagnosis of Alzheimer's disease (AD), and we have demonstrated its strong clinical performance in identifying AD in previous studies.
- As plasma p-tau217 testing moves into clinical practice, characterization of its real-world distribution and the potential influence of demographic factors is important for clinical interpretation.
- This study reports a large series of plasma p-tau217 test results obtained in a clinical practice setting at a Canadian diagnostic laboratory using the ALZpath plasma p-tau217 immunoassay and evaluates the associations of age and sex with test classification.

Methods

Study Cohort

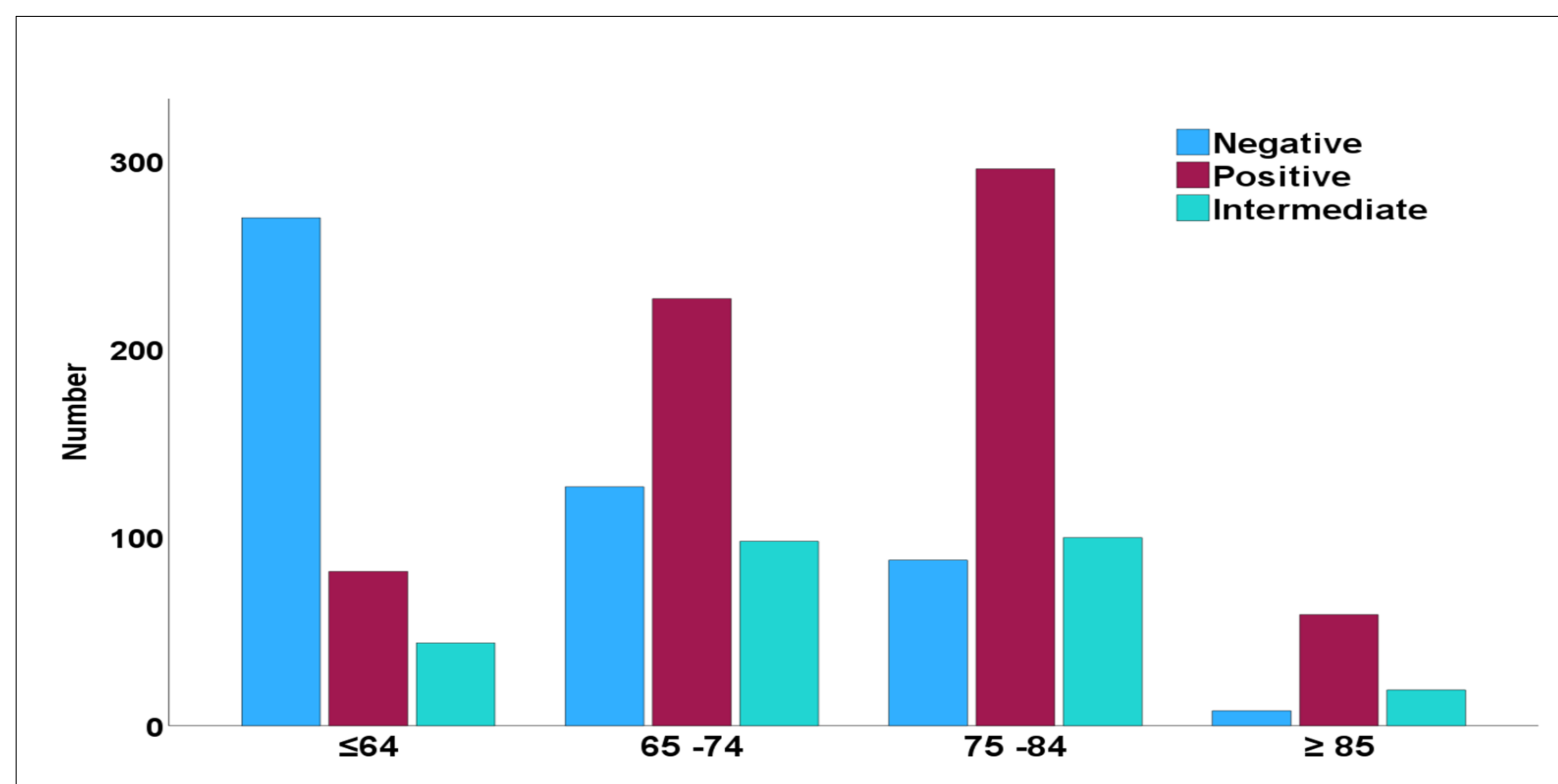
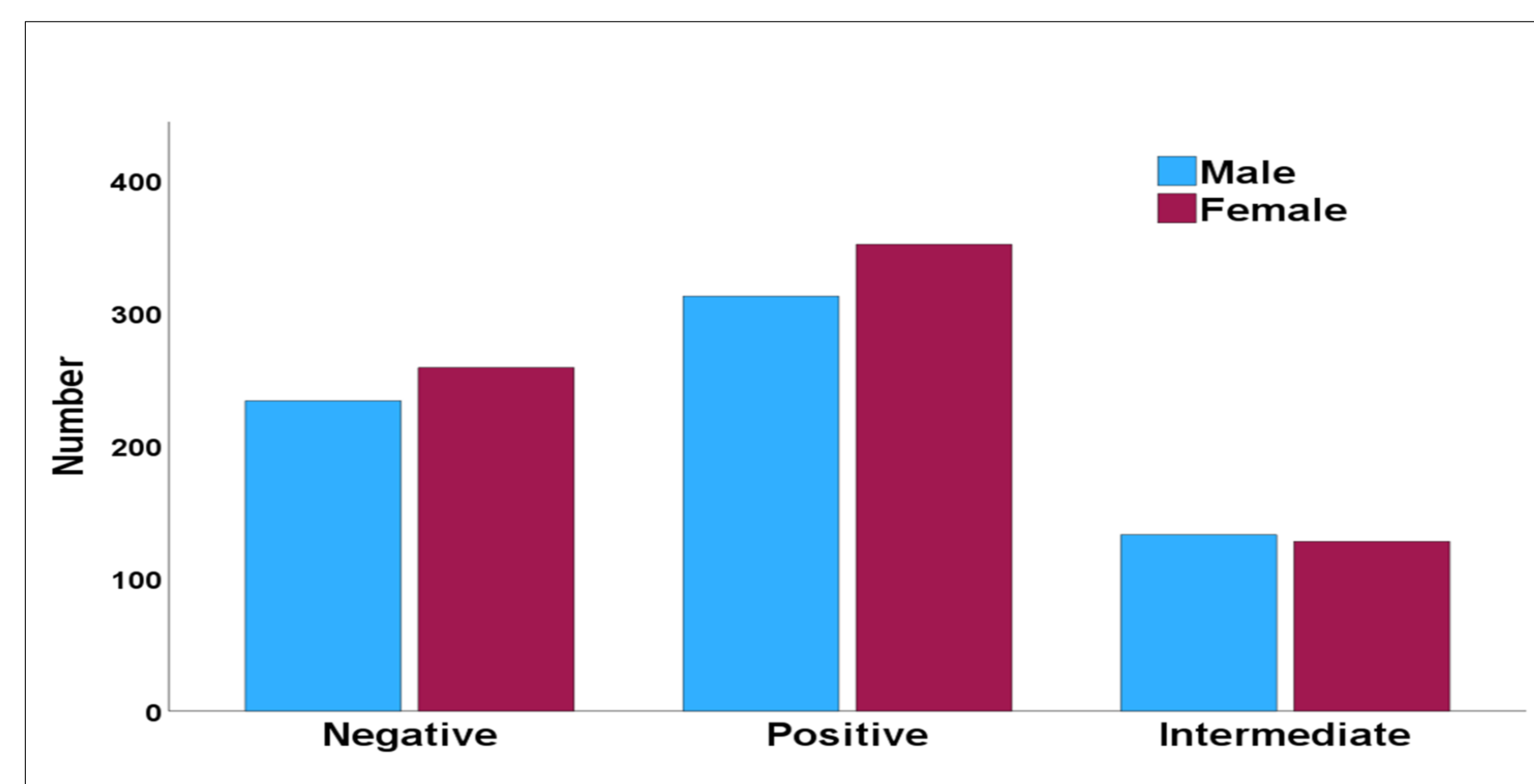
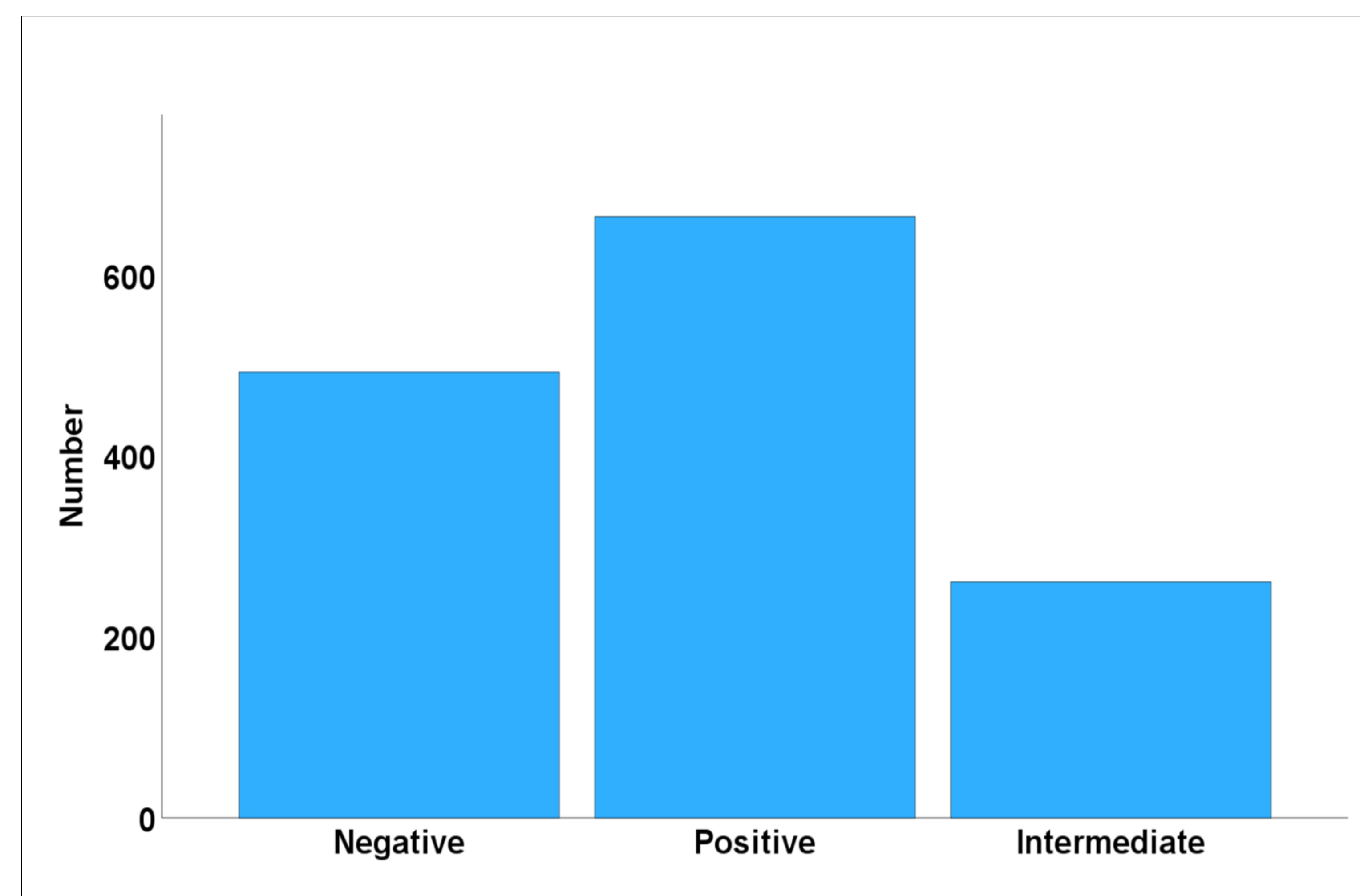
Plasma p-tau217 was measured using

The ALZpath p-tau217 assay on the
Quanterix HD-X Simoa platform
n= 1419

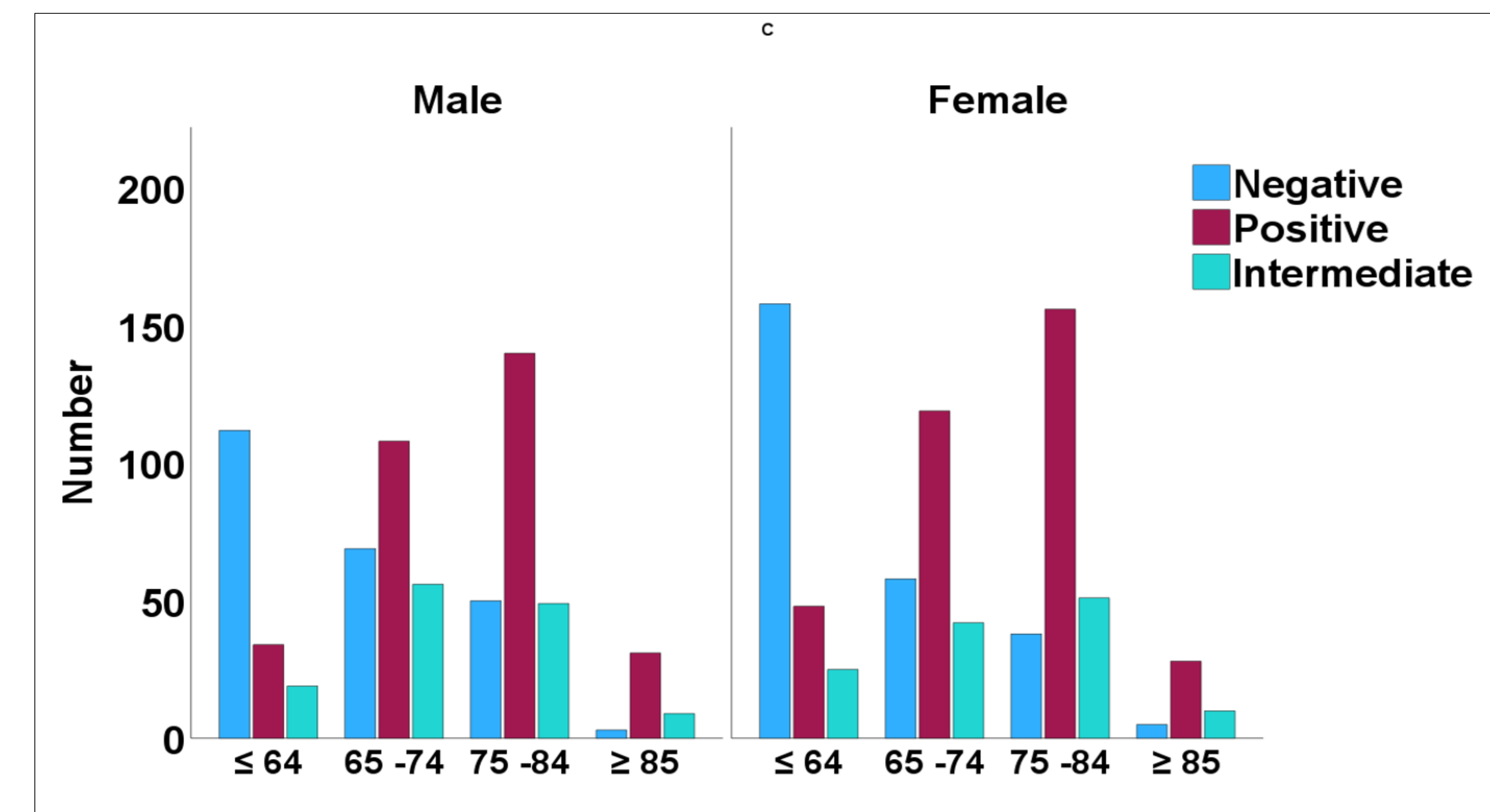
Age was categorized as ≤64, 65-74, 75-84, and ≥85 years. Associations between age, sex, and p-tau217 test results were assessed using chi-square analyses and multinomial logistic regression using SPSS 32 Software. Because measurements were obtained from separate cohorts, comparisons between platforms were descriptive.

Results

Negative	Intermediate	Positive
≤0.34 pg/L	0.35 -0.62 pg/L	≥ 0.63



Results



Conclusion

- In this large real-world series of ALZpath plasma p-tau217 testing, age, but not sex, was strongly associated with plasma p-tau217 test results.
- Quantitative p-tau217 concentrations also differed markedly across test results classifications.
- These findings characterize the real-world distribution of plasma p-tau217 results across age groups and highlight the importance of considering age when interpreting plasma p-tau217 results in clinical practice.

Acknowledgments

We gratefully acknowledge all physicians who submitted samples for testing at the BC Neuroimmunology Lab.

References

Mammel AE., Gonzalez-Ortiz F., Mousavi A., Hallett K., Encarnacion M., Biehl D., Gill P., Ismael S., Fowler C., Doecke JD., Larry Ward L., Frykman H.; Age-related increase in plasma p-tau217 in amyloid-beta negative cognitively unimpaired individuals affects diagnostic interpretation. Alzheimer's & Dementia: The Journal of the Alzheimer's Association. Alzheimers Dement. 2026 Jun;22(6):e71532. doi: 10.1002/alz.71532.

Mammel AE, Hsiung GR, Mousavi A, and Frykman H. et al. Clinical decision points for two plasma p-tau217 laboratory developed tests in neuropathology confirmed samples. Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring. 2025;17(1). doi:10.1002/dad2.70070.