

**Table S1** Description of collected variables

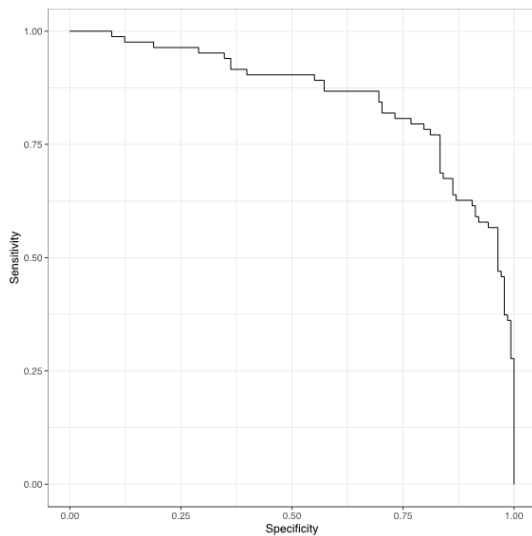
Variable	Category	Description
Age	Interval scale	Documented in years. From clinic information system.
BMI	Interval scale	Body Mass Index. Calculated from weight (in kilograms) divided by size (in meters) as square root.
Sex	Nominal Dichotomous	- Female - Male
SAPS II	Ordinal	Simplified Acute Physiology Score II documented during intensive care. Score between 0 and 163 points. From clinic information system.
Charlson comorbidity index	Ordinal	Score between 0 and 37. Clinical conditions and associated points based on medical records: - 1 each: Myocardial infarction, congestive heart failure, peripheral vascular disease, dementia, cerebrovascular disease, chronic lung disease, connective tissue disease, ulcer, chronic liver disease, diabetes. - 2 each: Hemiplegia, moderate or severe kidney disease, diabetes with end organ damage, tumor, leukemia, lymphoma. - 3 each: Moderate or severe liver disease. -6 each: Malignant tumor, metastasis, AIDS.
Coronary artery disease	Nominal Dichotomous	International Classification of Diseases (ICD) diagnosis or history of myocardial infarction (ECG changes and/or enzyme changes). - yes or no
Congestive heart failure	Nominal Dichotomous	ICD diagnosis of congestive heart failure. - yes or no
Obstructive pulmonary disease	Nominal Dichotomous	ICD diagnosis of chronic obstructive pulmonary disease. - yes or no
Diabetes mellitus	Nominal Dichotomous	ICD diagnosis of Type I or II diabetes mellitus. - yes or no
Chronic kidney disease	Nominal Dichotomous	On dialysis, status post kidney transplant, uremia, or creatinine >3 mg/dL (0.27 mmol/L). - yes or no
Hemoglobin	Interval scale	Laboratory value in in g/l.
Lactate	Interval scale	Laboratory value in mmol/l.
Myoglobin	Interval scale	Laboratory value in µg/l.
Creatinine	Interval scale	Laboratory value in µmol/L.
External insertion	Nominal Dichotomous	ECMO insertion by ECMO-Team of University Hospital Zurich (USZ), Switzerland in another hospital before transfer to USZ for definitive care. - yes or no
Insertion technique	Nominal	Documented insertion of ECMO cannula. - Seldinger peripheral - Surgical peripheral, "cut-down", vascular graft - Central
ECMO outcome	Nominal	After ECMO system stop. - Dead - Successful weaning - Bridge to assist device - Bridge to transplant
Erythrocyte concentrate	Interval scale	Number of EC transfusions. From clinic information system.
Fresh frozen plasma	Interval scale	Number of FFP transfusions. From clinic information system.
Platelet concentrate	Interval scale	Number of PC transfusions. From clinic information system.
Major bleeding	Nominal Dichotomous	Condition during intensive care and ECMO support which requires substitution of coagulation factors or blood product transfusion or surgery/intervention. - yes or no
Intra-cranial bleeding	Nominal Dichotomous	ICD diagnosis documented during intensive care and ECMO support. - yes or no
Stroke	Nominal Dichotomous	ICD diagnosis documented during intensive care and ECMO support. - yes or no
Liver failure	Nominal Dichotomous	ICD diagnosis documented during intensive care and ECMO support. Includes NOT liver insufficiency or solely elevated liver laboratory values. - yes or no
Renal replacement therapy	Nominal Dichotomous	Condition during intensive care and ECMO support which required (continuous) renal replacement therapy. - yes or no
Ischemia extremities	Nominal Dichotomous	Documented ischemia of an extremity in relation to ECMO cannulation. - yes or no
Ischemia intestinal	Nominal Dichotomous	Documented intestinal ischemia during intensive care and ECMO support. Also includes Non-occlusive mesenteric ischemia (NOMI). - yes or no
Length ECMO	Interval scale	Duration of ECMO support in (calendar) days.
Length ventilation	Interval scale	Duration of mechanical ventilation in (calendar) days.
Length ICU	Interval scale	Duration of intensive care in (calendar) days.
Length of stay	Interval scale	Duration of overall hospital stay in (calendar) days. From clinic information system.

BMI, body mass index; SAPS, Simplified Acute Physiology Score; ECMO, extracorporeal membrane oxygenation; ICU, intensive care unit.

**Table S2** Logistic regression model with SAPS II

Predictor variables	Odds ratio	95% confidence interval	P value
SAPS II (per point)	1.0	0.98 to 1.02	0.96
Age (per year)	1.05	1.02 to 1.08	0.001
Indication			
ARDS	Reference		
Bridge to lung transplantation	1.76	0.38 to 7.53	0.45
Primary graft dysfunction after LTX	1.77	0.08 to 17.13	0.65
Other pulmonary disease	1.57	0.63 to 3.93	0.33
Transfusions			
Red blood cells (0.1 unit/day)	1.96	1.40 to 2.86	< 0.001
Fresh frozen plasma (0.1 unit/day)	1.87	0.68 to 5.87	0.29
Platelet concentrate (0.1 unit/day)	1.84	1.22 to 3.05	0.008
Newly developed liver failure	4.75	1.19 to 21.08	0.03

ARDS, acute respiratory distress syndrome; LTX, lung transplantation.



**Figure S1** Receiver operating characteristic curve for the logistic regression model. In-sample receiver operating characteristic (ROC) curve that corresponds to our model. The area under the curve (AUC) belonging to that curve is 0.85 with a 95 % confidence interval from 0.8 to 0.91.