

Supplemental Table 1: times bin and the corresponding mean and SD in observed times of sampling

Times bin	mean	sd
5	5.383721	0.8141196
30	30.964706	2.2805965
60	61.400000	3.0441200
180	182.192771	5.7962516
360	363.666667	15.0103044
540	542.750000	8.6635575
720	721.353659	5.4214297
1080	1081.098765	11.5169494
1440	1444.259259	26.5973578

Supplemental Table 2 : Maximum information criteria (MIC) for predictors vs iohexol reference clearance

Variable	MIC
Iohexol concentration at time 540	0.851
Iohexol concentration at time 720	0.830
Iohexol concentration at time 1080	0.824
Iohexol concentration at time 360	0.802
Iohexol concentration at time 1440	0.765
Iohexol concentration at time 180	0.721
Iohexol concentration at time 60	0.600
Serum creatinine during iohexol sampling	0.470
Blood urea during iohexol sampling	0.439
Iohexol concentration at time 30	0.422
SAPSII score	0.394
Iohexol concentration at time 5	0.355
Fluid balance during iohexol-pharmacokinetic sampling	0.344
relative deviation to theoretical time 540	0.325
relative deviation to theoretical time 60	0.317
relative deviation to theoretical time 180	0.309
Sodium	0.304
relative deviation to theoretical time 360	0.298
relative deviation to theoretical time 5	0.283
DIAG	0.282
relative deviation to theoretical time 1080	0.281
relative deviation to theoretical time 720	0.277
Body surface area	0.274
Height	0.264
Weight	0.264
Age	0.257
Rapid fluid infusion between ICU admission and study inclusion	0.248

Rapid fluid infusion during iohexol-pharmacokinetic sampling	0.238
Body mass index	0.237
Hematocrit	0.231
Albumin concentration	0.212
relative deviation to theoretical time 1440	0.210
Baseline serum creatinine (μM) (mean (SD))	0.206
relative deviation to theoretical time 30	0.203
Protein concentration	0.200