

HEMOTHERAPY SERVICES

Precautions in blood donation and transfusion COVID-19 context (SARS-CoV-2)

According to the World Health Organization (WHO), the risk of transmission of COVID-19 by blood transfusion and its blood components is only theoretical, and probably minimal. To date, there has been no report of a respiratory virus transmitted through blood or blood components. Any action taken to mitigate the risks will be preventive.

Through Law 10.205 / 2001, Brazil assumed self-sufficiency based on altruistic donations, the guarantee of transfusion safety and the operationalization of services with adequate infrastructure as objectives and purposes of health actions and policies aimed at blood. The “National Policy on Blood Component and Blood Products”, coordinated by the Ministry of Health, aims to guarantee the country's self-sufficiency in blood components and blood products and to harmonize the actions of the public power at all levels of government, related to hemotherapy and hematological, according to Decree No. 3,990, of 10/30/2001, the so-called “Law of the Blood”.

The WHO warns that according to previous outbreaks of other types of coronaviruses, in this pandemic that we are living with SARS-VOC-2, we will have a significant impact on the blood supply, due to the reduction of donation and that the blood and blood banks blood centers should consider the risk of shortages as early as possible. Such a drop can already be seen in São Paulo where there was a 30% drop in the number of donors, Rio de Janeiro by 50%, Minas Gerais by 40% and Distrito Federal by 25%.

In order to resume stocks, it will be necessary to carry out effective public awareness campaigns on the importance of maintaining an adequate blood supply, encouraging donation and reinforcing the security of the collection process.

Where to focus actions

- Build a crisis committee, so that measures can be taken quickly.
- Develop an effective communication strategy to deal with donor anxiety, which usually results from misinformation or fear of becoming infected during blood donation.
- Conduct effective public awareness campaigns that inform about low blood levels, encourage donation and reinforce the safety of the collection process.
- Implement specific measures for the screening of donors, defined by regulatory bodies.

Care for health professionals

Regarding to the care with health professionals, according to recommendations of Technical Note No. 04/2020 GVIMS / GGTES / ANVISA, hemotherapy services should implement mechanisms and routines for prevention and control during the assistance to candidates for blood donation or recipients with suspected or confirmed cases of SARS-CoV-2 infection, as well as for communication to public health authorities, following the guidelines published periodically by the Ministry of Health.

The recommendations for measures to be implemented to prevent and control the spread of the new coronavirus (SARS-CoV-2) during the care of DONATION CANDIDATES for health professionals are:

Donor Screening

- Hand hygiene with water and liquid soap OR 70% alcoholic preparation.
- Protective goggles.
- Surgical mask, if the candidate for donation has a cough.
- Apron with long sleeves and cuff.
- Procedure gloves

Collection Room

- Hand hygiene with water and liquid soap OR 70% alcoholic preparation.
- Protective goggles.
- Surgical mask, if the candidate for donation has a cough.
- Apron with long sleeves and cuff.
- Procedure gloves

Transfusion Clinic

- Hand hygiene with water and liquid soap OR 70% alcoholic preparation.
- Protective goggles.
- Surgical mask, if the candidate for donation has a cough.
- Apron with long sleeves and cuff.
- Procedure gloves

Hospitals (confirmed or suspected patients with COVID-19)

- Hand hygiene with water and liquid soap OR 70% alcoholic preparation.
- Protective goggles.
- Surgical mask, if the candidate for donation has a cough.
- Apron with long sleeves and cuff.

- Procedure gloves

For hospital transfusion processes, the suggested PPE, for COVID-19, is recommended by the regulatory agencies, but it is of utmost importance that the hemotherapy services align their conduct with the precautionary measures adopted by the infection services of each hospital served.

All professionals should be instructed on how to use, remove, discard PPE and the importance of hand hygiene before and after use.

Donation

Considering the decrease in the displacement of people during the period of the pandemic, blood centers should promote the attraction of donors, sensitizing them to the importance of maintaining stocks, since blood consumption is daily, continuous and essential. in the treatment of chronic anemias, accidents that cause hemorrhage, treatment of cancer and other serious diseases.

The “Brazilian Association of Hematology, Hemotherapy and Cell Therapy (ABHH)” recommends that blood centers and blood banks: increase efforts to attract blood donors, offer donation candidates the possibility of scheduling blood collection, increase blood collection by apheresis of red blood cell and platelet concentrate, to compensate for the drop in the number of donations.

Currently, several research centers try to know the percentage of the viral load of SARS-CoV-2 in the blood during the stages of the disease, however, no research has yet demonstrated conclusive results. WHO recommends that blood centers and blood banks take specific measures to screen donors during the current outbreak.

The risk of transmission of SARS-CoV-2 to donors occurs via the respiratory route and not the blood route (including phlebotomy during blood donation). This risk of transmission can occur if an infected donor asymptomatic, or who has very mild symptoms, infects other donors during their circulation by the hemotherapy service.

Guidelines:

- During the reception of the donor and blood collection, the professionals of the hemotherapy services should pay attention to hygiene measures with a view to preventing contamination by SARS-CoV-2, such as hand washing and use of antiseptics.
- Care with the hygiene of areas, instruments and surfaces must be intensified by the services.
- In order to avoid the crowding of people at the time of collection, it is suggested, when possible, that prior donation scheduling be carried out. Another measure to be taken is the maintenance of safe distance between donors during collection.
- For the purposes of social distance, the seats in the waiting rooms and re-reception of blood banks and blood centers should be reduced, avoiding close contact between donors.

Another recommended action is to inform donors not to show up to donate, if they have one of the following symptoms, aiming at the safety of employees and other donors:

- Fever
- Sore throat
- Cough
- Fatigue
- Running nose

- Shortness of breath / difficulty breathing
- Any other respiratory symptoms

Donor Screening

According to the revision of the guidelines carried out by Technical Note No. 13/2020-CGSH / DAET / SAES / MS, the following measures should be applied in the clinical screening of candidates for blood donations, and provisions to the contrary are repealed:

- Blood donation candidates who have moved or are from countries with confirmed indigenous cases of infections by SARS-CoV-2 should be considered unfit for 14 days after returning from these countries. For this criterion, consider the information provided by the Ministry of Health.
- Blood donation candidates who were infected by the SARS-CoV-2 virus after clinical and / or laboratory diagnosis should be considered unfit for a period of 30 days after complete recovery (asymptomatic and without sequelae that contraindicate the donation).
- Blood donation candidates who have had contact in the past 30 days with people who have had a clinical and / or laboratory diagnosis of infections by the SARS-CoV-2 virus should be considered unfit for 14 days after the last contact with these people.
- Blood donation candidates who remained in voluntary isolation or indicated by medical staff due to symptoms of possible infection with SARS-CoV-2 should be considered unfit for the duration of the isolation (at least 14 days) if they are asymptomatic.

The criteria for the period of clinical inability for the blood donation candidate presented in this Technical Note may be more restrictive if the hemotherapy services consider it more appropriate to the local epidemiological reality, provided that with the authorization of the Technical Directorate of the institution.

Donors should be instructed on the importance of post-donation information, as a way of reducing the risk of transfusion transmission of the SARS-CoV-2 virus, so that hemotherapy services can rescue eventual blood components in stock and / or monitor the receivers.

Transfusion

The “Brazilian Association of Hematology, Hemotherapy and Cell Therapy – ABHH” recommends that in case of reduced stocks of blood components, the clinical criteria for transfusion indication should be revised and that the prophylactic platelet transfusion recommendations be reduced.

During the transfusion process, it is important that the safety of the health team responsible for transfusion is maintained.

- **Transfusion in Clinic**

Stable patients without complications due to the underlying pathology or medications used, should have their appointments rescheduled. Always make possible telephone contact to find out how they are doing, and whenever possible, to optimize consultation, evaluation, guidance remotely, such as telephone, messages, teleconferences, etc. Do not assist confirmed or suspected patients with COVID-19.

ABHH general guidelines for outpatient follow-up and treatment of patients with benign hematological diseases:

1. Restrict the number of companions.
2. To advise patients on the risks of COVID-19 and precautionary measures, such as washing hands with soap and water or gel alcohol.
3. Guide the use of a surgical mask in the outpatient clinic for all workers.
4. Avoid unnecessary physical contact.
5. Adjust the service schedules to avoid agglomerations.
6. Maintain efficient means of contact to resolve doubts and receive suggestions.

- **Transfusion in Hospital**

The hemotherapy team must know the precaution and isolation signs adopted by the hospital institutions where they will carry out the transfusion and, they must prioritize the guidelines defined by the hospital infection team.

General guidelines for patients with suspected or confirmed COVID-19:

1. Minimally use the PPE recommended for the prevention of CO-VID-19.
2. Perform a surgical scrub of PPE out of the room.
3. Wash your hands before and after using PPE.
4. Avoid unnecessary physical contact.
5. Enter with the least amount of material possible.
6. After service, discard PPE and sanitize all materials used.

Effective communication

Effective communication can help people make informed decisions, reduce reactions of anxiety, apathy or indignation, and minimize the negative impact on the economy, on the smooth running of society, and ultimately alleviate suffering and save lives.

Health institutions must create or strengthen communication channels on the local epidemiological situation, periodically updating the data and thus strengthening transparency as an important value. Third-party services must be included in the communication of institutional safety practices, as well as the provision of personal protective equipment (PPE). The Occupational Health and Infection Control teams must share institutional determinations with third-party teams in order to protect patients and professionals from the companies involved.

It is up to third party services in hospital institutions to seek to align practices between services to protect their employees from the exposure in question. In the same vein, healthcare professionals should use tools that reinforce the availability of information about suspicions or confirmation of COVID-19, remembering that the main communication tool among professionals is the patient's record.

The records must be clear and increase the relationship of trust and facilitate the communication process, allowing outsourced professionals to plan for the safe provision of health care and guarantee biosafety.

Biosafety Committee and Infection Control Services

It is important that the Biosafety Committees of Blood Banks and Blood Centers maintain a linear and effective communication flow with those responsible for Hospital Infection Control, so the transfusion agencies' teams are included in the infection prevention and control program offered by the institution including technical guidance on precautions and isolation, hand hygiene, environment cleaning, proper use of PPE and conduct against exposure with biological risk, among others.

Biosafety Committees should, in the current circumstances, receive epidemiological information from hospital institutions so that they can guide their teams on how to proceed. The activities performed by the outsourced services in the health units are the responsibility of contractors and contractors, so that both parties must align their quality and safety practices.

All the measures exposed were based on the evidence available at the time and may be changed in the face of new evidence. It is recommended that additional strategies be based on epidemiological information periodically released by federal, state or municipal authorities.

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