



MINISTRY OF HEALTH
SINGAPORE

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MOH Circular No. 76/2023

28 October 2023

All Registered Medical Practitioners
All Key Office Holders of Outpatient Medical Service Licence
All Key Office Holders of Acute Hospital Service
All Key Office Holders of Community Hospital Service

COVID-19 VACCINATION UPDATES: RECOMMENDATIONS ON THE USE OF THE UPDATED PFIZER-BIONTECH/COMIRNATY AND MODERNA/SPIKEVAX VACCINES

This circular informs medical providers that the Pfizer-BioNTech/Comirnaty and Moderna/Spikevax vaccines used for COVID-19 vaccination in Singapore will be updated to their latest versions based on the Omicron XBB.1.5 variant.

2. The updated XBB.1.5 vaccines of both Pfizer-BioNTech/Comirnaty and Moderna/Spikevax can be used for primary and booster vaccination for all ages 6 months and above. They will be made available to the public progressively, starting with the updated Pfizer-BioNTech/Comirnaty XBB.1.5 vaccine for individuals aged 5 years and above from 30 October 2023.

3. Scientific data show that the updated XBB.1.5 vaccines generate higher antibody titres against current and emerging strains (such as XBB.1.5, EG.5 and BA.2.86) compared to older versions of the vaccines, and therefore are expected to confer better protection against newer strains of COVID-19. The safety profiles of the updated vaccines are expected to be comparable to that of previous versions.

Additional Dose Recommendations for 2023/2024

4. As such, on top of previously recommended vaccine doses, persons aged 6 months and above may receive an additional dose in 2023/2024 around 1 year (and no earlier than 5 months) after the last dose received. The additional dose is:

- a. Recommended for all persons aged 60 years and above, medically vulnerable individuals (see **Annex A**) and residents of aged care facilities;

b. Encouraged for all individuals aged 6 months and above, in particular, healthcare workers, as well as household members and caregivers of medically vulnerable individuals

5. The recommendations consider that persons at greatest risk of severe disease will benefit most from an enhanced level of protection with an additional dose. It may also have some effectiveness against disease transmission in persons who work or live with medically vulnerable persons. While COVID-19 is generally mild in healthy individuals who have been vaccinated previously, an additional dose further enhances protection against severe disease in the medically vulnerable and elderly and has comparable safety as previous doses.

6. Please see **Annex B** and **Annex C** for an updated tabulation and a diagrammatic summary of the national COVID-19 vaccination recommendations.

Conclusion

7. All persons are encouraged to receive their COVID-19 vaccination as recommended when they are eligible to do so. This ensures that we are better protected against COVID-19 as it continues to circulate as an endemic disease.



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DIRECTOR – GENERAL OF HEALTH
MINISTRY OF HEALTH

This circular is an update to MOH Circular 05/2023 - COVID-19 VACCINATION UPDATES: 2023 RECOMMENDATIONS FOR COVID-19 BOOSTER VACCINATION.

Annexes

ANNEX A	LIST OF MEDICAL CONDITIONS FOR WHICH PERSONS ARE CONSIDERED MEDICALLY VULNERABLE TO SEVERE COVID-19
ANNEX B	COVID-19 VACCINATION RECOMMENDATIONS
ANNEX C	DIAGRAM OF COVID-19 VACCINATION FOR IMMUNOCOMPETENT ADULTS AND CHILDREN

List of Medical Conditions for Which Persons are Considered Medically Vulnerable to Severe COVID-19

The Expert Committee on COVID-19 Vaccination has recommended that medically vulnerable persons who are at higher risk of severe disease due to medical risk factors should receive an additional dose in 2023/2024, at an interval of one year after the last dose.

Persons with the following conditions are recommended to receive an additional dose in 2023/2024:

1. Diabetes
2. Heart conditions such as heart failure, ischemic heart disease, cardiomyopathy
3. Chronic lung conditions, including severe asthma
4. Chronic liver conditions, including cirrhosis
5. Chronic kidney conditions, including dialysis
6. Chronic neurologic conditions, including stroke
7. Cancer on active treatment
8. Blood conditions such as thalassemia and sickle cell anemia
9. Immunodeficiencies, including HIV infection
10. Obesity (BMI \geq 30)
11. Genetic or metabolic conditions, including Down's syndrome and cystic fibrosis
12. Persons on non-cancer immunosuppressive treatment
13. Pregnancy (any trimester)

COVID-19 Vaccination Recommendations

S/N	Recommendations																												
1.	<p>Primary Vaccination Series</p> <p>Persons aged 6 months and above are recommended to receive one of the following primary vaccination series, with doses received 8 weeks apart:</p> <table border="1"> <thead> <tr> <th></th> <th>Vaccine</th> <th>Age</th> <th>Doses</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Pfizer-BioNTech/Comirnaty</td> <td>6 months to 4 years</td> <td>Three 3mcg doses</td> </tr> <tr> <td>2</td> <td>Pfizer-BioNTech/Comirnaty</td> <td>5 to 11 years</td> <td>Two 10mcg doses</td> </tr> <tr> <td>3</td> <td>Pfizer-BioNTech/Comirnaty</td> <td>12 years and above</td> <td>Two 30mcg doses</td> </tr> <tr> <td>4</td> <td>Moderna/Spikevax</td> <td>6 months to 5 years</td> <td>Two 25mcg doses</td> </tr> <tr> <td>5</td> <td>Moderna/Spikevax</td> <td>6 years and above</td> <td>Two 50mcg doses</td> </tr> <tr> <td>6</td> <td>Novavax/Nuvaxovid</td> <td>12 years and above</td> <td>Two 5mcg doses</td> </tr> </tbody> </table> <p>Persons aged 18 years and above who are medically ineligible to complete the primary vaccination series with the mRNA vaccines or Novavax/Nuvaxovid vaccine may receive the Sinovac-CoronaVac vaccine to complete their primary series. These persons should receive a total of 3 doses of vaccines (inclusive of the mRNA vaccines or Novavax/Nuvaxovid vaccine) to complete their primary vaccination series.</p> <p>The recommended interval between the doses of the primary vaccination series is eight weeks. Individuals, particularly those who are at risk for exposure to COVID-19 or severe disease, may receive the second dose earlier than eight weeks after the first dose but not less than the minimum intervals (21 days for the Pfizer-BioNTech/Comirnaty and Novavax/Nuvaxovid vaccines and 28 days for Moderna/Spikevax and Sinovac-CoronaVac vaccines).</p>		Vaccine	Age	Doses	1	Pfizer-BioNTech/Comirnaty	6 months to 4 years	Three 3mcg doses	2	Pfizer-BioNTech/Comirnaty	5 to 11 years	Two 10mcg doses	3	Pfizer-BioNTech/Comirnaty	12 years and above	Two 30mcg doses	4	Moderna/Spikevax	6 months to 5 years	Two 25mcg doses	5	Moderna/Spikevax	6 years and above	Two 50mcg doses	6	Novavax/Nuvaxovid	12 years and above	Two 5mcg doses
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2.	<p>First Booster Dose to Achieve Minimum Protection</p> <p>Persons aged 5 years and above are recommended to receive a booster dose about five months after completion of their primary series. Booster doses do not need to be of the same vaccine brand as that received for the primary series.</p> <p>The recommendation applies to persons who, as part of their primary series, have:</p> <ol style="list-style-type: none"> Completed two doses of the mRNA COVID-19 vaccines (Pfizer-BioNTech/Comirnaty or Moderna) or two doses of the Novavax/Nuvaxovid vaccine taken at the recommended intervals, OR, 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, 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 more apart. 																												

	<p>However, for (b), those who received the Sinovac-CoronaVac or Sinopharm vaccine as their third vaccine dose should receive the mRNA or Novavax/Nuvaxovid booster dose at three months after the third dose, due to lower antibody levels generated by the third vaccine dose.</p>
<p>3.</p>	<p>Enhanced Primary Series for Immunocompromised</p> <p>Persons with moderate to severe immunocompromise are recommended to receive a total of four doses of the mRNA vaccines (but see S/N 5 below). This comprises a third primary vaccine dose two months after the second dose as part of an enhanced three-dose primary series, and a booster vaccine dose at about five months after the third dose. 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 with moderate to severe immunocompromise who had received a two-dose primary series and a booster dose as a third dose [based on time intervals] are also recommended to receive a second booster dose of either mRNA vaccines as a fourth dose, about five months after the third dose.</p> <p>Children aged 6 months to 4 years who are immunocompromised are recommended to receive an enhanced primary series comprising three doses of the Moderna/Spikevax vaccine or four doses of the Pfizer-BioNTech/Comirnaty vaccine.</p>
<p>4.</p>	<p>Additional Dose for Year 2023/2024</p> <p>After having completed the recommended doses above and any other additional doses previously (where applicable), persons aged 6 months and above may receive in 2023/2024, an additional dose of COVID-19 vaccine at an interval of around 1 year (minimally 5 months) after their last dose. The additional dose is:</p> <ol style="list-style-type: none"> a. Recommended for all persons aged 60 years and above, medically vulnerable individuals and residents of aged care facilities; b. Encouraged for all individuals aged 6 months and above, in particular, healthcare workers, as well as household members / caregivers of medically vulnerable individuals

5. **Persons who Have Recovered from COVID-19**

Recovered persons who were unvaccinated, or partially vaccinated before their infection can proceed to complete the standard primary vaccination series. They are recommended to receive remaining vaccine doses from 3 months or more after the date of infection to reduce their risk of reinfection.

Recovered persons who are recommended to receive an additional COVID-19 vaccine dose after their last vaccine dose should do so at the recommended interval thereafter, and at least **28 days** after the infection although an interval of three months from the infection is recommended for better effectiveness.

COVID-19 Vaccination for Immunocompetent Adults and Children

