Weekly Evidence Report

Health Technology Assessment Philippines

20 - 31 December 2021

Overview

The following report presents summaries of evidence the Department of Health (DOH) - Health Technology Assessment (HTA) Unit reviewed for the period of December 20 to December 31, 2021. The HTA Unit reviewed a total of 13 references for the said period.

Evidence includes 3 references on Epidemiology; 1 study on Vulnerable Populations; 1 study on Transmission; 2 studies on Drugs; 4 references on Vaccines, 1 reference on Equipment and Devices; and 1 study on Preventive & Promotive Health.

Sections

Epidemiology

Transmission

Drugs

Vaccines

Equipment & Devices

Medical & Surgical Procedures

Traditional Medicine

Preventive & Promotive Health

Other Health Technologies

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
28 Dec 2021	WHO Global	Weekly epidemiological update on COVID-19 - 28 December 2021	*WHO Global (Situation Report)*	• The weekly incidence of cases increased by 11% during the week of 20-26 December as compared to the past week, while the number of new deaths remained similar. • Over 278 million confirmed cases and just under 5.4 million deaths have been reported globally. • The region of the Americas reported the largest increase in new cases last week (39%) followed by Africa and Europe • The overall risk of the VoC Omicron remains high with consistent evidence showing a growth advantage over the Delta variant. A doubling time of 2-3 days and rapid increases in the incidence of cases is seen in a number of countries. However, a decline in the incidence of cases has now been observed in South Africa. • As of 22 December 2021, the Omicron variant has been confirmed in 110 countries
29 Dec 2021	WHO Western Pacific Region	Coronavirus Disease 2019 (COVID-19) External Situation Report #85	*WHO WPRO (Situation Report)*	• Between 22 and 28 December 2021, a total of 250,101 cases with 2,834 deaths were reported from 21 countries or areas across the WPRO region. Meanwhile, 14 countries reported zero cases for this week. • Twelve countries or areas in the region have also reported cases of the Omicron variant as of 29 December 2021 as compared to ten countries from the previous week.
31 Dec 2021	DOH Philippines	GUARDS ON FOR OMICRON: READY ARE THOSE VACCINATED + MASKED + KEEPING TO THEIR BUBBLE!	*Press Release via Social media*	• The epidemiologic investigation of 3 local cases indicates high possibility of Omicron transmission. • Breakthrough infections of Omicron among fully vaccinated and boosted individuals were documented although mild or asymptomatic.

Evidence on Vulnerable Population Epidemiology

Date	Author/s	Title	Journal/ Article Type	Summary
22 Dec 2021	Reyes et al.	Characteristics and outcomes of patients with COVID-19 with and without prevalent hypertension: a multinational cohort study	*BMJ Open / Retrospective Cohort study*	• COVID-19 patients with hypertension are more likely to experience more severe outcomes including hospitalizations and deaths (among outpatients with COVID-19), and experience more ARDS and deaths (among inpatients with COVID-19) compared with patients without hypertension.

Evidence on Transmission

Date	Author/s	Title	Journal/ Article Type	Summary
20 Dec 2021	US CDC Center for Forecasting Analytics and Outbreak Analytics	Potential Rapid Increase of Omicron Variant infections in the United States	*Press Release*	• Scenario analyses conducted by the US CDC shows that current increases in Omicron cases are likely to lead to a national surge as soon as January. • In scenarios with lower immune evasion, a surge is still likely, but the peak could be lower and begin as late as April 2022. • Increases in infections are most likely due to a combination of two factors: increased transmissibility and the ability of the variant to evade immunity conferred by past infection or vaccination (i.e., immune evasion).

Evidence on Drugs

Date	Author/s	Title	Journal/ Article Type	Summary
23 Dec 2021	Fischer et al.	A Phase 2a clinical trial of Molnupiravir in patients with COVID-19 shows accelerated SARS-CoV-2 RNA clearance and elimination of infectious virus	*Science Translational Medicine / RCT*	• A total of 202 unvaccinated participants with confirmed SARS-CoV-2 infection and with symptom duration less than 7 days randomized. • 92.5% of participants receiving 800 mg molnupiravir achieved viral RNA clearance compared with 80.3% of placebo recipients by study end (4 weeks). • Time to viral RNA clearance was decreased in the 800 mg molnupiravir group (median 14 days) compared to the placebo group (median 15 days). • At day 3 of treatment, infectious virus was detected in 1.9% of the 800 mg molnupiravir group compared with 16.7% of placebo group. • At day 5 of treatment, infectious virus was not isolated from any participants receiving 400 or 800 mg molnupiravir compared with 11.1% of placebo recipients. • Molnupiravir was well tolerated, with a similar number of adverse events across all doses.
23 Dec 2021	Self et al.	Efficacy and safety of two neutralizing monoclonal antibody therapies, sotrovimab and BRII-196 plus BRII-198, for adults hospitalised with COVID-19 (TICO): a randomised controlled trial	*The Lancet / RCT*	• Between Dec 16, 2020, and March 1, 2021, 546 patients hospitalised with COVID-19 were enrolled and randomly assigned to sotrovimab (n=184), BRII-196 plus BRII-198 (n=183), or placebo (n=179). • At day 5, neither the sotrovimab group nor the BRII-196 plus BRII-198 group had significantly higher odds of more favourable outcomes than the placebo group on either the pulmonary scale or the pulmonary-plus complications scale. • 13 (7%) patients in the placebo group, 14 (8%) in the sotrovimab group, and 15 (9%) in the BRII-196 plus BRII-198 group died up to day 90. • Conclusion: Neither sotrovimab nor BRII-196 plus BRII-198 showed efficacy for improving clinical outcomes among adults hospitalised with COVID-19.

Evidence on Vaccines

NYT Coronavirus Vaccine Tracker:
https://www.nytimes.com/interactive/2020/science/coronavirus-vaccine-tracker.html

Bloomberg Vaccine Tracker:
https://www.bloomberg.com/graphics/covid-vaccine-tracker-global-distribution/

London School of Hygiene and Tropical Medicine Vaccine Trial Mapper and Tracker:
https://vac-lshtm.shinyapps.io/ncov_vaccine_landscape/

ACIP Files:
https://drive.google.com/drive/u/0/folders/1v-jd66qIIxnUkfzXWKqiD0mkVvqy_VvJ?pli=1

Date	Author/s	Title	Journal/ Article Type	Summary
31 Dec 2021	Hause et al.	COVID-19 Vaccine Safety in Children Aged 5-11 years - United States, November 3 - December 19, 2021	*US CDC Morbidity and Mortality Weekly Report* / *Observational study*	• After the administration of approximately 8 million doses, local and systemic reactions after vaccination were commonly reported to VAERS and v-safe for vaccinated children aged 5–11 years. Serious adverse events were rarely reported.
23 Dec 2021	Arbel et al.	BNT162b2 Vaccine Booster and Mortality Due to Covid-19	*The New England Journal of Medicine*/ test-negative case–control study	• Participants who received a booster of Pfizer at least 5 months after dose 2 had 90% lower COVID-19 mortality than participants who did not receive a booster. • COVID-19 deaths occurred in 65 participants in the booster group (0.16 per 100,000 persons per day) and in 137 participants in the non-booster group (2.98 per 100,000 persons per day). • The adjusted hazard ratio for death due to Covid-19 in the booster group, as compared with the non-booster group, was 0.10 (95% CI: 0.07 to 0.14).

Evidence on Vaccines (cont.)

Date	Author/s	Title	Journal/ Article Type	Summary
23 Dec 2021	Jyssum et al.	Humoral and cellular immune responses to two and three doses of SARS-CoV-2 vaccines in rituximab-treated patients with rheumatoid arthritis: a prospective, cohort study	*The Lancet / Prospective Cohort Study*	• 87 patients with rheumatoid arthritis on rituximab treatment and 1114 healthy controls who received two doses of SARS-CoV-2 vaccines (i.e. Pfizer-BioNTech, Moderna, AZ) were included in the study. 49 patients received a third dose of rituximab. • 21.8% of rituximab patients had a serological response (receptor-binding domain [RBD] antibodies of the SARS-CoV-2 spike protein concentration <100 AU/mL) after 2 doses of vaccines as compared to 98.4% for health individuals. • A third vaccine dose induced serological responses in 16.3% of rituximab patients, but induced CD4+ and CD8+ T-cell responses in all patients assessed (n=12), including responses to the SARS-CoV-2 delta variant. • Adverse events were reported in 48% of 67 patients and in 78% of 244 healthy controls after two doses, with the frequency not increasing after the third dose. There were no serious adverse events or deaths. • Conclusion: A third vaccine dose given 6–9 months after a rituximab infusion might not induce a serological response, but could be considered to boost the cellular immune response.
23 Dec 2021	Bar-on et al.	Protection against COVID-19 by BNT162b2 Booster across age groups	*The New England Journal of Medicine/ Observational study*	• Data from 4,696,865 persons 16 years of age or older who had received at least two doses of BNT162b2 at least 5 months earlier were extracted from the Israel Ministry of Health database for the period from July 30 to October 10, 2021 (dominant variant: Delta). • The rate of confirmed COVID-19 was lower in the booster group than in the non-booster group by a factor of approximately 10 and was lower in the booster group than in the early post-booster group by a factor of 4.9 to 10.8. • Across the age groups studied, rates of confirmed Covid-19 and severe illness were substantially lower among participants who received a booster dose of the BNT162b2 vaccine than among those who did not.

Evidence on Equipment & Devices

Date	Author/s	Title	Journal/ Article Type	Summary
23 Dec 2021	Coggiola et al.	SARS-CoV-2 infection: use and effectiveness of antigenic swab for the health surveillance of healthcare workers	*La Medicina de Lavoro / Retrospective Observational study*	• 4000 antigenic swabs were carried out in three groups of healthcare workers (HCWs), respectively (i) asymptomatic, (ii) cohabiting with a positive case, and (iii) not recently exposed to the virus. • Overall, antigenic swabs reduced costs and provided reliable diagnostic results. • In the cohabitant group, the higher-prevalence groups showed poor test performances, likely because of the high prevalence of pre-symptomatic illness in this group.

Evidence on Medical & 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

Evidence on Screening

Date	Author/s	Title	Journal/ Article Type	Summary

Evidence on Personal Measures

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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Evidence on Community Measures

Date	Author/s	Title	Journal/ Article Type	Summary
23 Dec. 2021	Wild, Shaw, and Erren	Avoiding a crisis at Christmas: a systematic review of adverse health effects or 'Chrishaps' caused by traditional hazard sources and COVID-19	*Australian and New Zealand Journal of Public Health / Systematic Review*	• Thirty-six pertinent articles – most of them case reports or retrospective analyses – documented Chrishaps. • Chrishaps pose a potential minor public health threat that should be borne in mind every festive season. Assessing and discussing specific public health implications of Chrishaps requires systematic risk research to be conducted.

Evidence on Other Health Technologies

Date	Author/s	Title	Journal/ Article Type	Summary
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