

**Supplemental Table 2. Results of 300 bootstrap simulations and original model estimates.**

Parameter	Bootstrap Mean Observation	Model Estimate	Value	Model Std Err	Bootstrap CV%	Model CV%
$\theta V_{d1}$	4875.4	4793.26	mL/kg	327.84	9.56	6.84
$V_{d2}$	$2.1 \times 10^5$	2222.57	mL/kg	1123.14	1677.84	50.53
$\theta Cl1$	236.7	234.82	mL/kg/hr	45.86	209.2	19.53
$Cl2$	254.87	190.65	mL/kg/hr	53.41	400.62	28.02
$dV_{d1}weight$	1.29	0.97		0.22	29.02	22.72
$dCl1weight$	1.93	1.33		0.45	59.52	33.88

$\theta V_{d1}$  is the theta (typical value) for quinolone volume of distribution of the first compartment;  $V_{d2}$  is the volume of distribution of quinolone within the second compartment;  $\theta Cl1$  is the theta for quinolone clearance from the first compartment;  $Cl2$  is the clearance of quinolone from the second compartment;  $dV_{d1}weight$  is the effect of the covariate weight on the volume of distribution of the first compartment;  $dCl1weight$  is the effect of the covariate weight on the quinolone clearance of the first compartment.