Singapore’s experience on maintaining blood supply and keeping our donors and staff safe in the COVID-19 pandemic

ISBT Webinar
23 April 2020
Outline

- Singapore National Blood Programme
- COVID-19 in Singapore
- Impact of COVID-19 to the blood supply
- Key challenges
- Measures to secure blood supply
- Keeping donors safe
- Keeping staff safe
- Moving forward
- Concluding remarks
Singapore National Blood Programme

Centralised national blood service operated by Blood Services Group, Health Sciences Authority, a statutory board of the Ministry of Health, Singapore

Responsible for the collection, testing, and supply of blood products to all patients in Singapore, with oversight of the national blood inventory

Key objective: ensure all patients in Singapore regardless of nationality and residential status, have access to a safe and sufficient blood supply

HSA & Singapore Red Cross (SRC) which was appointed as the national blood donor recruiter in April 2001, work in partnership to collect blood from donors on a voluntary, non-remunerated basis

SRC focuses on 3 main functions in the NBP:

1. Recruitment & retention of blood donors

2. Promotion and education on the importance of blood donation

3. Organization of mobile blood donation drives

COVID-19 in Singapore

- 0.4% of confirmed cases globally
- 0.12% of recovered cases globally
- 0.006% of deaths globally

2,117.08 cases per 1 million population

As of 24 April 2020 17:30
### Total Number of Imported Cases in Singapore
(as of 23 Apr 2020, 1200h)

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<th>IMPORTED</th>
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<td><strong>569 (+0)</strong></td>
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### Case Summary in Singapore
(as of 23 Apr 2020, 1200h)

<table>
<thead>
<tr>
<th>ACTIVE CASES*</th>
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<tr>
<td><strong>1,368</strong></td>
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<table>
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<tr>
<th>Hospitalised (Stable)</th>
<th>Hospitalised (Critical)</th>
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<td><strong>1,342</strong></td>
<td><strong>26</strong></td>
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<tr>
<th>Discharge to Isolation*</th>
<th>Discharged</th>
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<td><strong>8,874</strong></td>
<td><strong>924</strong></td>
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<table>
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<tr>
<th>Deaths</th>
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<tr>
<td><strong>12</strong></td>
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</table>
Daily COVID-19 cases in Singapore
COVID-19 in Singapore – significant events

- 23 Jan: 1st case of COVID-19
- 4 Feb: 1st case local transmission
- 7 Feb: DORSCON Orange
- 13 March: Social distancing measures
- 22 March: Border control measures, all returning residents issued SHN
- 24 March: Tighter safe distancing measures
- 7 April: Circuit breaker extension
- 21 April: Circuit breaker extension

Graph showing timeline with key dates and measures.
Key challenges

Reduced donor attendance
- public fear and anxiety
- travel history
- unaware that blood banks are still operating
- mandatory work-from-home

Disruption of blood transfusion activities
- cancellation of blood mobile drives
- use of mobile venues for COVID-19 related activities
- ↓ centre bookings due to social distancing measures
- school closures
Mobile deployment

2019: 467 mobiles

Data from BDRP, SRC
COVID-19: Blood supply
COVID-19: Blood collection & blood supply

23 Jan: 1st case of COVID-19
4 Feb: 1st case local transmission
7 Feb: DORSCON Orange
13 March: Social distancing measures
22 March: Border control measures, All returning residents issued SHN
24 March: Tighter safe distancing measures
7 April: Circuit breaker

4 Feb 1st case local transmission
24 March Tightly safe distancing measures
7 April Circuit breaker
COVID-19: Impact on blood collection & blood supply

Collection ↓31.9%
Blood supply ↓72.5%

Mobile cancellation 0%
Mobile cancellation 44.4% (4/9)

Collection ↑21.3%
Blood supply ↑277%

Collection ↓43.9%
Blood supply ↓6%

Collection ↓54.7%
Blood supply ↓21.8%

Mobile cancellation 90.9% (10/11)
Measures to secure blood supply
Securing blood supply

**Measures to increase blood collection**
- Media reporting of critical blood stock
- HSA & SRC conducted numerous interviews
- Reassurance: additional precautionary measures to protect well-being of donors communicated to blood donors & blood mobile organizers via
  - Letters sent to donors individually
  - Emails to organizers
- Continuous donor engagement via HSA website and social media of additional precautionary measures
- Active telerecruitment & blast SMS
- Encouraging scheduling of appointment

↑ 40% donor appointment and fulfillment rate

**Measures to bring down blood usage (6 Feb – 12 March)**
- Appealed to hospitals to step up PBM
- Postponement of non-urgent elective surgeries with significant transfusion requirements (>2 units of rbc)
  - ↓ 26.5% usage
Lowest point = turning point
HSA appeals for blood donors as stock dips to low or critical levels during Covid-19 outbreak

By KENNETH CHENG

The Singapore Red Cross said on its website that on Feb 14, 2020, stocks for the A+, B+, O+ and AB+ blood types were at "critical" levels, and those for the A-, B-, O- and AB- blood types were "low".

Despite these challenging times, the need for blood does not stop. We still need blood donors to give the gift of life to patients who require regular blood transfusions or blood during surgeries.

Visit our community blood drives or the Blood Bank this weekend! Check out https://redcross.sg/give-blood/where-to-donate-today.html for the next blood drive in your vicinity!
Lee Hsien Loong
@leehsienloong

Read this 8视界新闻新加坡 8world News article about how Singaporeans turned out in droves to donate blood after the Singapore Red Cross appealed for donors to top up critically low stocks in the blood bank.

Thank you to all who stepped up to give blood, even during this COVID-19 outbreak. Singaporeans belong to different races, religions, and backgrounds, but we are one united people.

The blood bank is still short of A- and AB- blood types, so do come forward to donate if you can. — See more

Singapore Red Cross
18 February at 18:27

Thank you Minister for Culture, Community and Youth Grace Fu for your support and for coming by to make a donation!

Regular donations are important as blood is needed to save lives in times of emergencies, and to sustain the lives of those with medical conditions, like leukemia, thalassaemia and bleeding disorders, as well as patients who are undergoing major surgeries.

Call 6220 0183 to check your eligibility with us today to make your next blood donation!... See more
GIVE BLOOD
Last Blood Stock Update: 28 Feb 2020

Healthy | Moderate | Low | Critical

WHAT TO EXPECT | FIND OUT MORE | WHERE TO DONATE

[Image of people standing in line at a blood donation center]
Letters to blood donors
Blood donation is an essential service
Blood Donation

10. Blood donation services will remain in operation, and residents are encouraged to continue donating blood during this period. As part of the additional precautions put in place for safe distancing, donors are highly encouraged to make appointments for their blood donations. Please visit HSA’s website for more information: https://www.hsa.gov.sg/blood-donation.

[1] Essential services/procedures refer to the services/procedures that are deemed necessary to the survival or health of the patient and are therefore provided even if the patient is symptomatic of COVID-19.
Measures to protect donors
Mandatory pre-screening

UPDATE ON THE PRECAUTIONARY MEASURES TO PROTECT THE WELL-BEING OF DONORS

BEFORE ENTERING BLOOD DONATION SITES, THERE WILL BE SCREENING FOR:
- Fever
- Respiratory symptoms, such as cough and runny nose;
- Risk of exposure to COVID-19; and
- Travel history

LET'S HELP TO KEEP SINGAPORE'S BLOOD STOCK HEALTHY AT ALL TIMES BY DONATING BLOOD REGULARLY!

Please call Singapore Red Cross at 6220 0183 to check your eligibility and travel criteria
Dear Donors

Due to the ongoing COVID – 19 situation, we are practicing social distancing and crowd control to protect the welfare of our donors as well as our staff.

We seek your understanding to refrain from gathering around the area.

Thank you for your co-operation.
Keep this seat **EMPTY**

Let’s practise **social distancing** to stop the spread of **COVID-19**.

**Dear Donors,**

As part of our social distancing measures, you are encouraged to **avoid seats with signages** at the waiting and refreshment areas.

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**Safe distancing**
Staggering of donors

(SUNDAY)

DATE: 3 APRIL 2020

Date : 12 April 2020, Sunday
Time & Pax : 10am – 8pax
Time & Pax : 11am – 8pax
Time & Pax : 12pm – 8pax
HSA's Updates on the Precautionary Measures Taken to Safeguard Donors' Health and Well-Being

In response to the 2019 novel coronavirus (2019-nCoV) situation, the Blood Service of the Health Sciences Authority is taking additional precautionary measures to ensure the health and safety of our blood donors.

2 We are screening potential donors and their companions for fever or respiratory symptoms, such as cough or runny nose, as well as their travel history to Mainland China before they can enter the blood banks or mobile drive premises. All persons who are unwell, with risk of exposure to the novel coronavirus, or have travelled to Mainland China in the last 14 days will not be allowed to enter the premises.

3 To further assure our donors, we have also increased the frequency of cleaning to ensure the cleanliness standards of our blood banks.

4 Blood is required daily to support the needs of patients in Singapore. However, blood stocks are currently trending downwards. We therefore strongly urge donors to be healthy and eligible to step forward as our patients really need your support during this challenging period.

HEALTH SCIENCES AUTHORITY
SINGAPORE
7 FEBRUARY 2020
Schedule an appointment

Appointment rate ↑

Appointment fulfillment rate ↑

For more information or to make an appointment, visit redcross.sg/donateblood
Forum: More measures taken to shield blood donors

We are thankful to our donors as they have prioritised the needs of our patients and came forward selflessly.

But with the recent roll-out of safe distancing measures, both in the workplace and in public areas, attendance at our blood banks has begun to dip, as Mr Tan had observed.

We therefore urge healthy individuals to continue donating. To minimise the risk of overcrowding at our blood banks, donors can first check their eligibility using the Health Sciences Authority's online self-help tool and schedule an appointment with us before coming in for donations (Tel: 6220-0183 or at giveblood.sg).

Additional precautionary measures to safeguard the blood donor community have also been adopted across our donation sites, including pre-screening of potential donors for fever and respiratory symptoms, recent travel histories and close contacts.

We have also increased the frequency of cleaning and adhered to the current safe distancing guidelines.

The blood you give is a lifeline for someone in need. By working together, we can continue to stay safe and united in our efforts to help save lives.

Robert Teo

Director, Singapore Red Cross

Blood Donor Programme
Circuit breaker
Blood Donation is Essential
Blood donations will remain in operation. People are encouraged to continue donating blood during this period, although they are encouraged to make appointments, MOH said.

5. Supporting services (e.g. blood services, laboratories and radiological services, research related to COVID-19, pharmacies, disease surveillance and response services, medical and patient transport, provision of medical items and personal care items)

4. Essential Allied Health Services that cannot be delivered remotely and are only for specific clients who meet the following criteria:
   a. Patient(s)/client(s) with no caregiver; and
   b. Without therapy for a period of at least one month, patient(s)/client(s)’s conditions would either likely deteriorate within one month, resulting in hospitalization e.g. progressive motor neuron disease; or patient(s)/client(s) would suffer from permanent loss of function.

For application for exemption based on the above criteria, please submit the following information at go.gov.sg/abs-exemption:
   a. Surname and initials of client’s name;
   b. NRIC number (last 3 digits and alphabet);
   c. Age;
   d. Relevant diagnosis and description of why the client would deteriorate within 1 month, resulting in hospitalization/ suffer from permanent loss of function;
   e. No. of home therapy sessions provided to patient in last one month (if applicable)

6. Supporting services (e.g. blood services, laboratories and radiological services, research related to COVID-19, pharmacies, disease surveillance and response services, medical and patient transport, provision of medical items and personal care items)
Blood donation is essential.
Dear Donor, blood donation is still essential during this critical period..............
Authorities call for more blood donations as supplies drop to critical levels during circuit breaker

By MATTHEW LOH

SINGAPORE — The authorities are making a fresh appeal for healthy blood donors, as blood collection in the first week of the circuit breaker period dipped to less than a quarter of usual levels.

This drop will lead to blood stocks falling far below the daily amount required to supply transfusion needs from surgeries, general medicine, and accident and emergency cases, said the Singapore Red Cross (SRC), which is the nation’s appointed blood donor recruiter.

A poster Singapore Red Cross put up on its Facebook page.
Measures to ensure staff safety
• Keeping staff updated and informed about the COVID-19 situation
Mask up when out
Singapore’s changing situation

Our situation is now changing. There is increased local transmission in Singapore, and a possibility of some undetected cases in the community. There is also some evidence that infected people showing no symptoms may infect others. This is why the WHO is reviewing its guidelines on mask usage.

“...Therefore, we will no longer discourage people from wearing masks. Wearing a mask may help to protect others, in case you have the virus but don’t know it. This is so that you keep your droplets to yourself - when you sneeze or speak or cough. It can also protect yourself a little better, especially if you are elderly, or vulnerable because of pre-existing health conditions.”

Prime Minister Lee, in his address to nation on 3 Apr on COVID-19 situation
<table>
<thead>
<tr>
<th>MEASURES TO SECURE THE BLOOD SUPPLY</th>
<th>MEASURES TO PROTECT DONORS</th>
<th>MEASURES TO PROTECT STAFF</th>
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<tbody>
<tr>
<td>• Reassurance to allay anxiety and fear</td>
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<td>• Transparency</td>
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<td>• Clear and effective communication about the additional precautionary measures &amp; blood donation as an essential service</td>
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<td>• Continuous media &amp; donor engagement</td>
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<td>• Use of social media</td>
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<td>• Active tele-recruitment and sending SMS</td>
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<td>• Rebooking - appointment</td>
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<td>• Collaborate with different agencies</td>
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<td>• Convenience</td>
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<td>• Close monitoring of blood utilization, PBM</td>
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<td>• Reinforce self-deferral</td>
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<tr>
<td>• Mandatory pre-screening - defer donors with fever and at risk of COVID-19 and</td>
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<td>• Safe distancing</td>
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<td>• Better planning crowd control</td>
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<td>• Only allowing donors to enter blood donation premises</td>
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<td>• Encouraging donors to schedule appointment</td>
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<td>• Disinfection of blood donation premises</td>
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<td>• Hand sanitizers</td>
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<td>• Mandatory mask-wearing</td>
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<td>• Briefing to update staff</td>
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<td>• Twice-daily temperature checking</td>
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<td>• Team segregation</td>
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<tr>
<td>• Mandatory mask-wearing</td>
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<tr>
<td>• Mandatory leave of absence for staff who returned from overseas</td>
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Moving forward

- Business continuity
- Plan ahead to ensure sustainability of blood supply
- Strategic approaches
Concluding remarks

- Learn from past experience and learn from others
- Reassurance and effective communication are key
- Donor care is still important
- Agile to react quickly in appropriate and proportionate manner
- Different approaches and modalities at different phases of the pandemic
- Prepare for the worst
Dear Sir / Ma’am,

I would like to extend my gratitude for your efforts in allowing donors to feel safe throughout the blood donation process, amidst this pandemic period.

I have visited your Dhoby Ghaut outlet last Wednesday, and your temperature screener staffs before entering were very friendly.

The entire blood donation process was smooth and all your staffs were knowledgeable and friendly.

Please extend my appreciation to your staffs, especially those working in the frontline during this period, across all outlets.

Regards


Acknowledgement

HSA
- Dr. Ang Ai Leen
- Dr. Tan Hwee Huang
- William & Blood Resources
- Maznah
- Albert
- Aida
- Michael See
- Kooi Sim
- Pei Huey
- Sally
- Estelle
- Sandra

BDP (SRC)
- Robert
- Shirley
- Gracinia