

**Supplementary data to „Estimation of creatinine clearance using plasma creatinine or cystatin C: a secondary analysis of two pharmacokinetic studies in surgical ICU patients“. Separate analysis of subsets.**

n	Complete data set 100	Only study 1 25	Collection time $\geq$ 12h 66	Collection time $<$ 8h 31
<b>Agreement with CL<sub>CR</sub></b>				
Bias eCL <sub>CG</sub> (mL/h/1.73m <sup>2</sup> )	+13.5	+16.4	+12.6	+14.2
Bias eCL <sub>CKD-EPI</sub> (mL/h/1.73m <sup>2</sup> )	+7.59	+8.39	+4.81	+9.59
Bias eCL <sub>Hoek</sub> (mL/h/1.73m <sup>2</sup> )	-4.15	-3.92	-3.45	-6.98
<b>Precision eCL</b>				
Precision eCL <sub>CG</sub> (mL/h/1.73m <sup>2</sup> )	$\pm$ 18.5	$\pm$ 23.1	$\pm$ 18.6	$\pm$ 18.9
Precision eCL <sub>CKD-EPI</sub> (mL/h/1.73m <sup>2</sup> )	$\pm$ 16.8	$\pm$ 20.1	$\pm$ 18.4	$\pm$ 15.6
Precision eCL <sub>Hoek</sub> (mL/h/1.73m <sup>2</sup> )	$\pm$ 12.9	$\pm$ 12.7	$\pm$ 12.1	$\pm$ 16.2
<b>Detection of CL<sub>CR</sub> &lt;60 mL/min/1.73m<sup>2</sup></b>				
Sensitivity/Specificity eCL <sub>CG</sub>	0.55/0.95	0.88/1.0	0.62/0.93	0.54/1.0
Sensitivity/Specificity eCL <sub>CKD-EPI</sub>	0.55/0.97	0.88/1.0	0.62/0.95	0.54/1.0
Sensitivity/Specificity eCL <sub>Hoek</sub>	0.83/0.91	1.0/1.0	0.77/0.98	1.0/0.78
AUC ROC eCL <sub>CG</sub>	0.87	1.0*	0.90	0.77
AUC ROC eCL <sub>CKD-EPI</sub>	0.86	1.0*	0.90	0.78
AUC ROC eCL <sub>Hoek</sub>	0.94	1.0	0.95	0.94
<b>Detection of CL<sub>CR</sub> &gt;130 mL/min/1.73m<sup>2</sup></b>				
Sensitivity/Specificity eCL <sub>CG</sub>	0.69/0.81	0.60/0.70	0.67/0.76	0.75/0.89
Sensitivity/Specificity eCL <sub>CKD-EPI</sub>	0.25/0.96	0.20/0.95	0.25/0.96	0.25/0.96
Sensitivity/Specificity eCL <sub>Hoek</sub>	0.38/0.96	0.40/0.85	0.50/0.96	0.0/0.96
AUC ROC eCL <sub>CG</sub>	0.86	0.78	0.83	0.91
AUC ROC eCL <sub>CKD-EPI</sub>	0.86	0.86	0.87	0.83
AUC ROC eCL <sub>Hoek</sub>	0.92	0.90	0.95	0.87

CL<sub>CR</sub>: measured endogenous creatinine clearance; eCL<sub>CG</sub>, eCL<sub>CKD-EPI</sub>, eCL<sub>Hoek</sub>: estimated clearance by the Cockcroft-Gault, CKD-EPI or Hoek formula; AUC ROC: area under the curve of the receiver operating characteristic.

\*sensitivity/specificity would have been 1.0/1.0 for other cut-offs than 60 mL/h/1.73m<sup>2</sup>, explaining the perfect AUC despite imperfect sensitivity/specificity.