

ERRATUM

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Erratum to: Development of the Post Cardiac Surgery (POCAS) prognostic score

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After Publication of the original article [1] it has been brought to our attention that none of the tables referred to in the text have been included in the article. Tables 1, 2, 3, 4, 5, 6 and 7 are now displayed below.

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Table 1 Patient population profile (Survivors and non-survivors)

Variable	Survivors (N = 829)	Non survivors (N = 80)	P value
Preoperative factors			
Age, years	66.3 ± 11.2	68.9 ± 11.3	0.05
Sex, M/F male gender	574 (69.2)	48 (60)	0.09
Peso, kg	72.7 ± 15	71.9 ± 11.4	0.69
Talla, cm	163.3 ± 9	162.3 ± 8.9	0.34
Hypertension	449 (54.2)	50 (62.5)	0.15
Atrial fibrillation	167 (20.1)	23 (28.8)	0.07
Diabetes mellitus	198 (23.9)	20 (25)	0.82
Obesity	132 (15.9)	12 (15)	0.82
Smoking	114 (13.8)	6 (7.5)	0.11
Drinking alcohol	50 (6)	2 (2.5)	0.19
Hepatic disease	23 (2.8)	3 (3.8)	0.61
Respiratory disease	93 (11.2)	15(18.8)	0.04
Chronic renal failure	50 (6)	11 (13.8)	0.008
Immunosuppression	23 (2.8)	4 (5.0)	0.26
Previous cardiac surgery	79 (9.5)	11 (13.8)	0.61
Emergent surgery	70 (8.4)	23 (28.8)	0.0001
Perioperative factors			
Left ventricle ejection fraction	56.8 ± 11.5	49.6 ± 13.6	0.0001
Valve	455 (54.9)	47 (58.8)	0.5
CABG	399 (48.1)	39 (48.8)	0.91
Valve + CABG	109 (13.1)	20 (25.0)	0.004
Total CPB time, min	105.3 ± 44.29	156.1 ± 77.7	0.0001
Aortic cross-clamp time, min	77.3 ± 37.04	106.9 ± 56.7	0.0001
Postoperative value			
Duration of mechanical ventilation, days	25.23 ± 62.59	19.75 ± 31.43	0.81
Reintubation	25 (3)	16 (20)	0.0001
Politrásfusión	254 (30.6)	25 (31.3)	0.640
Acute renal failure	67 (8.1)	36 (45.0)	0.0001
Reintervención	21 (2.5)	13 (16.3)	0.0001
Intra-aortic balloon pump	32 (3.9)	27 (33.8)	0.0001
Pneumonia	35 (4.2)	15 (18.8)	0.0001
Surgical site infections	25 (3)	1 (1.3)	0.36
Preoperative hospitalization, days	18.2 ± 15.5	10.6 ± 11.3	0.0001
Mean ICU stay, days	4.7 ± 12.1	14.3 ± 20.9	0.0001
Duration of hospitalization after surgery, days	22.8 ± 20.9	24.9 ± 23.7	0.43
Risk score			
Additive EuroSCORE, points	4.5 ± 2.8	7.4 ± 4.5	0.0001
Logistic EuroSCORE, points	5.4 ± 6.2	16.7 ± 18.5	0.0001
ACEF score, points	1.2 ± 0.4	1.7 ± 0.6	0.0001

Table 1 Patient population profile (Survivors and non-survivors) (Continued)

Variable	Survivors (n = 829)	Non-survivors (n = 80)	p value
SOFA score, points	5.5 ± 1.7	7.7 ± 1.7	0.0001
SAP II score, points	28.9 ± 8.7	43.0 ± 11.6	0.0001
APACHE II score, points	13.3 ± 3.8	18.3 ± 5.6	0.0001

Values are expressed as numbers (n), percentages (%), and means ± SD
 APACHE II Acute Physiology and Chronic Health Evaluation II, CABG coronary artery bypass graft, CPB cardiopulmonary bypass

Table 2 Parameters at the admission to the intensive care unit in survivors and non-survivors

Variable	Survivors (n = 829)	Non-survivors (n = 80)	p value
pH	7.37 ± 0.06	7.31 ± 0.9	0.0001
HCO ₃ ⁻ mEq/l	24.4 ± 3.15	21.04 ± 3.9	0.0001
PCO ₂ , mmHg	41.0 ± 6.3	41.3 ± 6.2	0.69
PaO ₂ /FiO ₂ , range	245.6 ± 72.8	226.2 ± 77.1	0.024
Core temperature, °C	36.6 ± 0.8	36.7 ± 1.5	0.22
Leukocyte count, cells/mm ³	10535.1 ± 6396.8	13454.8 ± 5727.4	0.0001
C-reactive protein, mg/L	14.3 ± 35.1	29.5 ± 53.1	0.014
Procalcitonin, ng/mL	0.8 ± 4.9	3.1 ± 5.	0.0001
Lactates, mmol/L	29.4 ± 14.9	63.6 ± 43.7	0.0001
ScvO ₂ , %	73.4 ± 8.6	65.6 ± 12.3	0.0001
Heart rate, beats/min	92.3 ± 18.5	109.7 ± 17.2	0.0001
Mean arterial pressure, mmHg	72.5 ± 13.7	53.6 ± 10.5	0.0001
Glucose, mg/dl	181 ± 57.2	193.7 ± 70.5	0.13
Creatinine, mg/dl	1 ± 0.5	1.5 ± 1.3	0.001
Hematocrit, %	29.1 ± 4.4	28 ± 4.5	0.04
Na, mmol/L	140.1 ± 7.6	142 ± 4.8	0.028
K, mmol/L	3.9 ± 0.6	4 ± 0.7	0.47
TnT, µg/l	0.8 ± 1.4	3.8 ± 6.1	0.0001
CK-MB, ng/mL	336.4 ± 283.2	161.6 ± 186.4	0.0001
INR, range	1.5 ± 0.2	2 ± 0.8	0.0001
aPTTr, range	1.2 ± 0.3	1.8 ± 1.2	0.0001
Platelet count, cells/mm ³	119490.8 ± 47226.4	119898.7 ± 65476.3	0.95

Values are expressed as means ± SD
 aPTTr activated partial thromboplastin time ratio, CK-MB creatine kinase-MB, INR international normalized ratio, K potassium, Na sodium, PaO₂/FiO₂ ratio of partial pressure of arterial oxygen to fraction of inspired oxygen, PCO₂ partial pressure of carbon dioxide, ScvO₂ central venous oxygen saturation, TnT troponin T

Table 3 Logistic regression model: risk factors for 90-day In-Hospital Mortality

	B	SE	p value	OR	95 % CI
Constant	-11.561	1.155	0.0001	0.0001	
1000/MAP (mmHg)	0.308	0.046	0.0001	1.360	1.242–1.489
1000/Bicarbonate (mEq/L)	0.034	0.013	0.011	1.035	1.008–1.062
Lactate (mg/dL)	0.022	0.007	0.001	1.023	1.009–1.036
INR	1.025	0.397	0.0101	2.788	1.282–6.064

Hosmer-Lemeshow $\chi^2 = 8.62$; $P = .37$. Multicollinearity diagnostics: 1000/MAP, 0.78 tolerance; 1000/Bicarbonate, 0.87 tolerance; Lactate, 0.64 tolerance and INR, 0.65 tolerance
B regression coefficient, *CI* confidence interval, *INR* international normalized ratio, *MAP* Mean arterial pressure, *OR* Odds Ratio

Table 4 A new system to predict operative mortality in patients undergoing cardiac surgery: POCAS score

Lactate (mmol/L)	Score	INR	Score
<16.00	3	<1.31	12
16.00 to 24.90	4	1.31 to 1.52	14
25.00 to 34.90	6	1.53 to 1.94	16
35.00 to 52.90	9	1.95 to 2.65	20
53.00 to 79.00	14	>2.65	30
>79.00	21		
MAP (mm Hg)	Score	Bicarbonate (mEq/L)	Score
>75	35	>27.4	14
69 to 75	41	25.7 to 27.4	15
61 to 68	46	24.1 to 25.6	16
60	50	22.8 to 24.0	17
45 to 59	58	20.4 to 22.7	18
<45	75	14.6 to 20.3	22
		<14.6	35

Table 5 Development series: predictive function of POCAS score scale for 90-day In- Hospital Mortality (Logistic regression)

	B	SE	p value	OR	95 % CI
POCAS	0.113	0.011	0.0001	1.119	1.096 1.143
Constant	-12.671	1.051	0.0001	0.000	

B regression coefficient, *CI* confidence interval, *OR* Odds Ratio

Table 6 Operative risk categories with corresponding cumulative risk score for 90-day In-Hospital Mortality after cardiac surgery for the risk groups calculated from the roc curve, cumulative risk score*

Risk score	Observed no.	Predicted no.	% probability (95 % CI)	90-Day In-Hospital Mortality (%)	Operative risk categories	% probability (95 % CI)
<75	1	1	0.92 (0.89–0.95)	0.4	Low	2.33 (2.19–2.46)
75–81	3	3	2.10 (2.03–2.16)	1.5		
82–90	11	11	4.82 (4.62–5.02)	6.1		
91–100	12	12	12.99 (12.34–13.65)	11.1	Medium	16.32 (15.25–17.38)
101–105	11	10	25.53 (24.40–26.66)	28.2		
106–128	29	28	56.22 (51.86–60.58)	55.8	High	56.22 (51.86–60.58)
>128	13	13	94.98 (92.75–97.21)	100.0	Very high	94.98 (92.75–97.21)

CI confidence interval, *n* number

Table 7 Validity of Additive EuroSCORE, Logistic EuroSCORE, ACEF, SOFA, SAP II, APACHE II, and POCAS to predict the 90-day In-Hospital Mortality rate after cardiac surgery with CEC

Criterion for assigning a mortality	AUC [95 % IC]	Ind.Youden Máx	Cutoff value	Sensitivity	Specificity	NPV	PPV	χ^2 test AUCs (other scale*POCAS)
POCAS	0.899 [0.864–0.934]*	0.63	85.5	0.91	0.72	98.7	24.9	–
APACHE II	0.768 [0.709–0.828]*	0.42	17.5	0.54	0.88	95.2	30.7	20.42*
SOFA	0.825 [0.782–0.867]*	0.52	5.5	0.92	0.59	98.7	18.8	10.16**
SAPS II	0.847 [0.800–0.893]*	0.56	32.5	0.85	0.71	98.2	20.1	24.10*
ACEF	0.699 [0.639–0.758]*	0.31	1.49	0.50	0.81	93.5	22.3	652.30*
Logistic EuroSCORE	0.754 [0.693–0.814]*	0.40	4.11	0.81	0.58	96.7	17.3	398.28*
Additive EuroSCORE	0.714 [0.647–0.780]*	0.38	5.50	0.71	0.67	95.4	19.2	30.39*

(*) $p < 0.0001$; (**) $p < 0.05$

AUC area under the curve, NPV negative predictive value, PPV positive predictive value, SOFA Secuencial Organ Failure Assesment, SAP II Simplified Acute Physiology Score II, APACHE II Acute Physiology and Chronic Health Evaluation II

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