

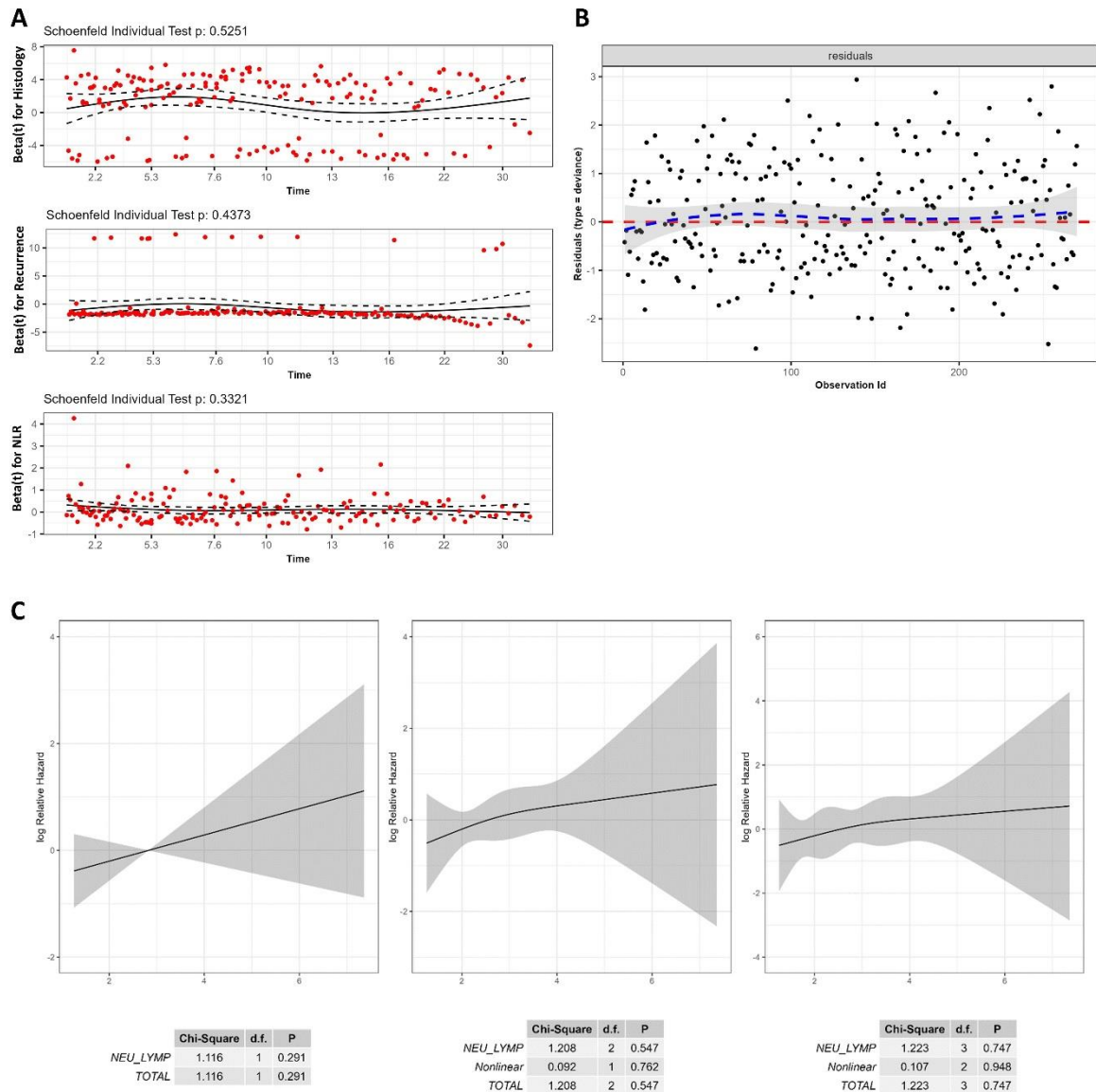


Figure S1. Diagnostic and non-linearity assessments for the multivariable Cox proportional hazards model. (A) Schoenfeld residuals plot testing the proportional hazards assumption. Deviations from a horizontal line suggest violations of the assumption. (B) Deviance residuals plot evaluating model fit and potential outliers. (C) Log-hazard predictions for NLR (solid lines: linear model; dashed lines: restricted cubic splines with 3 or 4 knots). Shaded regions represent 95% confidence intervals. Likelihood ratio tests (LRT) compared linear vs. spline models to evaluate non-linear associations.

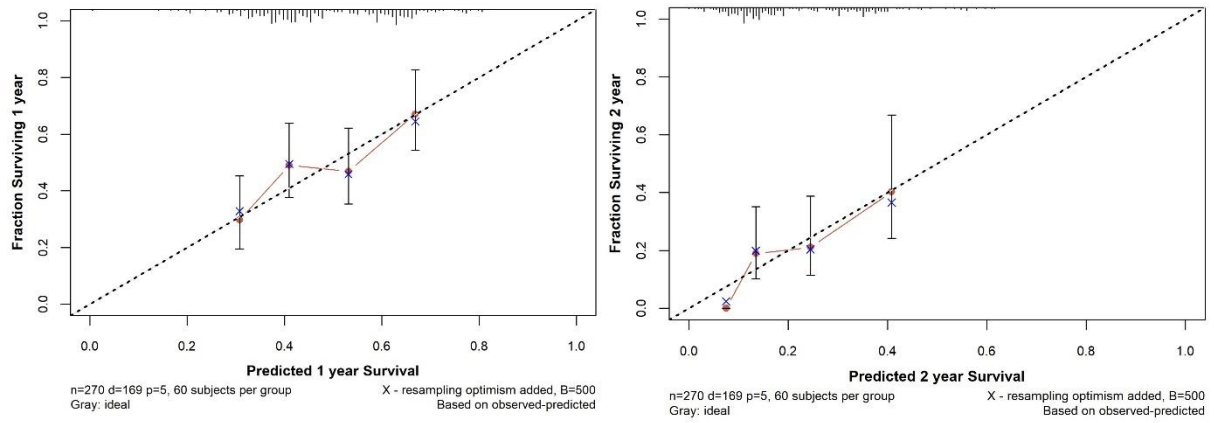


Figure S2. The bootstrapped calibration curves for 1-year and 2-year survival predictions. Predicted vs. observed survival probabilities ($n = 270$, events = 169). The dotted line represents ideal calibration.