

CORRECTION

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# Correction: COVID-19 associated pulmonary aspergillosis in critically-ill patients: a prospective multicenter study in the era of Delta and Omicron variants

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Following publication of the original article [1], the authors identified an error in Tables 1 and 2.

In Table 1, the data for the “**Sex, females**” under the heading of “**CAPA patients, n = 29**” should be **8 (28)** not **5 (28)**.

The correct Table 1 is given in this correction.

In Table 2, the **data for Duration of vasopressors, days** under the heading of variable has been corrected in

this correction and the complete Table 2 is given in this correction.

The correct Table 2 is given in this correction.

In this article, the legend for Fig. 3 was incorrectly published.

Incorrect legend of Fig. 3:

**Fig. 3** Unsupervised analysis of the clinical and biological characteristics of the by self-organized maps (SOMs). Unsupervised analysis by SOM automatically located patients with similar clinical and paraclinical parameters within 1 of 40 small groupings (“districts”) throughout the map. The more similar the patients, the closer on the map. Each individual map shows the mean values or proportions per district for each characteristic: blue indicates the lowest average values, red the highest, with numbers shown for a selection of representative districts in each SOM. For instance, immunosuppressed patients were more frequently located in the upper districts and also had higher serum urea levels, less frequent Delta variant infection, higher SAPS II and SOFA scores and

<sup>†</sup>Slim Fourati and Nicolas de Prost contributed equally to this work.

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**Table 1** Patient’s characteristics at the time of their admission to the intensive care unit according to the CAPA status

Variable	n/n <sup>a</sup>	All patients, n = 566	Non-CAPA patients, n = 537	CAPA patients, n = 29	p
Demographics and comorbidities					
Sex, females		191 (34)	183 (34)	8 (28)	0.5
Age, years		66 [57–74]	66 [57–74]	67 [60–70]	0.7
Diabetes		179 (33)	168 (33)	11 (39)	0.5
Obesity		183 (33)	172 (32)	11 (38)	0.5
Chronic heart failure		52 (10)	52 (10)	0	0.1
Hypertension		281 (52)	266 (52)	15 (54)	0.8
Chronic respiratory failure		78 (14)	75 (15)	3 (11)	0.8
Chronic renal failure		113 (21)	107 (21)	6 (21)	0.9
Cirrhosis		8 (1)	7 (1)	1 (4)	0.3
Immunosuppression		189 (35)	174 (34)	15 (54)	<b>0.03</b>
None		357 (65)	344 (66)	13 (46)	0.09
Solid organ transplant		67 (12)	63 (12)	4 (14)	
Onco-hematological malignancies		59 (11)	54 (10)	5 (18)	
Others <sup>b</sup>		62 (11)	56 (11)	6 (21)	
Number of comorbidities	518/28	2 [1–3]	2 [1–3]	2 [1–4]	0.5
Clinical frailty scale	528/29	3 [2–4]	3 [2–4]	3 [2–4]	0.9
SARS-CoV-2 infection and vaccination					
Previous SARS-CoV-2 infection	506/28	40 (7)	39 (8)	1 (4)	0.8
SARS-CoV-2 vaccination		326 (59)	306 (59)	20 (69)	0.3
SARS-CoV-2 serology at ICU admission					
Unavailable		279 (49)	271 (50)	8 (28)	<b>0.04</b>
Negative <sup>c</sup>		129 (23)	119 (22)	10 (34)	
Positive		158 (28)	147 (27)	11 (38)	
First symptoms-ICU admission, days	535/29	7 [3–10]	7 [3–10]	8 [6–11]	<b>0.03</b>
SARS-CoV-2 RNA detection in nasopharyngeal swabs, Ct	359/17	21 [18–25]	21 [18–25]	23 [20–26]	0.2
SARS-CoV-2 variant					
Omicron	387/24	313 (76.2)	298 (77)	15 (62.5)	0.1
Delta		98 (23.8)	89 (23)	9 (37.5)	
Patients severity upon ICU admission and biological features					
WHO 10-point scale	353/29	6 [6–6]	6 [6–6]	6 [6–8]	0.09
SAPS II score	486/28	35 [27–45]	35 [27–44]	39 [26–53]	0.1
SOFA score	505/28	4 [3–6]	4 [3–6]	4 [3–8]	0.3
PaO <sub>2</sub> /FiO <sub>2</sub> ratio, mmHg	520/28	124 [79–188]	124 [79–190]	127 [76–170]	0.5
Arterial lactate level, mM	506/27	1.5 [1–2.2]	1.5 [1–2.3]	1.9 [1.1–2.2]	0.6
Blood leukocytes, G/L	529/29	8.9 [5.6–13]	8.9 [5.7–13]	3.9 [6.5–12.4]	0.2
Blood lymphocytes, G/L	434/26	0.5 [0.3–0.9]	0.5 [0.3–0.9]	0.4 [0.5–0.9]	0.9
Blood platelets, G/L	529/29	206 [146–298]	207 [148–289]	191 [107–315]	0.5
Serum urea level, mM	523/29	8 [6–15]	8 [5–14]	12 [7–18]	0.06
Serum creatinine level, μM	532/29	89 [63–141]	89 [62–138]	97 [73–235]	0.1
Lung parenchyma involvement, %	274/18	50 [37–75]	50 [37–75]	50 [40–70]	1
Oxygen/ventilatory support					
Oxygen		100 (18)	97 (18)	3 (10)	
High flow oxygen		269 (48)	255 (48)	14 (48)	
NIV/C-PAP		58 (10)	57 (11)	1 (3)	
Invasive MV		135 (24)	124 (23)	11 (38)	
ECMO		15 (3)	15 (3)	0	1
Vasopressor support		86 (15)	82 (16)	4 (14)	0.8

**Table 1** (continued)

Results are N (%), means (± standard deviation) or medians (interquartile range, i.e., quartile 1; quartile 3)  
 CAPA COVID-19-associated pulmonary aspergillosis, ICU intensive care unit, Ct cycle threshold, WHO World Health Organization, SOFA Sequential Organ Failure Assessment, SAPS II Simplified Acute Physiology Score II, NIV non-invasive ventilation, C-PAP continuous-positive airway pressure, MV mechanical ventilation, ECMO extracorporeal mechanical ventilation  
 Two-tailed p-values come from unadjusted comparisons using Chi-square or Fisher's exact tests for categorical variables, and t-tests or Mann-Whitney tests for continuous variables, as appropriate. No adjustment for multiple comparisons was performed. Bolded p-values are significant at the p < 0.05 level  
<sup>a</sup> Numbers of non-CAPA/CAPA patients data available  
<sup>b</sup> Includes HIV infection, long-term corticosteroid treatment, and other immunosuppressive treatments  
<sup>c</sup> Defined as < 30 Binding Antibody Units (BAU)/mL

**Table 2** Management and outcomes of patients with severe SARS-CoV-2 infection during their intensive care unit stay according to the CAPA status

Variable	n/n <sup>a</sup>	All patients, n = 566	Non-CAPA patients, n = 537	CAPA patients, n = 29	p
Invasive MV		242 (43)	220 (41)	22 (76)	<b>0.0002</b>
Prone positioning		171 (32)	153 (30)	18 (64)	<b>0.0002</b>
MV duration, days	207/21	12 [5–22]	10 [5–20]	28 [17–34]	<b>0.0001</b>
Ventilator-free days at D28		25 [0–28]	26 [0–28]	0 [0–15]	<b>0.0004</b>
ECMO support		32 (6)	29 (5)	3 (10)	0.2
Duration of ECMO, days	25/3	27 [10–55]	29 [10–62]	19 [15–20]	0.4
Vasopressor support		218 (39)	197 (37)	21 (72)	<b>0.0003</b>
Duration of vasopressors, days	192/20	4 [1–12]	4 [1–10]	16 [9–30]	<b>0.0002</b>
Renal replacement therapy		69 (12)	60 (11)	9 (31)	<b>0.001</b>
Ventilator-acquired pneumonia (among IMV) <sup>b</sup>		126 (52)	108 (49)	18 (82)	<b>0.003</b>
Time from IMV to VAP first episode, days		6 [2–10]	6 [2–9]	11 [6–20]	<b>0.003</b>
Number of VAP episodes					
Median (IQR)		1 [0–1]	1 [0–1]	1 [1–2]	<b>0.007</b>
0		116 (48)	112 (51)	4 (18)	<b>0.01</b>
1		66 (27)	56 (26)	10 (45)	
2		40 (17)	35 (16)	5 (23)	
3		19 (8)	16 (7)	3 (14)	
Dexamethasone		415 (83)	392 (83)	23 (82)	0.9
Tocilizumab		165 (33)	156 (33)	9 (33)	0.9
Monoclonal antibodies		74 (15)	67 (14)	7 (25)	0.1
Day-28 mortality		161 (29)	151 (29)	10 (34)	0.5
Duration of ICU stay, days	522/29	9 [4–18]	8 [4–17]	28 [16–44]	<b>&lt; 0.0001</b>

Results are N (%), means (± standard deviation) or medians (interquartile range, i.e., quartile 1; quartile 3)  
 CAPA COVID-19-associated pulmonary aspergillosis, MV mechanical ventilation, ECMO extracorporeal membrane oxygenation, VAP ventilator-acquired pneumonia, IMV invasive mechanical ventilation  
 Two-tailed p-values come from unadjusted comparisons using Chi-square or Fisher's exact tests for categorical variables, and t-tests or Mann-Whitney tests for continuous variables, as appropriate. No adjustment for multiple comparisons was performed. Bolded p-values are significant at the p < 0.05 level  
<sup>a</sup> Numbers of non-CAPA/CAPA patients data available  
<sup>b</sup> VAP episodes were recorded per definition in patients under IMV since more than 48 h

day-28 mortality rates. WHO World Health Organization, SOFA Sequential Organ Failure Assessment, SAPS II Simplified Acute Physiology Score II, MV mechanical ventilation

Correct legend of Fig. 3:

**Fig. 3** Unsupervised analysis of the clinical and biological characteristics of the 566 critically-ill COVID-19 patients by self-organized maps (SOMs). Unsupervised

analysis by SOM automatically located patients with similar clinical and paraclinical parameters within 1 of 40 small groupings (“districts”) throughout the map. The more similar the patients, the closer on the map. Each individual map shows the mean values or proportions per district for each characteristic: blue indicates the lowest average values, red the highest, with numbers shown for a selection of representative districts in each SOM. For

instance, immunosuppressed patients were more frequently located in the upper districts and also had higher serum urea levels, less frequent Delta variant infection, higher SAPS II and SOFA scores and day-28 mortality rates. WHO World Health Organization, SOFA Sequential Organ Failure Assessment, SAPS II Simplified Acute Physiology Score II, MV mechanical ventilation

The original article has been corrected.

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