

Prognostic value of hyperlactatemia in infected patients admitted to intensive care units: a multicenter study

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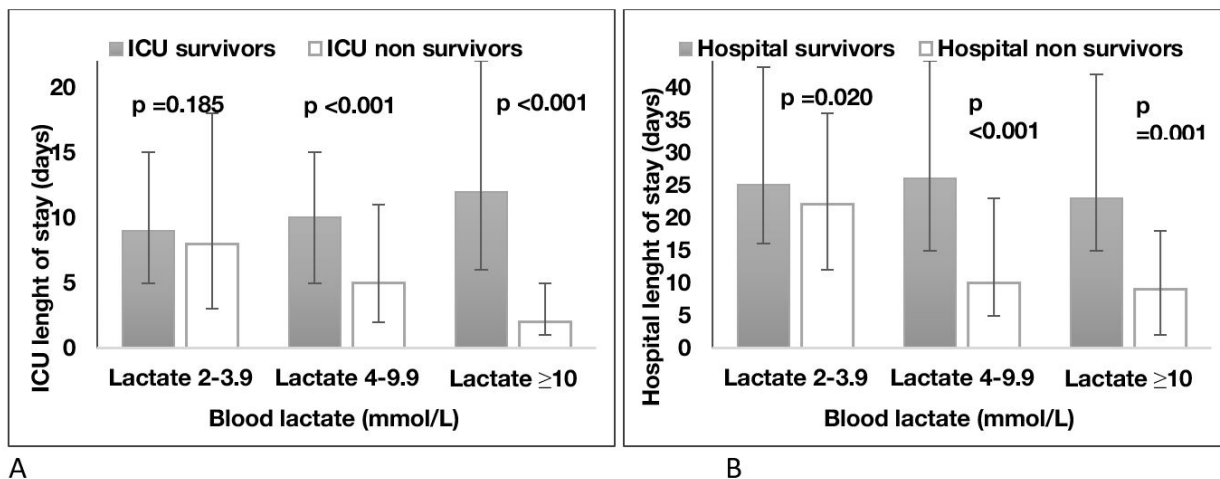


Figure 1S - Intensive care unit (A) and hospital (B) length of stay in survivors and nonsurvivors according to hyperlactatemia severity.

ICU - intensive care unit.

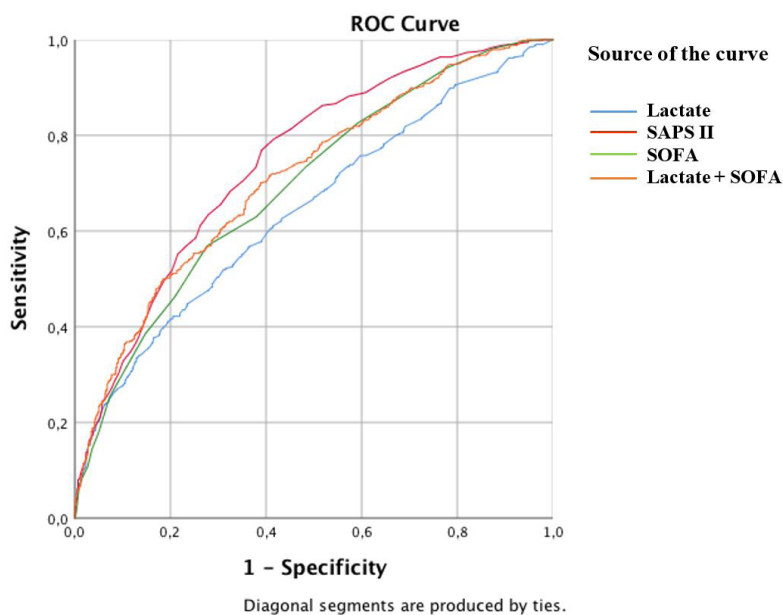


Figure 2S - Receiver Operating Characteristic curve of lactate levels in comparison to Simplified Acute Physiology Score II, Sequential Organ Failure Assessment score and lactate levels combined with Sequential Organ Failure Assessment score for predicting hospital mortality.

ROC - Receiver Operating Characteristic; SAPS II - Simplified Acute Physiology Score II; SOFA - Sequential Organ Failure Assessment.

Table 1S - Baseline characteristics of infected patients on intensive care unit admission

Variable	n (%)	Blood lactate on admission (mmol/L) Median [P25 - P75]	p value*
Sex			
Female	622 (38)	2.2 [1.3 - 3.9]	0.336
Male	1,018 (62)	2.1 [1.3 - 3.9]	
Age (years)			
< 65	821 (50)	2.0 [1.2 - 3.5]	< 0.001
≥ 65	819 (50)	2.3 [1.4 - 4.2]	
SAPS II (points)			
< 45	714 (44)	1.7 [1.0 - 2.7]	< 0.001
≥ 45	916 (56)	2.7 [1.6 - 5.1]	
SOFA score on admission (points)			
< 7	460 (28)	1.5 [1.0 - 2.4]	< 0.001
≥ 7	976 (60)	2.5 [1.5 - 4.5]	
Charlson Comorbidity Index (points)			
< 4	592 (36)	1.9 [1.1 - 3.1]	< 0.001
≥ 4	1045 (64)	2.3 [1.4 - 4.2]	
Comorbidities			
No comorbidities	182 (11)	1.9 [1.1 - 3.2]	0.001
Alcoholism	188 (11)	2.2 [1.4 - 4.1]	0.604
Alcoholism	103 (6)	2.7 [1.6 - 5.0]	0.009
Chronic liver disease	155 (9)	2.2 [1.3 - 4.0]	0.930
Chronic kidney disease	251 (15)	1.9 [1.2 - 3.0]	0.001
Chronic respiratory disease	178 (11)	2.1 [1.4 - 4.1]	0.409
Chronic heart failure	359 (22)	2.3 [1.4 - 4.0]	0.101
Diabetes mellitus	173 (11)	2.3 [1.5 - 4.6]	0.039
Immunosuppression	189 (12)	2.4 [1.4 - 3.8]	0.386
Neurological disease	342 (21)	2.8 [1.6 - 5.0]	< 0.001
Cancer			
Diagnosis on admission			
Medical	1,114 (68)	2.5 [1.5 - 4.3]	< 0.001†
Elective surgery	42 (2)	2.0 [1.1 - 2.9]	
Emergency surgery	437 (27)	2.5 [1.5 - 4.3]	
Trauma	44 (3)	1.6 [1.0 - 3.0]	
Infection source			
Pneumonia	739 (45)	2.0 [1.2 - 3.3]	< 0.001†
Tracheobronchitis	101 (6)	1.7 [1.1 - 2.8]	
Endovascular	101 (6)	2.7 [1.6 - 5.6]	
Intra-abdominal	432 (26)	3.0 [1.7 - 4.8]	
Skin and soft tissue	93 (6)	2.0 [1.3 - 3.4]	
Urological	92 (6)	2.6 [1.5 - 6.3]	
Neurological	43 (3)	1.7 [1.1 - 2.8]	
Other	28 (2)	2.2 [1.3 - 3.0]	
Septic shock			
Yes	811 (49)	3.0 [1.8 - 5.3]	< 0.001
No	655 (40)	1.7 [1.1 - 2.7]	

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Variable	n (%)	Blood lactate on admission (mmol/L) Median [P25 - P75]	p value*
Bacteremia			
No	1,278 (80)	2.0 [1.2 - 3.5]	< 0.001†
Primary	77 (5)	2.7 [1.7 - 7.1]	
Secondary	233 (15)	3.0 [1.7 - 5.4]	
Appropriate initial antibiotics			
Yes	641 (39)	2.2 [1.4 - 4.0]	0.352
No	170 (10)	2.1 [1.3 - 3.4]	
Timing to antibiotic first dose (hours)			
≤ 1	99 (6)	2.5 [1.1 - 4.1]	0.992
> 1	243 (15)	2.4 [1.4 - 4.0]	
ICU length of stay (days)			
< 6	563 (34)	2.3 [1.3 - 4.6]	0.009
≥ 6	1,055 (64)	2.1 [1.3 - 3.6]	
Hospital length of stay (days)			
< 19	652 (40)	2.5 [1.3 - 5.0]	< 0.001
≥ 19	919 (56)	2.0 [1.3 - 3.4]	
ICU mortality			
Yes	460 (28)	3.4 [1.9 - 7.0]	< 0.001
No	1,180 (72)	2.0 [1.2 - 3.1]	
Hospital mortality			
Yes	627 (38)	3.0 [1.7 - 6.0]	< 0.001
No	1,012 (62)	1.9 [1.2 - 3.0]	
Total	1,640	2.2 [1.3 - 3.9]	

SAPS II - Simplified Acute Physiology Score II; SOFA - Sequential Organ Failure Assessment; ICU - intensive care unit. * Mann-Whitney test; † Kruskal-Wallis test.