

Weekly Evidence Report



Health Technology Assessment Philippines

15-21 July 2022

Overview

The following report presents summaries of evidence the Department of Health (DOH) - Health Technology Assessment (HTA) Division reviewed for the period of 15 July – 21 July 2022. The HTA Division reviewed a total of **10** studies for the said period.

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



Sections

Epidemiology

Vaccines

Drugs

Transmission

Equipment & Devices

Medical & Surgical Procedures

Traditional Medicine

Preventive & Promotive Health

Other Health Technologies

Evidence on Epidemiology

Local COVID-19 Case Tracker:

https://doh.gov.ph/2019-nCoV?gclid=CjwKCAjwjtOTBhAvEiwASG4bCOmLzFMQljh8DX_VVSGA-HmO0Pt5_CscykID7xZv4zqIXG5vm9PM2xoC27QQAxD_BwE

Date	Author/s	Title	Journal/ Article Type	Summary
20 July 2022	WHO Global	Weekly epidemiological update on COVID-19 - 25 May 2022	<i>WHO Global Situation Report</i>	<ul style="list-style-type: none"> Globally, during the week of 11 to 17 July 2022, the number of weekly cases plateaued, with just under 6.3 million new cases after an increasing trend for the past five weeks (Figure 1). The reported number of new weekly deaths is increasing with 11 000 fatalities reported. The number of new weekly deaths increased in the South-East Asia Region (+20%), the Eastern Mediterranean Region (+15%) and the Region of the Americas (+7%), while it decreased in the African Region (-39%) and the European Region (-14%). As of 17 July 2022, over 559 million confirmed cases and over 6.3 million deaths have been reported globally. Current trends in reported COVID-19 cases and deaths should be interpreted with caution as several countries have been progressively changing COVID-19 testing strategies, resulting in lower overall numbers of tests performed and consequently lower numbers of cases detected. Additionally, data is continuously updated to incorporate regular changes made by countries retrospectively.

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>

WHO SAGE Vaccine Recommendations:

<https://www.who.int/groups/strategic-advisory-group-of-experts-on-immunization>

Local COVID-19 Vaccine Updates: <https://doh.gov.ph/vaccines>

Date	Author/s	Title	Journal/ Article Type	Summary
20 July 2022	Bianchi, F et al.	COVID-19 vaccination hesitancy in pregnant and breastfeeding women and strategies to increase vaccination compliance: a systematic review and meta-analysis	<i>Expert Review of Vaccines / Systematic review and meta-analysis</i>	<ul style="list-style-type: none"> Available evidence in the literature has shown that fighting vaccine resistance is harsh and too slow as a process, considering the rapidity and unpredictability of a pandemic. Health education should be provided in order to improve the willingness of the community, especially for those with lower levels of education.

Evidence on Vaccines (cont.)

Date	Author/s	Title	Journal/ Article Type	Summary
15 July 2022	Sutton, N et al.	Comparing reactogenicity of COVID-19 vaccines: a systematic review and meta-analysis	Expert Review of Vaccines / Systematic review and meta-analysis	<ul style="list-style-type: none"> Forty-two datasets were identified, with 20 vaccines using four different technologies (viral vector, inactivated, mRNA and protein sub-unit). Adults and adolescents over 12 years were included. Control groups used saline placebos, adjuvants, and comparator vaccines. The most consistently reported solicited adverse events were fever, fatigue, headache, pain at injection site, redness, and swelling. Both doses of mRNA vaccines, the second dose of protein subunit and the first dose of adenovirus vectored vaccines were the most reactogenic, while the inactivated vaccines were the least reactogenic. The different COVID-19 vaccines currently available appear to have distinct reactogenicity profiles, dependent on the vaccine technology employed. Awareness of these differences may allow targeted recommendations for specific populations. Greater standardization of methods for adverse event reporting will aid future research in this field.

Evidence on Drugs

Date	Author/s	Title	Journal/ Article Type	Summary
18 July 2022	Albuquerque, A et al.	Effect of Tocilizumab, Sarilumab, and Baricitinib on Mortality Among Patients Hospitalized for COVID-19 Treated with Corticosteroids: A Systematic Review and Meta-Analysis	Journal of the American Heart Association / Observational Study	<ul style="list-style-type: none"> 27 RCTs with 13549 patients were included. Overall, the risk of bias was low. Bayesian pairwise meta-analyses were used to aggregate results of each treatment vs. control. The average odds ratio for mortality was 0.78 (95% credible interval [CrI]: 0.65, 0.94) for tocilizumab; 0.78 (95% CrI: 0.56, 1.03) for baricitinib; and 0.91 (95% CrI: 0.60, 1.40) for sarilumab. The certainty of evidence (GRADE) ranged from moderate to low. Bayesian meta-regressions with multiple priors were used to estimate probabilities of noninferiority (margin of 13% greater effect by tocilizumab). Compared to tocilizumab, there were up to 94 % and 90 % probabilities of noninferiority with baricitinib and sarilumab, respectively.

Evidence on Drugs (cont.)

Date	Author/s	Title	Journal/ Article Type	Summary
19 July 2022	Chen, C et al.	Clinical efficacy of sofosbuvir/daclatasvir in patients with COVID-19: a systematic review and meta-analysis of randomized trials	<i>Expert Rev Clin Pharmacol. / Systematic review and meta-analysis of randomized trials</i>	<ul style="list-style-type: none"> A total of 9 RCTs were included. The all-cause mortality rate in the study group was 10.7% (96/898), which was lower than that in the control group (12.3%, 108/871). However, this difference was not statistically significant (odds ratio [OR] = 0.83; 95% CI, 0.62-1.12; I² = 49%). The overall clinical recovery rate was significantly higher in the study group than in the control group (OR = 2.34; 95% CI, 1.47-3.72; I² = 20%). Furthermore, the average length of hospital stay was shorter in the study group than in the control group (mean deviation = -1.84; 95% CI, -3.42 to -0.26, I² = 68%). Although SOF-DCV did not confer a survival benefit in patients with COVID-19, it may increase a patient's odds of clinical recovery, and shorten the length of their hospital stay.
17 July 2022	Svedmyr, A et al.	Interactions of the protease inhibitor, ritonavir, with common anesthesia drugs	<i>Pediatric Anaesthesia/ Educational Review</i>	<ul style="list-style-type: none"> The current anesthesia restrictions associated with ritonavir deny children of other drugs with considerable value. It is better that the changes in clearance or bioavailability of these drugs are understood so that rational drug choices can be made to tailor drug to the individual patient. Alteration of drug dose, anticipation of duration of effect, timing of administration, use of reversal drugs (e.g., naloxone, flumazenil, sugammadex), and perioperative monitoring would better behoove children undergoing anesthesia.

Evidence on Equipment and Devices

Date	Author/s	Title	Journal/ Article Type	Summary
18 July 2022	Denford, S et al.	A qualitative process analysis of daily contact testing as an alternative to self-isolation following close contact with a confirmed carrier of SARS-CoV-2	<i>BMC public health/ Randomised controlled trial</i>	<ul style="list-style-type: none"> Data were organised into three overarching themes: (1) assessing the risks and benefits of Daily Contact Testing (DCT) (2) use of testing during the study period and (3) future use of testing. Attitudes toward DCT as an alternative to self-isolation and behaviour during the testing period appeared to be informed by an assessment of the associated risks and benefits. Participants reported how important it was for them to avoid isolation, how necessary self-isolation was considered to be, and the ability of Lateral Flow Test (LFTs) to detect infection. Behaviour during the testing period was modified to reduce risks and harms as much as possible. Testing was considered a potential compromise, reducing both risk of transmission and the negative impact of self-isolation, and was regarded as a way to return to normal. Participants in this study viewed DCT as a sensible, feasible, and welcome means of avoiding unnecessary self-isolation. Although negative LFTs provided reassurance, most people still restricted their activity as recommended. DCT was also highly valued by those in vulnerable households as a means of providing reassurance of the absence of infection and as an important means of detecting infection and prompting self-isolation when necessary.

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
19 July 2022	Lott, A et al.	Mask Use for Athletes: A Systematic Review of Safety and Performance Outcomes	<i>Sports Health: A multidisciplinary Approach/ Systematic Review</i>	<ul style="list-style-type: none"> Twenty-two articles met all inclusion criteria. Study analysis revealed that the use of masks in healthy volunteers during exercise had no significant effect on physiologic parameters measured including heart rate (HR), respiratory rate (RR), oxygen saturation, and perceived exertion. Of the studies that investigated N95 masks in the healthy adult population, 2 reported modest changes in RR and maximum power output indicative of decreased athletic performance when subjects were exercising at maximum effort. Similar findings were seen in studies of subpopulations including children and pregnant women. Available data suggest that healthy individuals can perform moderate-to-vigorous exercise while wearing a face mask without experiencing changes in HR, RR, and oxygen saturation that would compromise individual safety or athletic performance. In the specific situation in which an N95 mask is worn, maximum power generated may be impaired.

Evidence on Community Measures

Date	Author/s	Title	Journal/ Article Type	Summary
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Evidence on Traditional Medicine

Date	Author/s	Title	Journal/ Article Type	Summary
20 July 2022	Ang, L et al.	Herbal medicine for COVID-19: An overview of systematic reviews and meta-analyses	<i>Phyto medicine/ Systematic reviews and meta-analyses</i>	<ul style="list-style-type: none"> A total of 21 SRs on herbal medicine treatments for COVID-19 were included. All SRs were published between May 2020 and September 2021. Thirteen of the SRs included only randomized controlled trials (RCTs), whereas the remaining eight included evidence from nonrandomized trials in addition to RCTs, with a significant overlap identified across the RCTs. Twelve SRs concluded that existing evidence was insufficient to form a definite judgment, nine found that herbal therapy was useful, and none indicated that herbal medicine had no benefit. The AMSTAR 2 tool revealed that the methodological quality of the included SRs was generally low. In this overview of SRs, we reviewed herbal medicine-related evidence from 21 SRs that were published after the outbreak of COVID-19. This study shows that while there is considerable evidence demonstrating the advantages of herbal medicine interventions, the quality of the evidence is inadequate to provide solid and accurate judgments about the effectiveness of herbal medicine therapies for COVID-19. Despite the crisis caused by the pandemic, clinical studies and SRs should comply with established methodological standards.

Evidence on Transmission

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
20 July 2022	Qu, W et al.	Efficacy and Safety of MSC Cell Therapies for Hospitalized Patients with COVID-19: A Systematic Review and Meta-Analysis	<i>Stem Cells Translational Medicine/ Systematic Review and Meta-Analyses</i>	<ul style="list-style-type: none"> Outcome measures included all-cause mortality, serious adverse events (SAEs), AEs, pulmonary function, laboratory, and imaging findings. A total of 736 patients were identified from 34 studies, which included 5 RCTs (n = 235), 7 non-randomized interventional trials (n = 370), and 22 uncontrolled comparative trials (n = 131).

Evidence on Medical and Surgical Procedures (cont.)

Date	Author/s	Title	Journal/ Article Type	Summary
20 July 2022	Qu, W et al.	Efficacy and Safety of MSC Cell Therapies for Hospitalized Patients with COVID-19: A Systematic Review and Meta-Analysis	<i>Stem Cells Translational Medicine/ Systematic Review and Meta-Analysis</i>	Patients aged on average 59.4 years and 32.2% were women. When compared with the control group, MSC cell therapy was associated with a reduction in all-cause mortality (RR = 0.54, 95% CI: 0.35-0.85, I ² = 0.0%), reduction in SAEs (IRR = 0.36, 95% CI: 0.14-0.90, I ² = 0.0%) and no significant difference in AE rate. A sub-group with pulmonary function studies suggested improvement in patients receiving MSC. These findings support the potential for MSC cell therapy to decrease all-cause mortality, reduce SAEs, and improve pulmonary function compared with conventional care. Large-scale double-blinded, well-powered RCTs should be conducted to further explore these results.

Evidence on Other Health Technologies

Date	Author/s	Title	Journal/ Article Type	Summary
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