

Supplement Table S1 Multicollinearity analysis

Term1	coef f1	Change.perce ntage1	Term2	coef f2	Change.perce ntage2	VIF	colinea rity	sele ct	select. VIF
Crude	-0.0 1	Ref.	Full	-0.0 1	Ref.	1.1 44	0	Ref.	Ref.
Age	-0.0 1	-45	Age	-0.0 1	147.8	1.4 42	0	Yes	Yes
Gender	-0.0 1	-1.3	Gender	-0.0 1	2.3	1.0 45	0	No	No
SAPS score	-0.0 2	4.7	SAPS score	-0.0 1	0.9	1.6 95	0	No	No
SOFA score	-0.0 2	28.8	SOFA score	0	-39.3	1.7 78	0	Yes	Yes
Elixscore	-0.0 1	1.5	Elixscore	-0.0 1	-0.7	1.0 51	0	No	No
Diabets	-0.0 1	-12.8	Diabets	-0.0 1	50.5	1.1 27	0	Yes	Yes
Hypertensio n	-0.0 1	-9	Hypertensio n	-0.0 1	39.4	1.1 8	0	Yes	Yes
CHF	-0.0 2	7.2	CHF	0	-6.3	1.1 89	0	No	No
AFIB	-0.0 2	7.1	AFIB	0	-16.7	1.1 7	0	Yes	Yes
Renal disease	-0.0 2	3.1	Renal disease	-0.0 1	6.9	1.2 17	0	No	No
Metastatic cancer	-0.0 1	-24.2	Metastatic cancer	-0.0 1	44.4	1.0 81	0	Yes	Yes
Stroke	-0.0 1	-0.4	Stroke	-0.0 1	5.2	1.0 3	0	No	No
CAD	-0.0 1	0.4	CAD	-0.0 1	0.1	1.0 91	0	No	No
COPD	-0.0 1	-0.4	COPD	0	-4.9	1.0 36	0	No	No
Liver disease	-0.0 2	4	Liver disease	-0.0 1	9.1	1.1 69	0	No	No

We observed no multicollinearity between explanatory variables.

Supplement Table S2 Missing data

Missing variable	n
hemoglobin	101
lactate	1182
po2	1032
creatinine	63
heartrate	18
temp	27

Data missing Data missing values are given in Supplementary Table S1.