Recommendations for Blood Establishments Regarding the Novel Coronavirus Disease (COVID-2019) Outbreak (v1.0)

In order to counteract the outbreak of Novel Coronavirus Disease (COVID-2019), many emergency measures have been taken all around the country. Blood establishments as well have made their best to ensure clinical blood supply. Considering the difficulties brought by the epidemic in blood collection, blood inventory management and material management, CSBT has collected multiple measures and strategies from domestic blood establishments for your reference.

These measures and strategies generated from practical experiences are not mandatory. Each blood establishment may set procedures according to quality management specifications and your own situation.

If you find anything inappropriate or have any other suggestions, please contact with CSBT secretariat in time so that we can continually make adjustment and issue the updated edition.

During this special period, let’s make our efforts together to ensure blood safety and balance blood collection and supply, to serve our blood donors, volunteers and patients, and do our best to enhance occupational protection for the safety of our staff.

1. Consultation and Evaluation of Blood Donors
1.1 Additional inquiries about COVID-2019 are suggested to evaluate blood donors. A prospective donor meets any one of the following criteria is suggested to defer blood donation for at least 28 days (4 weeks) [1]:
   a. has a fever or symptoms of respiratory illness [2];
   b. has close contact exposure to individuals who have a fever or symptoms of respiratory illness;
   c. has close contact exposure to or has a history of epidemiological association to someone confirmed as COVID-2019 or clustering infected ones;
   d. has direct contact with wild animals.

   If blood donations are performed in regions apart from outbreak area like Hubei province or area with sustained local outbreaks, proceed consultation and evaluation for criteria e and f.
   e. has a history of residence in or travel from Hubei province or
community with COVID-2019 case report;
f. has close contact exposure to people coming from Hubei province or people from community with COVID-2019 case report.

Notes
[1] Current estimates of incubation period for COVID-2019 range from 1 to 14 days, with median estimates of 3 to 7 days. According to the information we collected, there have been two criteria used by blood establishments, 28 days (4 weeks) and 14 days (2 weeks), for deferral of suspected prospective donor in the additional inquiry about COVID-2019. Considering the epidemic situation differs in vast China, we suggest that blood establishments may set a proper deferral according to your local circumstances. In this recommendation, only one deferral (e.g., 28 days) is adopted for conciseness.

[2] When evaluating a donor, it is suggested to differ common symptoms such as occasional cough from that of respiratory illness.

1.2 Blood establishments may consider screening for COVID-2019 markers during the epidemic period, with conditions of regulatory permission and technical availabilities.

2. Notification from Blood Donors
2.1 Blood establishments should provide printed instructions to educate blood donors to agree and sign, and promise to inform the blood establishment within 14 days after donation if they have symptoms of COVID-2019, such as fever, cough, fatigue and shortness of breath, or been quarantined.

2.2 Blood establishments should arrange follow up calls to donors to learn their health status after donation, and reiterate the instructions above.

2.3 Special departments should be arranged to receive and record notifications from blood donors.

2.4 If a blood donor after donation reports the blood establishment his/her COVID-2019 alike symptoms or that he/she has been quarantined, it is suggested:
   a. to quarantine his/her blood and blood components in the bank;
b. to retrieve his/her blood and blood components from clinical facilities, if they have been transferred there but haven’t been transfused, then quarantine them;
c. to arrange a quarantine of the staff exposed to the donor;
d. to follow up on donor after quarantine, and release his/her blood and blood components if he/she is excluded from infection.

2.5 If a donor reports his/her diagnosis of COVID-2019, it is suggested:
   a. to confidentially dispose of his/her blood and blood components;
   b. to retrieve his/her blood and blood components from clinical facilities, if they have been transferred there but haven’t been transfused, then dispose of them; report to health authorities;
   c. to arrange a quarantine of the staff exposed to the donor.

2.6 If a donor reports his/her symptoms or diagnosis of COVID-2019 when his/her blood and blood components have been transfused, immediately inform the related hospital and report to health authorities.

2.7 In outbreak areas, in parallel to routine blood screening and processing, it is recommended to quarantine blood and blood components for 14 days whenever possible. Up on quarantine is over and no abnormal notification from donors, blood and blood components could be released.

3. **Blood Donor Recruitment and Services**

3.1 Properly arrange group donations and reserved donations to make donors donate in different time period and avoid gathering. Minimize the number of accompanying persons in group blood donation.

3.2 Every blood donor entering the blood donation site should wear a mask and be provided with hand disinfectant.

3.3 Retain one meter or further between donors while donations if possible, or use collection bench with interval one when necessary.

3.4 The reusable squeeze ball should be covered with disposable pad and sanitized frequently.

3.5 Blood establishments may designate vehicles to pickup and deliver blood donors if necessary.
3.6 Blood establishments may update guidelines on contingency blood donor recruitment, encouraging recruitment through SMS, phone calls, web.

3.7 Blood establishments may make full use of official websites, social media, LED screens and outdoor exhibition boards at all donation sites to publicize knowledge of voluntary blood donation as well as that of prevention measures of COVID-2019 so as to dispel people’s doubts and worries.

3.8 Blood establishments may put forward proposals through various means and media to encourage celebrities, elites, civilians, military services, students to donate blood.

3.9 If there are difficulties in parking of blood drive vehicles or accessing to campus and sites for group donations, traffic restrictions for blood delivery and blood donor pick-up, request for coordination and supports to relevant administrative departments or epidemic management departments in time. It is preferred to acquire written or printed documents or notifications, so as to facilitate on-site explanation and consultation.

3.9 Temporarily reduce the participation of social volunteers in blood collection and supply services. If it is necessary, the requirements for epidemic prevention and personnel self-protection shall be carefully publicized, arranged, and strictly implemented and inspected.

4. Balance of Blood Supply and Demand
4.1 Contact the hospital frequently to know the demand fluctuation of blood, so as to predict the collection and demand of each blood components and formulate plans for blood collection and distribution.

4.2 If necessary,
   a. Coordinate with blood establishments in other locations via administration departments, and plan for blood dispatch when necessary;
   b. Organize emergency blood donation;
   c. Issue a warning of blood shortage to the hospital;
   d. Suggest a suspension of elective surgery, etc.
5. Site Disinfection & Distribution and Management of Protective Articles

5.1 Minimize the use of central air conditioning. If it is necessary to use, switch to fresh air mode. Disinfect air outlets at densely populated places after work each day.

5.2 Ensure that air conditioning intakes adequate fresh air and exhausts directly to the outside. Turn off the return air vent when air-conditioning is not used.

5.3 The room temperature of blood donation sites should be controlled at around 26°C. Ventilate the air at least twice a day for not less than 30 minutes each time. Wipe seats, stairs, escalator handrails, workbenches, floors and instruments with chlorine disinfectant or 75% alcohol before and after work.

5.4 Enhance the disinfection of blood delivery vehicles. Disinfect after each trip, especially the steering wheels, door handles and seats.

5.5 Enhance the disinfection of blood transport boxes. Disinfect both the inside and the outside of the boxes after they are returned from hospital to blood establishment each day.

5.6 Treat routine medical waste as usual. Emergency treatment should be carried out to deal with contamination of blood, secretions or vomit of individuals diagnosed with or suspected of COVID-2019.

5.7 Each department does not keep inventory of vital protective articles, which are uniformly managed by the blood establishment. Each department need to apply for them on demand every day.

6. Supplement

6.1 Arrange the staff in different shifts and one shift each day to complete the workload of the department. Minimize contacts and meeting between members of different shifts.

6.2 Do disinfect handover areas, instruments, documents and records, etc.
6.3 Enhance daily monitoring of health status including body temperature of all the staffs, including logistic and canteen staffs. If anyone has a fever or symptoms of COVID-2019, timely self-quarantine and go for a medical treatment.

6.4 Staff should try to work in the vicinity of their posts to avoid unnecessary walking. Department should keep accurate attendance records, so as to track people in time and minimize influence when the abnormal makes it necessary to an investigation or a quarantine.

6.5 Taking records in time, including routine records and additional work records during the epidemic.

6.6 Every department should report health status of its staff each day. If someone has a fever, take a rest at home in time. If the fever lasts for 2 days, go for a test in the authorized department. Meanwhile, close contacts should be quarantined at home till the diagnosis is clear.

6.7 Staffs are required not to leave for another city without special reasons during the epidemic. If it is necessary, report to the leader in charge and ask for a permission, and report the details of route, people contacted, and personal health status, etc. up on returning to work.

6.8 Disinfect elevators and public door handles once an hour.

6.9 Fingerprint attendance system should be suspended during the epidemic.

6.10 A series of measures are suggested to restrict public dining, such as reducing gathering, avoiding talking while dining, and different departments dine separately at different times. Make sure garbage sorting and management are implemented.

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