

## LETTER TO THE EDITOR

# Coronavirus disease 2019 (COVID-19) and decrease in blood donation: experience of Iranian Blood Transfusion Organization (IBTO)

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Dear Editor,

According to the World Health Organization (00:00CET 19 March 2020), coronavirus disease 2019 (COVID-19) has invaded up to 150 countries/territories. With 17 361 confirmed cases and 1135 deaths, after China and Italy, Iran is the 3rd most affected country in the world and the first one in the eastern Mediterranean region [1].

Since the establishment of Iranian Blood Transfusion Organization (IBTO) in 1974, this organization has passed several crises such as the Iran–Iraq War [2]. After the outbreak of COVID-19, we had a significant reduction in blood donations compared with last year. This reduction was due to the COVID-19 related cautions issued by governmental and social media to avoid crowds and unnecessary commuting. Firstly, the IBTO operated a crisis system for all the donation centres in order to enable the management of demand and supply. We asked the Health Ministry to encourage all of the hospitals to cancel elective surgeries. Moreover, we prepared an online system that shows all provinces' blood unit inventory in a real-time setting. Through this system, any centre with a shortage of supply is able to ask its richest neighbour for units. Then, we ensured enough personal protective

equipment for employees and donors, made physical changes to the donation process in the different units (e.g. changing the style of waiting line chairs) and increased disinfection of all the contacting surfaces. Furthermore, an online ticketing system was launched on our website ([www.ibto.ir](http://www.ibto.ir)) to decrease the waiting time in the centres. Also, some short videos showing how we have prepared our centres and facilities for donors' safety were released on the website. Following these actions, we used social media to inform people about the need for blood asking them to post about the crisis and inform others about the actions taken by IBTO for donors' safety. Moreover, regular donors without access to social media were informed via SMS. Lastly, we have increased the working hours of donation centres as well as removing weekend holidays. All the described actions were evaluated on a daily inspection.

Before these actions were implemented, and between 25 Feb and 6 March, the mean number of donations per day was  $2828.45 \pm 1587$  resulting in an inventory of less than 3 days which is considered to be a crisis level and created alarm for us. However, with the performed actions and kind cooperation of the people, donations per day increased to a mean of  $4513.72 \pm 1596$  between 7 March and 17 March achieving an inventory of 4.5 days equal to our lack of supply level). The authors hope these recent experiences will be helpful for other countries with active blood donations that are struggling with this outbreak. Also, we need to warmly thank all of the donors and users of social media who helped us to overcome this crisis.

## Conflict of interest

The authors declare no competing interests.

## Funding

The authors declare no funding sources.

## References

- 1 WHO. Coronavirus disease 2019 (COVID-19). Situation Report—59. March 17, 2020. [https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200319-sitrep-59-covid-19pdf?sfvrsn=c3dcdef9\\_2](https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200319-sitrep-59-covid-19pdf?sfvrsn=c3dcdef9_2).
- 2 Divkolaye NSH, Seighali F, Pourfathollah AA, *et al.*: Meeting the Challenges of International Crises: The Experience of the Iranian Blood Transfusion Organization. *Disaster Med Public Health Prep* 2019; 13:410–3

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