Weekly Evidence Report

Health Technology Assessment Philippines

13 - 17 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 04 to December 10, 2021. The HTA Unit reviewed a total of 14 references for the said period.

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

The following report notes that 1 study had not been peer-reviewed, which is highlighted accordingly.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
14 Dec 2021	WHO Global	Weekly epidemiological update on COVID-19 - 14 December 2021	*WHO Global (Situation Report)*	• Compared to the past week: the weekly incidence of both cases and deaths declined during the past week (6-12 December 2021), with decreases of 5% and 10% respectively • Nearly 269 million confirmed cases and nearly 5.3 million deaths have been reported globally. • African Region reported the largest increase in new cases last week (111%) followed by and the Western Pacific Region • The current global epidemiology: predominance of the Delta variant, declining trend in the proportion of Alpha, Beta and Gamma, and the emergence of Omicron variant; however, regional and country-level variations continue to be observed. • As of 14 December 2021, the Omicron variant has been confirmed in 76 countries
15 Dec 2021	DOH Philippines	DOH CONFIRMS 2 OMICRON CASES AMONG INTERNATIONAL TRAVELERS	*Press Release*	• Two imported cases of the Omicron (B.1.1.529) variant of concern were detected from the 48 samples sequenced yesterday, December 14, 2021. • One is a Returning Overseas Filipino (ROF) who arrived from Japan on December 1, 2021 via Philippine Airlines flight number PR 0427. He is currently asymptomatic but had symptoms of colds and cough upon arrival. • The other case is a Nigerian national who arrived from Nigeria on November 30, 2021. His current status is also asymptomatic.
16 Dec 2021	US Advisory Committee on Immunization Practices	Update on Omicron Variant	*Presentation*	• Likely to be more transmissible than original SARS-CoV-2 • More data are needed to know if Omicron infections cause more severe illness or death than infection with other variants • Vaccines expected to protect against severe illness, hospitalizations, and deaths

Evidence on Vulnerable Population Epidemiology

Date	Author/s	Title	Journal/ Article Type	Summary
16 Dec 2021	Ahirwar et al.	The second wave of COVID-19 results in outbreak of mucormycosis: diabetes and immunological perspective	*Hormone Molecular Biology and Clinical Investigation / Review*	• COVID-19 patients with uncontrolled diabetes mellitus with diabetic ketoacidosis, excessive glucocorticoid use, prolonged neutropenia, malnutrition and any underlying immunocompromised conditions are at risk of developing mucormycosis. • Hyperglycaemia impairs the motility of phagocytes and also decreases the oxidative and non-oxidative mechanism of killing the causative pathogen. Chronic hyperglycemia also leads to the formation of advanced glycation end-products (AGE), which leads to cross-linking between key proteins of inflammation and connective tissue such as collagen which makes tissue susceptible to immunological dysregulation. The receptor for AGE (RAGE) is expressed on various inflammatory cells including neutrophils and its activation by AGEs leads to activation of many down signaling pathways which ultimately leads to impairment of the inflammatory response.
13 Dec 2021	Broberg et al	Psychological well-being and worries among pregnant women in the first trimester during the early phase of the COVID-19 pandemic in Denmark compared with a historical group: A hospital-based cross-sectional study	*Acta Obstet Gynecol Scand/ cross-sectional study*	• Our findings indicate that national restrictions due to the COVID-19 pandemic did not influence the psychological well-being or the content and degree of major worries among pregnant women. However, a larger proportion of women in the COVID-19 group reported major worries concerning Relationship with husband/partner compared with the Historical group and 9.2% in the COVID-19 group worried about the possible negative influence of the COVID-19 restrictions.

Evidence on Transmission

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 Drugs

Date	Author/s	Title	Journal/ Article Type	Summary
14 Dec 2021	Ramacciotti et al.	Rivaroxaban versus no anticoagulation for post-discharge thromboprophylaxis after hospitalisation for COVID-19 (MICHELLE): an open-label, multicentre, randomised, controlled trial	*The Lancet / RCT*	• Patients hospitalised with COVID-19 are at risk for thrombotic events after discharge; the role of extended thromboprophylaxis in this population is unknown • In patients at high risk discharged after hospitalisation due to COVID-19, thromboprophylaxis with rivaroxaban 10 mg/day for 35 days improved clinical outcomes compared with no extended thromboprophylaxis.

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
15 Dec 2021	Dunkle et al	Efficacy and Safety of NVX-CoV2373 in Adults in the United States and Mexico	*The New England Journal of Medicine/ RCT*	• NVX-CoV2373 is an adjuvanted, recombinant spike protein nanoparticle vaccine that was shown to have clinical efficacy for the prevention of coronavirus disease 2019 (Covid-19) in phase 2b–3 trials in the United Kingdom and South Africa, but its efficacy had not yet been tested in North America • Over a period of 3 months, 77 cases of Covid-19 were noted — 14 among vaccine recipients and 63 among placebo recipients (vaccine efficacy, 90.4%; 95% confidence interval [CI], 82.9 to 94.6; P<0.001). • Ten moderate and 4 severe cases occurred, all in placebo recipients, yielding vaccine efficacy against moderate-to-severe disease of 100% (95% CI, 87.0 to 100). • Vaccine efficacy against any variant of concern or interest was 92.6% (95% CI, 83.6 to 96.7). • Reactogenicity was mostly mild to moderate and transient but was more frequent among NVX-CoV2373 recipients than among placebo recipients and was more frequent after the second dose than after the first dose.
15 Dec 2021	Pilishvili et al	Effectiveness of mRNA Covid-19 Vaccine among U.S. Health Care Personnel	*The New England Journal of Medicine/* test-negative case–control study	• Vaccine effectiveness for complete vaccination was 88.8% (95% CI, 84.6 to 91.8) with the BNT162b2 vaccine; and 96.3% (95% CI, 91.3 to 98.4) with the mRNA-1273 vaccine. • Vaccine effectiveness was similar in subgroups defined according to age (<50 years or ≥50 years), race and ethnic group, presence of underlying conditions, and level of patient contact. Estimates of vaccine effectiveness were lower during weeks 9 through 14 than during weeks 3 through 8 after receipt of the second dose, but confidence intervals overlapped widely.

Evidence on Vaccines (cont.)

Date	Author/s	Title	Journal/ Article Type	Summary
16 Dec 2021	Falsey et al.	Phase 3 Safety and Efficacy of AZD1222 (ChAdOx1 nCoV-19) Covid-19 Vaccine	*The New England Journal of Medicine/ RCT*	• A total of 32,451 participants underwent randomization, in a 2:1 ratio, to receive AZD1222 (21,635 participants) or placebo (10,816 participants). • AZD1222 was safe, with low incidences of serious and medically attended adverse events and adverse events of special interest; the incidences were similar to those observed in the placebo group. Solicited local and systemic reactions were generally mild or moderate in both groups. • Overall estimated vaccine efficacy was 74.0% (95% confidence interval [CI], 65.3 to 80.5; P<0.001) and estimated vaccine efficacy was 83.5% (95% CI, 54.2 to 94.1) in participants 65 years of age or older. High vaccine efficacy was consistent across a range of demographic subgroups
16 Dec 2021	WHO	Interim recommendations for heterologous COVID-19 vaccine schedules	*WHO/ Guidelines*	• Homologous schedules are considered standard practice based on substantial safety, immunogenicity, and efficacy data available for each WHO EUL COVID-19 vaccine • WHO supports a flexible approach to homologous versus heterologous vaccination schedules, and considers two heterologous doses of any EUL COVID-19 vaccine to be a complete primary series. Heterologous vaccination should only be implemented with careful consideration of current vaccine supply, vaccine supply projections, and other access considerations, alongside the potential benefits and risks of the specific products being used • Recommendations as to the relative risks and benefits of homologous versus heterologous primary and booster doses will be reviewed as additional data become available. • WHO emphasizes the need for key gaps in the evidence to be addressed.

Evidence on Equipment & Devices

Date	Author/s	Title	Journal/ Article Type	Summary
15 Dec 2021	US FDA	Coronavirus (COVID-19) Update: FDA Authorizes Antigen Test as First Over-the-Counter Fully At-Home Diagnostic Test for COVID-19	*US FDA / Press Release*	• The U.S.FDA issued an EUA for the first over-the-counter (OTC) fully at-home diagnostic test for COVID-19. The *Ellume COVID-19 Home Test* is a rapid, lateral flow antigen test, a type of test that runs a liquid sample along a surface with reactive molecules. The test detects fragments of proteins of the SARS-CoV-2 virus from a nasal swab sample from any individual 2 years of age or older. • Similar to other antigen tests, a small percentage of positive and negative results from this test may be false. Therefore, for patients without symptoms, positive results should be treated as presumptively positive until confirmed by another test as soon as possible. This is especially true if there are fewer infections in a particular community, as false positive results can be more common when antigen tests are used in populations where there is little COVID-19 (low prevalence).

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
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Evidence on Personal Measures

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Evidence on Community Measures

Date	Author/s	Title	Journal/ Article Type	Summary
13 Dec. 2021	Fitzgerald et al.	Lockdown and licensed premises: COVID-19 lessons for alcohol policy	*Drug Alcohol Review / Survey - cross sectional study*	• COVID-19 restrictions (closures, curfews) affected on-trade premises only and licensing stakeholders highlighted the relaxation of some laws (e.g. on takeaway alcohol) and a rise in home drinking as having long-term risks for public health. • Ambulance clinicians described a welcome break from pre-pandemic mass public intoxication and huge reductions in alcohol-related callouts at night-time. They also highlighted potential long-term risks of increased home drinking. • The national lockdown was associated with an absolute fall of 2.14 percentage points [95% confidence interval (CI) -3.54, -0.74; P = 0.003] in alcohol-related callouts as a percentage of total callouts, followed by a daily increase of +0.03% (95% CI 0.010, 0.05; P = 0.004).

Evidence on Other Health Technologies

Date	Author/s	Title	Journal/ Article Type	Summary
13 Dec. 2021	Ortigoza et al.	Efficacy and Safety of COVID-19 Convalescent Plasma in Hospitalized Patients: A Randomized Clinical Trial	*The Lancet / RCT*	• Of 941 participants randomized (473 to placebo and 468 to CCP), 556 were men (59.1%); median age was 63 years (IQR, 52-73); 373 (39.6%) were Hispanic and 132 (14.0%) were non-Hispanic Black. • The cOR for the primary outcome adjusted for site, baseline risk, WHO score, age, sex, and symptom duration was 0.94 (95% credible interval [CrI], 0.75-1.18) with posterior probability (P[cOR<1] = 72%); the cOR for the secondary adjusted outcome was 0.92 (95% CrI, 0.74-1.16; P[cOR<1] = 76%). • In this trial, CCP did not meet the prespecified primary and secondary outcomes for CCP efficacy. However, high-titer CCP may have benefited participants early in the pandemic when remdesivir and corticosteroids were not in use.