GUIDELINES AND RESEARCH UPDATES

World Health Organization India

TECHNICAL DOCUMENTS:

D1. COVAXIN® (BBV152) - Inactivated, COVID-19 vaccine (WHO, 10 January 2022) [LINK]

- This document includes comprehensive information on COVID-19 Vaccine (Whole Virion Inactivated Corona Virus vaccine), BBV152, COVAXIN® EUL holder - from Bharat Biotech International Limited. It has details of product characteristics, Schedule & administration, storage & stability, labeling & packaging; and safety information based on the updated scientific information.

D2. Enhancing Readiness for Omicron (B.1.1.529): Technical Brief and Priority Actions for Member States (WHO, 7 January 2022) [LINK]

- This document outlines key elements of preparedness and response in the wake of emerging epidemiological evidence with regard to Omicron variant. This global risk assessment, and public health advice, are based on the currently best available evidence.

D3. ECDC updates its guidance regarding quarantine and isolation considering the rapid spread of Omicron (European Centre for Disease Prevention and Control, 7 January 2022) [LINK]

- This document proposes options regarding quarantine and isolation, and recommendations that can be adapted and implemented when resources are limited and when there is high pressure on healthcare systems and other functions in society (e.g. staff shortage and reduced resources).

D4. USCDC Updated Guidance on Quarantine and Isolation (CDC, 9 January 2022) [LINK]

- This is updated guideline in light of current scientific knowledge regarding quarantine and isolation in case of exposure to SARS-CoV-2. It outlines various aspects including number days of quarantine and isolation, its calculation based on various exposure scenarios.

D5. Checklists for care, cleaning, disinfection and sterilization of respiratory devices (WHO, 28 December 2021) [LINK], **Additional resources**) [LINK] [LINK]

- This collection of posters is intended for health care workers, biomedical engineers and staff of health facilities in charge of caring, cleaning, decontaminating and sterilizing respiratory medical equipment in hospitals and health facilities. The posters also include checklists to ensure the optimal infection prevention and control during their use and between patients.

D6. Methods for the detection and characterization of SARS-CoV-2 variants - first update (European Centre for Disease Control & Prevention, 20 December 2021) **[**LINK**]**

- This technical report provides guidance to laboratories, microbiology experts and relevant stakeholders in making decisions on establishing or scaling up capability and capacity to detect and identify circulating SARS-CoV-2 variants. It also aims to facilitate decision-making on the appropriate technologies to use and for which objective.

D7. COVID-19 and Cruise Ship Travel (CDC, 30 December 2021) **[**LINK**]**

- The CDC, USA has updated the COVID-19 Travel Health Notice level from Level 3 to Level 4, the highest level. This reflects increases in cases onboard cruise ships since identification of the Omicron variant. It suggests to avoid cruise travel, regardless of vaccination status.

JOURNAL ARTICLES

J1. Omicron and Delta variant of SARS-CoV-2: A comparative computational study of spike protein (Journal of Medical Virology, 15 December 2021) **[**LINK**]**

- The study isolated an infectious Omicron virus in Belgium and examined its sensitivity to 9 monoclonal antibodies (mAbs) clinically approved or in development and to antibodies present in the sera from COVID-19 vaccine recipients or convalescent individuals. The authors conclude that Omicron escapes most therapeutic monoclonal antibodies and to a large extent vaccine-elicited antibody. Omicron remains however neutralized by antibodies generated by a booster vaccine dose.

J2. Duration of Protection against Mild and Severe Disease by Covid-19 Vaccines (The New England Journal of Medicine, 12 January 2022) **[**LINK**]**

- The study aims to estimate vaccine effectiveness against symptomatic Covid-19 and related hospitalization and death in England. The finding concludes limited waning in vaccine effectiveness against Covid-19–related hospitalization and death at 20 weeks or more after vaccination with two doses of the ChAdOx1-S or BNT162b2 vaccine. Waning was greater in older adults and in those in a clinical risk group.

J3. SARS-CoV-2 Omicron Variant Neutralization in Serum from Vaccinated and Convalescent Persons (The New England Journal of Medicine, 12 January 2022) **[**LINK**]**

- This article discusses whether vaccination for SARS-CoV-2 or natural infection helps to neutralize the omicron variant. It suggests that the omicron variant is more likely than earlier variants to cause reinfection due to some degree of immune escape.

J4. Characteristics and outcomes of hospitalized patients in South Africa during the COVID-19 Omicron wave compared with previous waves (JAMA, 30 December 2021) **[**LINK**]**

- The study assessed hospitalized patients with a positive SARS-CoV-2 test result during the fourth wave compared with previous waves. The results demonstrate different pattern of characteristics and outcomes in patients hospitalized with COVID-19 in the early phase of the fourth wave compared with earlier waves in South Africa. Younger patients had decrease in severity and mortality.

J5. Rapid epidemic expansion of the SARS-CoV-2 Omicron variant in southern Africa (Nature, 7 January 2022) **[**LINK**]**

- The study describes genomic profile and early transmission dynamics of Omicron especially in populations with high level of immunity. It highlights that neutralizing antibodies are one component of immune protection from vaccine and prior infection; and the cellular immune response is predicted to be less affected by Omicron. Thus, vaccination remains critical to protect those at risk of sever disease and death

J6. Quarantine and testing strategies to ameliorate transmission due to travel during the COVID-19 pandemic: a modelling study (The lancet, 10 January 2022) **[**LINK**]**

- The study evaluated the countrywide COVID-19 infections after 0–14-day quarantine and testing. The authors suggest that among nearly half of origin-destination country pairs analyzed, travel can be permitted in the absence of quarantine and testing. For the majority of pairs requiring controls, a short quarantine with testing could be as effective as a complete travel ban.

J7. Association of a Third Dose of BNT162b2 Vaccine With Incidence of SARS-CoV-2 Infection Among Health Care Workers in Israel (JAMA, 10 January 2022) [LINK]

This study explored the association between immunization with a third (booster) dose of BNT162b2 vaccine (Pfizer-BioNTech) and the incidence of SARS-CoV-2 infection among immunocompetent health care workers. The authors conclude that among health care workers who were previously vaccinated with a 2-dose series of BNT162b2, administration of a booster dose compared with not receiving one was associated with a significantly lower rate of SARS-CoV-2 infection over a median of 39 days of follow-up.