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Letter to the Editor

Organization of the outdoor blood donation drives amid novel coronavirus pandemic and national lockdown: An experience from a tertiary care oncology institution in India


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ABSTRACT

The conduct of blood donation drives became difficult amid novel coronavirus disease pandemic and national lockdown. Despite no restriction for the outdoor blood donation drives, voluntary blood donor organizations (VBDOs) and individual donors became apprehensive regarding the possible risk of spread of the infection during blood donation. Various confidence-building measures were taken to decrease this hesitation. Numerous preventive measures were taken at the blood bank and at the donation venue to limit the possible risk of the spread of infection. With the help of these measures, the confidence of the individual blood donors and the VBDOs was restored and multiple blood drives were organized.

1. Background

The World Health Organization has declared the novel coronavirus disease (COVID-19) as a pandemic on March 11, 2020 [1]. The Indian national lockdown to prevent the spread of COVID-19 was enforced on March 25, 2020, and extended to May 30, 2020, with restrictions to last even further [2]. With the implementation of the lockdown general public movement was restricted to only essential activities and organizing the blood drives became difficult.

The National Blood Transfusion Council (NBTC) and different State Blood Transfusion Councils had released a guidance document for blood donations in light of the COVID-19 pandemic [3,4]. The guidance document also stated the precautions and measures necessary while the organization of the outdoor blood donation drives (OBDDs). Despite no restriction of the OBDDs, voluntary blood donor organizations (VBDOs) and individual blood donors became very apprehensive regarding the possible risk of spread of the infection during the blood donation. Many of the VBDOs started canceling or postponing the previously scheduled OBDDs. With this, the blood bank started having an acute shortage of blood components. Our blood bank is committed to voluntary donations and to increase the number of voluntary blood donations, the following measures were implemented.

2. Various measures implemented for the safe organization of OBDDs

2.1. Implementation of an extended questionnaire for the exclusion of at-risk blood donors

An extended donor health questionnaire in addition to the standard questionnaire, as suggested by the NBTC guidance documents, was implemented in our blood bank, which included the donor's travel history, contact history with a confirmed or suspected case of COVID-19, and symptoms of active infection [3].

2.2. Education for Blood bank staff members

1. Blood bank staff was educated about the current COVID-19 crisis and important measures of its prevention like hand hygiene, cough etiquette, etc.
2. All the staff members were advised to follow the World Health Organization guidance document on the safety of the healthcare professionals and AABB resource document for blood establishments regarding the COVID-19 outbreak [5,6].
3. The need and importance of the universal precautions were reiterated.
4. The staff was trained regarding the proper use of N95 masks with their proper storage and disposal.
5. Proper donning and doffing of personal protective equipment were demonstrated.
6. Staff was asked not to use the wrist-watch or any other hand accessories during the pandemic.
7. Staff was advised to avoid eating in the OBDDs and during long-duration drives; they were advised to bring food from home.

2.3. Appeal to the VBDOs and measures of confidence-building

- 1 All the VBDOs and non-government organizations (NGOs) active in the area of reach of blood bank were informed about the shortage of the blood and continuous need of the blood even during the COVID-19 pandemic.
- 2 An appeal letter was issued to all the organizations for the OBDDs.
- 3 The organizers were informed about the steps to be taken by the blood bank during the OBDD and the necessary steps for the prevention of the possible spread of COVID-19.
- 4 All the queries of VBDOs were understood and resolved with assurance over the phone or with the help of the personal meeting with a medical social worker.

- 5 The area of reach for blood drives was increased so that the OBDDs may be conducted in faraway places also.
- 6 Various social media platforms such as Facebook, WhatsApp, etc. were used to create awareness regarding safe blood donation.

2.4. Advice and instructions for the VBDOs

- 1 Donor education materials were handed over to the organizers for the prior circulation in members and potential blood donors.
- 2 VBDOs were informed to promote the self-deferral of any donor with fever and symptoms of cough, cold or close contact with anyone with these symptoms or history of travel outside India within 28 days.
- 3 For the blood donation, a large well-ventilated area was requested so that the proper social distancing could be maintained.
- 4 The VBDOs were informed to schedule donors in a staggered manner to avoid overcrowding and proper maintenance of social distancing (at least two-meter distance between two individuals).
- 5 The number of blood donors was limited to 50–60 per drive.

2.5. Transport to the venue of the blood donation drive

- 1 More than the usual number of vehicles was arranged for the OBDDs.
- 2 The transport vehicle was used up to 30–40 % of the capacity, so that social distancing may be followed even while traveling.
- 3 All staff members were asked to use the face mask in the transport vehicle even while sitting with their peers.
- 4 The use of personal vehicles was also encouraged so that crowding in blood bank vehicles would be avoided.

2.6. Precaution by the blood bank staff at the OBDD site

- 1 Personal protective equipment including N95 mask, hand gloves, long operation-theatre gowns, head, and shoe covers was made mandatory for the blood bank staff in the donation premises.
- 2 ‘Namaste’ was the preferred mode of greetings instead of the handshake.
- 3 All donors were advised to wear a mask before entering the donation area and the same was being properly enforced by the medical social workers.
- 4 Donors who did not have a face mask were offered the same from the blood bank.
- 5 The use of hand sanitizers by blood donors at the entry and exit of the donation premises was ensured.
- 6 Infrared thermometers were used to check the body temperature of all the donors before the donation process.
- 7 After each donation, the donor couches were wiped with a 1% hypochlorite solution before taking the next donor.
- 8 Worn gloves were cleansed with alcohol-based sanitizer before and after coming in contact with each donor, while at hemoglobin estimation, physical examination, and blood donation.
- 9 Frequent changing of gloves was done and re-use was forbidden.
- 10 Blood bank staff was advised to use the cellphone only in case of requirements and avoid unnecessary phone usage to limit the fomites.
- 11 Staff was advised to use single-use pens and their proper disposal.
- 12 Safe disposal of gloves, masks, and other potentially infected materials was ensured before leaving the blood donation premises.

2.7. Social distancing at the OBDD site

- 1 VBDOs were informed to schedule donors in a staggered manner avoiding more than four donors at a time.
- 2 The blood donation couches, chairs in waiting, and refreshment areas were arranged at least two meters apart.

- 3 Gathering of people for photos while donation was discouraged instead, donors were asked to take selfies if required.

2.8. Organization of the in-house blood donation drive

Apart from OBDDs, in-house voluntary donations were also continued. The VBDOs who were unable to organize the OBDDs were requested to send blood donors in a staggered manner to the blood bank for donation. All the necessary precautions taken for OBDDs were also implemented at the time of the in-house donations.

2.9. Information to the local authorities

Some of the civil authorities and police were unaware of the legal permission for the organization of the blood drives in the lockdown. The local authorities were convinced telephonically and all the necessary documents for the organization of the OBDDs were presented to them [3,4]. Unrestricted movement of the donors and related vehicles to the drive site was requested after ensuring proper social distancing protocols.

3. Before and after the implementation of measures

Our centre is a tertiary care oncology institute with the main focus on hematopoietic stem cell transplantation. In 2019, we collected 2487 blood units out of which 2039 (81.99 %) were collected in the OBDDs. Table 1 shows the details of OBDDs organized in the year 2020. January and February were as per the routine, in March due to anticipation of lockdown and expected blood shortage, special emphasis was given to the in-house donation and more than the usual number of blood units were collected. In March and April, an overall of ten OBDDs were either canceled or postponed. In April blood donations decreased significantly and from May onwards results of new measures were seen and the required number of blood units were collected.

During the OBDDs, none of the blood bank staff was infected by COVID-19 and none of the donors informed about contracting the infection after the donation.

4. Conclusions

Donor confidence-building measures and resolution of logistical issues were crucial for the continuous OBDDs in the lockdown period. These measures may also be useful to other blood banks in the COVID-19 pandemic and these measures and experience may be valuable if a similar pandemic lockdown happens in the future.

Specific authors contribution

Abhaykumar Malind Gupta, Shashank Ojha and P. Nagaraju were associated with concept development, study design, collection and analysis of data, writing of the manuscript and final approval of the manuscript.

Table 1
Monthly blood donations in the outdoor blood donation drives and in-house blood bank.

Month, 2020	No. of drives	Donations in drives	In-house donations	Total donations
January	5	253 (87.5 %)	36 (12.5 %)	289
February	5	166 (88.3 %)	22 (11.7 %)	188
March*	3	252 (63.0 %)	148 (37.0 %)	400
April	2	133 (86.9 %)	20 (13.1 %)	153
May	5	190 (83.7 %)	37 (16.3 %)	227
June	4	203 (87.1 %)	30 (12.9 %)	233

* Lockdown was enforced on 25 March 2020.

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Declaration of Competing Interests

The authors declare no potential conflict of interest.

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