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Corrigendum

Corrigendum to Antiviral effect of high-dose ivermectin in adults with COVID-19: A proof-of-concept randomized trial [EClinicalMedicine 37 (2021) 100,959]"

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The authors acknowledge that the supplementary and corrected information provided in this Corrigendum is necessary for a full and proper understanding and interpretation of the original article. New figures and tables are added, and a more detailed description of the methodology is added, including key baseline characteristics of the efficacy population (Table 1). All these new contributions are commented and justified in order to provide clarity to the conclusions.

The newly added group of figures (Figs. 1-3) describe individual patient curves in the control group and in the two subgroups of patients treated with IVM grouped according to median plasma concentrations of IVM (> and <160 ng/mL). These figures that replace Fig. 2 from the original article, provide a more adequate information on the distribution of viral loads in these three groups. The approach taken for the calculation of viral decay rates and viral elimination half-lives for each individual rather than obtaining the mean value for each group at each timepoint (as expressed in Fig 2 of the original article) is justified by the high variability in baseline values, coupled with the variable number of days since symptoms onset at recruitment, that varied from 1 to 5 days given the inclusion criteria of our study (Table 1); therefore, making individual changes a more appropriate approach (Figs, 1−3). Table 1 also describes key baseline characteristics of the population included in the efficacy analysis, allowing a more precise comparison between untreated controls and the two subgroups of patients treated with IVM, categorized according to the median plasma concentration of IVM. Among these baseline characteristics in the efficacy population, the only statistically significant difference was observed in age, where the <160 ng/mL group showed higher age than the other 2 groups.

The analysis based on the subgroups (Control, IVM < 160 and IVM >160) showed that after the comparisons of the mean or median of individual values, higher decay rates and shorter elimination half-lives were observed in the subgroup IVM >160 (Tables 2 and 3). Fig. 4 in this Corrigendum is added as a supplement to Figs. 3 and 4 of the original manuscript in consideration of the instability of medians in small datasets as is the case of our study. This new figure using means and standard deviations is now included and renders equivalent results (Fig 4); therefore, supporting the conclusions expressed in the original article.

Peak viral load values used for calculation of individual patient curves are the highest values measured for each patient. The viral decay rate and elimination half-life were calculated from the viral load vs time curve. Following an exponential model and assuming a first order-rate process, the decay rate constant was calculated from the following equation:

$\lambda = -2.303 .S$ where λ is the decay rate constant and S is the slope.

Values of 0.01 in log conversion were used for undetectable viral loads.

The elimination half-life was calculated as:

$0.693/\lambda$

These additions to the original article contribute to clarify and further justify the approach taken for the analysis of the efficacy data

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2589-5370/

Table 1
Baseline characteristic of the study population included in the efficacy analysis with a subgroup categorization according to median plasma concentrations of IVM (> and <160 ng/mL). Numeric variables are reported as mean ± standard deviation· Categoric variables are reported as counts (%). P-values calculated with Chi square and Kruskal-Wallis, pairwise comparisons were done with Dunn`s multiple comparisons test. Overweight: Body mass index (BMI) 25–29·9 kg/m^2; Obesity I: BMI 30–34·9 kg/m^2; Obesity II: BMI 35–39·9 kg/m^2; Obesity III: BMI >40 kg/m^2.

	Control (n = 12)	Ivermectin <160 ng/mL (n = 11)	Ivermectin >160 ng/mL (n=9)	*P* value
Age (year)	37·3 ± 12·7	50·9 ± 12·3	39·8 ±10·2	0·03
Gender				
Female	5 (42%)	5 (45%)	5 (56%)	0·81
Male	7 (58%)	6 (55%)	4 (44%)	
Weight (kilogram)	79·1 ± 15·2	77·8 ± 15·9	77·6 ± 16·6	0·95
Overweight	6 (50%)	4 (36%)	0	0·41*
Obesity I	2 (17%)	3 (27%)	5 (56%)	
Obesity II	0	1 (9%)	0	
Obesity III	1 (8%)	1 (9%)	0	
Log viral load (copies/reaction)	5·39 ± 1·56 (n = 12)	4·52 ± 1·61	3·77 ± 1·57	0·10
Time from symptoms onset (day)	3·7 ± 1·2	3·8 ± 1·1	3·3 ± 1·0	0·66
WHO-ordinal scale				
3	12 (100%)	11 (100%)	8 (89%)	0·89
4	0	0	1 (11%)	
Medical history				
Hypertension	3 (25%)	2 (18%)	1 (11%)	0·72
Diabetes	1 (8%)	3 (27%)	1 (11%)	0·42

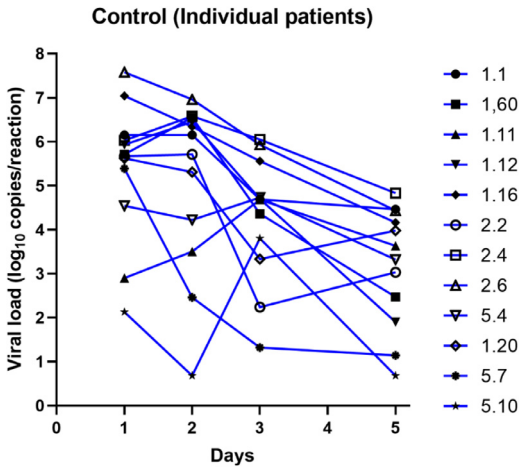

Fig. 1. Individual patient viral load reduction curves in the Control group.

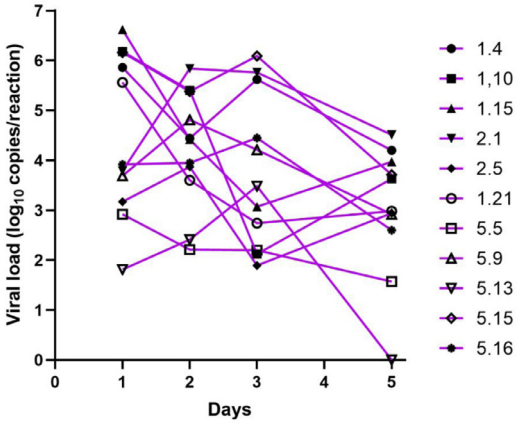

Fig. 2. Individual patient viral load reduction curves in the <160 ng/mL subgroup.

Table 2
Individual viral decay rate in untreated controls and treated patients according to median plasma concentrations of IVM (> and <160 ng/mL).

Control		Sub-group<160		Sub-group>160	
Participant #	log10 decay rate	Participant #	log10 decay rate	Participant #	log10 decay rate
1·1	0·09	**1·4**	0·06	**1·3**	0·29
1·6	0·23	**1·10**	0·16	**1·5**	0·67
1·11	0·09	**1·15**	0·12	**1·13**	0·7
1·12	0·3	**2·1**	0·09	**2·3**	0·64
1·16	0·13	**2·5**	0·05	**5·1**	0·61
2·2	0·18	**1·21**	0·16	**1·19**	0·66
2·4	0·1	**5·5**	0·14	**3·1**	0·31
2·6	0·13	**5·9**	0·17	**5·6**	2·14
5·4	0·07	**5·13**	1·94	**1·22**	0·1
1·20	0·09	**5·15**	0·12		
5·7	0·3	**5·16**	0·16		
5·10	0·17				
Median	**0·13**		**0·14**		**0·64**
1q	**0·09**		**0·105**		**0·31**
3q	**0·1925**		**0·16**		**0·67**
IQR	**0·1025**		**0·055**		**0·36**
Mean (CI 95%)	**0·16 (0·11,0·21)**		**0·29 (-0·08,0·66)**		**0·68 (0·23,1·13)**
SD	**0·081**		**0·549**		**0·588**

Table 3
Viral elimination half-life as individual patient approach.

Control		Sub-group<160		Sub-group>160	
Participant #	Half-life	Participant #	Half-life	Participant #	Half-life
1·1	7·70	**1·4**	11·5	**1·3**	2·39
1·6	3·01	**1·10**	4·33	**1·5**	1·03
1·11	7·70	**1·15**	5·78	**1·13**	0·99
1·12	2·31	**2·1**	7·70	**2·3**	1·08
1·16	5·33	**2·5**	13·86	**5·1**	1·14
2·2	3·85	**1·21**	4·33	**1·19**	1·05
2·4	6·93	**5·5**	4·95	**3·1**	2·24
2·6	5·33	**5·9**	4·08	**5·6**	0·32
5·4	9·90	**5·13**	0·36	**1·22**	6·93
1·20	7·70	**5·15**	5·78		
5·7	2·31	**5·16**	4·33		
5·10	4·08				
Median	**5·33**		**4·95**		**1·08**
1q	**3·22**		**4·33**		**1·01**
3q	**7·70**		**7·70**		**2·32**
IQR	**4·48**		**3·37**		**1·31**
Mean (CI 95%)	**5·51 (3·94,7·08)**		**6·09 (3·58,8·60)**		**1·91 (0·38,3·44)**
SD	**2·47**		**3·74**		**1·99**

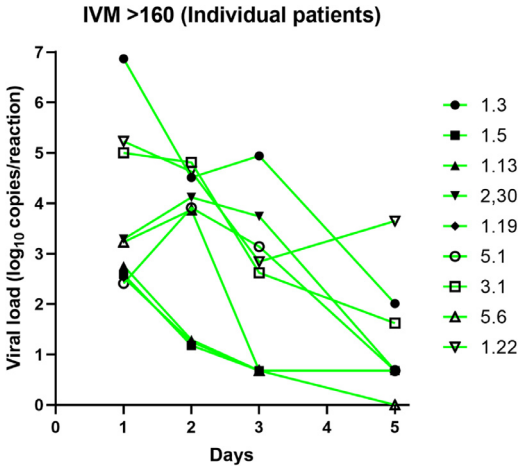

Fig. 3. Individual patient viral load reduction curves in the >160 ng/mL subgroup.

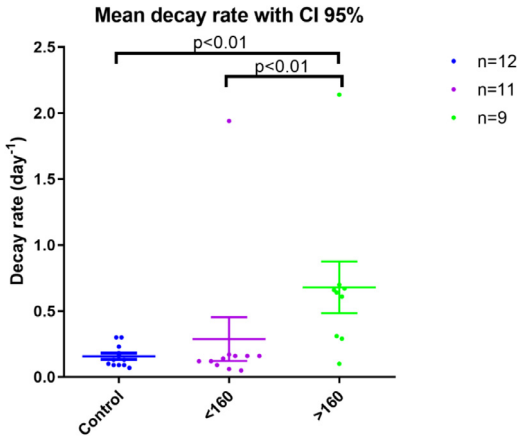

Fig. 4. Viral load decay rates by quantitative RT-PCR on upper respiratory tract secretions in untreated controls and IVM treated patients according to median plasma concentrations of IVM. Data are expressed as mean (CI95%). P-values calculated by Kruskal-Wallis due to the underlying distribution of the data, pairwise comparisons were done with Dunn`s multiple comparisons test.

through the description of working definitions, provision of individual patient data and incorporation of data analysis less susceptible of providing biased results and conclusions. With all these changes and additions that confirm and support the original article and do not affect the overall conclusions, we seek to provide all the necessary transparency and clarity to readers of the Journal.

The clinical relevance of our findings is yet to be defined.

Other corrections

The subsection 3.1, titled "*3.1. Data are mean (SD). Day-1 indicates baseline measurements*" is a misprint and should be omitted. The statement "Data are mean (SD). Day-1 indicates baseline measurements" corresponds to the legend of Fig. 2 of the original article.

In the sixth paragraph of the Results section, (Fig. 4a) is incorrect, it should state (Fig. 4).

In the sixth paragraph of the Discussion section, the sentence "*As it has been proposed in an influenza model of antiviral candidate drugs evaluation*[25]", should omit the "25" in superindex.

We apologize for these errors.