



## Posterior Predictive Check Linearity Model-predicted lines should resemble observed data lin Reference line should be flat and horizontal Residuals 1.0 Density 0.4 0.5 0.0 0.2 -0.50.0 2 3 0 2 lactate z Fitted values Observed data — Model-predicted data Homogeneity of Variance Influential Observations Reference line should be flat and horizontal 0.8 0.8 0.2 Fitted values Leverage (h<sub>ii</sub>) Ço∰inearity Normality of Residuals Nariance Infatigue Collinearity (VIF) may inflate parameter uncertainty to the collinearity (VIF) may inflate parameter uncertainty (VIF) may inflate parameter uncert Pots should fall along the line Sample Quant 1.0 Factor (VIF, log-0.5 0.0 -0.5Standard Normal Distribution Quantiles Low (< 5) Normality of Random Effects (id) Dots should be plotted along the line zelemiq\_avg\_z (Intercept) RE Quantiles 0.050 6e-09 0.025 3e - 090.000 0e + 00-0.025-3e-09 6e - 09-0.050-1.51.00.6.00.51.01.5

-1.51.00.6.00.51.01.5

Theoretical Quantiles