Weekly Evidence Report

Health Technology Assessment Philippines

09 October - 15 October 2021

Overview

The following report presents summaries of evidence the Department of Health (DOH) - Health Technology Assessment (HTA) Unit reviewed for the period of October 9 - October 15, 2021. The HTA Unit reviewed a total of 10 studies for the said period.

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

The following report notes that 0 studies have not been peer-reviewed, each highlighted accordingly.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
11 Oct 2021	Misra et al.	Frequency of Neurologic Manifestations in COVID-19: A Systematic Review and Meta-analysis	*Systematic Review and Meta-Analysis - American Academy of Neurology*	• The study aimed to summarize the frequency of **neurological manifestations** reported in COVID-19 patients and investigate the association of these manifestation with **disease severity and mortality**. • **89%** of the 145,721 COVID-19 patients were hospitalized. **41** neurological manifestations (24 symptoms and 17 diagnoses) were identified. • Pooled prevalence of the most common neurological symptoms included: fatigue (32%), myalgia (20%), taste impairment (21%), smell impairment (19%) and headache (13%). • **Stroke** was the most common neurological diagnosis (pooled prevalence- **2%**) • Up to one-third of COVID-19 patients analysed in this review experienced at least one neurological manifestation. One in 50 patients experienced stroke. In those over 60, more than one-third had acute confusion/delirium; **the presence of neurological manifestations in this group was associated with near doubling of mortality**. Results must be interpreted keeping in view the limitations of observational studies and associated bias
13 Oct 2021	WHO Global	Weekly epidemiological update on COVID-19 - 13 October 2021	*WHO Global (Situation Report)*	• Over 2.8 million new cases and over 46 000 new deaths were reported during the week of 4 to 10 October 2021, representing a 7% and 10% decrease respectively, as compared to the previous week. • Apart from the European Region, which reported a 7% increase in new weekly cases, **all the other regions reported a decline** • The largest decrease in new weekly cases was reported from the African Region (32%), followed by the **Western Pacific Region (26%)** • The cumulative number of confirmed cases reported globally is now over **237 million** and the cumulative number of deaths is over **4.8 million**. • The number of new weekly deaths reported, showed a **large (>10%) decline for all regions** except for the European Region, which reported an increase of 11% as compared to the previous week. • The largest decline in weekly deaths was reported from the **Western Pacific** and the African Regions, with both showing a **34% decline** as compared to the previous week.

Evidence on Epidemiology (cont.)

Date	Author/s	Title	Journal/ Article Type	Summary
13 Oct 2021	Howard-Jones et al.	COVID-19 in children: I. Epidemiology, prevention and indirect impacts	*Review Article - Journal of Paediatrics and Child Health*	• This review explores the direct and indirect public health impacts of COVID-19 on children. Transmission dynamics, vaccination strategies and, importantly, the 'shadow pandemic', encompassing underappreciated indirect impacts of the pandemic on children, are discussed. • COVID-19 is **mild in the great majority of children** • The Delta variant of SARS-CoV-2 poses new challenges given its greater transmissibility, although evidence continues to suggest that **children are less likely to transmit SARS-CoV-2 than adults** and that **schools are not amplifiers of SARS-CoV-2 transmission**. • The indirect impacts of the COVID-19 pandemic and public health responses on children have been **considerable**

Evidence on Transmission

Date	Author/s	Title	Journal/ Article Type	Summary
09 Oct 2021	Cherrie et al.	Contamination of Air and Surfaces in Workplaces with SARS-CoV-2 Virus: A Systematic Review	*Systematic Review - Annals of Work Exposure and Health*	• The systematic review aimed to evaluate the evidence for **air and surface contamination of workplace environments with SARS-CoV-2 RNA** and the quality of the methods used to identify actions necessary to improve the quality of the data. • The vast majority of data come from healthcare settings, with typically around **6%** of samples having detectable concentrations of SARS-CoV-2 RNA. • Overall, the quality of the measurements was **poor**. • Imputing the geometric mean air concentration assuming the limit of detection was the lowest reported value, suggests typical concentrations in healthcare settings may be around **0.01** SARS-CoV-2 virus RNA copies m−3.

Evidence on Transmission (cont.)

Date	Author/s	Title	Journal/ Article Type	Summary
11 Oct 2021	Rosca et. al	Transmission of SARS-CoV-2 associated with aircraft travel: a systematic review	*Systematic Review - Journal of Travel Medicine*	• The objective of the study was to provide a **rapid summary and evaluation** of relevant data on SARS-CoV-2 transmission aboard aircraft, report policy implications and to **highlight research gaps** requiring urgent attention. • The quality of evidence from most published studies was **low**. • Two wastewater studies reported PCR-positive samples with **high cycle threshold values (33-39)**. • The proportion of contacts traced ranged from **0.68 to 100%**. • **273 index cases** were reported, with 64 secondary cases. • Secondary attack rate among studies following up **>80%** of passengers and crew (including data on 10 flights) varied between **0 and 8.2%**. • The studies reported on the possibility of SARS-CoV-2 transmission from **asymptomatic, pre-symptomatic and symptomatic** individuals. • Current evidence suggests **SARS-CoV-2 can be transmitted during aircraft travel**, but published data do not permit any conclusive assessment of likelihood and extent.

Evidence on Drugs

Date	Author/s	Title	Journal/ Article Type	Summary
10 Oct 2021	Leach et al.	Pharmacotherapy for hypertension- induced left ventricular hypertrophy	*Cochrane Systematic Review*	• The objective of the systematic review was to **assess the effect of antihypertensive pharmacotherapy compared to placebo** or no treatment on **morbidity and mortality of adults with hypertension-induced LVH**. • Their selection criteria involved **Randomised controlled trials (RCTs)** with at least 12 months' follow-up comparing antihypertensive pharmacological therapy (monotherapy or in combination) with placebo or no treatment in adults (18 years of age or older) with hypertension-induced LVH. • It was concluded that the **evidence is very uncertain** regarding the effect of additional antihypertensive pharmacological therapy compared to placebo or no treatment on mortality.

Evidence on Drugs (cont.)

Date	Author/s	Title	Journal/ Article Type	Summary
11 Oct 2021	Ferrerto et al.	Dexamethasone for treating SARS-CoV-2 infection: a systematic review and meta-analysis	*Systematic Review and Meta-analysis - Sao Paolo Medical Journal*	• To study aimed to compile results from randomized clinical trials on the **effect of dexamethasone, compared with standard treatment** for management of SARS-CoV-2. • Treatment with dexamethasone **significantly reduced mortality** within 28 days (risk ratio, RR: 0.89; 95% confidence interval, CI: 0.82-0.97). Dexamethasone use was linked with being discharged alive within 28 days (odds ratio, OR: 1.20; 95% CI: 1.07-1.33). • The study suggests that dexamethasone may **significantly improve the outcome among hospitalized patients** with SARS-CoV-2 infection and associated severe respiratory complications. Further studies need to consider both dose-dependent administration and outcomes in early and later stages of the disease.

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

Date	Author/s	Title	Journal/ Article Type	Summary
11 Oct 2021	Falsaperla et al.	COVID-19 vaccination in pregnant and lactating women: a systematic review	*Systematic Review - Expert Review of Vaccines 2021*	• The systematic review aimed to understand if COVID-19 mRNA-based vaccines have raised any health issue both on **fetus during pregnancy** and on **infant during lactation**. Moreover, one of the main purposes is to understand whether the **efficacy occurred in the mother** may be demonstrated in the **child at birthtime**. • mRNA vaccines **do not seem to be linked to any adverse outcomes** in newborns, even if this represents an issue that has to be definitely proven in the trials in progress • According to the reported articles, **vertical-transmitted immunity is demonstrated**, and it seems that the sooner vaccination is performed more efficient it is.

Evidence on Vaccines (cont.)

Date	Author/s	Title	Journal/ Article Type	Summary
15 Oct 2021	Salah and Mehta	COVID-19 Vaccine and Myocarditis	*Systematic Review - The American Journal of Cardiology*	• The review aimed to pool the available data to better understand the **characteristics and outcomes** of the COVID-19 vaccine-related **myocarditis**. • 8 studies were included with a total of 15 patients. Two of the included studies were case series, whereas the rest were case reports. • Fourteen of 15 (93%) of the patients were males. The age range was 17 to 52 years with a mean age of 28 years. • **60%** of the myocarditis related COVID-19 vaccine cases were associated with the Pfizer-BioNTech vaccine, **33%** were associated with the Moderna vaccine, and **7%** were associated with the Johnson & Johnson vaccine. • **All** the myocarditis related to the Moderna vaccine (5/5) occurred following the **second dose** of the vaccine, whereas **6/9 (66.7%)** of the myocarditis related to the Pfizer-BioNTech vaccine occurred following the **second dose** of the vaccine.

Evidence on Equipment & Devices

Date	Author/s	Title	Journal/ Article Type	Summary
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Evidence on Medical & Surgical Procedures

Medical Procedure (Diagnostic)

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
11 Oct 2021	Peters et al.	Decontaminating N95/FFP2 masks for reuse during the COVID-19 epidemic: a systematic review	*Systematic Review - Antimicrobial Resistance and Infection Control*	• Of 938 retrieved studies, **35** studies were included in the analysis with **70** individual tests conducted. 17 methods of decontamination were found, included the use of liquids (detergent, benzalkonium chloride, hypochlorite, or ethanol), gases (hydrogen peroxide, ozone, peracetic acid or ethylene oxide), heat (either moist with or without pressure or dry heat), or ultra violet radiation (UVA and UVGI); either alone or in combination. • A number of methods can be used for N95/FFP2 mask reprocessing in case of shortage, helping to keep healthcare workers and patients safe. • The selection of disinfection or sterilization methods must take into account **local availability and turnover capacity** as well as the **manufacturer**; meaning that some methods work better on specific models from specific manufacturers.