GUIDELINES AND RESEARCH UPDATES

TECHNICAL DOCUMENTS:

D1. COVID-19 clinical care pathway (CARE): confirm SARS-CoV-2 infection, assess symptoms, risk factors and severity, respond with appropriate care and treatment, evaluate clinical response and recovery (WHO, 4 February 2022) **[**LINK**]**

- This publication is a living tool to support health care workers visualize the current clinical and therapeutic recommendations to be considered in the care planning for patients with COVID-19. This guidance is aligned with the eighth version of the *WHO Therapeutics and COVID-19: living guideline* published on the 14 January 2022 and the third version of the *WHO COVID-19 Clinical management: living guidance published on the 23 November 2021.*

D2. Care, cleaning and disinfection of invasive mechanical ventilators [LINK]; high flow nasal cannula [LINK]; pulse oximeters and patient monitors devices [LINK]; oxygen concentrators [LINK]; BiPAP/CPAP devices [LINK] (WHO, 24 January 2022)

- These publications provide practical guidance on cleaning, management and disinfection of various equipment used for the management of COVID-19 patients. The guidance is based on the most updated scientific information. It is intended for equipment handlers and service providers.

D3. End-to-end integration of SARS-CoV-2 and influenza sentinel surveillance: revised interim guidance (WHO, 31 January 2022) **[**LINK**]**

- This interim document provides guidance for the integration of SARS-CoV-2 and influenza virologic and genomic surveillance, from sentinel site case enrolment and sampling to the eventual sharing of the virus sequence data. The guidance also includes new algorithms and strategies to adapt sentinel systems to make them resilient and agile for addressing global and national surveillance needs for influenza and COVID-19.

D4. Global analysis of health care waste in the context of COVID-19 (WHO, 1 February 2022) **[**LINK**]**

- This report quantifies the additional COVID-19 healthcare waste generated, describes current healthcare waste management systems and their deficiencies, and summarizes emerging best practices and solutions to reduce the impact of waste on

human and environmental health. The recommendations included in the report build on actions in the *WHO manifesto for a healthy recovery from COVID-19: prescriptions and actionable for a healthy and green recovery*.

D5. The Pandemic Influenza Pandemic (PIP)- Partnership Contribution (PC) Preparedness High-Level Implementation Plan II 2018-2023, 2021 Revision (WHO, 31 January 2022) **[**LINK**]**

- This document outlines the strategy for strengthening global pandemic influenza preparedness from 2018 to 2023. It builds on the progress made under the first High-Level Implementation Plan, which outlined the scope of work from 2013 to 2017. This plan complements other global and WHO initiatives to enhance global influenza pandemic preparedness; it also includes learnings of COVID-19 to be leveraged for better planning for pandemics in future.

D6. Assessment of the further spread and potential impact of the SARS-CoV-2 Omicron variant of concern (European Centre for Disease Prevention and Control, 27 January 2022) **[**LINK**]**

- This document extends the assessment of the further emergence and potential impact in the context of ongoing transmission including new epidemiological data on the spread of Omicron, new data on vaccine uptake, updated forecasts, and the latest evidence on Omicron transmissibility, severity, immune escape, vaccine effectiveness, post-COVID-19 condition, and non-pharmaceutical interventions.

D7. Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the Coronavirus Disease 2019 (COVID-19) Pandemic (CDC, 28 January 2022) **[**LINK**]**

- In the wake of Omicron variant, this guidance is updated to enhance protection for healthcare personnel, patients, and visitors and to address concerns about potential impacts on the healthcare system given a surge in SARS-CoV-2 infections.

JOURNAL ARTICLES

J1. Challenges in Inferring Intrinsic Severity of the SARS-CoV-2 Omicron Variant (The New England Journal of Medicine, 2 February 2022) **[**LINK**]**

- This technical perspective discussed about the clinical severity of Omicron taking in account various confounding factors including earlier circulating variants, preexisting immunity, immune evasion, case fatality rate (CFR), infection fatality rate (IFR) etc.

J2. Early assessment of the clinical severity of the SARS-CoV-2 omicron variant in South Africa: a data linkage study (The Lancet, 29 January 2022) **[**LINK**]**

- The study assessed the clinical severity of infections with the omicron variant using S gene target failure (SGTF) on the Thermo Fisher Scientific TaqPath COVID-19 PCR test as a proxy. Findings from this early analysis suggest a significantly reduced odds of hospitalization among individuals with SGTF versus non-SGTF infections diagnosed during the same time period. SGTF-infected individuals had a significantly reduced odds of severe disease compared with individuals infected earlier with the delta variant.

J3. Early Remdesivir to Prevent Progression to Severe Covid-19 in Outpatients (The New England Journal of Medicine, 27 January 2022) **[**LINK**]**

- The study assessed whether the use of remdesivir in symptomatic, non-hospitalized patients with Covid-19 who are at high risk for disease progression prevents hospitalization. The authors conclude that among non-hospitalized patients who were at high risk for Covid-19 progression, a 3-day course of remdesivir had an acceptable safety profile and resulted in an 87% lower risk of hospitalization or death than placebo.

J4. Risk of infection, hospitalization, and death up to 9 months after a second dose of COVID-19 vaccine: a retrospective, total population cohort study in Sweden (The Lancet, 4 February 2022) **[**LINK**]**

- The study investigated the effectiveness of COVID-19 vaccination against the risk of infection, hospitalization, and death during the first 9 months after vaccination for the total population of Sweden. The results indicate progressive waning of vaccine effectiveness against SARS-CoV-2 infection of any severity across all subgroups, but the rate of waning differed according to vaccine type. With respect to severe COVID-19, vaccine effectiveness seemed to be better maintained, although some waning became evident after 4 months. The results strengthen the evidence-based rationale for administration of a third vaccine dose as a booster.

J5. Homologous and Heterologous Covid-19 Booster Vaccinations (The New England Journal of Medicine, 26 January 2022) **[**LINK**]**

- This study assessed homologous and heterologous booster vaccinations in persons who had previously completed Covid-19 vaccination regimen at least 12 weeks earlier, on the scale of safety, reactogenicity, and immunogenicity. Authors concluded that homologous and heterologous booster vaccines had an acceptable safety profile and were immunogenic in adults who had completed a primary Covid-19 vaccine regimen at least 12 weeks earlier.

J6. Hospital outcomes of community-acquired COVID-19 versus influenza: Insights from the Swiss hospital-based surveillance of influenza and COVID-19 (Eurosurveillance, 6 January 2022) [LINK]

- The study investigated the differences in mortality and ICU admission among patients hospitalized for COVID-19 and influenza in Switzerland. The surveillance data indicates that the cumulative incidence of patients with COVID-19 with ICU admission up to day 30 was 19.4% compared with 9.9% among influenza patients. Further, neurologic impairment or kidney failure were also more common among the COVID-19 patients. Surprisingly, there was no difference in cardiovascular complications. Antibiotic therapy was more common in patients with influenza.

J7. Pandemic preparedness and COVID-19: an exploratory analysis of infection and fatality rates, and contextual factors associated with preparedness in 177 countries, from Jan 1, 2020, to Sept 30, 2021 (The Lancet, 1 February 2022) [LINK]

- The study estimated the Cumulative infection rate and infection-fatality ratio (IFR) and standardized for environmental, demographic, biological, and economic factors. The findings suggest the efforts to improve pandemic preparedness and response for the next pandemic which might benefit from greater investment in risk communication and community engagement strategies to boost the confidence that individuals have in public health guidance. It further suggests that increasing health promotion for key modifiable risks is associated with a reduction of fatalities.