

Supplementary Table 2. Analysis of trends between intra-operative candidate variables and ARDS aggravation in n =509 patients from the INFLACOR cohort

No.	Intraoperative variables	(1) n = 469 (92.1%)	(2) n = 28 (5.5%)	(3) n = 11 (2.2%)	(4) n=1 (0.2%)	p-value ¹
1	Operation time [h] (mean; ± SD)	4.1 ± 1.3	3.7 ± 1.1	4.4 ± 1.1	4.4	0.11
2	Cardiopulmonary bypass time [min] (mean; ± SD)	136 ± 52	124 ± 49	148 ± 38	133	0,33
3	Aortic cross-clamp time [min] (mean; ± SD)	88 ± 35	82 ± 35	97 ± 29	91	0.42
4	Type of surgery ² 1 / 2 / 3 / 4 / 5 / 6 [%]	3.6/38.8/9.6/30.7 /12.4/4.9	3.6/57.1/3.6/21.4 /10.7/3.6	0/36.4/0/18.2 /27.3/18.2	0/0/100/0/0	0.30
5	Inhaled anaesthetics [%]	89.1	92.9	100	100	0.43
6	Dexamethasone [%]	36.9	25.0	27.3	0	0.20
7	Dexamethasone [mg/kg] (mean; ± SD)	0.68 ± 0.28	0.78 ± 0.32	0.64 ± 0.19	0	0.62
8	Packed Red Blood Cell [U] (mean; ± SD)	3 ± 2	4 ± 2	3 ± 3	0	0.91
9	Red blood cell concentrate > 4 U [%]	26.2	28.6	27.3	0	0.82
10	Fresh-frozen plasma [U] (mean; ± SD)	5 ± 3	6 ± 4	6 ± 2	8	0.41
11	Fresh-frozen plasma > 5 U [%]	40.9	35.7	72.7	100	0.19
12	Platelet concentrate [U] (median; IQR)	0 (0-5)	0 (0-7)	5 (0-6)	9	0.69
13	Platelet concentrate > 5 U [%]	22.8	25.0	36.4	100	0.33
14	Arterial hypotension [Min] (median; IQR)	5 (0-15)	10 (0-23)	20 (10-50)	0	0.009
15	Blood lactate [mmol/L] (median; IQR)	1.7 (1.4-2.2)	1.8 (1.6-2.2)	1.8 (1.6-2.4)	2.1	0.66

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16	Base excess [mmol/L] (median; IQR)	-4.0 (-2.7 - -5.1)	-4.6 (-2.7 - -5.2)	-4.1 (-2.5 - -5.6)	-1.7	0.69
17	Glucose [mg/dL] (mean; \pm SD)	154 \pm 31	162 \pm 26	159 \pm 31	156	0.35
18	Unexpected surgical complications ³ [%]	10.0	7.1	27.3	0	0.25

¹p-value for trend is calculated for means/medians/frequencies between the no-ARDS, mild and moderate ARDS, without the one patient with severe ARDS;

²Type of surgery: 1 – other (n = 18), 2 – single valve repair/replacement (n = 202), 3 – aortic surgery (n = 47), 4 – single valve with coronary bypass graft (CABG) and/or other (n = 152), 5 – multiple valve surgery (n = 64), 6 – multiple valve surgery with CABG and/or other (n = 26);

³unexpected surgical complications were recorded in n = 52 (10,2%), and included: heart failure n = 11 (21%), valve replacement after failed valve repair attempt n = 12 (23%), major bleeding n = 6 (12%), aortic wall rupture n = 5 (10%), heart wall rupture n = 4 (8%), systolic anterior motion n = 3 (6%), severe calcifications n = 3 (6%), other n = 5 (10%), and not specified n = 3 (6%); SD – standard deviation