National Guidance on Maintaining a Safe and Adequate Blood Supply during the COVID-19 Outbreak in Bhutan

MINISTRY OF HEALTH

ROYAL GOVERNMENT OF BHUTAN

1st Edition (28/03/2020)
Introduction

The COVID-19 virus outbreak is primarily transmitted by the respiratory route and theoretically by transfusions. The epidemic has the potential to reduce the supply of blood and blood components and adversely affect blood system activities. The risk of transmission of COVID-19 through transfusion of blood and components is only theoretical and likely minimal risk. But experience with outbreaks of other coronaviruses suggests that there will be significant impact on blood supplies through reduced blood donation in the blood banks which ultimately leads to the severe shortage of blood stock in the blood banks.

This document provides interim national guidance on the management of blood supply in response to the pandemic outbreak of coronavirus disease (COVID-19). Blood banks under National Blood Transfusion Service will therefore take the following measures:-

A. Mitigating Potential Risk of Transmission through Blood Transfusion

i. All potential blood donors will be screened by Hand-Held Thermometer at the ENTRANCE. Any individual found to have fever of $\geq 37.5^\circ C$ or $\geq 99.5^\circ F$ and of travel history will be deferred automatically.

ii. Inclusion of special selection criteria for blood donors. All the potential blood donors would be asked to fill in the regular donor questionnaire (Annexure I) with additional questions relevant to COVID-19 (Annexure II). Any donor who answers ‘Yes’ to any question listed will be deferred.

iii. Post donation counselling will be given to all the donors. The staff must inform all donors that they will receive a call from the respective blood banks enquiring about the status of their health and development of any signs/symptoms of COVID-19 for subsequent 14 days after donating blood.

iv. Blood Quarantine and release:

- 14 days Quarantine of whole blood and blood components prepared such as packed red cell and fresh frozen plasma units is an option if the blood bank has adequate existing screened stocks for transfusion needs of patient.

- These quarantined units can be included in the screened inventory if no illness is reported by the donor at end of last 14days enquiry.

- Due to short shelf life of platelets, platelet concentrates can be released after routine screening tests for TTIs are completed and are screened negative.

- In absence of adequate stocks if the quarantined blood units have to be released for transfusion before completion of 14 days, the blood bank can release them but continue to follow up with the donors. If any donor is found to have sign and
symptoms of COVID-19, the blood bank should follow up with the donor and the medical treating team regarding the patient who received the transfusion unit.

- The hemovigilance focal should report all transfusion reactions or events in order to capture any possible case/s of transmission of the disease through blood and components must be put in place by all hospitals in co-ordination with the blood banks.

B. Mitigating Risk to Blood Bank Staff and Maintaining Infection Control Measure at Work.

The following measures will be required:

i. Staff should be properly educated about COVID-19 and advised not to attend work if they feel unwell or with sign and symptoms of the disease.

ii. Daily temperature checks of the staff.

iii. Quarantine the blood bank staff who had contact with the suspected or confirmed case of COVID-19 blood donor.

iv. Ensure safety of the blood donation process through the use of appropriate personal protective measures by staff and good hand hygiene practice and physical distancing.

v. All work stations, countertops, rooms, equipment, donor cots, tables, chairs, handles, hand grip balls, handrails, floors, doorknobs/door handles etc are cleaned with chlorine disinfectant or 75% alcohol daily and if possible frequently.

vi. Enhance the disinfection of blood-transportation vehicles especially the steering wheel, door handles and seats.

vii. Blood bank/Blood camp sites: Design the blood donor screening, donation area as below:

- All donors to wash their hands or use hand sanitizer before and after blood donation.

- Maintain a physical distance of 5-6 feet or 1.5-2 meters between the blood donors and donors and staff.

- Discourage blood donors from being accompanied by their family members.

- Prevent congestion of blood donors by asking them to wait outside the blood bank.

- Change waste bins, cots cover /linen frequently.
C. Mitigating the Impact of Reduced Blood Donors and Maintaining balanced Supply and Demand of Blood

The number of potential blood donors available may decrease due to various reasons:
- Infection among donors, families and contacts;
- Healthy donors may face restrictions on movement or
- Unwilling to donate due to fear, misconceptions and myths.

In order to maintain adequate supply of blood stock, the blood bank and hospital management should:
- Encourage appropriate clinical use of blood through adherence to ‘National Guidelines on Clinical Use of Blood for doctors and Nurses’
- Use of blood alternatives where possible
- Temporarily deferrals of elective surgeries with definite blood needs.

D. Ensuring Material and Critical equipment.

The blood bank must consider the risk of critical supplies and consumables getting out of stock due to disruption in supply chain and take appropriate measures to ensure no wastage of resources occur and continuity of supplies by hospital administration is ensured.

Reference:
1. Maintaining a safe and adequate blood supply during the pandemic outbreak of coronavirus disease (COVID-19), WHO Interim guidance dated 20th March 2020
ANNEXURE I

Donor Questionnaire and Consent Form

<table>
<thead>
<tr>
<th>Sr.no</th>
<th>Questions</th>
<th>YES</th>
<th>NO</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Have you been feeling well today?</td>
<td></td>
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<tr>
<td>2</td>
<td>Have you eaten some food in the last 8 hours?</td>
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<tr>
<td>3</td>
<td>Have you donated blood before? If Yes, when was your last donation?</td>
<td></td>
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<tr>
<td>4</td>
<td>Have you been advised not to donate blood for some reason?</td>
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<td>5</td>
<td>In the last three days have you taken medicines like aspirin or antibiotics?</td>
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<td>6</td>
<td>In the last three days had any vaccines like TT, Hepatitis B or rabies vaccine?</td>
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<td>7</td>
<td>In the last three days had any tooth extraction done?</td>
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<td>8</td>
<td>Have you ever had or currently having heart disease, high blood pressure, severe chest pains, asthma?</td>
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<tr>
<td>9</td>
<td>Have you ever had or currently having lung disease, continuous cough, Tuberculosis?</td>
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<tr>
<td>10</td>
<td>Have you ever had or currently having continuous fever, swollen glands, unexplained weight loss, continuous diarrhea?</td>
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<tr>
<td>11</td>
<td>Have you ever had or currently having Epilepsy, stomach ulcers, or any disease of thyroid, skin, kidneys or bladder, cancer or any blood disease?</td>
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</tr>
<tr>
<td>12</td>
<td>Have you ever had or currently having liver disease, jaundice, Hepatitis B, Hepatitis C or HIV/AIDS?</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>13</td>
<td>Have you undergone any major operation in last 6 months?</td>
<td></td>
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</tr>
<tr>
<td>14</td>
<td>Have your blood ever been tested POSITIVE for Hepatitis B / Hepatitis C / HIV?</td>
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<tr>
<td>15</td>
<td>In last one year have you had a tattoo, ear or body piercing, acupuncture?</td>
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<tr>
<td>16</td>
<td>In last one year have you received rabies vaccination or blood transfusion?</td>
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<tr>
<td>17</td>
<td>In last one year have you been treated for syphilis, gonorrhoea, herpes or any sexually transmitted disease?</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>In last one year have you been in sexual contact with anyone having jaundice, HIV, Hepatitis B or Hepatitis C?</td>
<td></td>
<td></td>
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<tr>
<td>19</td>
<td>In last one year have you had casual sex (sex with someone whose background do not know) or unprotected sex (sex without condoms)?</td>
<td></td>
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<tr>
<td>20</td>
<td>In last one year have you had sex with a commercial sex worker, a drug addict or have done any payment in return for sex?</td>
<td></td>
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<tr>
<td>21</td>
<td>In last one year have you had sex with multiple partners?</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>22</td>
<td>In the last three years have you suffered from malaria or taken treatment for malaria?</td>
<td></td>
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<tr>
<td>23</td>
<td>In the last six months have you visited any malaria area?</td>
<td></td>
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<tr>
<td>24</td>
<td>Have you suffered from any abnormal bleeding tendency like easy bruising or heavy blood loss after minor cuts?</td>
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<tr>
<td>25</td>
<td>In case you are a woman are you pregnant?</td>
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<tr>
<td>26</td>
<td>In case you are a woman are you breast feeding a child of less than one year old?</td>
<td></td>
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<tr>
<td>27</td>
<td>In case you are a woman did you have an abortion in last six months?</td>
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</tr>
</tbody>
</table>

Statement of consent: I, the undersigned have understood the importance and have given the correct answers to the best of my knowledge. I also give consent to screen my blood for infections like HIV, Hepatitis B and C and syphilis. **Blood donor’s signature:**


ANNEXURE II

Important Donor Information for COVID-19 Outbreak

1. Name
2. Age/Sex
3. CID No.
4. Designation/Working Agency
5. Contact No.
6. Email ID.
7. Emergency Contact No.

List of MUST ask donor questions for COVID-19 Outbreak

<table>
<thead>
<tr>
<th>SI No</th>
<th>COVID Related Donor Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Have you travelled to COVID-19 countries or infected areas during past 14 days?</td>
</tr>
<tr>
<td>2</td>
<td>Do you have cough?</td>
</tr>
<tr>
<td>3</td>
<td>Do you have fever?</td>
</tr>
<tr>
<td>4</td>
<td>Are you having difficulty in breathing?</td>
</tr>
<tr>
<td>5</td>
<td>Do you have sore throat?</td>
</tr>
<tr>
<td>6</td>
<td>Do have a cold/flu with body ache or myalgia?</td>
</tr>
<tr>
<td>7</td>
<td>Do you have diarrhea?</td>
</tr>
<tr>
<td>8</td>
<td>Do you have a direct contact or are you taking care of any COVID 19 patient?</td>
</tr>
</tbody>
</table>
ANNEXURE III

Requirement list for the Blood Donation Campaign

A. General
- Donor cots/ beds
- Donor couches and sitting stools
- Bed sheets and pillows
- Electric fans/heaters
- Extension cords
- Donor refreshments (optional)
- Information and educational materials (pamphlets, posters, banners)
- Donor certificates, donor badges or pins (optional)
- Marker pens and writing pens
- Signage
- Laptops
- Blood donor register
- Donor Questionnaire

B. Laboratory consumables
- Rubber gloves
- 70% isopropyl alcohol disposable swabs/spirit swab
- Tourniquet
- Lancets
- Blood Bags
- Hemocue cuvettes
- Cotton/gauze swabs, adhesive tapes
- Biohazard bags
- Sharp boxes
- Normal Saline
- Pilot tubes: Plain red capped vial
- Band-Aids, bandages
- Hand sponges
- Ice packs

C. Laboratory equipment
- Hemocue machine or any other Hb measuring equipment
- BP instrument and Stethoscope
- Body weight measuring scale
- Artery forceps
- Scissors
- Tube stripper
- Tube sealer
- Blood transportation box
- Blood measuring spring scale
## ANNEXURE V

**Blood donation Campaign Sites for the Major Hospitals in Bhutan During COVID Outbreak**

<table>
<thead>
<tr>
<th>Blood Bank</th>
<th>Name of the Site</th>
<th>Expected Donors</th>
<th>Supplies Requirement</th>
<th>Other requirements</th>
<th>Support staff</th>
</tr>
</thead>
</table>
| National Blood Center, JDWNRH; CRRH, Gelephu; ERRH, Mongar; Pling, All other blood banks | 1. YHSS          | 50-100          | ✓ Hand held-thermometer  
 ✓ Hand sanitizers  
 ✓ Masks  
 ✓ Donor Refreshments  
 ✓ Working lunch | ✓ Adequate space for waiting, donor screening, collecting blood, post-donation care and offering refreshments  
 ✓ Electricity and power sockets and plug points  
 ✓ Lighting and ventilation  
 ✓ Sanitation facilities like water, wash basins and toilet | For crowd management (RBP, volunteers, Desuup, personnel) |
ADDITIONAL DONOR QUESTIONS AS PER COVID-19

- Have you travelled to COVID-19 affected countries or areas during 14 days?
- Do you have cough?
- Do you have fever?
- Are you having difficulty in breathing?
- Do you have sore throat?
- Do you have a cold/flu with body ache or myalgia?
- Do you have diarrhea?
- Do you have a direct contact or are you taking care of any COVID-19 patient?

Steps You Can Take
- Wash hands frequently with soap and water or an alcohol-based hand sanitizer, and avoid hand to face contact
- Avoid close contact (within about 6 feet) with those who are ill
- Self-quarantine after caring for someone who is sick
- Stay home when experiencing symptoms of illness; and
- Use good cough etiquette; cover mouth and nose when coughing or sneezing and avoid touching eyes, nose, or mouth.
- There is no known risk to the safety of the nation’s blood supply and there are no reports of spread of this or any respiratory virus, by blood donation
- Giving blood is not a risk for donors to contract COVID-19.
- Misinformation will negatively impact the blood supply. (For example, if donors refrain from blood donation over fear of contracting the virus.)
- Prior to entering the blood collection area, we ask a series of questions designed to ensure a donor is not at higher risk for a COVID-19 infection.
- After the questions but before you enter the facility, we take the donor’s temperature.
- In our pre-donation questionnaire, we again ask “Are you feeling healthy and well today?”
- Donors who are not feeling well or exhibit symptoms of illness are deferred from donation.

For more information: dial hotline No. 2121, www.health.gov.bt
www.facebook.com/MoHButan/ @MoHBhutan ministryofhealthbhutan