Weekly Evidence Report

Health Technology Assessment Philippines

28 March - 03 April 2022

Overview

The following report presents summaries of evidence the Department of Health (DOH) - Health Technology Assessment (HTA) Division reviewed for the period of 28 March-03 April 2022. The HTA Division reviewed a total of 10 studies for the said period.

Evidence includes 2 studies on Epidemiology; 1 studies on Transmission; 1 study on Drugs; 2 studies on Vaccines, 2 studies on Equipment and Devices; 1 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The following report notes that 0 studies have not been peer-reviewed, each highlighted accordingly.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
01 Apr 2022	European Centre for Disease Prevention and Control (ECDC)	Country overview report: week 12 2022	*Situation Report*	• At the end of week 12 2022 (week ending Sunday, 27 March), the epidemiological situation in the EU/EEA was characterised by a continued but slowed increase of 4.6% in case rates. A proportionally higher increase of 14% continued to be observed among people aged 65 years and above. The rate among 65+ years is now as high as the previous peak observed during the initial Omicron wave. Increases in case rates among people aged 65+ years were observed in 17 of 26 countries with data. • The estimated distribution (median and range of values from 20 countries for weeks 10 – 11, 7 March to 20 March 2022) of variants of concern (VOCs) was 99.9% for B.1.1.529 (Omicron) and 0.0% for B.1.617.2 (Delta).
29 Mar 2022	WHO Global	COVID-19 Weekly Epidemiological Update - 29 March 2022	*WHO Global (COVID-19 Weekly Epidemiologic al Update)*	• The number of new COVID-19 cases during the week of 21 through 27 March, 2022 decreased by 14% compared to the previous week. During the same period, the number of new weekly deaths increased by 43%, likely driven by changes in the definition of COVID-19 deaths in some countries in the Region of the Americas (Chile and the United States of America) and by retrospective adjustments reported from India in the South-East Asia Region. • As of 27 March 2022, over 479 million confirmed cases and over 6 million deaths have been reported globally. • The trends reported above should be interpreted with caution as several countries are progressively changing their COVID-19 testing strategies, resulting in lower overall numbers of tests performed and consequently lower numbers of cases detected.

Evidence on Transmission

Date	Author/s	Title	Journal/ Article Type	Summary
30 Mar 2022	Tang, et al., (2022)	Filtration efficiency of face masks against aerosolized surrogate SARS-CoV-2 at different social distances	*Pubmed/Technical Report*	• Based on the study, for healthcare workers and other individuals in hospital settings facing a high risk of airborne infection through sneezing or coughing by patients, N95 respirators and surgical masks are necessary. Considering the magnitude of SARS-CoV-2 concentrations and the frequency of SARS-CoV-2 detection in hospitals, single-use, and cloth masks are not recommended in these settings. For people at lower risk of SARS-CoV-2 infection, a homemade cloth mask may be an adequate alternative if there are shortages of medical masks and respirators. However, it should be noted that cloth masks are not standardized nor regulated by any government authorities and organizations so far. As such, the quality of homemade cloth masks varies greatly, and their filtration efficacy are greatly affected by factors such as material properties, thread count, number of fabric layers, particle electrostatic charge, face velocity, and leaks.

Evidence on Drugs

Date	Author/s	Title	Journal/ Article Type	Summary
28 Mar 2022	Redondo -Calvo, et al., (2022)	Aprotinin treatment against SARS-CoV-2: a randomized phase III study to evaluate the safety and efficacy of a pan-protease inhibitor for moderate COVID-19	*Pubmed/Multicentre, double-blind, randomized phase III trial*	• Aprotinin is a broad-spectrum protease inhibitor that has been employed as antiviral drug for other human respiratory viruses. Also, it has important anti-inflammatory properties for inhibiting the innate immunity contact system. The trial performed in four Spanish hospitals comparing standard treatment versus standard treatment + aprotinin for patients with COVID-19 Inhaled aprotinin may improve standard treatment and clinical outcomes in hospitalized patients with COVID-19, resulting in a shorter treatment time and hospitalization compared to the placebo group. Administration of aprotinin was safe.

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
31 Mar 2022	Hall, et al., (2022)	Protection against SARS-CoV-2 after Covid-19 Vaccination and Previous Infection	*Pubmed/ Prospective Cohort*	Among previously uninfected participants who received long-interval BNT162b2 vaccine, adjusted vaccine effectiveness decreased from 85% 14 to 73 days after the second dose to 51% at a median of 201 days (after the second dose; this effectiveness did not differ significantly between the long-interval and short-interval BNT162b2 vaccine recipients. At 14 to 73 days after the second dose, adjusted vaccine effectiveness among ChAdOx1 nCoV-19 vaccine recipients was 58% considerably lower than that among BNT162b2 vaccine recipients. Infection-acquired immunity waned after 1 year in unvaccinated participants but remained consistently higher than 90% in those who were subsequently vaccinated, even in persons infected more than 18 months previously. Two doses of BNT162b2 vaccine were associated with high short-term protection against SARS-CoV-2 infection; this protection waned considerably after 6 months. Infection-acquired immunity boosted with vaccination remained high more than 1 year after infection.
28 Mar 2022	Chibwana, et al., (2022)	AstraZeneca COVID-19 vaccine induces robust broadly cross-reactive antibody responses in Malawian adults previously infected with SARS-CoV-2	*Pubmed/ Prospective Cohort*	Findings show that the AstraZeneca COVID-19 vaccine is an effective booster for waning cross-variant antibody immunity after initial priming with SARS-CoV-2 infection. The study shows that neutralising antibodies wane within 6 months post mild/moderate SARS-CoV-2 infection (30-60 days vs. 210-270 days). A single dose of the AstraZeneca COVID-19 vaccine following mild/moderate SARS-CoV-2 infection induced a 2 to 3-fold increase in anti-Spike and -RBD IgG levels 30 days post-vaccination. The anti-RBD IgG antibodies from these vaccinated individuals were broadly cross-reactive against multiple variants of concern and had neutralisation potency against original D614G, beta, and delta variants.

Evidence on Equipment and Devices

Date	Author/s	Title	Journal/ Article Type	Summary
31 Mar 2022	Killingley, et al., (2022)	Safety, tolerability and viral kinetics during SARS-CoV-2 human challenge in young adults	*Single-center, open-label phase 1 study*	• Lateral flow assay (LFA) rapid antigen tests are commonly used to identify potentially infectious people in the community, but their usefulness in early infection is unknown. To test the performance of LFA over the entire course of infection, antigen testing was performed using the same morning nose and throat swab samples assessed for viral load. None of the uninfected participants had a positive LFA test at any time, whereas all infected participants had positive LFA for ≥2 days. Despite earlier viral detection in the throat by other methods, median time to first detection by daily LFA tests was the same in nose and throat at 4 days (range, 2–8 days) after inoculation.
29 Mar 2022	Walsh, et al., (2022)	Effectiveness of rapid antigen testing for screening of asymptomatic individuals to limit the transmission of SARS-CoV-2: A rapid review	*PubMed/ Rapid review*	• The reported estimated effect on transmission of using RADTs (rapid antigen detection test) at population-level varied from minimal change in one study to an 82% reduction in prevalence after three rounds of testing in another study, highlighting the significant uncertainty regarding the effectiveness of this intervention. While estimates of effectiveness may vary, there was evidence from one included study that re-testing at regular intervals would likely be necessary for any potential sustained effect. • Overall, there is uncertainty regarding the effectiveness of RADTs for screening in asymptomatic individuals, with no evidence found regarding their use for surveillance purposes at the time of writing. It is important to note that the studies included within this review were conducted before the emergence of the Delta and Omicron variants. As such, it is possible that the findings may be specific to scenarios of transmission that pre-dated these variants. In light of these uncertain results from empirical evidence, data on the effectiveness of RADT screening based solely on modelling should be interpreted with caution.

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
28 Mar 2022	Zeduri, et al., (2022)	COVID-19 lockdown impact on familial relationships and mental health in a large representative sample of Italian adults	*Pubmed/ Cross-sectional study*	• Benefits of national-level stay-at-home order imposed in Italy to prevent SARS-CoV-2 transmission need to be carefully weighed against its impact on citizens' health. In a country with a strong familial culture and where welfare relies on households, confinement drastically decreased support provided by elder relatives, which may have resulted in mental health worsening. • Overall, 1484 (47.0%) subjects reported reduced housework help from parents, and 769 (64.0%, of the 1202 subjects with children) diminished babysitting support. Subjects reporting reduced housework help had worsened sleep quality, depressive and anxiety symptoms, compared to those reporting unreduced help. Worsening in sleep quality and quantity, depressive and anxiety symptoms was also associated with reduced babysitting help. Mental health outcomes were worse in subjects with poorer housing and teleworking during lockdown. Confinement came along with reduced familial support from parents, negatively impacting household members' mental health.

Evidence on Medical and Surgical Procedures

Date	Author/s	Title	Journal/ Article Type	Summary
28 Mar 2022	Russo, et al., (2022)	The prognostic role of interatrial block among COVID-19 patients hospitalized in medicine wards	Retrospective Study	• The study evaluated 300 consecutive COVID-19 patients admitted to eight Italian Hospitals who underwent twelve leads electrocardiographic recording at admission. The differences in terms of acute respiratory distress syndrome in need of intubation, in-hospital mortality and thromboembolic events (a composite of myocardial infarction, stroke and transient ischemic attack) have been evaluated. The presence of interatrial block was noticed in 64 patients (21%). At adjusted logistic regression model, the partial interatrial block was found to be an independent predictor of ARDS in need of intubation and in-hospital mortality moreover, the advanced interatrial block was an independent predictor of thrombotic events. Among COVID-19 patients hospitalized in medicine wards, the presence of interatrial block is more frequent than in the general population and it might be useful as an early predictor for increased risk of incident thrombotic events, ARDS in need of intubation and in-hospital mortality.

Evidence on Other Health Technologies

Date	Author/s	Title	Journal/ Article Type	Summary
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