

Additional data file

Table S1: Bland-Altman Analysis comparing CO_{TCP} and different CO methods

CO _{TCP} ⁻	CO _{average} (l·min ⁻¹)	bias ± SD (l·min ⁻¹)	95% LoA (l·min ⁻¹)	PE (%)	r ²
all (pooled data)					
PulseCO	7.3 ± 2.1	1.0 ± 1.5	-2.1 – 3.9	41.7 [#]	0.63
PCCO _{pre}	7.8 ± 1.9	1.0 ± 1.1	-1.1 – 3.1	27.5	0.78
PCCO _{recal}	7.8 ± 2.3	0.0 ± 0.3	-0.7 – 0.6	8.7	0.98
CCO _{PAC}	7.7 ± 2.0	0.0 ± 0.9	-1.7 – 1.8	23.3	0.85
Baseline					
PulseCO	6.3 ± 1.7	-0.2 ± 0.8	-1.8 – 1.5	25.4	0.85
PCCO _{pre}	n.a.	n.a.	n.a.	n.a.	n.a.
PCCO _{recal}	6.2 ± 1.6	0.0 ± 0.3	-0.5 – 0.6	9.7	0.90
CCO _{PAC}	6.3 ± 1.4	-0.2 ± 0.6	-1.5 – 1.0	19.9	0.83
+ Fluid					
PulseCO	7.3 ± 2.2	0.3 ± 1.6	-2.8 – 3.4	43.8 [#]	0.65
PCCO _{pre}	7.3 ± 1.5	0.3 ± 1.2	-2.1 – 2.7	33.7 [#]	0.73
PCCO _{recal}	7.5 ± 2.0	0.0 ± 0.5	-0.9 – 0.9	12.5	0.95
CCO _{PAC}	7.5 ± 1.6	-0.1 ± 1.1	-2.2 – 2.0	28.6	0.71
IAH					
PulseCO	7.4 ± 2.1	1.1 ± 1.4	-1.6 – 3.8	38.8 [#]	0.73
PCCO _{pre}	7.4 ± 1.8	1.1 ± 0.9 [*]	-0.7 – 2.8	24.1	0.80
PCCO _{recal}	8.0 ± 1.8	0.0 ± 0.1	-0.3 – 0.2	3.5	0.99
CCO _{PAC}	7.8 ± 1.6	0.2 ± 0.9	-1.6 – 2.0	23.5	0.75
IAH + Fluid					
PulseCO	8.2 ± 2.6	2.4 ± 0.8 [*]	0.7 – 4.0	20.5	0.91
PCCO _{pre}	8.6 ± 2.2	1.5 ± 0.7 [*]	0.1 – 3.0	17.2	0.97
PCCO _{recal}	9.4 ± 2.4	0.0 ± 0.4	-0.8 – 0.8	8.9	0.97
CCO _{PAC}	9.3 ± 2.3	0.2 ± 1.0	-1.7 – 2.2	21.1	0.86

* p<0.05 vs. bias at previous experimental stage (PCCO_{pre} vs. previous PCCO_{recal})

not interchangeable according to Critchley et al.

presented are mean difference (bias) ± standard deviation (SD) together with limits of agreement (LoA), mean percentage error (PE) and coefficient of correlation (r²) comparing different methods and CO_{TCP}, of all (pooled) data sets and data at different experimental steps.

PulseCO (pulse power analysis cardiac output, LiDCO system), PCCO (pulse contour cardiac output, PiCCO system), CCO_{PAC} (continuous pulmonary artery catheter cardiac output), CO_{TCP} (bolus trans-cardiopulmonary thermodilution cardiac output). PCCO was measured before (PCCO_{pre}) and after (PCCO_{recal}) recalibration by CO_{TCP}

Figure S1: linear regression and Bland-Altman plots comparing changes (Δ) in CO

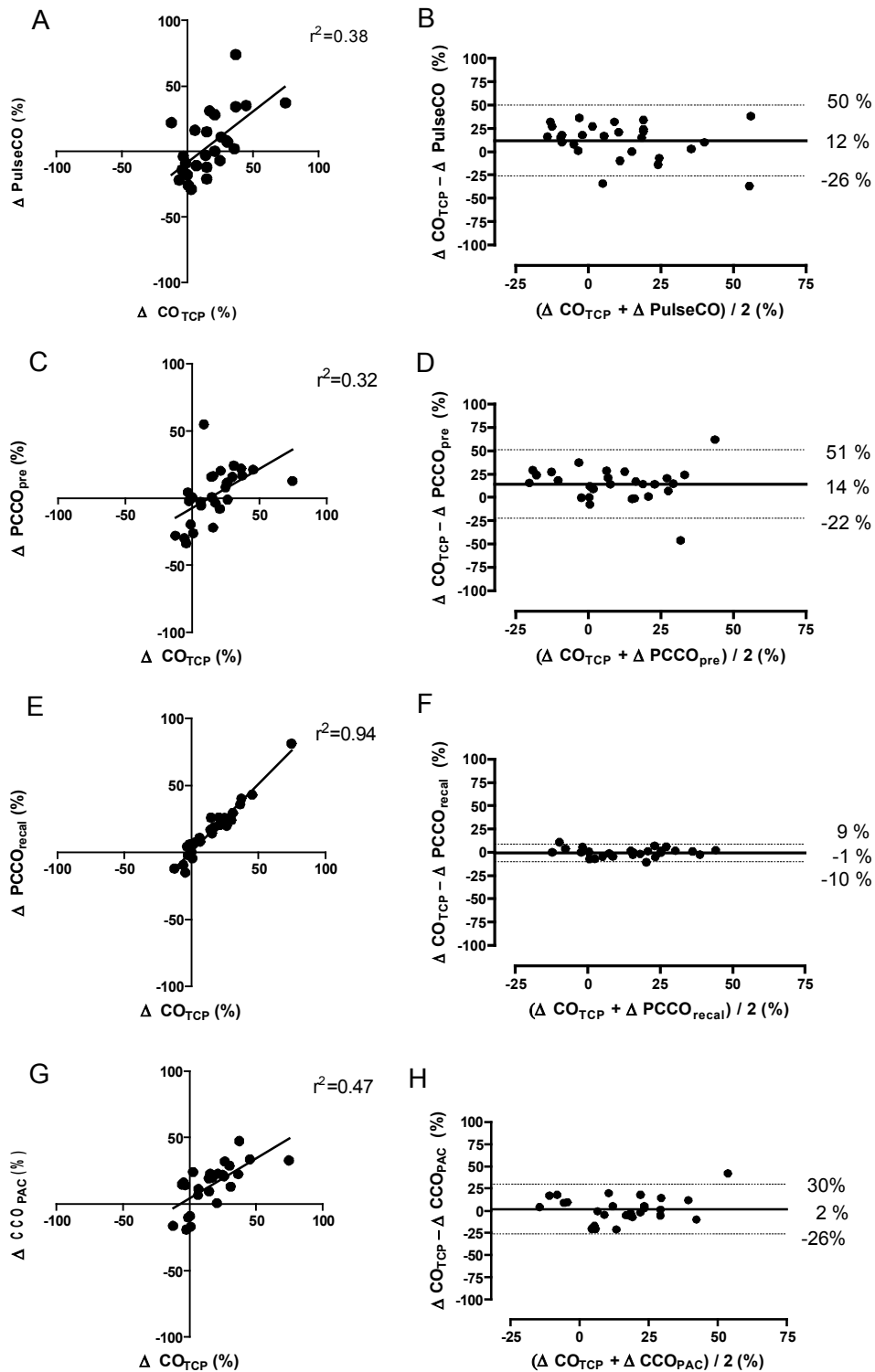


Figure S1: Linear regression (left) and Bland-Altman plots (right) comparing
 A, B) PulseCO vs. CO_{TCP}; C, D) PCCO_{pre} vs. CO_{TCP}; E, F) PCCO_{recal} vs. CO_{TCP};
 G, H) CCO_{PAC} vs. CO_{TCP}

left: regression line – solid line

right: bias - solid line (\pm 2SD – dotted lines)

Figure S2: Individual time response of each CO parameter and each animal

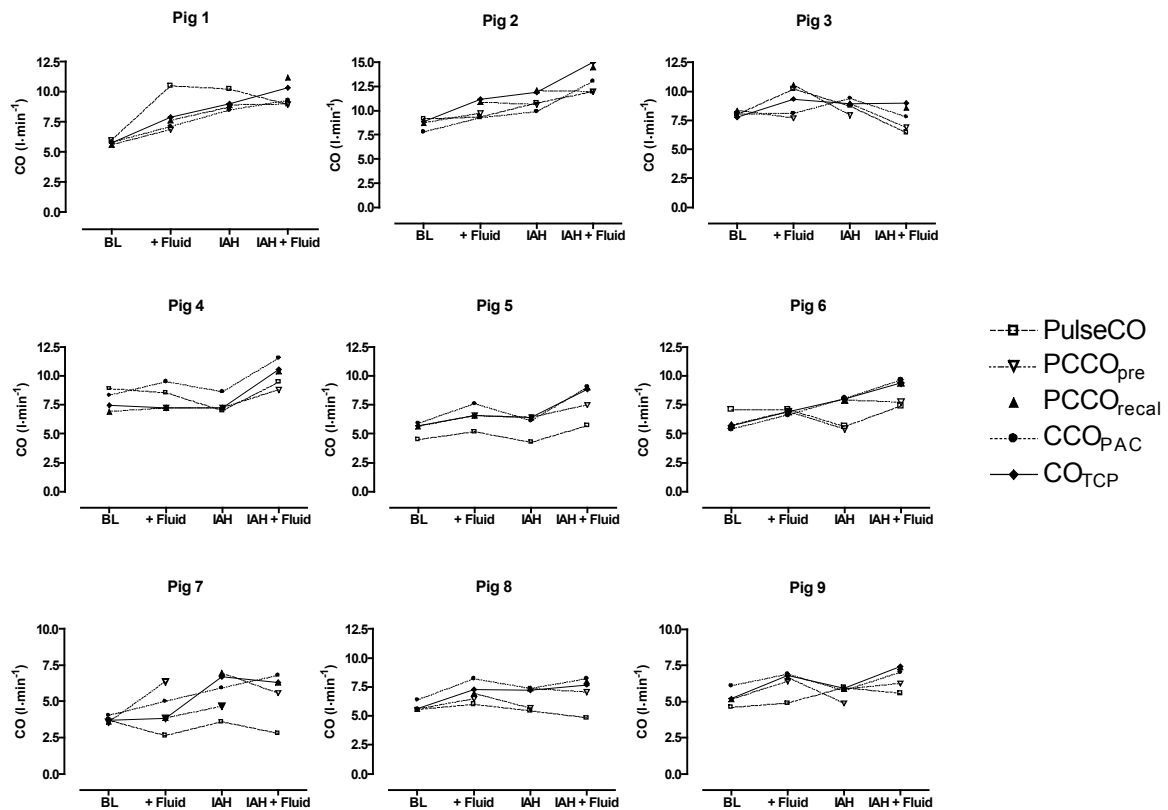


Figure S2: Individual time response of each CO parameter and each animal

Experimental steps: BL - baseline; + Fluid - fluid loading; IAH - intra-abdominal hypertension, IAH + Fluid - second fluid load at IAH

PulseCO (pulse power analysis cardiac output, LiDCO system), PCCO (pulse contour cardiac output, PiCCO system), CCO_{PAC} (continuous pulmonary artery catheter cardiac output), CO_{TCP} (bolus trans-cardiopulmonary thermodilution cardiac output). PCCO was measured before (PCCO_{pre}) and after (PCCO_{recal}) recalibration by CO_{TCP}.