Linearity Posterior Predictive Check Model-predicted lines should resemble observed data line 0.04 Residuals Density 0.03 0.02 0.01 0.00 25 50 75 100 125 log1p(labs_alt) Observed data — Model-predicted data Homogeneity of Variance Reference line should be flat and horizontal 1.5 √|Std. residuals Std. Residuals 1.0 0.5 0.0 3.0 3.4 3.8 4.2 Fitted values Collinearity High collinearity (VIF) may inflate parameter uncertainty Variance Inflation Factor (VIF, log-scaled) 10 2 allocation_group allocation_group:visit visit Low (< 5) Normality of Random Effects (record_id) Dots should be plotted along the line 1.0 RE Quantiles 0.5 0.0

0

Theoretical Quantiles

2

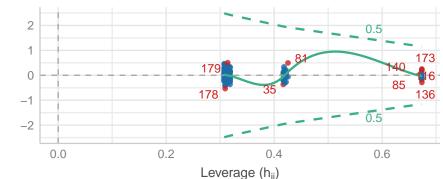
-0.5

-1.0

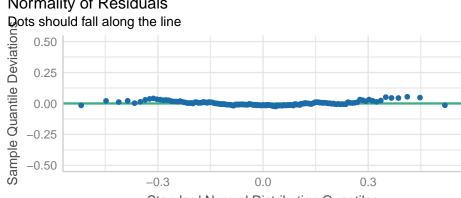
-2

Reference line should be flat and horizontal 0.3 0.0 -0.33.0 3.4 3.8 4.2 Fitted values

Influential Observations Points should be inside the contour lines



Normality of Residuals



Standard Normal Distribution Quantiles