

ELECTRONIC SUPPLEMENTARY MATERIAL (ESM):

- Journal name: Clinical Pharmacokinetics
- Article title: A machine learning approach to estimate the Glomerular Filtration Rate in Intensive Care Unit patients based on plasma iohexol concentrations and covariates
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Supplemental Table 1: times bin and the corresponding mean and SD in observed times of sampling

Times bin	mean	sd
5	5.38	0.81
30	30.96	2.28
60	61.40	3.04
180	182.19	5.80
360	363.67	15.01
540	542.75	8.665
720	721.35	5.42
1080	1081.10	11.52
1440	1444.26	26.60

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

<b>Variable</b>	<b>MIC</b>
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 ( $\mu\text{M}$ ) (mean (SD))	0.206
relative deviation to theoretical time 30	0.203
Protein concentration	0.200