Supplemental material

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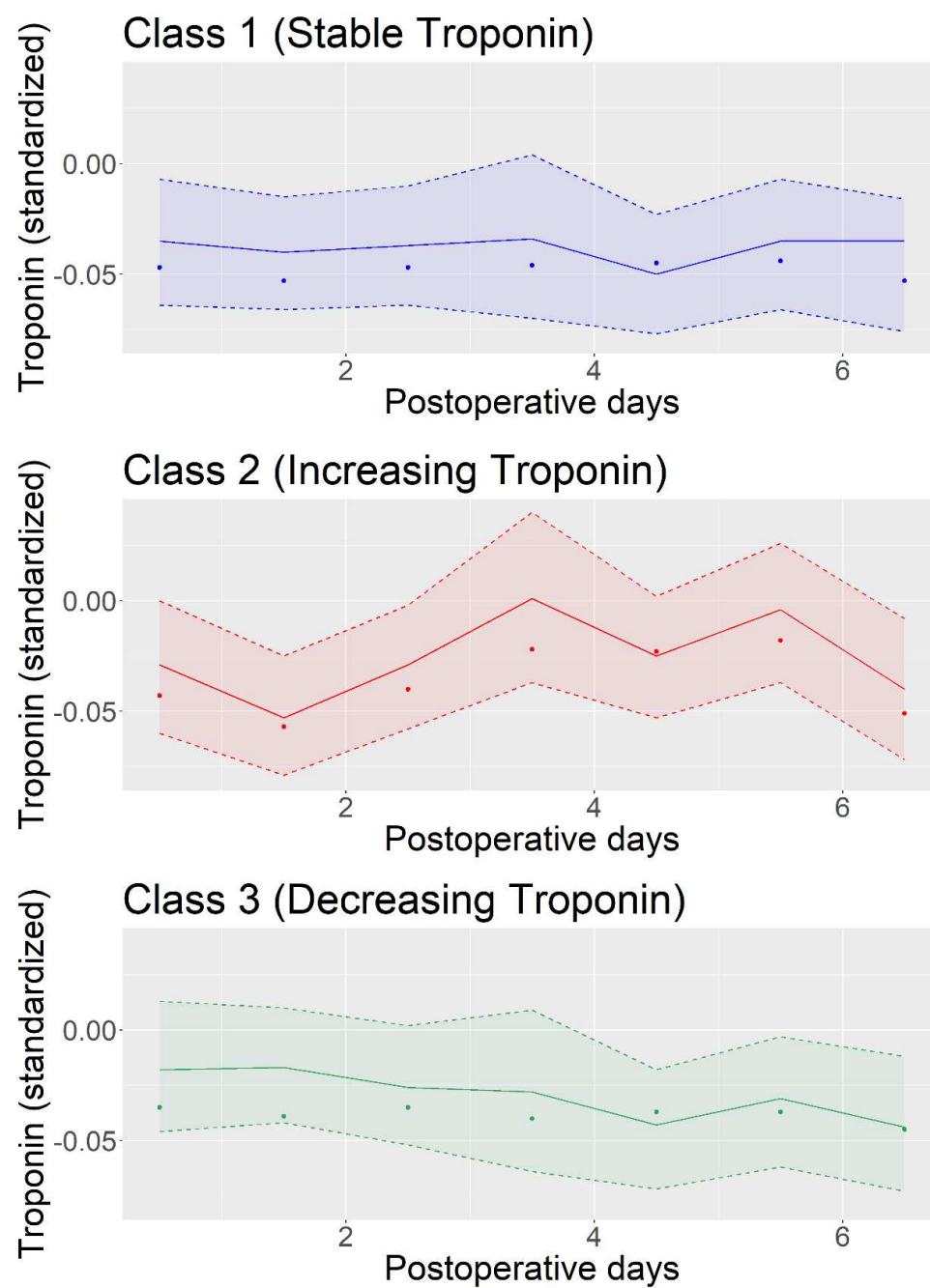
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Supplementary Material

Supplementary Figure 1. Troponin variation trajectories (latent classes) categorization. Latent classes (LCA) are categorized as follow: 1: represent stable troponin, 2: represent increasing troponin and 3: represent decreasing troponin trend.

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Supplementary Table 1. Variables associated with in-hospital mortality in univariate survival analysis.

Variables	HR	95% CI inferior tail	95% CI superior tail	p-value
Total bilirubin (per-1- µmol/L increase)	1.05	1.02	1.08	< 0.001
C-reactive protein (per-1-mg/mL increase)	1.01	1.01	1.01	< 0.001
Troponin (per-1-ng/mL increase)	1.01	1.01	1.01	< 0.001
Peak troponin (per-1-ng/mL increase)	1.01	1.01	1.01	< 0.001
Creatinine (per-1- µmol/L increase)	1.01	1.01	1.01	< 0.001
Peak creatinine (per-1- µmol/L increase)	1.02	1.02	1.03	< 0.001
Urgent surgery	7.43	4.32	12.78	< 0.001
Unprogrammed surgery	2.33	1.53	3.55	< 0.001
Rescue surgery	73.58	13.41	403.74	< 0.001
Mitral valve replacement	2.21	1.40	3.49	< 0.001
EuroScore 2 (per-1-unit increase)	1.10	1.02	1.18	0.011
Age (per-1-unit increase)	1.05	1.03	1.07	< 0.001
Moderate LV dysfunction (LVEF 31-50%)	1.85	1.19	2.85	0.006
Critical LV dysfunction (LVEF < 20%)	12.78	3.06	53.36	< 0.001
Redux	2.95	2.29	3.80	< 0.001
Severe AKI	2.45	1.66	3.62	< 0.001
Severe pulmonary hypertension	2.26	1.31	3.89	0.003
Recent myocardial infarction	2.30	1.52	5.79	0.001
Angina	6.33	1.56	25.78	0.01
Thoracic aorta surgery	2.36	1.27	4.39	0.007
Preoperative critical state	21.20	13.77	32.64	< 0.001
NYHA 3	1.58	1.03	2.43	0.036
NYHA 4	6.57	3.35	12.90	< 0.001
2 non-CABG associated procedures	1.61	1.06	2.46	0.026
3 non-CABG associated procedures	2.71	1.10	6.68	0.030
Post-infarction interventricular communication	9.46	2.72	32.95	< 0.001

Abbrevations : HR : hazard ratio ; CI : confidence interval ; LVEF : left ventricular ejection fraction; CABG: coronary artery bypass graft; AKI: acute kidney injury

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Supplementary Table 2. Sensitivity, specificity, positive and negative predictive values associated with other thresholds of troponin levels, regarding in-hospital mortality. Troponin$_{XXN}$ refers to XX-times upper normal troponin value.

	Sensitivity	Specificity	Positive predictive value	Negative predictive value
Troponin$_{200N}$	66.06%	75.85%	7.37%	98.72%
Troponin$_{500N}$	44.04%	90.82%	12.24%	98.24%

Supplementary Table 3. Multivariable analysis assessing the association between 200-times normal troponin threshold and in-hospital mortality.

	Univariate analysis HR (95% IC)	Multivariate analysis HR (95% IC)	p
>Troponin$_{200N}$	1.46 (1.33 – 1.60)	1.75 (1.57 – 1.94)	< 0.001
Redux	2.95 (2.29 – 3.80)	1.12 (0.99 – 1.40)	0.07
Preoperative critical state	21.20 (13.77 – 32.64)	5.86 (4.93 – 6.98)	< 0.001
Creatinine	1.03 (1.03 – 1.04)	1.02 (1.01 – 1.03)	< 0.001

Supplementary Table 4. Multivariable analysis assessing the association between 500-times normal troponin threshold and in-hospital mortality.

	Univariate analysis HR (95% IC)	Multivariate analysis HR (95% IC)	p
>Troponin$_{500N}$	1.68 (1.52 – 1.86)	1.57 (1.41 – 1.75)	< 0.001
Redux	2.95 (2.29 – 3.80)	0.98 (0.83 – 1.17)	0.84
Preoperative critical state	21.20 (13.77 – 32.64)	4.08 (3.40 – 4.88)	< 0.001
Creatinine	1.03 (1.03 – 1.04)	1.03 (1.02 – 1.04)	< 0.001