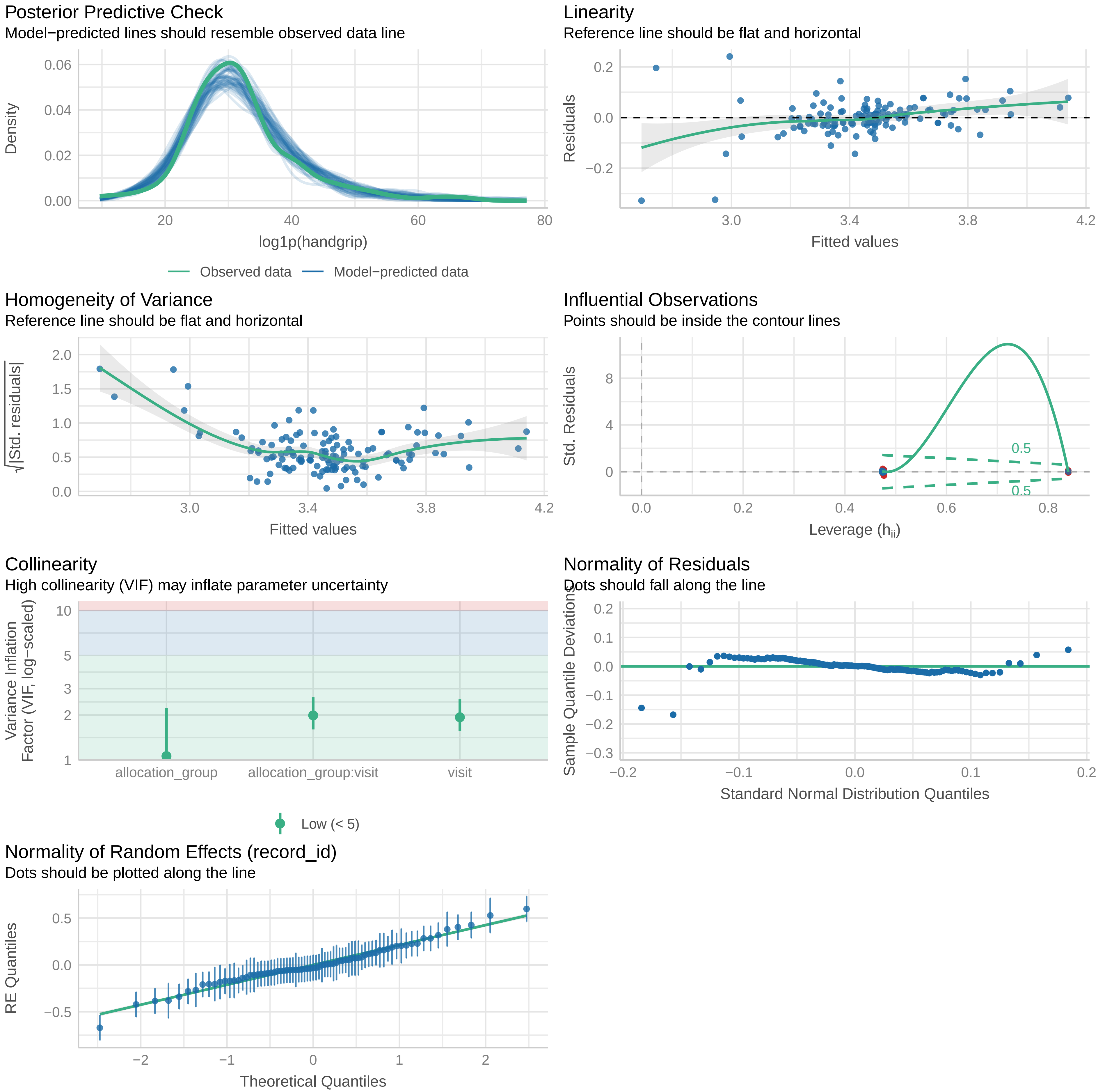

Posterior Predictive Check
Model−predicted lines should resemble observed data line
Density
0.06
0.04
0.02
0.00
20
40
60
80
log1p(handgrip)
Observed data
Model−predicted data
Linearity
Reference line should be flat and horizontal
Residuals
0.2
0.0
−0.2
3.0
3.4
3.8
4.2
Fitted values
Homogeneity of Variance
Reference line should be flat and horizontal
√|Std. residuals|
2.0
1.5
1.0
0.5
0.0
3.0
3.4
3.8
4.2
Fitted values
Influential Observations
Points should be inside the contour lines
Std. Residuals
8
4
0
0.5
0.5
0.0
0.2
0.4
0.6
0.8
Leverage ($h_{ii}$)
Collinearity
High collinearity (VIF) may inflate parameter uncertainty
Variance Inflation Factor (VIF, log−scaled)
10
5
3
2
1
allocation_group
allocation_group:visit
visit
Low (< 5)
Normality of Residuals
Dots should fall along the line
Sample Quantile Deviations
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.2
−0.1
0.0
0.1
0.2
Standard Normal Distribution Quantiles
Normality of Random Effects (record_id)
Dots should be plotted along the line
RE Quantiles
0.5
0.0
−0.5
−2
−1
0
1
2
Theoretical Quantiles