



Title: Clinical Experience with Lumipulse Plasma p-tau217 Testing in a Canadian Diagnostic Laboratory

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Background

- Plasma phosphorylated tau 217 (p-tau217) is a robust biomarker for the diagnosis of Alzheimer's disease .
- 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 series of plasma p-tau217 test results obtained in a real-world setting at a Canadian diagnostic laboratory using the Lumipulse plasma p-tau217 immunoassay and evaluates the associations of age and sex with test classification.

Methods

Study Cohort

Plasma p-tau217 was measured using

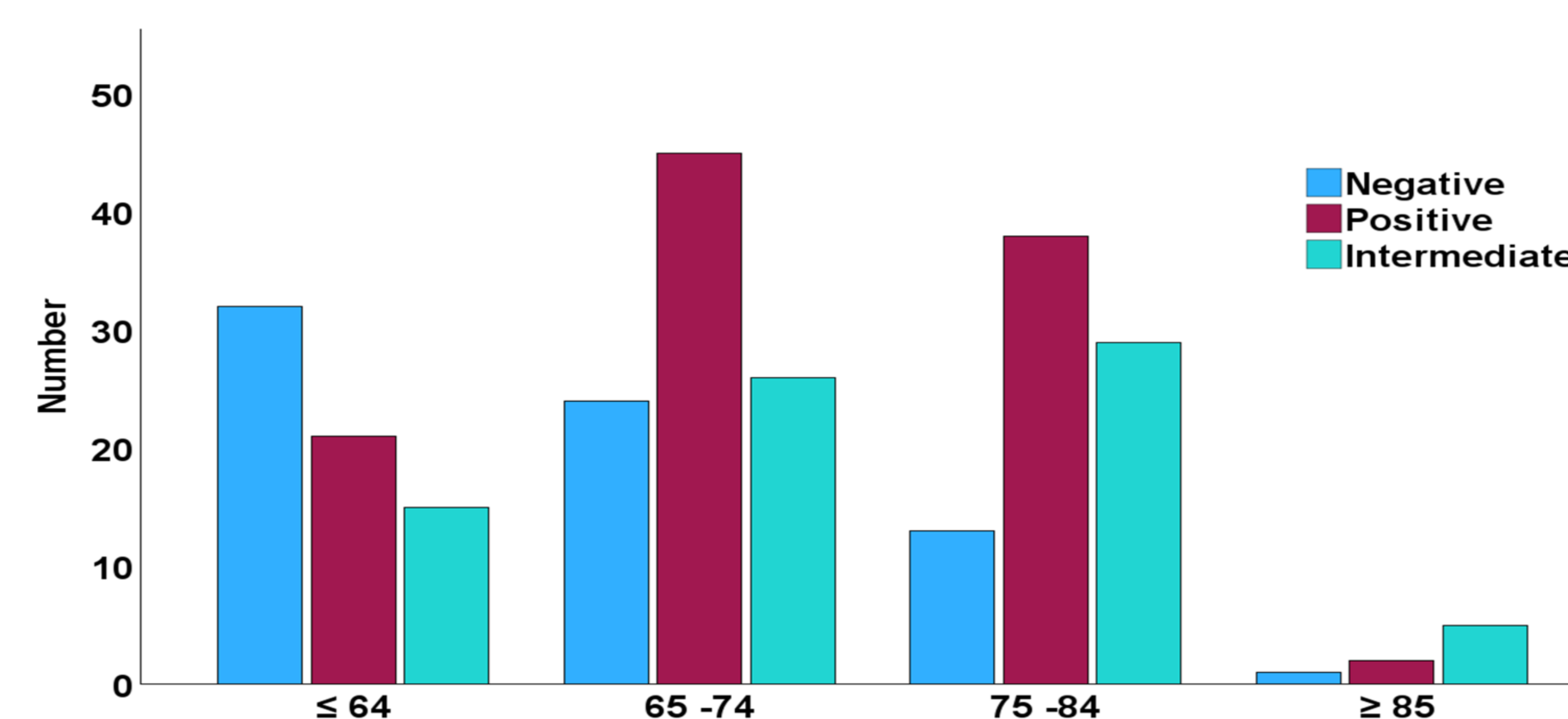
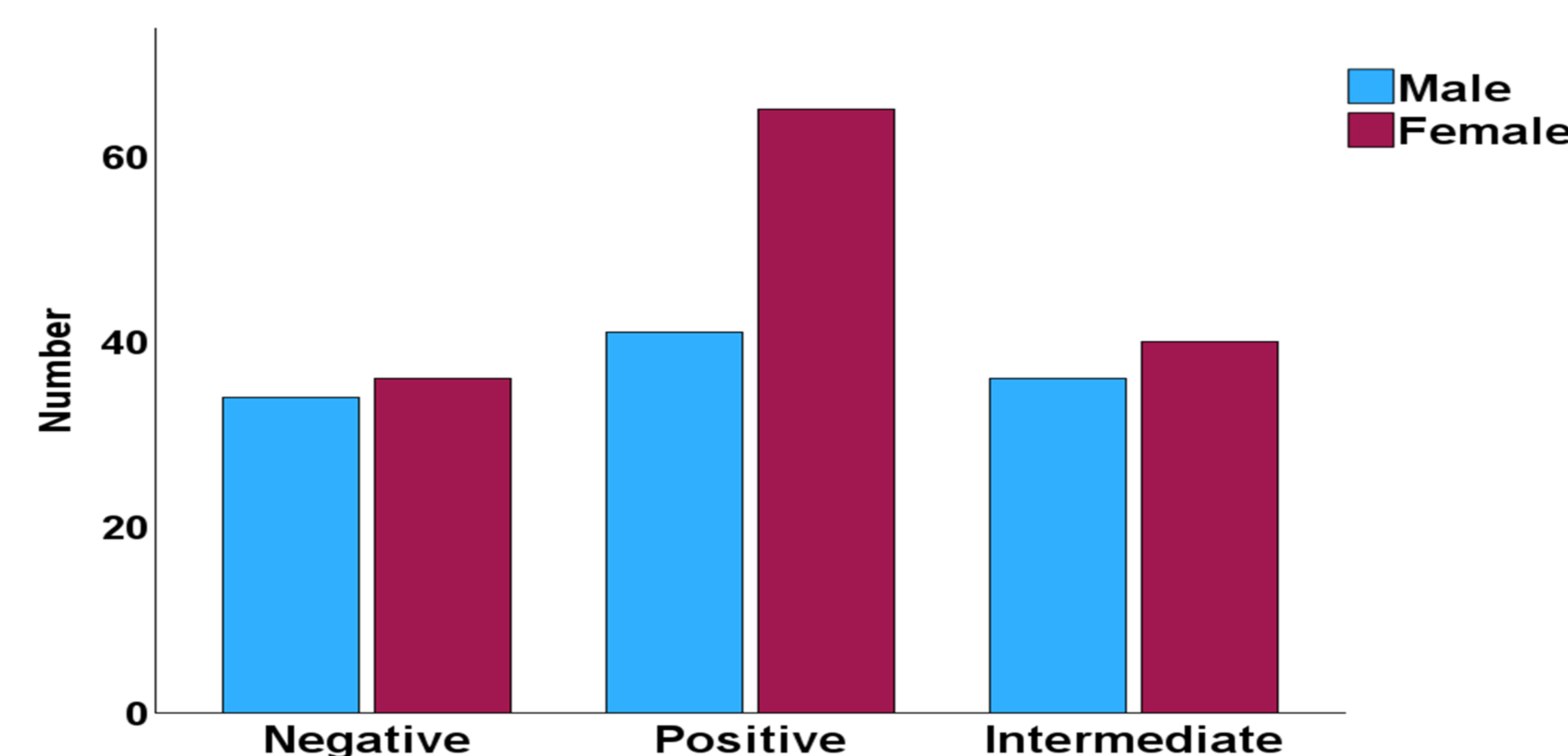
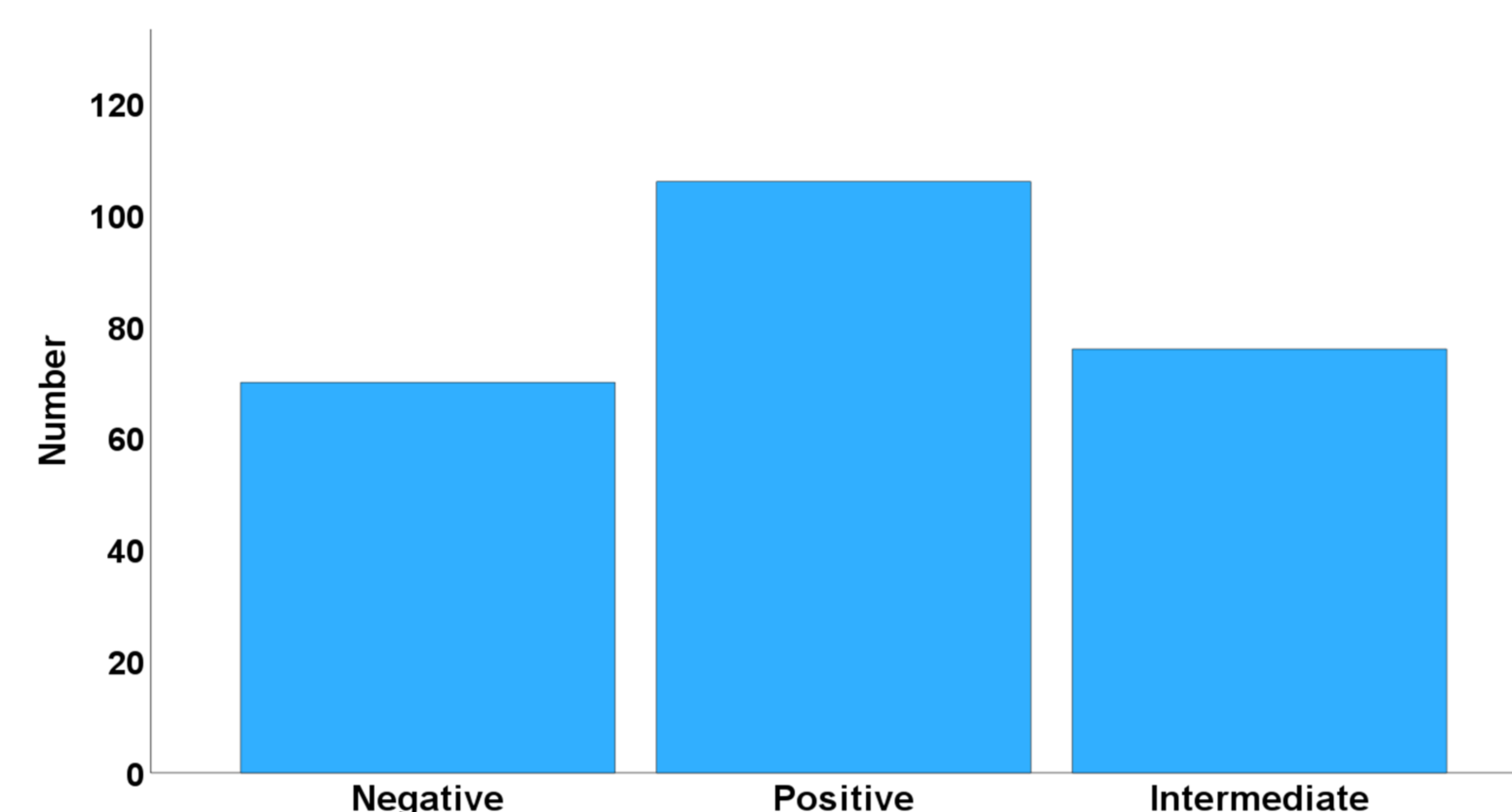
Lumipulse G p-tau217
on the Lumipulse G1200 platform

n= 252

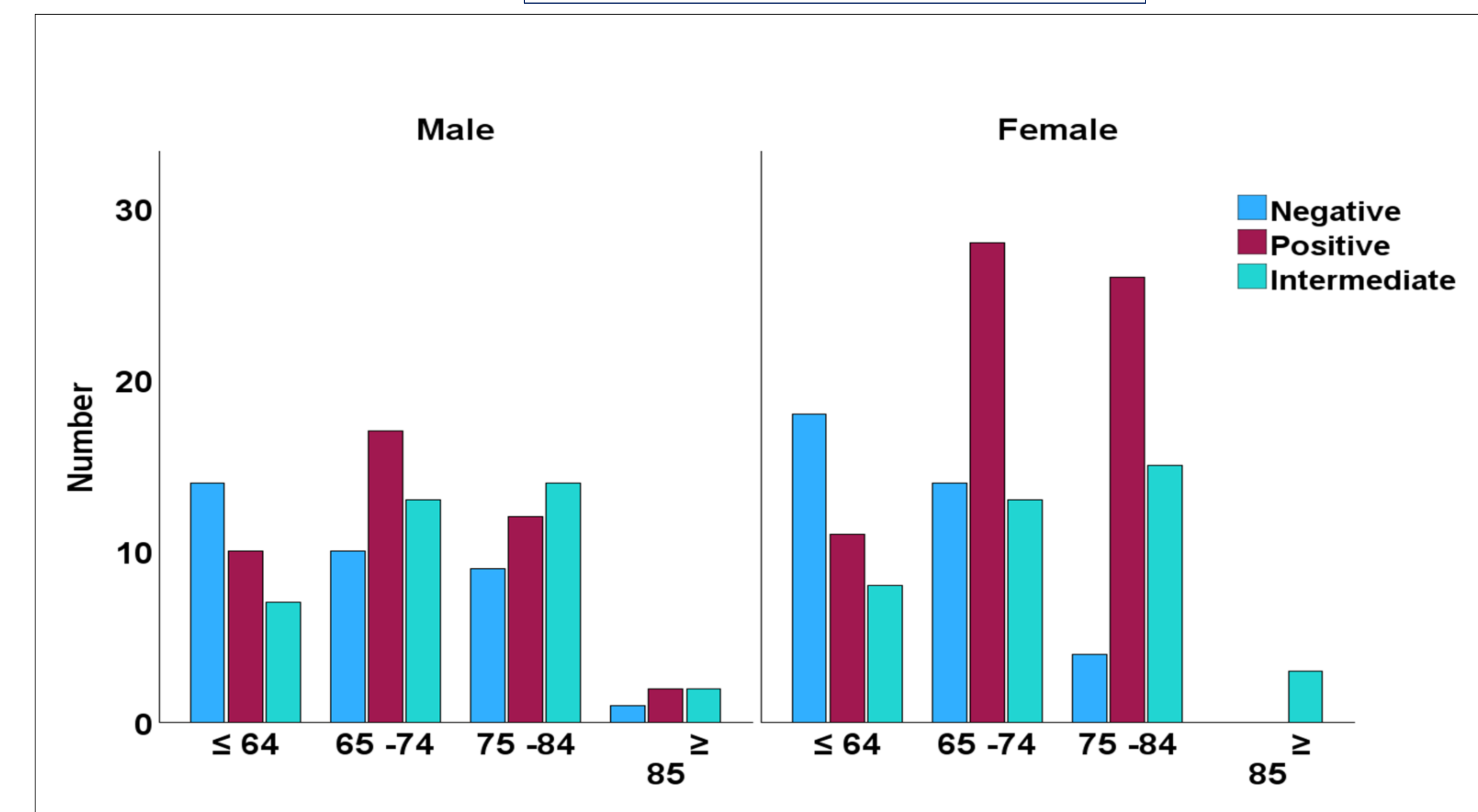
Age was categorized as ≤64, 65-74, 75-84, and ≥85 years. Associations between age, sex, and p-tau217 test results were assessed using chi-square analyses and multinomial logistic regression using SPSS 32 Software. Because measurements were obtained from separate cohorts, comparisons between platforms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

Results

Negative	Intermediate	Positive
≤0.13 pg/L	0.14 -0.36 pg/L	≥ 0.37



Results



Conclusion

- In this real-world series of Lumipulse plasma p-tau217 testing, age, but not sex, was significantly associated with plasma p-tau217 test results.
- Negative results became progressively less frequent with advancing age, while intermediate results were more frequent in older age groups.
- Quantitative p-tau217 concentrations also differed markedly across test results classifications.
- These findings characterize the real-world distribution of Lumipulse plasma p-tau217 results across age groups and support consideration of 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

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