



MINISTRY OF HEALTH
SINGAPORE

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MOH Circular No. 06/2022

12 January 2022

All Registered Medical Practitioners
All Specialist and General Medical Clinics
All Licensed Hospitals and COVID-19 Vaccination Sites

UPDATES TO BOOSTER VACCINATION RECOMMENDATIONS

All persons aged 18 years and above are now recommended to receive a booster dose of an mRNA vaccine offered under the National Vaccination Programme. The booster dose should generally be received at about five months after completion of their primary vaccination series, and it should not be delayed beyond nine months after the primary vaccine course. Persons should receive the booster dose as soon as they are recommended to do so.

Waning Immunity and the Omicron Variant

2. While the COVID-19 primary vaccination provides excellent protection against severe disease, there is evidence of waning protection against infection over time, across all age groups, albeit at a slower pace in younger persons.

3. In addition, international studies have shown that the protection against Omicron variant infection by a primary vaccination series is weaker compared to previous variants, and that boosters increase the protection against infection and severe illnesses caused by Omicron. As such, booster vaccination is crucial to ensure continued protection against COVID-19.

Updated Booster Vaccination Recommendations

4. As such, all persons aged 18 years and above who have completed their primary vaccination series are now recommended to receive a booster dose of an mRNA vaccine offered under the National Vaccination programme about five months after completion of their primary vaccination series.



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5. The booster dose may be either a full dose (30 micrograms) of the Pfizer-BioNTech/Comirnaty vaccine or a half dose (50 micrograms) of the Moderna vaccine. No serology testing is required before, or after, the booster vaccine dose.

6. The Sinovac-CoronaVac vaccine should only be considered as a booster vaccine in persons who are medically contraindicated to receive the mRNA vaccines, where a standard dose of the Sinovac-CoronaVac vaccine (0.5 mL) may be given in lieu of a booster dose of the mRNA vaccines. All other persons should be boosted with the mRNA vaccines.

7. Persons vaccinated with mRNA vaccines. Persons aged 18 years and above who have completed a primary course comprising two doses of either the Pfizer-BioNTech/Comirnaty or the Moderna COVID-19 vaccine should receive a booster dose of either mRNA vaccine around five months after the second dose, or as soon as possible thereafter. The booster dose should not be delayed beyond nine months after the primary vaccine course.

8. Persons vaccinated with Sinovac-CoronaVac or Sinopharm Vaccines. Persons who had received two or more doses of the Sinovac-CoronaVac or Sinopharm vaccines as part of a three-dose primary vaccination series are strongly recommended to receive one dose of an mRNA vaccine as a booster dose. They should receive the booster dose as soon as they are recommended to do so.

a. Persons who received an mRNA vaccine as their third dose in the three-dose primary vaccination series should receive a booster dose at around five months after the third dose of the vaccine.

b. Persons who had received the Sinovac-CoronaVac or Sinopharm vaccine as their third vaccine dose should receive a booster dose earlier – from three months after the third dose of the vaccine, due to lower antibody levels generated by the third vaccine dose.

9. Persons vaccinated with other WHO EUL vaccines. Individuals who have received recognised primary vaccination regimens other than the vaccines mentioned above are also recommended to receive a booster dose around five months, or as soon as possible thereafter. This includes persons who had completed the primary series vaccination with other WHO EUL vaccines.

10. Persons who received a three-dose enhanced primary series. Persons with medical conditions such as moderate or severe immunocompromise, and who have received an enhanced primary series of three doses of an mRNA vaccine, are recommended to receive a booster dose (i.e. fourth dose) of an mRNA vaccine around five months after the third dose.

11. Persons who recovered from COVID-19 and completed recommended COVID-19 vaccination. There is no change from previous recommendations - these persons do not require booster vaccination. As a recapitulation:

a. Persons who had recovered from COVID-19, and who were unvaccinated or partially vaccinated before their infection should receive one dose of the mRNA vaccine at least three months after infection, as part of their primary vaccination series¹. Booster vaccination is not needed at this time.

b. Persons who were fully vaccinated with two doses of mRNA vaccine and are not immunocompromised, who subsequently were infected with COVID-19 and recovered, also do not require booster vaccination at this time. Conceptually, for this group, the infection can be considered to have provided a boost to the immune system.

12. However, it is safe for persons who have recovered from COVID-19 to receive a booster dose from five months after the last dose of vaccine, in the event that infection was not diagnosed/documentated or they wish to do so.

Minimum requirements for Booster Vaccination Differentiated Safe Management Measures

13. Please note that paragraphs 4 to 11 above lay out the booster recommendations under the National Vaccination Programme for optimal protection. Separately, the criteria to maintain fully vaccinated status (e.g. for Booster Vaccination Differentiated Safe Management Measures (VDS)) are as follows:

a. Persons aged 18 years and above who have completed their primary vaccination series but have not yet received a booster vaccine dose (as defined in b below) are considered as fully vaccinated for 270 days from the last dose of vaccine received.

b. Only a WHO Emergency Use Listing (EUL) vaccine dose that is received on or beyond 90 days² after the last dose of a complete primary series vaccination would be considered as a booster vaccination.

c. Persons who had received a vaccine dose less than 90 days after the last dose of a primary vaccination series would not be considered to have received a booster, and would need to receive another dose from at least 90 days after the completion of the primary vaccination series to be considered boosted.

d. Recovered persons who do not require booster vaccination will continue considered to be fully vaccinated (and be permitted entry to premises/events which require VDS).

¹ For persons who are medically contraindicated to the mRNA vaccines, please refer to Circular No. 153/2021 on the “Use of Sinovac-CoronaVac and Sinopharm BIBP Vaccines” for recommended primary series involving the Sinovac-CoronaVac vaccine.

² A grace period of 4 days may be granted, with a minimum interval of no less than 86 days

14. A summary of vaccination and booster recommendations is tabulated in the **Annex**. Doctors should encourage all patients aged 18 years and above to receive a booster dose as soon as they are eligible to do so. Timely booster vaccination will ensure optimal protection against COVID-19, including the Omicron variant.



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This circular is an update to the booster vaccination recommendations in Circular 119B/2021.

Summary of Vaccination Recommendations

Table 1: Summary Table of Vaccination Recommendations

S/N	Recommendations
1.	<p>Persons aged 5 years and above are recommended to receive two doses of the Moderna (only for 18 years and above) or Pfizer-BioNTech/Comirnaty mRNA vaccines (primary series), unless medically ineligible to do so.</p> <p>Persons aged 18 years and above who are medically ineligible to complete the primary vaccination with the mRNA vaccines should receive the Sinovac-CoronaVac vaccine to complete three doses of the COVID-19 vaccines.</p>
2.	<p>Persons with moderate to severe immunocompromise are recommended to receive a third dose of the mRNA vaccine two months after the second dose as part of an enhanced three-dose primary series. This includes persons with the following conditions:</p> <ol style="list-style-type: none"> a. Transplant patients on immunosuppressive therapy, including solid organ and allogenic stem cell transplants b. Cancer patients on active treatment with chemotherapy and immunosuppressive therapy c. Haematological cancers d. Immunosuppressive treatment for non-cancer conditions e. End-stage kidney disease f. Advanced or untreated HIV <p>Persons who have received a three-dose enhanced primary series and are eligible for booster vaccination under Recommendation 3 are recommended to receive a booster dose of either mRNA vaccines, about five months after the completion of their three-dose enhanced primary series.</p>
3.	<p>Persons aged 18 years and above are recommended to receive a booster dose of either mRNA vaccines (30 mcg of the Pfizer-BioNTech/Comirnaty vaccine, or 50 mcg of the Moderna vaccine), about five months after completion of their primary series. This includes persons who, as part of their primary series, have:</p> <ol style="list-style-type: none"> a. Completed two doses of the mRNA COVID-19 vaccines (Pfizer-BioNTech/Comirnaty or Moderna) taken at the recommended intervals, OR,

	<p>b. Completed three doses of a primary COVID-19 vaccination series that incorporated two or three doses of the Sinovac-CoronaVac or Sinopharm vaccines, taken at the recommended intervals, OR,</p> <p>c. Completed a vaccination regime with other WHO EUL vaccines not mentioned above (and not including Sinovac-CoronaVac or Sinopharm), including combinations of WHO-EUL taken 21 days or more³ apart.</p> <p>However, for (b), those who received the Sinovac-CoronaVac or Sinopharm vaccine as their third vaccine dose should receive the mRNA booster dose at three months after the third dose, due to lower antibody levels generated by the third vaccine dose.</p>
4.	<p>The Sinovac-CoronaVac vaccine should only be considered for use as a booster vaccine in persons who are medically ineligible to receive mRNA vaccines. All other persons should be boosted with the mRNA vaccines.</p>
5.	<p>Recovered persons who were unvaccinated, or partially vaccinated before their infection, should receive one dose of an mRNA vaccine at least three months after infection to reduce their risk of reinfection, as part of their primary vaccination series. Booster vaccination is not needed at this time.</p> <p>Persons who have recovered from COVID-19 and were fully vaccinated before their infection also do not need booster vaccination at this time.</p>

³ A grace period of 4 days may be granted, with a minimum interval of no less than 17 days