

Weekly Evidence Report



Health Technology Assessment Philippines

31 October- 6 November 2020

Overview

The following report presents summaries of evidence the Department of Health (DOH) - Health Technology Assessment (HTA) Unit reviewed for the period of 31 October to 6 November 2020. The HTA Unit reviewed a total of 13 studies for the said period.

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

The following report notes that 3 studies have not been peer-reviewed, each highlighted accordingly.



Sections

Epidemiology

Transmission

Drugs

Vaccines

Equipment & Devices

Medical & Surgical Procedures

Traditional Medicine

Preventive & Promotive Health

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
4 Nov 2020	ASEAN Biodiaspora Virtual Center	Risk Assessment for International Dissemination of COVID-19 to the ASEAN Region	ASEAN Biodiaspora Virtual Center (Risk Assessment Report)	<ul style="list-style-type: none"> Globally there have been 47.7 million cases with 1.21 million deaths related to COVID-19 The USA currently has the highest percentage of cases 959,225 cases are noted in the ASEAN region with 23,159 deaths
3 Nov 2020	WHO	COVID-19 Weekly Epidemiological Update	WHO (Weekly Epidemiology Report)	<ul style="list-style-type: none"> Half of the world's new COVID-19 cases are from EU countries with a 46% increase in deaths compared to the previous week A significant increase in number of cases are noted among the adolescent and young adults and slight increase for aged 0-4 years and 5-14 years old A decrease and stabilization of cases noted in aged 65 and older from 40% to 15% in recent weeks

Evidence on Transmission

Date	Author/s	Title	Journal/ Article Type	Summary
4 Nov 2020	Qifang et.al.	Household Transmission of SARS-CoV-2: Insights from a Population-based Serological Survey	MedRxiv (Serosurvey)	<ul style="list-style-type: none"> 4,524 household members from 2,267 households aged five years onward were included in a serosurvey conducted April to June 2020 There is a 17.2% (95% CI, 13.6%-21.5%) chance of being infected by a single SARS-CoV-2 infected household member versus 5.1% (95% CI 4.5%-5.8%) from the cumulative extra-household infection risk. There is an increase in infection risk as a person ages from 7.5% (95% CI, 1.3-20.3%) among those aged 5-9 years old to 30.2% (95% CI 14.3%-48.2%) among those of 65 years old and older.

Date	Author/s	Title	Journal/ Article Type	Summary
2 Nov 2020	Huoang, Tung	Systematic review and meta-analysis of factors associated with re-positive viral RNA after recovery from COVID-19	Journal of Medical Virology (Systematic Review & Meta-Analysis)	<ul style="list-style-type: none"> Odds ratio estimates were pooled in the study using random-effect meta-analysis or weighted mean difference (WMD) Hospital duration were shorter for recurrence cases with -1.55 days WMD (95% CI, -2.66 to -0.45). Fatigue (OR 4.06, 95% CI, 1.14-14.4), positive IgM (2.95 OR, 95% CI 1.15-7.61), and positive IgG (3.45 OR, 95% CI 1.58-7.54) were found to be associated with increased risk of recurrence Cases with elevated lactate dehydrogenase (1.08 OR, 95% CI, 0.27-4.37), Elevated C-reactive protein (0.49 OR, 95% CI, 0.27-0.97), Low lymphocyte count (0.64 OR, 95% CI, 0.42-0.97), Steroid use (0.48 OR, 95% CI, 0.25-0.96), and Arbidol use (0.48 OR, 95% CI, 0.25-0.92) had significantly lower cases of recurrence

Evidence on Drugs

Date	Author/s	Title	Journal/ Article Type	Summary
4 Nov 2020	Hunter, et.al.	Benefits and risks of zinc for adults during covid-19:rapid systematic review and meta-analysis of randomised controlled trials	MedRxiv (Systematic Review & Meta-analysis)	<ul style="list-style-type: none"> 17 english and Chinese databases were used for this living systematic review and meta-analysis of randomized controlled trials. From 123 RCTs, it was seen that compared to placebo, zinc prevented mild to moderate respiratory tract infection at a rate of 5% (95% CI, 1-9) with a number needed to treat of 20

Date	Author/s	Title	Journal/ Article Type	Summary
14 May 2020 Update Published 4 Nov 2020	CADTH	Remdesivir: Evidence Review and Appraisal	CADTH Evidence Review	<ul style="list-style-type: none"> • Update of including the outcomes of the ACTT-1 Study • Remdesivir group median time to recovery was 10 days (95% CI, 9%-11%) compared to 15 days (95%CI 13%-18%) for the placebo group • Higher odds of clinical status improvement was noted with the Remdesivir group seen at day 15 (Odds ratio for improvement= 1.5 [95% CI 1.2 to 1.9],adjusted for disease severity) • Mortality was noted at 6.7% (95% CI, 4.8%-9.2%) for Remdesivir patients compared to the placebo group with 11.9% (95% CI, 0.36-0.83) • All-cause mortality for the Remdesivir group was at 11.4% (95% CI 9.0%-14.5%) versus 15.2% (95% CI, 12.3%-18.6%) for the placebo group
4 Nov 2020	Goldman, et.al.	Remdesivir for 5 or 10 Days in Patients with Severe Covid-19	NEJM (Randomized, open-label Phase 3 trial)	<ul style="list-style-type: none"> • The study was done on hospitalized confirmed SARS-CoV-2 infection with oxygen saturation of 94% or less in ambient air • All patients received 200mg of Remdesivir on day 1 and 100mg once daily on succeeding days • The median duration of treatment was 5 days in the 5-day group and 9 days in the 10-day group. • A clinical improvement of 2 points from the 7-point ordinal scale was noted on day 14

Evidence on Vaccines

Date	Author/s	Title	Journal/ Article Type	Summary
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Evidence on Equipment & Devices

Date	Author/s	Title	Journal/ Article Type	Summary
4 Nov 2020	Javor, et.al.	Deep learning analysis provides accurate COVID-19 diagnosis on chest computed tomography	European Journal of Radiology	<ul style="list-style-type: none"> • An open source dataset was used with a novel deep learning derived machine learning classifier to analyze its capacity to diagnose COVID-19 using chest CT images. • Receiver Operating Characteristics analysis was used in the study • An overall accuracy of 0.956 (AUC) on an independent testing dataset (90 patients) with a rule in sensitivity of 84.4% and specificity of 93.3% (p>0.05) and a rule-out sensitivity of 100% and specificity of 60% (p<0.05)
4 Nov 2020	Wang, et.al.	A Novel Primer Probe Set for Detection of SARS-CoV-2 by Sensitive Droplet Digital PCR	MedRxiv (Experimental Study)	<ul style="list-style-type: none"> • A novel probe was designed to target the N gene and showed that at a quantity of 105 copies/reaction, the mean Ct value was 32.563 with a 91.7% detection rate. • The lower limit of detection used in an RT-PCR was 118 copies/reaction. • When used with a ddPCR, the lower limit of detection was calculated at 22.4 copies/reaction or 1.12 copies/microliter • The novel primer-probe (LZU3) can be used with rRT-PCR and ddPCR with better sensitivity for ddPCR method

Evidence on Medical & Surgical Procedures

Date	Author/s	Title	Journal/ Article Type	Summary
2 Nov 2020	Park et.al.	Association of active oncologic treatment and risk of death in cancer patients with COVID-19: a systematic review and meta-analysis of patient data	Acta Oncologica (Systematic Review & Meta Analysis)	<ul style="list-style-type: none"> 16 retrospective and prospective studies including a total of 3,558 patients were included in the review. Higher risk of death was found to be associated to active chemotherapy (OR 1.60, 95% CI, 1.14-2.23) versus no active chemotherapy Active targeted therapy, immunotherapy, chemoimmunotherapy, or recent surgery had no significant association with the risk of death Meta-analysis of multivariate adjusted OR still noted active chemotherapy to have higher association with risk of death (OR 1.42, 95% CI, 1.01-2.01)
2 Nov 2020	Zhang, et.al.	Clinical Characteristics and Outcomes of COVID-19-Infected Cancer Patients: A Systematic Review and Meta-Analysis	Journal of the National Cancer Institute (Systematic Review & Meta-Analysis)	<ul style="list-style-type: none"> 15 studies included with 3,019 patients in total were reviewed noting an overall case fatality of COVID-19 patients with cancer at 22.4% (95% CI, 17.3%-28.0%) Age (3.57 OR, 95% CI 1.80-7.06), the male sex (2.10 OR, 95% CI 1.07-4.130, and presence of comorbidities (2.00 OR, 95% CI 1.04-3.85) were associated with higher risk of severe events.

Evidence on Traditional Medicine

Date	Author/s	Title	Journal/ Article Type	Summary
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Evidence on Preventive & Promotive Health

Date	Author/s	Title	Journal/ Article Type	Summary
4 Nov 2020	HIQA	Rapid review of recommendations from international guidance on the duration of restriction of movements	HIQA (Rapid Review)	<ul style="list-style-type: none"> • The rapid review of international recommendations from WHO, ECDC, CDC, European Commission and 22 countries was conducted up to a search date of 14 October 2020 • 7, 10, Or 14 day restriction of movement for close contact to COVID-19 patients are found depending on jurisdiction • 7, 10, Or 14 day restriction of movement was found as well for travellers depending on epidemiological risk of the origin country • Terminology used for movement restriction was found to be confused with self-isolation • The review defines self-isolation as confining a confirmed COVID-19 patient from transmission of disease through isolation
4 Nov 2020	HSE Library Evidence Team	What is the current evidence for the effectiveness of using a visor rather than a surgical face mask in preventing the transmission of COVID-19 in a healthcare setting?	HSE Library (Summary of Evidence)	<ul style="list-style-type: none"> • Face coverings are better than visors or face shields but if face coverings are not tolerated, visors or face shields may be used as an alternative • Surgical masks are still only recommended to be used by healthcare providers • Face coverings, visors, or face shields should not be used in place of isolation