

Supplementary Material

Table S1: Summary of covariate model building

Run No.	Compartments	Model	OFV	Δ OFV	Comments
1	1	Basic model	296.4	-	
2	2	Basic model	192.0	-	Accepted
3	3	Basic model	189.4	-	V1 0.25 L/70 kg; Q1 27300 L/h/70 kg: suggesting insignificant compartment
4	2	Model 2 + Creatinine on CL	172.9	-19.1	Accepted
5	2	Model 4 + BMI on V1	172.1	-0.8	Rejected
6	2	Model 4 + Height on V1	172.9	0	Rejected
7	2	Model 4 + Height on CL	168.9	-4.0	Large increase in uncertainty, therefore rejected (RSE on height covariate effect is 5119%)
8	2	Model 4 + Height on V2	172.7	-0.2	Rejected
9	2	Model 4 + Albumin on V1	172.3	-0.6	Rejected
10	2	Model 4 + Albumin on Q	171.3	-1.6	Rejected
11	2	Model 4+ Albumin on V2	170.6	-2.3	Rejected
12	2	Model 4 + Temperature on V1	170.0	-2.9	Rejected
13	2	Model 4 + Temperature on V2	162.7	-10.2	Large increase in uncertainty on other parameters, therefore rejected
14	2	Model 4 + Temperature on Q	171.0	-1.9	Rejected
15	2	Model 4 + APACHE on V1	172.1	-0.8	Rejected
16	2	Model 4 + APACHE on V2	172.7	-0.2	Rejected
17	2	Model 4 + SEX on CL	172.6	-0.3	Rejected
18	2	Model 4 + SEX on CL	172.9	0	Rejected
19	2	SEX on V1	172.9	0	Rejected

Table S2: Median %ft > MIC for various MICs with different dosing regimens

MIC (mg/L)	1200 bolus hourly	mg 4- bolus hourly	mg 4- bolus hourly	1200 mg bolus followed by 6000 mg infusion/24 hours	7200 mg infusion/24 hours	1200 mg infusion over 2- hours, 4- hourly
0.125	1.00	1.00	1.00	1.00	1.00	1.00
0.25	1.00	1.00	1.00	1.00	1.00	1.00
0.5	0.99	1.00	1.00	1.00	1.00	1.00
1.0	0.74	0.99	1.00	1.00	0.99	0.99
2.0	0.49	0.74	1.00	1.00	0.98	0.76
4.0	0.30	0.49	0.20	0.90	0.54	
8.0	0.17	0.30	0.04	0.00	0.02	
16.0	0.07	0.17	0.01	0.00	0.00	
32.0	0.02	0.07	0.00	0.00	0.00	