Weekly Evidence Report

Health Technology Assessment Philippines

03 to 07 January 2022

Overview

The following report presents summaries of evidence the Department of Health (DOH) - Health Technology Assessment (HTA) Unit reviewed for the period of 29 January 03 to January 07 2022. The HTA Unit reviewed a total of 10 studies for the said period.

Evidence includes 3 studies on Epidemiology; 1 study on Transmission; 2 studies on Drugs; 2 studies on Vaccines, 1 study on Equipment and Devices; 0 studies on Medical and Surgical Procedures; 1 study on Traditional Medicine; and 2 studies on Preventive & Promotive Health.

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
06 January 2022	WHO Global	Coronavirus Disease 2019 (COVID-19) Weekly Epidemiological Update	*WHO Global (Situation Report)*	• From 27 January to 2 January 2022, the global number of new cases increased sharply by 71% as compared to the previous week, while the number of new deaths decreased by 10%. • As of 2 January, a total of nearly 289 million cases and just over 5.4 million deaths have been reported globally.
			WHO Global (Situation Report) – *Regional Updates*	• All regions reported an increase in the incidence of weekly cases, with the Region of the Americas reporting the largest increase (100%), followed by the South-East Asia Region (78%) and the European Region (65%). • The African Region reported a weekly increase in the number of new deaths (22%), while all the other regions reported a decrease as compared to the previous week.
06 January 2022	European Centre for Disease Prevention and Control (ECDC)	Weekly COVID-19 Surveillance Report	*ECDC Data Set*	• At the end of week 52 (week ending Sunday 2 January 2022), the overall epidemiological situation in the EU/EEA was characterised by a high overall case notification rate which has increased rapidly in the past two weeks and an elevated death rate which decreased compared to the previous week. • This situation is largely driven by the continued circulation of the Delta variant and rapidly increasing spread of the Omicron variant in many countries. • B.1.1.529 (Omicron) has become the dominant variant (accounting for >50% of sequenced viruses) in three of the 22 countries with adequate sequencing volume.

Evidence on Vulnerable Population Epidemiology

Date	Author/s	Title	Journal/ Article Type	Summary
07 January 2022	Omar et al.	Excess of cesarean births in pregnant women with COVID-19: A meta-analysis	*Birth*	This systematic review aimed to evaluate variations in clinical presentation, laboratory findings, and maternal/neonatal outcomes in COVID-19 patients who delivered vaginally versus via cesarean. Forty-two studies with a total of 602 pregnant women with COVID-19 were included. The mean age was 31.8 years.There was no significant difference in perinatal complications, premature rupture of membrane, placenta previa/accreta, or gestational hypertension/pre-eclampsia between women who delivered vaginally versus by cesarean. Importantly, there were also no significant differences in maternal or neonatal outcomes.

Evidence on Transmission

Date	Author/s	Title	Journal/ Article Type	Summary
06 January 2022	Jung et al.	Detection of SARS-CoV-2 genome on inanimate surfaces in COVID-19 intensive care units and emergency care cohort	*Clinical Microbiology*	In the intensive care unit, 86% of samples collected at the stethoscope and bed rail surfaces were positive. In the emergency care unit, 43% of bathroom tap, bed rails, and bedside table samples were positive. SARS-CoV-2 genome was not detected at the computer mouse and keyboard. At the emergency care unit, 14.3% of the samples from the collection room armchair were positive. SARS-CoV-2 genome can be found at the environmental surface of objects and furniture at COVID-19 care units. They can represent a potential source of indirect transmission pathway for COVID-19, especially within health service institutions

Evidence on Drugs

Date	Author/s	Title	Journal/ Article Type	Summary
05 January 2022	Kuzeytemiz et al.	Effect of renin-angiotensin system blocker on COVID-19 in young patients with hypertension	*Journal of Investigative Medicine*	The study investigated the impact of ACEI/ARB and the clinical prognosis of patients with hypertension with COVID-19. In this study, 250 patients with hypertension (<45 years old) with COVID-19 were recruited. During hospital stay, there was no significant difference in terms of length of hospital stay, medication for COVID-19, left ventricular ejection fraction on echocardiography and metabolic equivalents in the treadmill stress test between patients treated with and without ACEI/ARB. During treatment of COVID-19, there was no significant difference in clinical adverse event, effort capacity and clinical course between patients with and without ACEI/ARB.
05 January 2022	Fenizia et al.	Cyclosporine A Inhibits Viral Infection and Release as Well as Cytokine Production in Lung Cells by Three SARS-CoV-2 Variants	*Microbiology Spectrum*	We found that treatment with CsA either before or after infection of in vitro (using CaLu3 cells) by three SARS-CoV-2 variants: (i) reduces the expression of both viral RNA and proteins in infected cells; (ii) decreases the number of progeny virions released by infected cells; (iii) dampens the virus-triggered synthesis of cytokines (including IL-6, IL-8, IL1α and TNF-α) that are involved in cytokine storm in patients. Altogether, these data provide a rationale for CsA repositioning for the treatment of severe COVID-19 patients.

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

Evidence on Vaccines (cont.)

Date	Author/s	Title	Journal/ Article Type	Summary
03 January 2022	Rogers et al.	Trends in COVID-19 vaccination intent and factors associated with deliberation and reluctance among adult homeless shelter residents and staff, 1 November 2020 to 28 February 2021 - King County, Washington	*Vaccine*	A total of 3966 survey responses were collected. Results showed higher odds of vaccine deliberation or reluctance among Black/African American individuals, those who did not receive a seasonal influenza vaccine, and those with lower educational attainment. There was no significant trend towards vaccine acceptance.
04 January 2022	Callaghan et al.	Real-world Effectiveness of the Pfizer-BioNTech BNT162b2 and Oxford-AstraZeneca ChAdOx1-S Vaccines Against SARS-CoV-2 in Solid Organ and Islet Transplant Recipients	*Transplantation*	4 national registries were linked to retrospectively identify laboratory-confirmed SARS-CoV-2 infections and deaths within 28 d in England between September 1, 2020, and August 31, 2021, comparing unvaccinated adult solid organ transplant (SOT) recipients and those who had received 2 doses of ChAdOx1-S or BNT162b2 vaccine. On August 31, 2021, it was found that 3080 (7.1%) were unvaccinated, 1141 (2.6%) had 1 vaccine dose, and 39 260 (90.3%) had 2 vaccine doses. There were 4147 SARS-CoV-2 infections and 407 deaths (unadjusted case fatality rate 9.8%). The risk-adjusted infection incidence rate ratio was 1.29 (1.03-1.61), implying that vaccination was not associated with reduction in risk of testing positive for SARS-CoV-2 RNA. Overall, the hazard ratio for death within 28 d of SARS-CoV-2 infection was 0.80 (0.63-1.00), a 20% reduction in risk of death in vaccinated patients (P = 0.05). Two doses of ChAdOx1-S were associated with a significantly reduced risk of death (hazard ratio, 0.69; 0.52-0.92), whereas vaccination with BNT162b2 was not (0.97; 0.71-1.31).

Evidence on Medical and Surgical Procedures

Date	Author/s	Title	Journal/ Article Type	Summary
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Evidence on Equipment & Devices

Date	Author/s	Title	Journal/ Article Type	Summary
07 January 2022	Artik et al.	Comparison of COVID-19 Laboratory Diagnosis by Commercial Kits: Effectivity of the RT-LAMP	*Journal of Medical Virology*	The present study was designed to evaluate this rapid screening diagnostic test that can give results in 30-45 minutes and to compare the effectiveness of LAMP to the q-RT-PCR.The study presented promising results on the use of LAMP approach to monitor exposed individuals, and also improves screening efforts in potential ports of entry.

Evidence on Traditional Medicine

Date	Author/s	Title	Journal/ Article Type	Summary
January 2022	Khanal et al.	Network pharmacology of AYUSH recommended immune-boosting medicinal plants against COVID-19	*Journal of Ayurveda and Integrative Medicine*	The Ministry of AYUSH recommended the use of a decoction of the mixture of *Ocimum tenuiflorum*, *Cinnamomum verum*, *Piper nigrum*, *Zingiber officinale,* and *Vitis vinifera* as a preventive measure by boosting the immunity against the severity of infection caused by a novel coronavirus (COVID-19).

Evidence on Preventive & Promotive Health

Evidence on Screening

Date	Author/s	Title	Journal/ Article Type	Summary
05 January 2022	Government of Ontario	COVID-19 screening tool for students and children in school and child care settings	Screening Tool	The government of Ontario, the Canadian Ministry of Health, and Ministry of Education released an updated screening tool for students and children that is to be used everyday prior to going to school or childcare. Parents can fill the screening tool on behalf of their child.

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 Preventive & Promotive Health (cont.)

Evidence on Community Measures

Date	Author/s	Title	Journal/ Article Type	Summary
04 January 2022	Qui et al.	Estimating the Effects of Public Health Measures by SEIR(MH) Model of COVID-19 Epidemic in Local Geographic Areas	*Frontiers in Public Health*	• Comparative modeling of four regions in Europe that have similar population sizes and age structures, but different public health systems, was performed: Baden-Württemberg, Lombardy, Belgium, and Switzerland. • Modeling suggests that the most effective measure for controlling epidemic is early lockdown (exponential effect), followed by the number of available hospital beds (linear effect if the capacity is insufficient, with diminishing returns when the capacity is sufficient). Dynamic management of lockdown levels is likely to produce better outcomes than strict lockdown.