Weekly Evidence Report

Health Technology Assessment Philippines

14 March - 20 March 2022

Overview

The following report presents summaries of evidence the Department of Health (DOH) - Health Technology Assessment (HTA) Division reviewed for the period of March 14 - March 20, 2022. The HTA Division reviewed a total of 11 studies for the said period.

Evidence includes 2 study on Epidemiology; 1 study on Transmission; 1 study on Drugs; 5 studies on Vaccines, 1 study on Equipment and Devices; 0 study on Medical and Surgical Procedures; 0 study on Traditional Medicine; 1 study on Preventive & Promotive Health; and 0 study on Other Health Technologies.

The following report notes that 0 studies have not been peer-reviewed, each highlighted accordingly.

Sections

Evidence on Epidemiology

Local COVID-19 Tracker: https://www.doh.gov.ph/covid19tracker
Local COVID-19 Case Tracker: https://www.doh.gov.ph/covid-19/case-tracker

Date	Author/s	Title	Journal/ Article Type	Summary
15 Mar 2022	WHO Global	Weekly epidemiological update on COVID-19 - 15 March 2022	*WHO Global (Emergency Situation Updates)*	• After a consistent decrease in the number of new COVID-19 cases reported globally on a weekly basis since the end of January 2022, during the week of 7 through 13 March 2022, the number of new weekly cases has increased by 8% as compared to the previous week. • As of 13 March 2022, over 455 million confirmed cases and over 6 million deaths have been reported globally.
18 Mar 2022	European Centre for Disease Prevention and Control (ECDC)	Weekly COVID-19 Surveillance Report	*Situation Report*	• As of 13 March 2022, the epidemiological situation in the EU/EEA was characterised by a break in the sustained decreasing trend in case rates that had been observed in previous weeks, with an overall 14-day case notification rate that increased by 4.6% and a proportionally higher 9.1% increase among people aged 65 years and above.

Evidence on Transmission

Date	Author/s	Title	Journal/ Article Type	Summary
14 Mar 2022	Cohen, et al., (2022)	SARS-CoV-2 incidence, transmission, and reinfection in a rural and an urban setting: results of the PHIRST-C cohort study, South Africa, 2020–21	*The Lancet Infectious Diseases/ Cohort Study*	In this study, 565 (85·3%) SARS-CoV-2 infections were asymptomatic and index case symptom status did not affect HCIR, suggesting a limited role for control measures targeting symptomatic individuals. Increased household transmission of beta and delta variants was likely to have contributed to successive waves of SARS-CoV-2 infection, with more than 60% of individuals infected by the end of follow-up.

Evidence on Drugs

Date	Author/s	Title	Journal/ Article Type	Summary
15 Mar 2022	Song, et al., (2022)	Treatment of severe COVID-19 patients with either low- or high-volume of convalescent plasma versus standard of care: A multicenter Bayesian randomized open-label clinical trial (COOP-COVID-19-MCTI)	*The Lancet Regional Health / Randomized open-label clinical trial*	The study conducted a Bayesian, randomized, open-label, multicenter, controlled clinical trial in 7 Brazilian hospitals. Adults admitted to hospital with positive RT-PCR for SARS-CoV2, within 10 days of the symptom onset, were eligible. Patients were randomly assigned (1:1:1) to receive standard of care (SoC) alone, or in combination with 200 mL (150–300 mL) of CP (Low-volume), or 400 mL (300–600 mL) of CP (High-volume); infusion had to be performed within 24 h of randomization. Randomization was centralized, stratified by center. The primary outcome was the time until clinical improvement up to day 28, measured by the WHO ten-point scale, assessed in the intention-to-treat population. Interim and terminal analyses were performed in a Bayesian framework.

Evidence on Vaccines

Bloomberg Vaccine Tracker:
https://www.bloomberg.com/graphics/covid-vaccine-tracker-global-distribution/
WHO COVID-19 Vaccine Tracker:
https://www.who.int/publications/m/item/draft-landscape-of-covid-19-candidate-vaccines

Date	Author/s	Title	Journal/ Article Type	Summary
15 Mar 2022	Bellos, et al., (2022)	Myocarditis following mRNA Covid-19 vaccination: A pooled analysis	*Elsevier Vaccine/ Meta-Analysis*	Post-marketing surveillance studies have raised concerns of increased myocarditis rates following coronavirus disease-19 (Covid-19) mRNA vaccines. The present study aims to accumulate the published mRNA Covid-19 vaccine-associated myocarditis cases, describe their clinical characteristics and determine the factors predisposing to critical illness.
18 Mar 2022	Masuda, et al., (2022)	A phase 1/2 randomised placebo-controlled study of the COVID-19 vaccine mRNA-1273 in healthy Japanese adults: An interim report	*Elsevier Vaccine/ Randomised placebo-controlled study*	This study was conducted in the framework of the European Joint Action on Vaccination (EU-JAV). Twenty-eight countries, including 20 EU-JAV consortium member states and an additional 8 EU/EEA countries, were invited to participate in a survey aimed at collecting information on vaccine shortages and stock-outs experienced from 2016 to 2019, their main causes, actions taken, and other aspects of vaccine supply.

Evidence on Vaccines *(cont.)*

Date	Author/s	Title	Journal/ Article Type	Summary
14 Mar 2022	Nikpour, et al., (2022)	Global prevalence of acceptance of COVID-19 vaccines and associated factors in pregnant women: a systematic review and meta-analysis	*Taylor & Francis Online/Systematic review and meta-analysis*	• The study found ten studies that were suitable, with 16696 participants from 32 countries. COVID-19 vaccination acceptability in pregnant women was 54 percent globally (95 percent CI, 45 percent, 62 percent), with significant heterogeneity (I2= 99.05 percent, p <0.001). The pooled adjusted OR of COVID-19 vaccine acceptance in pregnant women with age >35 years, high education and income levels, and knowledge scores on COVID-19 infection were 1.17, 1.03, 1.18, and 2.55, respectively. • About half of pregnant women accepted the COVID-19 vaccine. A high knowledge score on COVID-19 infection had an effective role to increase this acceptance. To promote vaccine knowledge, appropriate planning should be done by the health policy-makers.
15 Mar 2022	Wang et al., (2022)	Meta-Analysis of Risk of Myocarditis After Messenger RNA COVID-19 Vaccine	*The American Journal of Cardiology/ Meta-analysis*	This study conducted a meta-analysis to further investigate the correlation between the mRNA vaccine and myocarditis. By October 9, 2021, a systematic database search was performed in PubMed, Web of Science, and the Cochrane Library using search terms such as “mRNA COVID-19 vaccine,” “myocarditis,” “adverse event,” “BNT162b2 vaccine,” and “mRNA1273 vaccine.” A total of 267 publications were preliminarily found, and 5 were finally included in this study , with a total of 217 cases of myocarditis.
15 Mar 2022	Tawinprai, et al., (2022)	Immunogenicity and safety of an intradermal fractional third dose of ChAdOx1 nCoV-19/AZD1222 vaccine compared with those of a standard intramuscular third dose in volunteers who previously received two doses of CoronaVac: A randomized controlled trial	*Elsevier Vaccine/ Randomized controlled trial*	• This non-inferiority randomized controlled trial evaluated the immunogenicity and safety of an intradermal (ID) fractional third dose of AZD1222 vaccine compared with those of a standard intramuscular (IM) third dose. Participants were enrolled from August 9, 2021 to August 13, 2021 at Chulabhorn Hospital, Bangkok, Thailand. • The eligibility criteria were age 18 years or older and prior two-dose Coronavac vaccination completed at least 2 months previously. • Participants were randomly assigned to one of three groups by block randomization: (i) standard dose by IM administration (IM), (ii) 20% of the standard dose ID (ID1), or (iii) 40% of the standard dose ID (ID2). The primary endpoint was the geometric mean ratio of anti-receptor binding domain antibody in the ID1/ID2 vs. the IM groups 14 days post-vaccination.

Evidence on Vaccines *(cont.)*

Date	Author/s	Title	Journal/ Article Type	Summary
15 Mar 2022	World Health Organization, (2022)	Interim recommendations for use of the inactivated COVID-19 vaccine, CoronaVac, developed by Sinovac	*WHO SAGE / Interim Guidelines*	• These WHO interim recommendations for use of the Sinovac-CoronaVac were developed on the basis of advice issued by the Strategic Advisory Group of Experts on Immunization (SAGE) and the evidence summary included in the background document and annexes referenced below. • Background document on the inactivated vaccine Sinovac-CoronaVac against COVID-19: Background document to the WHO Interim recommendations for use of the inactivated COVID-19 vaccine, CoronaVac, developed by Sinovac

Evidence on Equipment and Devices

Date	Author/s	Title	Journal/ Article Type	Summary
20 Mar 2022	Aquino, et al., (2022)	Updating the use of nano-biosensors as promising devices for the diagnosis of coronavirus family members: A systematic review	*Journal of Pharmaceutical and Biomedical Analysis/ Systematic Review*	• This systematic review assessed studies on described and tested immunonsensors and genosensors designed from distinct nanomaterials available at the Pubmed, Scopus, and Science Direct databases. • Twenty-three nano biosensors were found suitable for unequivocal coronavirus detection in clinical samples. • Nano-biosensors coupled to RT-LAMP/RT-PCR assays can optimize RNA extraction, reduce analysis times and/or eliminate sophisticated instrumentation. • Although promising for the diagnosis of Coronavidae family members, further trials in large populations must be adequately and rigorously conducted to address nano-biosensor applicability in the clinical practice for early coronavirus infection detection.

Evidence on Medical and Surgical Procedures

Date	Author/s	Title	Journal/ Article Type	Summary
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Evidence on Traditional Medicine

Date	Author/s	Title	Journal/ Article Type	Summary
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Evidence on Preventive & Promotive Health

Date	Author/s	Title	Journal/ Article Type	Summary
15 Mar 2022	Cruvinel, et al., (2022)	The impact of COVID-19 on income and employment and willingness to become vaccinated among African Americans enrolled in a smoking cessation randomized trial	*The Japanese Society for Vaccinology/ Randomized Control Trial*	• Among all African American (AA) sample of smokers (N = 172) enrolled in a larger smoking cessation clinical trial, results demonstrated an intensive burden from COVID-19; 42 (24.4%) lost employment, 56 (32.6%) lost household income, and 66 (38.4%) reported inability to pay bills and buy food due to COVID. Most, 103 (64.4%), were willing to get vaccinated. • Among the vaccine-hesitant, 57 (35.6%), concerns about COVID-19 vaccine development and mistrust in vaccines were primary reasons for unwillingness to get vaccinated. Few identified doctor's advice as most valued in deciding if the vaccine was the best option. Findings highlight high openness to the vaccine among smokers impacted by COVID but reiterate the need for community-engaged versus health system-driven approaches to improve vaccine hesitancy among racial/ethnic minorities.

Evidence on Other Health Technologies

Date	Author/s	Title	Journal/ Article Type	Summary
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Note. Studies that have not been peer-reviewed are highlighted in red.

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