

Journal Pre-proof

The Active Role of a Blood Center in Outpacing the Transfusion Transmission of COVID-19

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First Page

Type of article: **Letter to Editor**

Title: **The Active Role of a Blood Center in Outpacing the Transfusion Transmission of COVID-19**

Running title: **Blood donor screening amidst Coronavirus outbreak**

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Compliance with Ethical Standards:

1. **Disclosure of potential conflicts of interest:** Authors declare no conflict of interest.
2. **Research involving human participants and/or animals:** Human participant
3. **Informed consent:** As per the hospital transfusion policy an informed consent is obtained from all the individual blood donors prior to donation in our facility.
4. **Ethical Approval:** All procedures performed in studies involving human participants will be in accordance with the ethical standards of the institutional ethics committee.
5. **Financial support and sponsorship:** Nil

Sir,

Since a group of unknown pneumonia patients was found in December 2019 in Wuhan, China, a novel coronavirus (nCoV), suddenly came into our sight [1]. The virus was subsequently renamed Severe Acute

Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), and the disease it causes was named Coronavirus Disease 2019 (COVID-19). Having spread to the entire globe with deaths accounting in thousands, on January 31st 2020, WHO announced the outbreak of COVID-19 as a Public Health Emergency of International Concern [PHIEC] [2].

Furthermore, in the year 2002-2003, more than 8000 patients suffered from SARS due to a β coronavirus, with 774 deaths reported. Since September 2012, there were 2494 laboratory-confirmed cases of infection with Middle East Respiratory Syndrome Coronavirus (MERS-CoV), with 858 deaths reported.[3],[4]. Although WHO noted in 2003 that no cases of SARS-CoV have been reported due to transfusion of blood products, there is still a theoretical risk of transmission of SARS-CoV-2 through blood transfusion. Additionally, with more asymptomatic carriers of the COVID-19, blood safety is worthy of consideration. The current recommendations are based largely on the new guidelines released by AABB, and a precautionary approach including vigilant blood donor surveillance is the desirable need of the hour [5].

Ours is a tertiary care blood centre catering to an 1200 bedded academic hospital in North India. In the wake of this COVID-19 outbreak, we took the following measures and included them in the otherwise routine blood donor screening methodology for our centre:

(1) Our standard mini-physical by taking body temperature before blood donation in those who present with high pulse rate (> 100 bpm on two consecutive checks at a definite interval of 5 minutes) or those giving a history of fever in past 3 days.

(2) Additional questions were added in the donor screening program intending for the donors to self-screen before coming in to donate. This encouraged them to refrain from donation if they had:

- a. Fever or other symptoms of COVID-19 (cough, shortness of breath, or difficulty breathing)
- b. Having close contact with someone diagnosed with or suspected of having COVID-19 in the last 14 days
- c. Travelled outside the country and or have been diagnosed with or suspected of having COVID-19 until 28 days after the illness has been resolved
- d. However, if they felt healthy and well and met the general eligibility conditions, we welcomed their donation to help ensure stable bloodstock amid the outbreak.

(3) Follow-up of all the blood donors by telephonically calling them and asking the donors and their family about their current physical condition within the next 3 days after their last donation

(4) Another interesting initiative in order to protect our staff was to encourage them for home quarantine in case they were feeling ill. Additionally, our staffs are trained in universal precautions to help prevent the risk of spreading germs, including regular cleaning of public surfaces of contamination potential.

(5) Displaying donor information and education material at our donation centre that addressed the following Q & A:

a. Can I catch COVID-19 by blood donation?

Donating blood is safe. We always use new, sterile needles that are discarded after a single-use.

b. Do you test blood before it goes to recipients?

All donated blood, even donations from repeat donors, is tested for blood type, hepatitis B & C, HIV, syphilis, and malaria according to national guidelines [6].

c. Can I donate blood to find out if I have COVID-19?

Blood centres are not authorized to test for COVID-19.

d. Can somebody catch COVID-19 from a blood transfusion?

There is no such evidence yet that proves the transfusion transmissibility of the coronaviruses. Furthermore, pre-donation screening procedures are designed to prevent donations from people with flu-like symptoms or any such respiratory illness.

e. Why is it important to donate now?

Blood is a critical component of emergency preparedness. It is perishable and the supply must be constantly replenished. It's important for eligible blood and platelet donors to give today so that we can have strong bloodstock when needed.

f. Will we run out of bloodstock due to COVID-19 outbreak?

In the wake of this outbreak, voluntary blood donation drives are getting cancelled; our community's blood supply is certainly bound to drop. We need to build up our reserves today so that we have enough blood available to withstand any transient shortage in future.

g. What can I do to protect myself from COVID-19?

Standard practices for cold and flu-like illness are the best way to keep you and your community healthy. This includes home quarantine if feeling sick, meticulous hand hygiene either with disinfectants and or with soap and water, adherence to proper cough etiquette and avoiding touching your eyes, nose, or face after touching public surfaces.

With these measures in place, we wish to combat the novel variant of CoV at our blood centre. Knowledge of the COVID-19 is evolving every day. However, routine blood donor screening measures that are already in place should be able to prevent individuals with active respiratory infections from donating blood.

References:

- [1] Huang C, Wang Y, Li X, Ren L, Zhao J, Hu Y, et al. Clinical features of patients infected with 2019 novel coronavirus in Wuhan. *China Lancet* 2020. [https://doi.org/10.1016/s0140-6736\(20\)30183-5](https://doi.org/10.1016/s0140-6736(20)30183-5).
- [2] World Health Organization. Rolling updates on coronavirus disease (COVID-19) <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen>[accessed 2020-3-17].
- [3] World Health Organization. Summary of probable SARS cases with onset of illness from 1 November 2002 to 31 July 2003, https://www.who.int/csr/sars/country/table2004_04_21/en/;2004 [accessed 2020-3-17].
- [4] World Health Organization. Middle East respiratory syndrome coronavirus (MERS-CoV) <https://www.who.int/emergencies/mers-cov/en/>;2013 [accessed 2020-3-17].
- [5] American Association of Blood Banks. AABB's Coronavirus Resources. <http://www.aabb.org/advocacy/regulatorygovernment/Documents/Impact-of-2019-Novel-Coronavirus-on-Blood-Donation.pdf> [accessed 2020-3-18].

[6] Standards for Blood Banks & Blood Transfusion Services (2007) National AIDS Control Organization Ministry of Health and Family Welfare Government of India New Delhi 2007. <http://naco.gov.in/sites/default/files/Standards%20for%20Blood%20Banks%20and%20Blood%20Transfusion%20Services.pdf> [accessed 2020-3-18].

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