

## Indonesian medical frontliners during the coronavirus disease

## 2019 pandemic: have we been protecting them enough?

Gilbert Lazarus, Markus Meyer, Markus Depfenhart, Angela Kimberly Tjahjadi, Santi Rahayu Dewayanti, Iwan Dakota, Bambang Budi Siswanto\*

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Handling editor: Michal Heger Department of Pharmaceutics, Utrecht University, the Netherlands Department of Pharmaceutics, Jiaxing University Medical College, Zhejiang, China

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1<sup>st</sup> Editorial decision 14-Dec-2020

Ref.: Ms. No. JCTRes-D-20-00132 Indonesian medical frontliners during the coronavirus disease 2019 pandemic: have we been

Journal of Clinical and Translational Research

Dear Mr. Lazarus,

protecting them enough?

Reviewers have now commented on your paper. You will see that they are advising that you revise your manuscript. If you are prepared to undertake the work required, I would be pleased to reconsider my decision.

For your guidance, reviewers' comments are appended below and attached to this email. The editorial board wishes to make the authors aware of the fact that there is conflicting science or opinion on best practices in the fact of logistical constraints. Accordingly, we kindly request to provide sufficient literature support for every statement that warrants such support. Please do not be afraid to overcite RELEVANT articles.

If you decide to revise the work, please submit a list of changes or a rebuttal against each point which is being raised when you submit the revised manuscript. Also, please ensure that

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the track changes function is switched on when implementing the revisions. This enables the reviewers to rapidly verify all changes made.

Your revision is due by Jan 13, 2021.

To submit a revision, go to https://www.editorialmanager.com/jctres/ and log in as an Author. You will see a menu item call Submission Needing Revision. You will find your submission record there.

Yours sincerely

Michal Heger Editor-in-Chief Journal of Clinical and Translational Research

Reviewers' comments:

Reviewer #1: See uploaded file.

Reviewer #2: The authors offer a heartfelt appeal for better protection of HCWs in Indonesia, which is no doubt felt in many developing nations suffering epidemic COVID-19. However, the report lacks credible data to support the supposition of inadequate provision for protection of HCWs or the stigma they may experience. The authors would have to offer a systematic survey of COVID-19 infections and mortality among Indonesia HCWs in comparison to, for example, the United States where HCWs may be presumed to face fewer challenges with regard to PPE and stigma. The evidence offered by the authors is almost wholly anecdotal.

While the reviewer does not doubt the honesty of this narrative, it is just that, a narrative. If the authors wish to spur improvements to the conditions of HCWs in Indonesia, the first step may be to provide objective evidence that they are indeed receiving less than what may be considered minimally essential. HCWs everywhere are sacrificing very much. If the Indonesian authorities are somehow neglecting their HCWs, this would be very important to demonstrate and strive to improve, but the content of this manuscript would not challenge those authorities with evidence they may find alarming and worthy of countermeasures. Opinions are easy to ignore, facts are not.

Reviewer #3: This paper presents a strong argument for immediate action to offer better support for Indonesian healthcare workers, who urgently need increased protection for their own safety, for the protection of their patients and the reduction of hospital-based transmission, and for the overall COVID-19 effort in Indonesia.

The authors suggest a number of different ways in which healthcare workers are left vulnerable, including through inadequate PPE; inadequate infection control including the separation of patients within hospitals; inadequate testing and contact tracing which the authors suggest leads to suboptimal testing practices and increased exposure for healthcare workers; stigma and hostility directed towards HCWs who are perceived to be sources of infection; and emotional stress and fatigue amongst HCWs, who by now have been working under pressure for many months.



All of these are very important, compelling and I agree in need of urgent action.

My main concern about this article however, is that it currently combines a number of different issues, giving some but minimal evidence for each. Each of these issues is important and complex, and could be the topic of a dedicated article with a lot more evidence than is currently presented. At present it takes the form of a commentary, with good logical reason and citation in secondary literature, but without strong primary evidence. Some of the claims made are highly risky and contested (eg, the disinfection and reuse of PPE), and it's not clear if the authors are aware that this is contested (if so it should be acknowledged and cited). The claims about stigma, concealment and hostility towards healthcare workers are also concerning, but the authors don't give primary evidence to illustrate that this is occurring in Indonesia (the citation is to a general article about lessons learned from HIV around stigma and concealment).

Ideally I would like to see this article re-published as several articles, each with more evidence and discussion about each of these important topics.

However there is still value in this article in its current format, after significant revisions are made, particularly if the goal is to mobilise policy changes to support HCWs. If the authors and the editor wish to proceed with publishing this as one article, then I strongly recommend: a) removing or giving much clearer evidence for controversial and high risk claims (such as the re-use of PPE; the claim that hospitals have poor infection control processes; and that there is hostility directed towards HCWs); b) adding clearer subheadings on each of the diverse topics in the article, and a 'recommendations' subtile that clearly lists each of the recommended actions that authors suggest.

In addition there are a number of specific points that need to be corrected or backed up with evidence:

p3, line 33: the authors say there has been a total of a hundred thousand cases and deaths in Indonesia. This is inaccurate. The citation given links to a WHO page that says that Indonesia currently has 586 000 confirmed cases, with 18 000 deaths.

p3, line 46: clarify that this is the number of infections amongst HCWs globally - not in Indonesia alone

p5 line 60 - p 6 line 3: the authors cite Kampf, who suggests that PPE may be disinfected and re-used. I would be very cautious about making this claim, unless it is part of a study that specifically examines best practice in PPE use with the logistical limitations of the Indonesian setting in mind. A review like this would be a very important article to publish, if written by somebody with the correct expertise. I strongly recommend being very cautious about including a strong opinion on a technical issue that is very high risk and controversial amongst experts unless it is the topic of dedicated and careful analysis.

p 6: The author says that current infection control processes in hospitals are inadequate. This is very concerning but the article doesn't provide evidence to illustrate this. Since this is such an important issue, perhaps this could be the focus of a dedicated article. If there are other studies to cite specific to the current context in Indonesia please do so.



In general I support the spirit of this article but I think more care needs to be taken to substantiate every claim that is made. If the authors can do this through editing, more careful language, and more citation of other studies I would recommend that they do so, as the article clearly addresses important areas that are deserving of attention.

There is additional documentation related to this decision letter. To access the file(s), please click the link below. You may also login to the system and click the 'View Attachments' link in the Action column.

Authors' response

January 4<sup>th</sup>, 2021

Dear Professor Michal Heger and respected reviewers,

Thank you for the comments from the editor and reviewers on our manuscript entitled "Indonesian medical frontliners during the coronavirus disease 2019 pandemic: have we been protecting them enough?" by Gilbert Lazarus, Markus Meyer, Markus Depfenhart, Angela Kimberly Tjahjadi, Santi Rahayu Dewayanti, Iwan Dakota, and Bambang Budi Siswanto (manuscript ID: JCTRes-D-20-00132). We really appreciate the constructive and detailed feedback on our manuscript. We have revised the current submitted manuscript based on the reviewers' feedback.

## **Details of revisions**

Ν	Comments and recommendations	Revisions
0		
Rev	viewer 1	
1	The perspectives article on Indonesian medical frontline healthcare workers discusses some important issues plaguing the medical workforce in Indonesia during the COVID-19 pandemic. These critical factors include PPE shortages, discrimination towards healthcare workers, and social stigma around a COVID-19 diagnosis. These factors have been similarly described in other contexts, so this article adds to the body of literature by including observations from Indonesia.	Thank you very much for the feedback. Regarding the critique that the solutions described in our manuscript are vague and anecdotal, we have emphasized our recommendations in the conclusion and elaborated our solutions in the text In the end, we believe that providing continuous support to HCWs would yield significant benefits during this battle against the COVID-19 pandemic. Specifically, we recommend that:
	Additionally, the article is poorly focused with regards to the solutions that are offered. For example, it is unclear whether the authors are	<ol> <li>the principle of single and limited use of PPE to be preserved whenever possible. When such practice is not feasible, several alternatives to overcome the lack of PPE may be considered, provided that these</li> </ol>



	advocating for PPE decontamination, improved allocation, or revamping economic structures to solve the issue of PPE shortages. Either way, solutions are vaguely described without strong supporting evidence.	<ul> <li>alternatives are performed stringently and cautiously.</li> <li>2. HCWs should be screened for COVID-19 on a regular basis to prevent nosocomial clusters. This practice should be equipped with robust PPE supply chain and systematic and stringent IPC in order to ensure the safety of HCWs during the COVID-19 pandemic</li> <li>3. addressing and mitigating concealments of patients' history and social stigma towards HCWs and COVID-19 patients should focus on enhancing solidarity and raising awareness among local and national communities. This may be achieved through educational mass media campaigns aiming to provide accurate information and debunk fake news on COVID-19</li> <li>4. HCWs should be provided with physical and psychosocial supports through the implementation of proper work hours, mitigation of social stigma and discriminations, and provision of adequate space for HCWs to alleviate their emotional burdens.</li> <li>It is our greatest intention that these recommendations may help stakeholders to deliver appropriate policies to mitigate such issues. [see page 9 line 202 – page 10 line 219]</li> <li>We hope that these elaborations have added additional values to our manuscript and have satisfied the reviewer's request on the elaboration of our solutions and recommendations</li> </ul>
2	Overall, the article would benefit from editing by a native English speaker to improve readability and eliminate typos.	Thank you very much for your feedback. We have revised and re-proofread the manuscript according to your suggestion. Please find whether your request has been fulfilled following our revision and contact us if further proofreading is necessary.



3	Furthermore, recounting of the challenges in Indonesia is largely anecdotal without much objective evidence to support these charges. Are the authors able to provide any evidence that PPE shortages are tied with HCW	Thank you very much for your feedback. To the best of our knowledge, there is currently no formal evidence to support that PPE shortages are linked with HCW infections in Indonesia. However, we believe that PPE shortage has been known to introduce significant risk of infection to HCWs.
	infections? Have there been more HCW infections in facilities without PPE? What types of PPE are not available?	We decided to search the most relevant evidence on PPE shortages in Indonesia during the COVID-19 pandemic, and we discovered a formal evidence that PPE shortages are tangible in the Indonesian healthcare settings, mainly due to lack of resources and inequitable PPE access. <sup>1</sup> Therefore, we recommended a more equitable PPE distribution on top of adequate PPE supply. Furthermore, as there is no evidence on which types of PPE are not available, we intend to make a general recommendation encompassing all common PPE, including surgical masks, N95 respirators, surgical gloves, hand rubs, and gowns.
		Reference: Smith C. The structural vulnerability of healthcare workers during COVID-19: Observations on the social context of risk and the equitable distribution of resources. Soc Sci Med. 2020;258:113–9.
4	Published data on decontamination of masks suggests longer times are required for dry heat decontamination than what is listed in this article. (See https://www.ncbi.nlm.nih.gov/pmc/articles/PM C7260521/) This is very different from the requirements for steam decontamination.	Thank you very much for your feedback. We noticed that there are several variabilities between consensuses. We discovered that a higher temperature and a longer disinfection time are a safer option in inactivating the SARS-CoV- 2 virus. Hence, we decided to look for other resources and discovered that thermal disinfection and ultraviolet (UV) germicidal irradiation are two of the most common approaches. Hence, we recommended applying heat of 70-75°C for 70 min for dry heat



decontamination or UVC light of 1500-2000 mJ/cm<sup>2</sup> per respirator surfaces for UV germicidal irradiation.

Furthermore, face masks may be worn prolongedly or even reused following thermal disinfection or ultraviolet (UV) germicidal irradiation.<sup>1,2</sup> Derraik et al stated that five disinfection cycles of N95 respirators may be achieved by applying heat of 70-75°C for 70 min or UVC light with a dose of 1500-2000 mJ/cm<sup>2</sup> per respirator surfaces. Surgical masks may also be similarly disinfected using heat treatment, as UV light may not be able to penetrate the deep mask folds.<sup>1</sup> While Kampf et al suggested a lower temperature and a shorter time (i.e. 60°C for 30 min)<sup>2</sup>, the opposite would be a safer option in inactivating the SARS-CoV-2 virus<sup>3</sup>. However, caution on prolonging the use of PPE should be placed as longer PPE use is associated with a higher incidence of dermatological side effects and a higher risk of non-adherent PPE behavior where HCWs tend to touch their PPE over time, thus increasing their susceptibility to the infection. [see page 6 line 112-122]

References:

1.	Derraik JGB, Anderson WA, Connelly EA,
1.	Anderson YC. Rapid review of SARS-CoV-1
	and SARS-CoV-2 viability, susceptibility to
	treatment, and the disinfection and reuse of
	ppe, particularly filtering facepiece
	respirators. Int J Environ Res Public Health
	2020;17:1–31.
	https://doi.org/10.3390/ijerph17176117.
2.	Kampf G, Scheithauer S, Lemmen S, Saliou
	P, Suchomel M. COVID-19-associated
	shortage of alcohol-based hand rubs, face
	masks, medical gloves, and gowns: proposal
	for a risk-adapted approach to ensure patient
	and healthcare worker safety. J Hosp Infect
	2020;105:424–7.
3.	Xiang Y, Song Q, Gu W. Decontamination of
	surgical face masks and N95 respirators by

dry heat pasteurization for one hour at 70°C.



		Am J Infect Control 2020;48:880–2. https://doi.org/10.1016/j.ajic.2020.05.026.
5	What is meant by disinfecting surgical gloves per 'five moments' protocol? The WHO 5 moments of hand hygiene does not pertain to gloves, and WHO maintains that gloves should be single use only. Is there evidence to support the safety of this practice?	Thank you very much for your feedback. We discovered that there is a misunderstanding on the paragraph. In order to avoid future misinterpretations, we have paraphrased our paragraph accordingly:
		In addition, although disinfection of surgical gloves is unlikely to be the case, the use of medical gloves may be streamlined to adjust to the limited availability. This should first be achieved by minimizing the need of gloves by limiting their use to indicated procedures only. <sup>1,2</sup> Repeated usage of surgical gloves should be avoided whenever possible. However, if shortage persists, targeted disinfection of gloved hands for ongoing care on the same patient may be considered. <sup>1</sup> [see page 6 line 123-128]
		We initially suggested that only surgical masks and N95 respirators may be disinfected through a stringent process. While the disinfection of surgical gloves is unlikely, their use may be streamlined to adjust to the limited availability by limiting their use to indicated procedures only. Furthermore, should there be a shortage, limited repeated usage of surgical gloves to the same patient may be considered, although this practice should be best avoided whenever possible.
		<ul> <li>References:</li> <li>1. Kampf G, Scheithauer S, Lemmen S, Saliou P, Suchomel M. COVID-19-associated shortage of alcohol-based hand rubs, face masks, medical gloves, and gowns: proposal for a risk-adapted approach to ensure patient and healthcare worker safety. J Hosp Infect. 2020;105:424–7.</li> </ul>



		<ol> <li>World Health Organization. Rational use of personal protective equipment for coronavirus disease (COVID-19): interim guidance. World Health Organization, Geneva. 2020</li> </ol>
6	What is the evidence to support a 5-day quarantine period for HCWs with respiratory symptoms? International guidance suggests this should be at least 7-10 days.	Thank you very much for your feedback. The initial 5-day quarantine period for HCWs with respiratory symptoms were taken from a position paper on the infection prevention and control (IPC) in Singapore. As we noticed that this practice may differ from those of other countries, we decided to change our recommendation on the quarantine period to 10-14 days, which is recommended by the World Health Organization and the Indonesian Ministry of Health:
		This should include: (1) obligations for HCWs with any respiratory symptoms to leave for at least 10-14 days until complete symptoms resolution <sup>1,2</sup> [see page 7 line 143-145]
		<ol> <li>References:</li> <li>WHO Global Infection Prevention and Control Network. Infection prevention and control during health care when COVID-19 is suspected. WHO 2020.</li> <li>Keputusan Menteri Kesehatan Republik Indonesia no. HK.01.07/MENKES/413/2020: Pedoman pencegahan dan pengendalian coronavirus disease 2019 (COVID-19). Kementerian Kesehatan Republik Indonesia; 2020.</li> </ol>
7	The authors mention that patients concealing their histories should be addressed, but there is no discussion about how this should be done apart from law enforcement intervention. This seems rather extreme and doesn't address the root cause leading to concealment, namely, stigma. Additionally, while histories can be useful in prioritizing testing, most cases of COVID-19 occur without known exposures.	Thank you very much for your feedback. We agree that law enforcement to prevent history concealment is rather extreme and may be counterproductive. Hence, we proposed a more thorough approach by attempting to reduce the social stigma through the clarification of misconceptions and the implementation of anonymous COVID-19 testing, in addition to an application or a device to enable record linkage



to travel and/or contact history. Furthermore, we also recommend clinicians and stakeholders to attempt to build rapport and educate patients on the importance of disclosures of their travel and contact history. Lastly, as already done, we also emphasize the urgency to regard a symptomatic patient as a possible COVID-19 case until otherwise proven. In order to tackle these issues, pragmatic approach should aim to protect both HCWs and patients. The prevention of history concealment should primarily address the source of exposure and reduce the social stigmata itself by clarifying misconceptions and implementing anonymous COVID-19 testing. <sup>1,2</sup> Furthermore, health systems should also be able to facilitate HCWs to confirm examination findings, possibly by enabling record linkage to travel or contact history. <sup>3</sup> The attempt of providing sufficient time to build rapport and educate patients about the risks and benefits of accurate contact tracing for suspected patients is absolutely feasible and necessary. Nevertheless, during pandemic, it is commonly acceptable to consider a symptomatic patient as a suspect despite insufficient contact history with confirmed cases in order to minimize transmission rate in the community and among HCWs. Lastly, although law enforcements may contribute to prevent these concealments, such practices may be counterproductive as it relies largely on robust contact tracing system and may adversely affect patients' psychological well-beingness. <sup>1</sup> [see page 8 line 164-176]
References
<ol> <li>Teo AKJ, Tan RKJ, Prem K. Concealment of potential exposure to COVID-19 and its impact on outbreak control: lessons from the HIV response. Am J Trop Med Hyg 2020;103:35–7. https://doi.org/10.4269/ajtmh.20-0449.</li> <li>A guide to preventing and addressing social stigma associated with COVID-19. World Heal Organ 2020.</li> </ol>



		<ol> <li>Cheung EHL, Chan TCW, Wong JWM, Law MS. Sustainable response to the COVID-19 pandemic in the operating theatre: we need more than just personal protective equipment. Br J Anaesth 2020. https://doi.org/10.1016/j.bja.2020.04.002.</li> </ol>
8	What is the solution to HCW discrimination?	Thank you very much for the feedback. Regarding the solution to HCWs' discriminations, we emphasized the importance of psychosocial support provision to HCWs to alleviate their emotional burdens, which may be achieved by addressing and removing potential stressors by establishing proper working hours, drop-in sessions, leisure activities, as well as social supports.
		Furthermore, we also believe that the elimination of the discrimination should focus on eliminating the stigma itself, which may be achieved through educational campaigns toward local and national communities. In addition to these campaigns, if necessary, it is also possible to promulgate regulations to sanction extremists who intentionally spread fake news and discriminations toward HCWs, although this practice should be preserved as a last resort.
		In this regard, alleviation of HCWs' psychological burden should focus on addressing and removing the stigma. This may be achieved by enhancing solidarity and raising awareness among national and local communities through educational mass media campaigns to debunk misinformation and provide precise and accurate information related to COVID-19 and HCWs. <sup>1-3</sup> Notwithstanding the efforts required to carry out these measures, several reports have shown the potential benefits of these campaigns. <sup>2,4,5</sup> [see page 9 line 184-189]
		References:



		<ol> <li>Singh R, Subedi M. COVID-19 and stigma: Social discrimination towards frontline healthcare providers and COVID-19 recovered patients in Nepal. Asian J Psychiatr 2020;53:102222. https://doi.org/10.1016/j.ajp.2020.102222.</li> <li>COVID-19-related discrimination and stigma: a global phenomenon? United Nations Educ Sci Cult Organ 2020. https://en.unesco.org/news/covid-19-related- discrimination-and-stigma-global- phenomenon (accessed December 28, 2020).</li> <li>Orellana CI. Health workers as hate crimes targets during COVID-19 outbreak in the Americas Ensayo / Essay. Rev Salud Pública 2020;22:1–5. https://doi.org/10.15446/rsap.V22n2.86766.</li> <li>Fleming N. Coronavirus misinformation, and how scientists can help to fight it. Nature 2020;583:155–6. https://doi.org/10.1038/d41586-020-01834- 3.</li> <li>COVID-19 pandemic: countries urged to take stronger action to stop spread of harmful information. World Heal Organ 2020. https://www.who.int/news/item/23-09- 2020-covid-19-pandemic-countries-urged- to-take-stronger-action-to-stop-spread-of- harmful-information (accessed December 28, 2020).</li> </ol>
Rev	viewer 2	
1	The authors offer a heartfelt appeal for better protection of HCWs in Indonesia, which is no doubt felt in many developing nations suffering epidemic COVID-19. However, the report lacks credible data to support the supposition of inadequate provision for protection of HCWs or the stigma they may experience. The authors would have to offer a systematic survey of COVID-19 infections and mortality among Indonesia HCWs in comparison to, for example, the United States where HCWs may be presumed to face fewer challenges with regard to PPE and stigma. The evidence offered by the authors is almost wholly anecdotal.	Thank you very much for your feedback. We acknowledge that our article is limited by its study design. However, as there is currently no formal evidence on the practices of Indonesian HCWs during the COVID-19 pandemic, our article aims to shed light on these issues to raise motives for Indonesian researchers and stakeholders to investigate the best possible practice in Indonesia in order to prevent nosocomial infection and protect Indonesian HCWs, thus contributing to the alleviation of the COVID-19 pandemic burden in Indonesia. Furthermore, we also believe that the conduction of COVID-19 research and HCWs practices should walk hand in hand in order to flatten the COVID-19 curve at the earliest. Hence, our manuscript also aims to provide preliminary



	While the reviewer does not doubt the honesty	alternatives to the current practices, which have
	of this narrative, it is just that, a narrative. If the	been implemented in other countries and was
	authors wish to spur improvements to the	formulated by global expert consensus panels.
	conditions of HCWs in Indonesia, the first step	
	may be to provide objective evidence that they	
	are indeed receiving less than what may be	
	considered minimally essential. HCWs	
	everywhere are sacrificing very much. If the	
	Indonesian authorities are somehow neglecting	
	their HCWs, this would be very important to	
	demonstrate and strive to improve, but the	
	content of this manuscript would not challenge	
	those authorities with evidence they may find	
	alarming and worthy of countermeasures.	
	Opinions are easy to ignore, facts are not.	
Rev	riewer 3	

However there is still value in this article in its 1 current format, after significant revisions are made, particularly if the goal is to mobilise policy changes to support HCWs. If the authors and the editor wish to proceed with publishing this as one article, then I strongly recommend: a) removing or giving much clearer evidence for controversial and high risk claims (such as the re-use of PPE; the claim that hospitals have poor infection control processes; and that there is hostility directed towards HCWs); b) adding clearer subheadings on each of the diverse topics in the article, and a 'recommendations' subtitle that clearly lists each of the recommended actions that authors suggest.

Thank you very much for the feedback. Regarding the reviewer's recommendations, we have provided further elaboration on the audacious recommendations especially on the disinfection on reuse of PPE [see page 5 line 108 <u>– page 6 line 134]</u>. Furthermore, we have also provided a background on the current infection prevention and control practice in Indonesia [see page 4 line 68-72 and page 5 line 92-99]. Lastly, we have not found a formal evidence investigating the prevalence and magnitude of hostility towards Indonesian HCWs during the COVID-19 pandemic. However, we have cited several official news outlets describing the social stigma and discriminations towards Indonesian HCWs [see page 4 line 73-80]

In addition to the recommendation to elaborate our suggestions, we have also added a distinct paragraph summarizing our recommendations to Indonesian stakeholders in order to enforce the safety of Indonesian HCWs during the pandemic.

In the end, we believe that providing continuous support to HCWs would yield significant benefits during this battle against the COVID-19 pandemic. Specifically, we recommend that:



		<ol> <li>the principle of single and limited use of PPE to be preserved whenever possible. When such practice is not feasible, several alternatives to overcome the lack of PPE may be considered, provided that these alternatives are performed stringently and cautiously.</li> <li>HCWs should be screened for COVID-19 on a regular basis to prevent nosocomial clusters. This practice should be equipped with robust PPE supply chain and systematic and stringent IPC in order to ensure the safety of HCWs during the COVID-19 pandemic</li> <li>addressing and mitigating concealments of patients' history and social stigma towards HCWs and COVID-19 patients should focus on enhancing solidarity and raising awareness among local and national communities. This may be achieved through educational mass media campaigns aiming to provide accurate information and debunk fake news on COVID-19</li> <li>HCWs should be provided with physical and psychosocial supports through the implementation of proper work hours, mitigation of social stigma and discriminations, and provision of adequate space for HCWs to alleviate their emotional burdens.</li> <li>It is our greatest intention that these recommendations may help stakeholders to deliver appropriate policies to mitigate such issues. [see page 9 line 202 – page 10 line 219]</li> </ol>
2	p3, line 33: the authors say there has been a total of a hundred thousand cases and deaths in Indonesia. This is inaccurate. The citation given links to a WHO page that says that Indonesia currently has 586 000 confirmed cases, with 18 000 deaths.	Thank you very much for the feedback. We agree with the reviewer that the sentence may be ambiguous and may cause misinterpretations to the readers. Hence, we decided to paraphrase our statement to: The cases of COVID-19 infection in Indonesia have exponentiated ever since, recording a total of hundred thousand of cases and tens of thousands of deaths <sup>1</sup> [see page 3 line 51-52]
		Reference:



		Indonesia: WHO Coronavirus Disease (COVID- 19) Dashboard   WHO Coronavirus Disease (COVID-19) Dashboard. World Heal Organ 2020.
3	p3, line 46: clarify that this is the number of infections amongst HCWs globally - not in Indonesia alone	Thank you very much for the feedback. We agree with the reviewer that the sentence may be ambiguous and may cause misinterpretations to the readers. Hence, we decided to paraphrase our statement to: Over 200,000 HCWs have contracted the virus globally, leading to over 3000 deaths. <sup>1</sup> [see page 3 line 57-58]
		Reference: Exposed, silenced, attacked: failures to protect health and essential workers during the COVID- 19 pandemic 2020.
4	p5 line 60 - p 6 line 3: the authors cite Kampf, who suggests that PPE may be disinfected and re-used. I would be very cautious about making this claim, unless it is part of a study that specifically examines best practice in PPE use with the logistical limitations of the Indonesian acting in mind. A rayiou like this would be a	Thank you very much for the feedback. We agree that our claims may be bold. We also believe that our manuscript is written by authors with the correct expertise, given their knowledge, experience, and work entitlements.
	setting in mind. A review like this would be a very important article to publish, if written by somebody with the correct expertise. I strongly recommend being very cautious about including a strong opinion on a technical issue that is very high risk and controversial amongst experts unless it is the topic of dedicated and careful analysis.	However, as there are currently no studies investigating the best practice in PPE use in the Indonesia setting, our manuscript aims to shed light on these issues and thus recommend Indonesian researchers to investigate their potentials and stakeholders to consider implementing these policies. Nevertheless, given the audacity of our proposals, we also acknowledge that the best practice should always involve limited and non-repeated use of PPE and that practices to reuse gloves and disinfect masks should be avoided whenever possible.
		Repeated usage of surgical gloves should be avoided whenever possible. However, if



	chortogo porsista torrata di dicia fa di angli
	shortage persists, targeted disinfection of gloved hands for ongoing care on the same
	patient may be considered. <sup>1,2</sup> In any case, the
	principle of single and limited use of PPE is
	still recommended whenever possible, and the
	manufacturer should be contacted in order to
	ensure the efficacy and safety of such
	alternatives. <sup>1</sup> [see page 6 line 126-130]
	References:
	References.
	1. Kampf G, Scheithauer S, Lemmen S, Saliou
	P, Suchomel M. COVID-19-associated
	shortage of alcohol-based hand rubs, face
	masks, medical gloves, and gowns: proposal
	for a risk-adapted approach to ensure patient
	and healthcare worker safety. J Hosp Infect.
	2020;105:424–7.
	2. World Health Organization. Rational use of
	personal protective equipment for
	coronavirus disease (COVID-19): interim
	guidance. World Health Organization, Geneva. 2020
	Geneva. 2020
5 p 6: The author says that current infection	Thank you very much for your feedback.
control processes in hospitals are inadequate.	Regarding the critique to provide evidence that
This is very concerning but the article doesn't	the current infection prevention and control (IPC)
provide evidence to illustrate this. Since this is	in Indonesia is inadequate, we discovered that we
such an important issue, perhaps this could be	have not provided background on the current IPC
the focus of a dedicated article. If there are	in Indonesia. Hence, we decided to provide a
other studies to cite specific to the current	statement as following:
context in Indonesia please do so.	statement as following.
context in indonesia picase do so.	One reason that may explain the high infection
	rate among HCWs in Indonesia is the fact that
	there have been several reported cases where
	concealment of patients' histories had led to
	outbreak clusters among HCWs. In
	Yogyakarta, 53 HCWs were quarantined as a
	consequence of a patient being dishonest about
	his contact history, while another 57 HCWs
	had tested positive for the virus in Semarang
	due to travel history concealment. <sup>1</sup>
	Furthermore, this was further exacerbated by
	the fact that HCWs were exposed to
	unnecessary risks due to minimal PPE, lack of
	COVID-19 screening among patients and



HCWs, and physical and mental exhaustions due to long-hour shifts. <sup>21</sup> All in all, these indicated that these issues should be mitigated at the earliest to prevent avoidable outbreak clusters. [see page 4 line 64-72]         We discovered that there are currently no formal evidence investigating the magnitude and type of PPE unavailable in Indonesia. Therefore, we decided to cite official news from the spokesperson of the Indonesia Medical Association stating that PPE supply and screening are lacking and may be improved through further mitigations. While our evidence may seem anecdotal, we believe that our evidence is valid and is able to provide a representation on the current IPC practice in Indonesia.         References:       1. Virus corona: mengapa tenaga kesebatan terus tertular Covid-19 di tengah komitmen pemerintah menyalurkan APD? BBC News indones 2020.         Antras. J. Ham M. Covid-19 menyebabkan 115 dokter Indonesia andra perindungan khusus. BBC News Indones 2020. https://www.chbcindonesia/indonesia- 54156899 (accessed December 28, 2020).         Budiartie G. Banyak berguguran, tenaga medis minit likt tes corona. CNBC Indonesia 2020. https://www.chbcindonesia/indonesia- 54156899 (accessed December 28, 2020).         Penggunaan rasional alt perindungan drii untuk penyakit coronavirus (COVID-19) dan pertimbangan jikk atersediaan sangat terbatas, Panduan sementara, 6 April 2020. Geneva: 2020.		
<ul> <li>evidence investigating the magnitude and type of PPE unavailable in Indonesia. Therefore, we decided to cite official news from the spokesperson of the Indonesian Medical Association stating that PPE supply and screening are lacking and may be improved through further mitigations. While our evidence may seem anecdotal, we believe that our evidence is valid and is able to provide a representation on the current IPC practice in Indonesia.</li> <li>References:</li> <li>1. Virus corona: mengapa tenaga kesehatan terus tertular Covid-19 di tengah komitmen pemerintah menyalurkan APD? BBC News Indones 2020.</li> <li>2. Irham M. Covid-19 menyebabkan 115 dokter Indonesia ameninggal, IDI keluarkan pedoman standar perlindungan khusus. BBC News Indones 2020.</li> <li>3. Budiartie G. Banyak berguguran, tenaga medis minta ikut tes corona. CNBC Indones 2020.</li> <li>3. Budiartie G. Banyak berguguran-tenaga medis-minta-ikut tes-corona (accessed December 28, 2020).</li> <li>4. Penggunaan rasional alat perlindungan drii untuk penyakit coronavirus (COVID-19) dan pertimbangan jika ketersediaan sangat terbatas, Panduan sementara, 6 April 2020.</li> </ul>		due to long-hour shifts. <sup>2-4</sup> All in all, these indicated that these issues should be mitigated at the earliest to prevent avoidable outbreak
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Additional changes		<ol> <li>Virus corona: mengapa tenaga kesehatan terus tertular Covid-19 di tengah komitmen pemerintah menyalurkan APD? BBC News Indones 2020.</li> <li>Irham M. Covid-19 menyebabkan 115 dokter Indonesia meninggal, IDI keluarkan pedoman standar perlindungan khusus. BBC News Indones 2020. https://www.bbc.com/indonesia/indonesia- 54156899 (accessed December 28, 2020).</li> <li>Budiartie G. Banyak berguguran, tenaga medis minta ikut tes corona. CNBC Indones 2020. https://www.cnbcindonesia.com/news/20200 326112335-4-147599/banyak-berguguran- tenaga-medis-minta-ikut-tes-corona (accessed December 28, 2020).</li> <li>Penggunaan rasional alat perlindungan diri untuk penyakit coronavirus (COVID-19) dan pertimbangan jika ketersediaan sangat terbatas, Panduan sementara, 6 April 2020.</li> </ol>
	Additional changes	

1



One of the author, MD, wishes to change his affiliation as he is no longer affiliated with the Medical One Clinic Hamburg, Hamburg, Germany. Hence, we changed his affiliation to the Faculty of Medicine, Venlo University B.V, Venlo, Netherlands [see page 1 line 7]

We hope you will kindly reconsider our submission and we are looking forward to the publication of our manuscript.

Thank you very much in advance for your kind consideration.

Sincerely, Representing all authors **Prof. Bambang Budi Siswanto, MD, PhD, FAsCC, FAPSC, FACC, FESC** Department of Cardiology and Vascular Medicine, National Cardiovascular Center Harapan Kita, Faculty of Medicine, Universitas Indonesia, Jakarta, Indonesia Letjen S. Parman St No.Kav.87, RT.1/RW.8, North Bambu City, Palmerah, West Jakarta City, Jakarta 11420, Indonesia E-mail: *bambbs@gmail.com* 

2<sup>nd</sup> Editorial decision 20-Jun-2021

Ref.: Ms. No. JCTRes-D-20-00132R1 Indonesian medical frontliners during the coronavirus disease 2019 pandemic: have we been protecting them enough? Journal of Clinical and Translational Research

Dear author(s),

Reviewers have submitted their critical appraisal of your paper. The reviewers' comments are appended below. Based on their comments and evaluation by the editorial board, your work was FOUND SUITABLE FOR PUBLICATION AFTER MINOR REVISION.

If you decide to revise the work, please itemize the reviewers' comments and provide a pointby-point response to every comment. An exemplary rebuttal letter can be found on at http://www.jctres.com/en/author-guidelines/ under "Manuscript preparation." Also, please use the track changes function in the original document so that the reviewers can easily verify your responses.

Your revision is due by Jul 20, 2021.

To submit a revision, go to https://www.editorialmanager.com/jctres/ and log in as an Author. You will see a menu item call Submission Needing Revision. You will find your submission record there.

Yours sincerely,

Journal of Clinical and Translational Research Peer review process file 07.202104.013



Michal Heger Editor-in-Chief Journal of Clinical and Translational Research

Reviewers' comments:

Dear authors,

Thank you for resubmitting your modified manuscript to JCTR.

The editorial board is satisfied with the implemented changes but has residual concern regarding the subjective rather than empirical nature of some parts of the manuscript, as clearly pointed out by all reviewers.

You have tried to objectify some of the claims brought forth, but not all of them.

We therefore would like to ask you to update the manuscript to reflect the most significant developments in Indonesia and their fight of COVID-19 and to provide a maximum extent of corroborative evidence for that which is claimed and warrants substantiation.

After that your manuscript will be deemed fit for publication.

Thank you,

Michal Heger Editor

Authors' response

June 22<sup>nd</sup>, 2021

Dear Professor Michal Heger and respected reviewers,

Thank you for the comments from the editor and reviewers on our manuscript entitled "Indonesian medical frontliners during the coronavirus disease 2019 pandemic: have we been protecting them enough?" by Gilbert Lazarus, Markus Meyer, Markus Depfenhart, Angela Kimberly Tjahjadi, Santi Rahayu Dewayanti, Iwan Dakota, and Bambang Budi Siswanto (manuscript ID: JCTRes-D-20-00132). We really appreciate the constructive and detailed feedback on our manuscript. We have revised the current submitted manuscript based on the reviewers' feedback.

## **Details of revisions**

No	Comments and recommendations	Revisions
Reviewer 1		
1	The editorial board is satisfied with	Thank you very much for the feedback. We have
	the implemented changes but has	updated the manuscript, reflecting the most recent
	residual concern regarding the	COVID-19 condition in Indonesia. In particular, we



subjective rather than empirical	highlighted three most recent events which are relevant
nature of some parts of the	to this manuscript and may affect the well-being of
manuscript, as clearly pointed out	Indonesian HCWs (i.e., the recent case surge among
by all reviewers.	vaccinated HCWs, the recent Ramadan exodus, and the
	re-emergence of distrust in HCWs and disbelief on
You have tried to objectify some of	COVID-19)
the claims brought forth, but not all	The cases of COVID-19 infection in Indonesia have
of them.	exponentiated ever since, recording over two
	millions of cases and tens of thousands of deaths <sup>1</sup> ,
We therefore would like to ask you	indicating that Indonesia is still struggling to control
to update the manuscript to reflect	the overwhelming burden of the COVID-19
the most significant developments	pandemic. [see page 3 line 52]
in Indonesia and their fight of	
COVID-19 and to provide a	In Indonesia, nearly 1000 HCWs have fallen victim
maximum extent of corroborative	to the virus <sup>2</sup> , rendering Indonesian as one of the
evidence for that which is claimed	countries with the highest COVID-19 mortality
and warrants substantiation.	among HCWs <sup>3</sup> . This is further worsened by the fact
	that, despite rigorous efforts to accelerate COVID-
	19 vaccination among HCWs and general
	population <sup>1</sup> , a recent COVID-19 case surge among
	vaccinated HCWs has been noted <sup>2</sup> , thus further
	substantiating our premises [see page 3 line 56-60]
	This, coupled with the recent Ramadan exodus, raise concerns about potential clustering outbreaks
	affecting HCWs. <sup>4</sup> [see page 4 line 65-66]
	A recent report stated that over 80% HCWs in Indonesia has reported moderate physical and mental exhaustion due to the pandemic, half of whom required mental health support. <sup>2</sup> [see page 4 line 72-74]
	Moreover, the communities' distrust in HCWs and the public health system and disbelief on COVID- 19 further exacerbate the situation <sup>5,6</sup> [see page 4 line 78-80]
	When possible, we also objectified our claims by presenting the latest available evidence. We found a recently published study in Indonesia which proved that proper PPE knowledge and use are associated with lower COVID-19 risks. Even after the implementation of rigorous guidance to enhance the efficiency of PPE usage, PPE shortages still persist–leading to nosocomial



infections <sup><math>7.8</math></sup> . It is essential to address this issue as
adequate knowledge and compliant use of PPE
were associated with lower COVID-19 risks. <sup>9</sup> [see
page 5 line 100-101]
A recent study also corroborated the link between
patients' dishonesty and COVID-19 infection, thus
confirming our premises and emphasizing the urge to
address and counter-measure such an issue.
A recent study by O'Connor et al. showed that
patients contracting COVID-19 were more likely to
conceal their social behavior <sup>10</sup> , thus warranting
investigations to infer potential causes leading to
history concealments to better comprehend and
countermeasure such an issue. [see page 7 line 155-
158]
<u>1501</u>
Lastly, we substantiated the psychological burden
among Indonesian HCWs by citing a formal evidence
conducted in the same vicinity. Recent evidence indicates Indonesian HCWs have
suffered substantial emotional burdens both at work
and home, experiencing symptoms of distress and
depression due to the perceived stigma and fear of
infecting their families. <sup>6</sup> [see page 180-182]
References: 1. World Health Organization. Indonesia: WHO
<ol> <li>World Health Organization. Indonesia: WHO coronavirus disease (COVID-19) dashboard [Internet].</li> </ol>
2021 [cited 2021 Jun 21]. Available from:
https://covid19.who.int/region/searo/country/id
2. Long C. Indonesian health care workers bear the burden
of new COVID-19 wave - Indonesia [Internet].
ReliefWeb. 2021 [cited 2021 Jun 21]. Available from:
https://reliefweb.int/report/indonesia/indonesian-health-
care-workers-bear-burden-new-covid-19-wave
3. Exposed, silenced, attacked: failures to protect health
and essential workers during the COVID-19 pandemic.
London: Amnesty International; 2020.
4. Fikri C. 34 dari 47 warga Gandasari Tangerang yang
dites PCR, positif Covid-19 [Internet]. BeritaSatu. 2021
[cited 2021 Jun 21]. Available from:
https://www.beritasatu.com/megapolitan/785619/34-
dari-47-warga-gandasari-tangerang-yang-dites-pcr-
positif-covid19 5 Hossein F. Moral distress among healthcare providers
<ol> <li>Hossain F. Moral distress among healthcare providers and mistrust among patients during COVID-19 in</li> </ol>
Bangladesh. Dev World Bioeth. 2020;00:1–6.



<ol> <li>Sunjaya DK, Herawati DMD, Siregar AYM. Depressive, anxiety, and burnout symptoms on health care personnel at a month after COVID-19 outbreak in Indonesia. BMC Public Health. 2021 Dec 1;21(1).</li> <li>Irham M. Covid-19 menyebabkan 115 dokter Indonesia meninggal, IDI keluarkan pedoman standar perlindungan khusus [Internet]. BBC News Indonesia. 2020 [cited 2020 Dec 28]. Available from: https://www.bbc.com/indonesia/indonesia-54156899</li> <li>Budiartie G. RI Kurang Tenaga Medis, Ventilator &amp; APD Lawan Corona [Internet]. CNBC Indonesia. 2020 [cited 2020 Dec 28]. Available from: https://www.cnbcindonesia.com/news/20200317123856- 4-145462/ri-kurang-tenaga-medis-ventilator-apd-lawan- corona</li> <li>Bella A, Akbar MT, Kusnadi G, Herlinda O, Regita PA, Kusuma D. Socioeconomic and behavioral correlates of covid-19 infections among hospital workers in the greater jakarta area, indonesia: A cross-sectional study. Int J Environ Res Public Health. 2021 May 2;18(10):5048.</li> <li>O'Connor AM, Evans AD. Dishonesty during a pandemic: The concealment of COVID-19 information.</li> </ol>

We hope you will kindly reconsider our submission and we are looking forward to the publication of our manuscript.

Thank you very much in advance for your kind consideration.

Sincerely, Representing all authors **Prof. Bambang Budi Siswanto, MD, PhD, FAsCC, FAPSC, FACC, FESC** Department of Cardiology and Vascular Medicine, National Cardiovascular Center Harapan Kita, Faculty of Medicine, Universitas Indonesia, Jakarta, Indonesia Letjen S. Parman St No.Kav.87, RT.1/RW.8, North Bambu City, Palmerah, West Jakarta City, Jakarta 11420, Indonesia E-mail: *bambbs@gmail.com* 

3<sup>rd</sup> Editorial decision 25-Jun-2021

Ref.: Ms. No. JCTRes-D-20-00132R2 Indonesian medical frontliners during the coronavirus disease 2019 pandemic: have we been protecting them enough? Journal of Clinical and Translational Research



Dear authors,

I am pleased to inform you that your manuscript has been accepted for publication in the Journal of Clinical and Translational Research.

You will receive the proofs of your article shortly, which we kindly ask you to thoroughly review for any errors.

Thank you for submitting your work to JCTR.

Kindest regards,

Michal Heger Editor-in-Chief Journal of Clinical and Translational Research

Comments from the editors and reviewers: