



Letter to the editor

Blood donor deferral periods after COVID-19 vaccination



Dear Sir,

The coronavirus disease 2019 (COVID-19) caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS Cov-2) is the biggest pandemic faced by human beings in recent times. One of the effective ways to prevent the spread of COVID-19 is to develop herd immunity against the novel coronavirus by following the mass immunization program and for preventing the disease the vaccination program is being run at a never-seen-before scale. Routinely any vaccine may be live attenuated, non-live vaccines, or toxoid. Usually, the non-live vaccines or toxoids do not have any deferral period for blood donations, whereas the live attenuated vaccine has a deferral period of 14–28 days.

Since the start of the vaccination program, the majority of countries and organizations are following different deferral periods for blood donation after the COVID-19 vaccination. Here we summarise the different deferral periods followed at different places and their rationale behind it.

Following are the guidelines issued by various organizations around the world (Table 1).

1. World Health Organisation Technical Guidance [1]

- Although consistent with current general global practice, recipients of SARS-CoV-2 vaccines that do not contain live virus may donate blood if they feel well, as SARS-CoV-2 vaccines have been developed only recently, and in settings where deferrals would not compromise blood supply availability, a precautionary deferral period of up to seven days may be considered to minimize the impact of call-backs from donors who develop symptoms subsequent to donating soon after vaccination.
- Recipients of live virus vaccines (e.g., virus vector based or live-attenuated virus vaccines) should be deferred for four weeks, consistent with current practices.
- Persons who feel unwell after receiving a SARS-CoV-2 vaccine should be deferred for seven days after complete resolution of symptoms, or as specified after receipt of a virus vector-based or live-attenuated vaccine, whichever is the longer period.
- In situations where it cannot be established whether the donor received a live virus vaccine, a four-week deferral period should be applied.
- Persons participating in a clinical trial of a live virus vaccine against SARS-CoV-2 should not donate blood for 12 months after receipt of the experimental vaccine unless the vaccine subsequently is authorized or licensed by the relevant regulatory authority.
- Persons participating in a clinical trial of a non-live vaccine against SARS-CoV-2 should not donate blood for 28 days after receipt of the experimental vaccine unless the vaccine subsequently is authorized or licensed by the relevant regulatory authority and an alternative policy regarding donor deferral is established by that authority

Global Advisory Panel on Corporate Governance and Risk Management of Blood Services in Red Cross and Red Crescent Societies is following WHO Technical Guidance.

2. United States Food and Drug Administration (US FDA) [2]

- Individuals who received a non-replicating, inactivated, or mRNA-based COVID-19 vaccine can donate blood without a waiting period.
- Individuals who received a live-attenuated viral COVID-19 vaccine, refrain from donating blood for a short waiting period (e.g., 14 days) after receipt of the vaccine.
- Individuals who are uncertain about which COVID-19 vaccine was administered, refrain from donating for a short waiting period (e.g., 14 days) if it is possible that the individual received a live-attenuated viral vaccine.
- Individuals who received a non-replicating, inactivated, or mRNA-based COVID-19 vaccine can donate blood without a waiting period.
- Individuals, who received a live-attenuated viral COVID-19 vaccine, refrain from donating blood for a short waiting period (e.g., 14 days) after receipt of the vaccine.
- Individuals who are uncertain about which COVID-19 vaccine was administered, refrain from donating for a short waiting period (e.g., 14 days) if it is possible that the individual received a live-attenuated viral vaccine.

3. AABB [3]

- Individuals who received a non-replicating, inactivated, or mRNA-based COVID-19 vaccine can donate blood without a waiting period.
- Individuals, who received a live-attenuated viral COVID-19 vaccine, refrain from donating blood for a short waiting period (e.g., 14 days) after receipt of the vaccine.
- Individuals who are uncertain about which COVID-19 vaccine was administered, refrain from donating for a short waiting period (e.g., 14 days) if it is possible that the individual received a live-attenuated viral vaccine.

4. Joint United Kingdom (UK) Blood Transfusion and Tissue Transplantation Services Professional Advisory Committee (JPAC) [4]

a) Recipients of the COVID-19 vaccine, as part of the UK vaccination program.

Must not donate if:

Less than seven days after the most recent immunization was given.

b) Recipients of any other COVID-19 vaccine outside the UK vaccination program, including participants in clinical trials

Must not donate if:

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Table 1
Blood donor deferral periods after COVID-19 vaccination recommended by different organizations.

Name of the organizations	Donor deferral after live COVID-19 vaccine	Donor deferral after inactivated COVID-19 vaccine
World Health Organisation [1]	28	7 to nil
United States Food and Drug Administration [2]	14	Nil
AABB [3]	14	Nil
Joint United Kingdom Blood Transfusion and Tissue Transplantation Services Professional Advisory Committee [4]	28	7
European Centre for Disease Prevention Control [5]	28	Nil
Australian Red Cross Lifeblood [6]	7	7
Singapore Health Sciences Authority [7]	28	3
Canadian blood services [8]	Nil*	Nil
Abu Dhabi Health Services Company [9]	14	14
National Blood Transfusion Council, India [10]	14	14

* No live COVID-19 vaccine has been approved till date.

- Less than four weeks after the most recent immunization was given, or
- Still within any deferral period advised in the protocol for any clinical trial that the donor is enrolled in.

5. European Centre for Disease Prevention Control (ECDC) [5]

- According to European Union Directives, after vaccination with attenuated viruses (e.g. replication-competent virus vector-based vaccines, live-attenuated virus vaccines) substance of human origin (SoHO) donors must be deferred for four weeks. Individuals vaccinated with inactivated/killed viruses or vaccines that do not contain live agents (i.e. mRNA vaccines, non-replicating/replication-deficient virus vector-based vaccines, and protein subunit vaccines) may be accepted as SoHO donors if they feel well.
- In situations where information about vaccine type is missing or the vaccination is experimental, a four-week deferral period should be applied.

6. Australian Red Cross Lifeblood [6]

A blood donor needs to wait at least seven days after each COVID-19 vaccination to make sure that they have no side effects and are feeling healthy and well on the day of donation. If the donor had any side effects from the vaccine, then the donor should not donate until they have recovered.

7. Singapore Health Sciences Authority (HSA) [7]

A For Inactivated viruses or vaccines that do not contain live agents, the deferral periods are as follows

- No side effects: 3 days after vaccination
- Muscle ache or pain at the injection site (localized): One week after side effect has resolved
- Any of the following: fever or chills, generalized muscle or joint aches/pains, rashes, lymph node swelling: four weeks after side effects have resolved

B Virus vector-based or live-attenuated or unknown type of Covid-19 Vaccine

- No side effects: Four weeks after vaccination
- Any of the following: Fever or chills, Any muscle or joint aches /pains, rashes, lymph node swelling: Four weeks after vaccination or

four weeks from the time the side effects have resolved (whichever is longer)

8. Canadian blood services (CBS) [8]

The Donor Selection Criteria Manual working group (DSCM) conducted a review of the four Health Canada authorized vaccines for COVID-19 as well as those under development and determined they will not impact donation eligibility.

9. Abu Dhabi Health Services Company (Seha) [9]

- “Vaccinated people may donate blood 14 days after the first or second dose.” The Abu Dhabi Health Services Company (Seha) has said in a press statement.

10. The National Blood Transfusion Council (NBTC), India [10]

Initially, the NBTC issued a recommendation for 28 days deferral after the second dose of the vaccine. On 5th May 2021, the NBTC reduced the deferral period of blood donors to 14 days after receiving each/any dose of currently available COVID-19 vaccines in India (non-live vaccines).

1. Conclusion

The vaccine deferral must be standardized throughout as more and more eligible blood donors will be vaccinated in the coming days. There are many organizations, which do not recommend any deferral period after the vaccine but there should be a deferral of at least a few days (preferably a week) so that the post-vaccine side effects are well tolerated and not confused with the post-donation adverse events. And in the case of the live attenuated vaccine, there should be a deferral of 14 days. Uniform guidelines must be there to avoid confusion in the donor population and to avoid unnecessary donor deferrals.

Specific authors' contribution

Abhaykumar M. Gupta is associated with concept development, study design, collection and analysis of data, writing of the manuscript, and final approval of the manuscript.

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Declaration of Competing Interest

The authors report no declarations of interest.

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