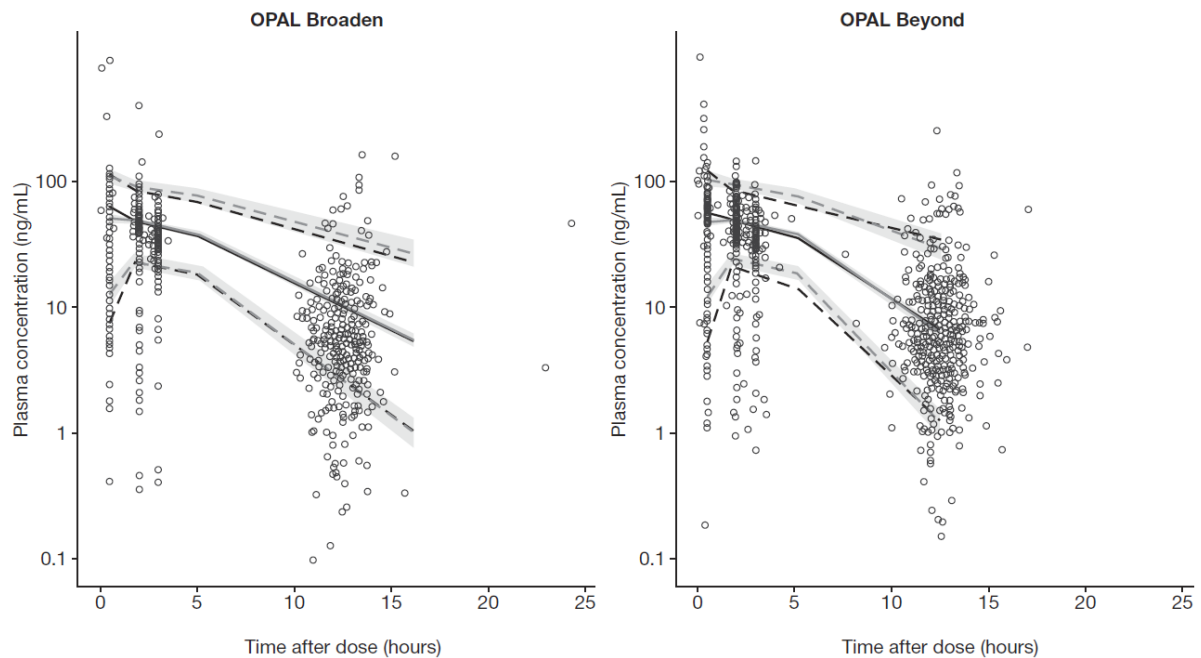


## Supplement

**Supplementary Figure 1.** Visual predictive check stratified by study for the full model.



Black dashed lines present 90% CI (95% upper limit and 5% lower limit) of observed data.

Black solid line is median (50%) of observed data. Grey dashed lines present 90% predictive interval (95% upper limit and 5% lower limit) based on simulations. Grey solid line presents median based on simulations. Grey shaded area is predicted 95% CI of upper limit, lower limit, or median (50%) based on simulations.

CI = confidence interval.