# Weekly Evidence Report

Health Technology Assessment Philippines

18 – 24 April 2022

## Overview

The following report presents summaries of evidence the Department of Health (DOH) - Health Technology Assessment (HTA) Unit reviewed for the period of 18 – 24 April 2022. The HTA Unit reviewed a total of 12 studies for the said period.

Evidence includes 3 studies on Epidemiology; 4 studies on Vaccines; 3 studies on Drugs; 1 study on Transmission; 0 studies on Equipment and Devices; 0 study on Medical and Surgical Procedures; 0 studies on Traditional Medicine; 1 study on Preventive & Promotive Health; and 0 studies on Other Health Technologies.

The following report notes that 0 study have not been peer-reviewed.

## 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 |
|---|---|---|---|---|
| 20 Apr 2022 | WHO Global | Weekly epidemiological update on COVID-19 – 20 Apr 2022 | *WHO Global Situation Report* | • Globally, the number of new COVID-19 cases and deaths has continued to decline since the end of March 2022.<br>• The Omicron variant remains the dominant variant circulating globally, accounting for nearly all sequences recently reported to global science initiative and primary source.<br>• After the peak reached in early March 2022, the number of new weekly cases has continued to decline in the Western Pacific Region, with just over two million new weekly cases reported, representing a 28% decrease as compared to the previous week. |
| 20 Apr 2022 | WHO Western Pacific Region | COVID-19 Situation Report | WHO WPRO (External Situation Report) | • In the Western Pacific Region, a total of 1 773 532 cases with 2919 deaths were reported, for a cumulative 52 611 046 cases with 221 545 deaths (proportion of fatal cases (PFC) 0.4%).<br>• In the Philippines, 1517 new cases and 204 new death were reported as of April 20, 2022 . |
| 21 Apr 2022 | European Centre for Disease Prevention and Control (ECDC) | Weekly COVID-19 surveillance report | *Situation Report* | • At the end of week 15, 2022 (week ending 17 April), transmission of COVID-19 remained high in the EU/EEA, with case rates continuing to decrease in all 30 EU/EEA countries. |

## Evidence on Vaccines (*Part 1 of 2*)

**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**
**WHO SAGE Vaccine Recommendations:**
**https://www.who.int/groups/strategic-advisory-group-of-experts-on-immunization**

| Date | Author/s | Title | Journal/ Article Type | Summary |
|---|---|---|---|---|
| 19 Apr 2022 | Magnus et al. | Association of SARS-CoV-2 Vaccination During Pregnancy With Pregnancy Outcomes | *The Journal of the American Medical Association/ Retrospective cohort study* | • Among the 157 521 singleton births included in the study (103 409 in Sweden and 54 112 in Norway), the mean maternal age at the time of delivery was 31 years, and 28 506 (18%) were vaccinated against SARS-CoV-2 (12.9% with BNT162b2, 4.8% with mRNA-1273, and 0.3% with AZD1222) while pregnant. A total of 0.7%, 8.3%, and 9.1% of individuals delivering were vaccinated during the first, second, and third trimester, respectively<br>• In this population-based study conducted in Sweden and Norway, vaccination against SARS-CoV-2 during pregnancy, compared with no SARS-CoV-2 vaccination during pregnancy, was not significantly associated with an increased risk of adverse pregnancy outcomes. |
| 19 Apr 2022 | Davidov et al. | A third dose of the BNT162b2 mRNA vaccine significantly improves immune responses among liver transplant recipients | *Journal of Hepatology/ Single arm cohort* | • The study aimed to evaluate the immune response of liver transplant recipients to a third dose of the BNT162b2 mRNA vaccine.<br>• The humoral immune response rate improved significantly, with 56% of patients showing a response before the third vaccine to 98% after the third vaccine. The geometric mean of anti-RBD IgG levels, NA levels, and T cell count also increased significantly after the third dose.<br>• Neutralizing antibody titers after the third dose negatively correlated with age (p=0.03), mycophenolate mofetil treatment (p=0.005), and combined immunosuppression |
| 21 Apr 2022 | Khan et al. | Evaluation of the Durability of the Immune Humoral Response to COVID-19 Vaccines in Patients With Cancer Undergoing Treatment or Who Received a Stem Cell Transplant | *Journal of Hepatology/ Cross-sectional study* | • The study aimed to evaluate anti-SARS-CoV-2 spike protein receptor binding domain (anti-RBD) and neutralizing antibody (nAb) responses to COVID-19 vaccines longitudinally over 6 months in patients with cancer undergoing treatment or who received a stem cell transplant (SCT).<br>• In this cross-sectional study, after 2 doses of an mRNA vaccine, anti-RBD titers peaked at 1 month and remained stable over the next 6 months. Patients older than 65 years of age, male patients, and patients with a hematologic malignant tumor had low antibody titers. |

**Note.** Studies that have not been peer-reviewed are highlighted in red.

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## Evidence on Vaccines (*Part 2 of 2*)

| Date | Author/s | Title | Journal/ Article Type | Summary |
|---|---|---|---|---|
| 18 Apr 2022 | Burkhardt et al. | Increasing Coronavirus Disease 2019 Vaccine Uptake in Pediatric Primary Care by Offering Vaccine to Household Members | *The Journal of Pediatrics/ Post-intervention evaluation* | • The data demonstrated that universally offering COVID-19 vaccines to household members during routine pediatric primary care office visits is both feasible and a strategy to mitigate vaccine hesitancy and increase vaccination rates. nearly half of our vaccine doses went to eligible household members. |

## Evidence on Drugs *(Part 1 of 2)*

| Date | Author/s | Title | Journal/ Article Type | Summary |
|---|---|---|---|---|
| 21 Apr 2022 | Romeo et al. | The Effect of Colchicine on Mortality, Mechanical Ventilation, and Length of Stay in Patients With COVID-19 Infection: An Updated Systematic Review and Meta-analysis of Randomized Clinical Trials | *American Journal of Therapeutics/ Systematic review and meta-analysis* | • The aim of the review was to conduct an updated systematic review and meta-analysis of RCTs to assess the potential benefits of colchicine in hospitalized COVID-19 patients.<br>• The systematic review include eleven (11) randomized clinical trials evaluating the outcomes of colchicine + usual care versus usual care among hospitalized patients with COVID-`19. Studies that reported all-cause mortality, mechanical ventilation requirement, and/or length of hospital stay were included in the analysis<br>• Among 19,721 patients, the addition of colchicine to standard therapy of COVID-19 infection yielded no clinical benefit regarding mortality, mechanical ventilation, or length of hospital stay. A similar trend was observed in the sensitivity analysis |

## Evidence on Drugs

| Date | Author/s | Title | Journal/ Article Type | Summary |
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| 19 Apr 2022 | Ravichandran et al. | An open label randomized clinical trial of Indomethacin for mild and moderate hospitalised Covid-19 patients | *Nature - Scientific Reports Journal/ Randomized clinical trial* | • This randomised clinical trial in a hospital setting evaluated the efficacy and safety of this drug in RT-PCR-positive coronavirus disease 2019 (COVID-19) patients. A total of 210 RT-PCR-positive COVID-19 patients who provided consent were allotted to the control or case arm, based on block randomisation<br>• *Primary outcome:* Twenty of the 107 patients were desaturated in the paracetamol group, while out of 103 patients none in the indomethacin group was desaturated.<br>• *Secondary outcomes:* The median days for the patients in the indomethacin group to become afebrile was three, while for those in the paracetamol group was seven days. The median days for the resolution of cough and myalgia for the indomethacin group was four days, while it was seven days for the paracetamol group. We did not observe any adverse effects.<br>• Indomethacin use alongside standard treatment protocol in hospitalised covid-19 patients was associated with significant symptomatic relief and improved oxygen saturation level. |
| 19 Apr 2022 | Deng et al. | Differential efficacy and safety of anti-SARS-CoV-2 antibody therapies for the management of COVID-19: a systematic review and network meta-analysis | *Infection Journal/ Systematic review and network meta-analysis* | • Fifty-five RCTs (N = 45,005) were included in the review. Bamlanivimab + etesevimab (OR 0.13, 95% CI 0.02-0.77) was associated with a significant reduction in mortality compared to standard of care/placebo. Casirivimab + imdevimab reduced mortality (OR 0.67, 95% CI 0.50-0.91) in baseline seronegative patients only<br>• Anti-SARS-CoV-2 mAbs are safe, and could be effective in improving mortality and incidence of hospitalization. |

## Evidence on Transmission

| Date | Author/s | Title | Journal/ Article Type | Summary |
|---|---|---|---|---|
| 20 Apr 2022 | Fall et al. | The displacement of the SARS-CoV-2 variant Delta with Omicron: An investigation of hospital admissions and upper respiratory viral loads | *eBioMedicine Journal/ Retrospective cohort* | • Compared to Delta, Omicron was more likely to cause breakthrough infections of vaccinated individuals, yet admissions were less frequent.<br>• The study authors concluded that Omicron evasion of preexisting immunity contributes to lessen the impact of booster vaccination on the recovery of infectious virus, which might contribute to increased transmission, even in individuals who receive booster vaccination. |

## Evidence on Equipment and Devices

| Date | Author/s | Title | Journal/ Article Type | Summary |
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## 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

### Evidence on Screening

| Date | Author/s | Title | Journal/ Article Type | Summary |
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### Evidence on Personal Measures

| Date | Author/s | Title | Journal/ Article Type | Summary |
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| 19 Apr 2022 | Ghasemi et al. | Prognostic and Therapeutic Role of Vitamin D in COVID-19: Systematic Review and Meta-analysis | *The Journal of Clinical Endocrinology & Metabolism/ Systematic review and meta-analysis* | • The review aimed to determine the association between vitamin D deficiency/insufficiency and susceptibility to COVID-19, its severity, mortality, and role of vitamin D in its treatment.<br>• Seventy-two (72) observational studies were included in the meta-analysis (n = 1 976 099). Vitamin D deficiency/insufficiency increased the odds of developing COVID-19 (odds ratio [OR] 1.46; 95% CI, 1.28-1.65; P < 0.0001; I2 = 92%), severe disease (OR 1.90; 95% CI, 1.52-2.38; P < 0.0001; I2 = 81%), and death (OR 2.07; 95% CI, 1.28-3.35; P = 0.003; I2 = 73%).<br>• The association between vitamin D deficiency/insufficiency and death was insignificant when studies with high risk of bias or studies reporting unadjusted effect estimates were excluded.<br>• The review involving nearly 2 million adults suggests vitamin D deficiency/insufficiency increases susceptibility to COVID-19 and severe COVID-19, although with a high risk of bias and heterogeneity |

### Evidence on Community Measures

| Date | Author/s | Title | Journal/ Article Type | Summary |
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## Evidence on Other Health Technologies

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