

BANGLADESH HEALTH WATCH

28 March 2021

Prof. Dr. Abul Bashar Mohammad Khurshid Alam

Director General of Health Services
Ministry of Health & Family Welfare
Government of the People's Republic of Bangladesh

Dear Sir,

Subject: Recommendation for a 3-month gap between the two doses of the Oxford AstraZeneca (AZD1222) Vaccine.

Bangladesh Health Watch (BHW) is a civil society body. It is Composed of individuals with illustrious backgrounds in public health. Its objective is to see improvement in the health and the health systems in Bangladesh through, among others, assisting the Government in evidence-based informed policymaking. 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 & Disease Control, Government of Bangladesh and former Regional Advisor for SEARO, WHO.

Based on our detailed review of the scientific basis of the Oxford AstraZeneca AZD1222 vaccine, as reported in reputed global journals, we would like to propose to your esteemed office 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** (6 March 2021) published a paper of 71 scientists which found that in the participants who received two standard doses of AZD1222, 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 six weeks).
2. A review paper in the **British Medical Journal** (3 February 2021) based on 17,177 vaccinated people in the UK, Brazil and South Africa, support the British Government's approach of leaving three months' gap between the two doses of the AZD1222 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. Twenty-one scientists in the USA found that Spike-specific memory B lymphocyte cells (B type white blood cells, which produce antibody) were more abundant at six 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' on 6 January 2021.

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 BHW urges the Directorate General of Health Services to kindly consider the three-month gap between the two doses AZD1222 vaccine in Bangladesh. I am attaching for your kind information the three papers cited in this letter.



Dr. Mushtaque Chowdhury

Convener, Bangladesh Health Watch

Copy for kind information to:

1. Secretary, Health Services Division, Ministry of Health & Family Welfare, Bangladesh Secretariat, Dhaka
2. Private Secretary to the Honorable Minister, Ministry of Health & Family Welfare, Bangladesh Secretariat
3. Professor Dr. Meerjady Sabrina Flora, Additional Director General, (Planning and Development), DGHS, Mohakhali, Dhaka
4. Professor Dr. Tahmina Shirin, Director, IEDCR, DGHS
5. Dr Mostafa Jalal Mohiuddin, President, Bangladesh Medical Association (BMA)
6. Professor Dr. Iqbal Arsalan, President of Swadhinota Chikitshak Parishad, BSMMU Professor Mohammad Shahidullah, Head of National Technical Advisory Committee on Corona Virus and President, BMDC
7. Professor Dr. Nazrul Islam, Former Vice-Chancellor, BSMMU
8. Professor Dr. Mahmudur Rahman, Former Director, IEDCR
9. Dr. A M Zakir Hussain, Independent Consultant and Former Director, Primary Health Care, Directorate General of Health Services
10. Dr. Tahmeed Ahmed, Executive Director, Icdrr,b, Mohakhali, Dhaka
- 11.
12. Professor Dr. Sayedur Rahman Khasru, Professor and Head, Department of Pharmacology BSSMU
13. Dr. Md. Mustafizur Rahman, Senior Scientist and Head of Virology Laboratory, Infectious Diseases Division, Icdrr,b, Mohakhali, Dhaka
14. Dr. Rubhana Raqib, Senior Scientist, Enteric and Respiratory Infections Infectious Diseases Division, Icdrr,b, Mohakhali, Dhaka
15. Mr. Mahfuz Anam, Editor, The Daily Star
16. Barrister Rashna Imam, Managing Partner of Akhtar Imam & Associates
17. Ms. Maleka Banu, General Secretary, Bangladesh Mohila Parishad