

Supplementary

Table S1 Results for the proportional hazards assumption

	P
30-day mortality	0.834
180-day mortality	0.973

Table S2 Assessment of multicollinearity among variables in 30-day mortality

Variable	GVIF	Df	GVIF ^{1/2Df}
Age	2.482	1	1.121
Gender	1.550	1	1.575
CPB duration	1.395	1	1.245
VIS	1.296	1	1.181
Infection before ECMO	1.298	1	1.139
WBC count	1.840	1	1.139
Hemoglobin	1.427	1	1.357
AST	1.487	1	1.195
Creatinine	1.891	1	1.219
Preoperative albumin	1.618	1	1.375
Pump speed	1.658	1	1.272
Flow rate	1.654	1	1.287
CRP	1.363	1	1.286
Fluid overload	1.382	1	1.167
Dose of albumin supplementation	1.640	1	1.176

Table S3 Assessment of multicollinearity among variables in 180-day mortality

Variable	GVIF	Df	GVIF ^{1/2Df}
Age	2.718	1	1.649
Gender	1.421	1	1.192
CPB duration	1.410	1	1.187
VIS	1.890	1	1.375
Infection before ECMO	1.231	1	1.109
WBC count	1.714	1	1.309
Hemoglobin	1.809	1	1.345
AST	1.403	1	1.185
Creatinine	1.717	1	1.310
Preoperative albumin	1.534	1	1.239
Pump speed	1.647	1	1.283
Flow rate	1.908	1	1.381
CRP	1.657	1	1.287
Fluid overload	1.884	1	1.373
Dose of albumin supplementation	1.678	1	1.296

Table S4 Baseline characteristics grouped by nadir albumin concentration

Variables	High albumin (N=48)	Low albumin (N=48)	P
Age (months)	13.87 [6.53, 43.35]	10.12 [5.53, 37.00]	0.455
Gender			
Male	31 (64.6)	30 (62.5)	>0.99
Female	17 (35.4)	18 (37.5)	
Weight (kg)	9.90 [6.00, 12.62]	8.05 [6.10, 12.82]	0.575
Indication			0.450
LCOS	9 (18.8)	4 (8.3)	
Failure to wean from CPB	21 (43.8)	25 (52.1)	
ECPR	13 (27.1)	12 (25.0)	
Respiratory	5 (10.4)	7 (14.6)	
Left heart unloading	38 (79.2)	31 (64.6)	0.173
Laboratory parameters			
WBC count ($\times 10^9/L$)	9.20 [7.14, 12.22]	8.73 [6.70, 11.92]	0.837
Hemoglobin (g/L)	137.00 [115.50, 158.75]	140.00 [125.75, 160.50]	0.570
Platelet count ($\times 10^9/L$)	265.00 [174.75, 319.25]	279.00 [223.00, 340.75]	0.186
ALT (U/L)	18.00 [13.00, 27.00]	18.00 [14.00, 30.50]	0.504
AST (U/L)	37.50 [32.75, 45.00]	41.00 [31.00, 50.25]	0.505
Albumin (g/L)	43.00 [39.70, 44.90]	41.65 [38.62, 43.65]	0.056
Creatinine ($\mu\text{mol/L}$)	30.80 [25.83, 39.92]	28.61 [21.65, 36.30]	0.214
Lactate (mmol/L)	6.90 [4.72, 9.75]	8.50 [5.60, 12.40]	0.244
Nadir albumin during ECMO (g/L)	34.50 [32.68, 37.43]	27.25 [23.22, 29.33]	<0.001
Nadir albumin within 48 h (g/L)	35.15 [33.08, 39.18]	27.70 [23.48, 30.35]	<0.001
Infection before ECMO	5 (10.4)	4 (8.3)	>0.99
STAT			0.808
1	2 (4.2)	1 (2.1)	
2	15 (31.2)	13 (27.1)	
3	9 (18.8)	7 (14.6)	
4	20 (41.7)	23 (47.9)	
5	2 (4.2)	4 (8.3)	
VIS	28.00 [18.00, 45.00]	23.00 [15.75, 43.75]	0.495
CPB duration (min)	218.00 [182.75, 301.75]	296.00 [135.25, 419.50]	0.201
Clamp time (min)	123.00 [96.75, 143.25]	112.50 [70.75, 174.25]	0.947
Management			
Median flow rate (mL/min)	700.00 [515.00, 842.50]	620.00 [542.50, 940.00]	0.654
Median pump speed (rpm)	2692.77 [2550.00, 2810.00]	2755.00 [2558.75, 2900.00]	0.195
Transfusion			
RBC transfusion (mL/kg/d)	22.57 [15.72, 33.04]	31.86 [19.69, 40.19]	0.044
Platelet transfusion (mL/kg/d)	6.92 [2.71, 16.43]	8.84 [2.09, 13.70]	0.769
Plasma transfusion (mL/kg/d)	8.99 [6.29, 17.12]	10.36 [5.96, 16.39]	0.725
Albumin infusion (mL/kg/d)	0.66 [0.27, 1.19]	0.57 [0.37, 1.26]	0.668
Cumulative fluid overload (mL)	-128.60 [-199.52, 134.98]	29.90 [-121.45, 138.07]	0.023
Cumulative fluid overload (%)	-9.11 [-38.79, 10.47]	5.18 [-13.92, 17.66]	0.012
Major bleeding	30 (62.5)	37 (77.1)	0.182
Re-exploration	25 (52.1)	35 (72.9)	0.058
Intracranial hemorrhage	0 (0.0)	1 (2.1)	>0.99
Gastrointestinal bleeding	3 (6.2)	5 (10.4)	0.712
Pulmonary bleeding	3 (6.2)	5 (10.4)	0.712
Hemolysis	16 (33.3)	31 (64.6)	0.004
Early hemolysis	3 (6.2)	16 (33.3)	0.002
Late hemolysis	13 (27.1)	15 (31.2)	0.822
Thrombocytopenia	10 (20.8)	18 (37.5)	0.116
ECMO duration (h)	113.25 [91.12, 167.50]	131.50 [91.88, 164.00]	0.519
CRRT	4 (8.3)	7 (14.6)	0.522
Successfully weaned from ECMO	39 (81.2)	28 (58.3)	0.026
Hospital stays (d)	43.50 [33.00, 56.00]	35.50 [19.50, 71.75]	0.401
ICU stays (d)	28.50 [15.50, 38.75]	25.00 [8.75, 56.00]	0.660
Ventilation time (h)	538.50 [245.25, 803.50]	447.00 [163.25, 860.75]	0.444
30-day mortality	13 (27.1)	23 (47.9)	0.058
180-day mortality	19 (39.6)	31 (64.6)	0.025

Data are presented as median [interquartile range] or n (%).