Recommendation for the gap between two doses of COVID-19 vaccine

Dr Mushtaque Chowdhury

Bangladesh Health Watch is a civil society body. It is composed of individuals with illustrious backgrounds in public health. One of its technical committees is exclusively working on the different issues related to COVID-19 vaccination in the country and is headed by Dr A M Zakir Hussain, a former Director of Primary Health Care and Disease Control, Government of Bangladesh and former Regional Advisor for Regional Office for South-East Asia (SEARO), World Health Organisation (WHO).

Based on our detailed review of the scientific basis of the Oxford – AstraZeneca vaccine, as reported in reputed global journals, we would like to propose the Government of Bangladesh to kindly consider the adoption of a gap of 12 weeks (or 3 months) between the two doses of the said vaccine, instead of 8 weeks (or 2 months) as has been decided for now. The following is the rationale for our recommendation.

1. The Lancet published a paper of 71 scientists which found that in the participants



who received two standard doses of the said vaccine, efficacy was higher in those with a longer prime-boost interval (vaccine efficacy 81.3% at ≥ 12 weeks gap, than 55.1% in whom vaccine gap was less than 6 weeks).

2. A review paper in the British Medical Journal based on 17,177 vaccinated people in the United Kingdom, Brazil and South Africa, support the British Government's approach of leaving 3 months gap between the two doses of the vaccine. A single standard dose of the vaccine was noted to provide 76% protection against symptomatic COVID-19 in the first 90 days after vaccination. This is in line with the previous

research that found greater

efficacy with longer intervals with vaccines like influenza and ebola (which are also RNA viruses).

3. 21 scientists in the USA found that spike-specific memory B lymphocyte cells (B type white blood cells, which produce antibody) were more abundant at 6 months than at 1-month post-infection (akin to a dose of vaccination). SARS-CoV-2-

specific CD4+ T lymphocyte cells (T type white blood cells or helper cells, which activate B cells to produce antibody) and CD8+ T lymphocyte cells (T type white blood cells, which act as cytotoxic cells, i.e. kill infected cells) declined with a half-life of 3-5 months, indicating that a booster, i.e., the second dose of vaccine would work better if given at this half lifetime (i.e. 3 months). This paper was published in the prestigious journal 'Science'.

4. The three-month gap is a better strategy as more people can be protected more quickly, as even with one dose, people may reduce their risk of getting severely infected and also reduce their transmissibility.

Based on the above scientific justifications and based on discussion with selected key scientists in the country, the technical committee of Bangladesh Health Watch urges to kindly consider the threemonth gap between the two doses of Oxford – AstraZeneca vaccine in Bangladesh.

Dr Mushtaque Chowdhury is the

WORLD HEALTH DAY

Building a fairer, healthier world for everyone

In recent years, countries in the Western Pacific have experienced rapid economic growth, migration and urbanisation. This created opportunities for better lives for many, but left others behind. The COVID-19 pandemic has undercut recent health gains, pushed more people into poverty and food insecurity, and amplified gender, social and health inequities.

This year's World Health Day (April 7) campaign is calling for action to eliminate health inequities, as part of a year-long global campaign to bring people together to build a fairer, healthier world. The world is still an unequal one. The places where we live, work and play may make it harder for some to reach their full health potential, while others thrive. Health inequities are not only unjust and unfair, but they also threaten the advances made to date, and have the potential to widen rather than narrow equity gaps.

However, health inequities are preventable with strategies that place greater attention to improving health equity, especially for the most vulnerable and marginalised groups. COVID-19 has hit all countries hard, but its impact has been harshest on those communities which were already vulnerable, who are more exposed to the disease, less likely to have access to quality health care services and more likely to experience adverse consequences as a result of measures implemented to contain the pandemic.

Leaders must ensure that communities are at the forefront in decision-making processes as we move forward to a new future, and that everyone has living and working conditions that are conducive to good health. At the same time, leaders are urged to monitor health inequities, and to ensure that all people can access quality health services depending on their needs and values within their communities.

Source: World Health Organisation (WHO)

HEALT H bulletin



CDC updates travel guidance for people fully vaccinated against COVID-19

People who are fully vaccinated against COVID-19 do not need to get tested before or after travel within the United States — unless their travel destination mandates testing, according to updated guidance from the Centres for Disease Control and Prevention (CDC) issued recently. People are considered fully vaccinated once they are 2 weeks past their final vaccine dose.

Fully vaccinated people also do not need to self-quarantine after travel in the U.S. For international travel, the guidance differs, as international destinations may pose additional risks, such as greater exposure to SARS-CoV-2 variants. Fully vaccinated people do not need to get tested before their international trip unless their destination requires it, but they should get tested 3 to 5 days after they return to the U.S. (they are also still required to have a negative test result within 3 days before boarding their return flight). They do not need to self-quarantine upon return.

The CDC does advise delaying all travel until a person is fully vaccinated, and all travellers, including the fully vaccinated, should continue to wear masks, maintain physical distance from others, and wash their hands frequently.

Controlling the COVID-19 pandemic effectively

Dr Syed Abdul Hamid, Dr Abu Jamil Faisel, Dr Nasrin Sultana, Dr Shafiun Nahin Shimul, Dr Mofakhar Hossain, Jamal Uddin, Muhammad Ihsan-Ul-Kabir

To tackle the ongoing second wave of COVID-19 in Bangladesh, a week-long lockdown had been announced with the possibility of extension recently. Hopefully, if the lockdown is properly maintained, its purpose will be served. Experts from the Initiative for Health and Development (IHD) have suggested the following guidelines to make the lockdown more effective, control COVID-19 transmission and improve patient management.

What to do until COVID-19 is controlled

- Make sure that people use masks everywhere. Take firm action if necessary. Places like bazars, bus and rail stations, launch terminals where there are gatherings of people – wearing masks be enforced strictly.
- To increase awareness regarding health safety rules, comprehensive communication programmes should be undertaken. Proper communication materials should be prepared and a befitting campaign should be carried out.
- COVID-19 vaccination registration should be simplified and on-spot registration services should be set up.
- A mass campaign should be undertaken to encourage people to vaccinate for COVID-19 with support from local administration and social workers.

• Regularising the study of genome sequencing and seroprevalence to understand the real situation can be understood. Especially, the situation of hospital bed occupancy should be shown with help of real-time updates on dashboards.

Things to do in the lockdown period

- Collection centres for COVID-19 sample testing should be established at the union level and efforts should be given to bring them closer to the urban population.
- The government determined COVID-19 test fees should be eliminated.
- Limited level mass transport should function under government control so that doctors and other health workers, emergency service givers and patients can commute with ease.
- Normalise the banking schedule to avoid crowding created by the limited bank transaction hours.
- Along with treatment for COVID-19, all other health services including maternity services should be kept functioning. Triage should be conducted in hospitals to better manage patients.

Things to be done after the lockdown

- All kinds of public gatherings, assemblies and meetings should be completely banned until COVID-19 is under control.
- All tourist places and entertainment centres should remain closed until it is deemed

safe to open.

• People should be barred from leaving severely infected areas like Dhaka, Chattogram, Gazipur and Narayanganj during Eid and/or other festivals.

COVID-19 patient management

- High-flow nasal cannula or rebreather masks must be made available in all district, general, government and private medical college hospitals. Treatment for COVID-19 should be ensured in district and division levels to avoid unnecessary referrals to Dhaka.
- An effective oxygen supply system should be established within the next three months in all district, general, government and private medical college hospitals.
- Less serious and non COVID-19 patients should be encouraged to be at home care, get their treatment and advice from local doctors.

By proper implementation of these suggestions, Bangladesh can achieve notable success controlling COVID-19 and patient management.

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United Hospital conducted the first chronomodulated chemotherapy

A patient with advanced colon cancer has successfully completed a chronomodulated chemotherapy, and has been discharged with an uneventful hospital stay from the United Hospital, making it the first such chemotherapy to be conducted in Bangladesh, says a press release.

Chronomodulated chemotherapy means time-controlled chemotherapy. There are few specific 'clock-related' genes in our brainstems that control our time-dependent biological functions including sleeping and eating patterns, heart rate, body temperature etc. Similarly, cancer cells also divide and rest at different times of any given day. In chronomodulated chemotherapy, the chemotherapy drugs are administered at the specific time when cancer cells divide making the cells more vulnerable to cell death. This is beneficial for healthy cells which are at rest as they are then least sensitive to toxicity from chemotherapy.

Dr Ashim Kumar Sen Gupta, Consultant of Oncology at the United Hospital says this special type of time-controlled chemotherapy administration improves treatment tolerance, and also can improve treatment response and survival. This can be given to patients who previously needed to discontinue a chemotherapy protocol – either because it was ineffective or it was too debilitating for the patient to tolerate.

In case of metastatic colon cancer or advanced metastatic ovarian cancer, studies show that administering chemotherapy at the optimal time can halve toxicity and double treatment response.





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