Weekly Evidence Report

Health Technology Assessment Philippines

30 July - 5 August 2022

Overview

The following report presents summaries of evidence the Department of Health (DOH) - Health Technology Assessment (HTA) Division reviewed for the period of 30 July – 5 August 2022. The HTA Division reviewed a total of 9 studies for the said period.

Evidence includes 1 study on Epidemiology; 2 studies on Vaccines; 1 studies on Drugs; 0 studies on Transmission; 2 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

Evidence on Epidemiology

Local COVID-19 Case Tracker:

https://doh.gov.ph/2019-nCoV?gclid=CjwKCAjwjtOTBhAvEiwASG4bCOmLzFMQIjh8DX_VVSGA-HmO0Pt5_CscykID7xZv4zqlXG5vm9PM2xoC27QQAvD_BwE

Date	Author/s	Title	Journal/ Article Type	Summary
03 August 2022	WHO Global	Weekly epidemiological update on COVID-19 - 3 August 2022	*WHO Global Situation Report*	• Globally, the number of weekly cases decreased by 9% during the week of 25 to 31 July 2022 as compared to the previous week, with over 6.5 million new cases reported. • The number of new weekly deaths remained stable this week as compared to the previous week, with over 14 000 fatalities reported. • As of 31 July 2022, over 574 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 from countries are continuously updated by WHO to incorporate changes in reported COVID-19 cases and deaths 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
5 August, 2022	Anupong et al.	Heterologous vaccination as a strategy to minimize inequity in COVID-19 vaccine access: A modeling study in Thailand	*medRvix/ Modeling Study*	• The researchers found out that the CV+AZ heterologous vaccination strategy outperforms the CV and AZ homologous vaccinations in reducing cumulative cases and deaths when combined with other non-pharmaceutical interventions. Furthermore, the results suggested that prioritizing vaccines for the elderly could be optimal in reducing COVID-19 mortality for a wide range of vaccination rates and transmission dynamics. Conclusions: The modeling results suggested that to minimize inequity in COVID-19 vaccine access in low- and middle-income countries, those countries may use early accessible but maybe lower-efficacy vaccines as the first dose of heterologous vaccination in combination with higher-efficacy vaccines as the second dose.

Evidence on Vaccines *(cont.)*

Date	Author/s	Title	Journal/ Article Type	Summary
06 Aug 2022	Singh et al.	Early Side Effects after Administration of the 1st Dose of Oxford-AstraZeneca Vaccine	*Journal of Prevention / Systematic review and meta-analysis*	• Vaccines have played a central role in minimizing new infections, the rate of hospitalizations, and the overall burden on the health sector. Fear of side effects is the biggest and commonest reason for avoiding getting vaccinated. It is, therefore, essential to maintain the clarity and consistency of message, to support and encourage people to get vaccinated. • Fever (30.19%) was the most commonly experienced side effect, followed closely by fatigue (22.01%). 71.11% of those with fever experienced low grade fever (99-100F) while 62.69% of body aches experienced were moderate in intensity (Grades 4-6). In general, younger people are significantly more likely (p=0.023) to experience side effects (OR -1 = 1.023: interpreted as 1.023 times increase per unit decrease in age). Similarly, they are more likely (p= 0.029) to have a headache (OR -1 =1.039). Also, they are more likely (p= 0.007) to have a body ache (OR -1 =1.038). • The Oxford-AstraZeneca COVID-19 vaccine side-effects seem to be more prevalent among younger age groups, which points to increased vaccine safety among older individuals that are usually more susceptible to severe COVID-19 infection.

Evidence on Drugs

Date	Author/s	Title	Journal/ Article Type	Summary
01 August 2022	Palomares et al.	Drug hypersensitivity, in vitro tools, biomarkers, and burden with COVID-19 vaccines	*Journal of the American Heart Association / Narrative Review*	• Hypersensitivity reactions to drugs are increasing worldwide. They display a large degree of variability in the immunological mechanisms involved, which impacts both disease severity and the optimal diagnostic procedure. Therefore, drug hypersensitivity diagnosis relies on both in vitro and in vivo assessments, although most of the methods are not well standardised. Moreover, several biomarkers can be used as valuable parameters for precision medicine that provide information on the endotypes, diagnosis, prognosis, and prediction of drug hypersensitivity development, as well on the identification of therapeutic targets and treatment efficacy monitoring. • Furthermore, in the last 2 years the SARS-CoV-2 (severe acute respiratory syndrome-coronavirus) pandemic has had an important impact on health system, leading us to update approaches on how to manage hypersensitivity reactions to drugs used for its treatment and on COVID-19 (Coronavirus disease) vaccines used for its prevention.

Evidence on Preventive & Promotive Health

Evidence on Community Measures

Date	Author/s	Title	Journal/ Article Type	Summary
05 August 2022	Santos Faioes, et.al.	Two years of COVID-19 Pandemic: Framework of Health Interventions in a Brazilian City	medRvix/ Systematic Review	• The COVID-19 pandemic and its effects on public health have urgently demanded effective health policies to avoid the spread of COVID-19. Thus, public administrators have implemented non-pharmacological and pharmacological interventions to mitigate the pandemic's impacts and strengthen health services. • The highest peaks of cases and deaths were observed during the third wave with 1,131 cases (week 54) and 47 deaths (week 55) and where the highest occupation of COVID-19 exclusive beds in local hospitals occurred. Interventions from more restrictive to more flexible, were implemented throughout this study, including lockdown and gradual return in economic and social strata levels. • Vaccination began on week 43 and at the end of this study 89.91% of the total population was vaccinated with at least one dose, being 83.22% fully vaccinated. A deep description of several interventions used to avoid COVID-19 spread in a Brazilian city during two years of this pandemic can help promote better decision-making in the future while it exposes the challenges of conducting public health policies in a pandemic scenario.

Evidence on Traditional Medicine

Date	Author/s	Title	Journal/ Article Type	Summary
30 July 2022	Wang et al.	Exploring the role of Xingren on COVID-19 based on network pharmacology and molecular docking	*Journal of Food Biochemistry / Drug Discovery Study*	• Xingren have potential preventive and curative effects against COVID-19. Although there are few common target proteins between the two, Xingren is active in many formulations targeting COVID-19, and it is assumed that it is most likely to be used as a “minister” drug rather than a “ruler” drug, and its efficacy is good, which is of great value for research. In addition, we found that licochalcone B in Xingren binds well to PTGS2, the target protein of COVID-19, and licochalcone B deserves further study and analysis. Finally, this study also provides some theoretical basis and reference for the excavation of the active ingredients of Xingren, licochalcone B to prevent and control COVID-19 and the development of new drugs for COVID-19.

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

Back to Sections page

Evidence on Equipment and Devices

Date	Author/s	Title	Journal/ Article Type	Summary
04 August 2022	Lau et al.	Intra-pulmonary and intracardiac shunts in adult COVID-19 versus non-COVID ARDS ICU patients using echocardiography and contrast bubble studies (COVID-Shunt Study): a prospective, observational cohort study	MedRxiv/ prospective, observational cohort study	• Studies have suggested intra-pulmonary shunts may contribute to hypoxemia in COVID-19 ARDS and may be associated with worse outcomes. Objective: To evaluate the presence of right-to-left (R-L) shunts in COVID-19 and non-COVID ARDS patients using a comprehensive hypoxemia work-up for shunt etiology and associations with mortality. • There was no evidence of increased R-L shunt rates in COVID-19 compared to non-COVID controls. Right-to-left shunt was associated with increased in-hospital mortality for COVID-19 patients, but this did not persist at 90-day mortality or after adjusting using logistic regression.
04 August 2022	Abbasi Kangevari et.al	Optimization of Ventilation Therapy Prioritization Strategies among Patients with COVID-19: Lessons Learned from Real-World Data of nearly 600,000 Hospitalized Patients	MedRxiv/ Longitudinal study	• The benefit of ventilation therapy among various patient groups with COVID-19 admitted to hospitals, based on the real-world data of hospitalized adult patients. Methods Data used in the longitudinal study included 599,340 records of hospitalized patients. • Among participants, 60,113 (10.0%) received ventilation therapy, 85,158 (14.2%) passed away due to COVID-19, and 514,182 (85.8%) recovered. Among all groups with sufficient data for analysis, patients aged 40-64 years who had chronic respiratory diseases (CRD) and malignancy benefitted the most from ventilation therapy; followed by patients aged 65+ years who had malignancy, cardiovascular diseases, and diabetes; and patients aged 18-39 years who had malignancy. Patients aged 65+ who had CRD and cardiovascular disease gained the least benefit from ventilation therapy. • This study promotes a new aspect of treating patients for ventilators: it could be suggested that rather than focusing on the scarcity of ventilators, guidelines focus on decision-making algorithms to also take the usefulness of the intervention into account, whose beneficial effect is dependent on the selection of the right time in the right patient.

Evidence on Preventive & Promotive Health

Evidence on Screening

Date	Author/s	Title	Journal/ Article Type	Summary
05 August, 2022	Soni et al.	Performance of Screening for SARS-CoV-2 using Rapid Antigen Tests to Detect Incidence of Symptomatic and Asymptomatic SARS-CoV-2 Infection: findings from the Test Us at Home prospective cohort study	*MedRXiv/ Prospective cohort study*	• Performance of Rapid Antigen Tests for SARS-CoV-2 (Ag-RDT) varies over the course of an infection, and their performance is not well established among asymptomatic individuals. • SARS-CoV-2 positivity was determined by testing a single home-collected anterior nasal sample with three FDA EUA molecular tests, where 2 out 3 positive test results were needed to determine a SARS-CoV-2 positive result. Onset of infection was defined as day on which the molecular PCR comparator result was positive for the first time. • Performance of Ag-RDT within first week of infection was optimized when asymptomatic participants tested three-times at 48-hour intervals and when symptomatic participants tested two-times separated by 48-hours.

Evidence on Transmission

Date	Author/s	Title	Journal/ Article Type	Summary
–	–	–	–	–

Evidence on Medical and Surgical Procedures

Date	Author/s	Title	Journal/ Article Type	Summary
–	–	–	–	• –

Evidence on Other Health Technologies

Date	Author/s	Title	Journal/ Article Type	Summary
–	–	–	–	–