Posterior Predictive Check Model-predicted lines should resemble observed data line 0.05 0.04 Density 0.03 0.02 0.01 0.00 10 30 -1020 ecap score Observed data — Model-predicted data Homogeneity of Variance Reference line should be flat and horizontal √|Std. residuals 1.2 0.8 0.4 30 40 10 20 Fitted values Collinearity High collinearity (VIF) may inflate parameter uncertainty Variance Inflation Factor (VIF, log-scaled) 10 allocation_group allocation_group:visit visit Low (< 5) Normality of Random Effects (record_id) Dots should be plotted along the line 20 RE Quantiles

Theoretical Quantiles

10

0

-10

Linearity Reference line should be flat and horizontal 10 Residuals -5 20 30 Fitted values

Influential Observations Points should be inside the contour lines Residuals 200 100 Std. 0.5 0.2 0.4 0.6 0.0 Leverage (h_{ii})

