COVID-19 Critical Intelligence Unit

Evidence digest

25 November 2022

The evidence digest collates recently released reports and evidence – provision of these links does not imply endorsement nor recommendation.

Diabetes risk after COVID-19, angiotensin receptor blockers for COVID-19 treatment, bivalent vaccines

Peer reviewed journals featured:

- A systematic review on risk for newly diagnosed diabetes after COVID-19 here
- A randomised controlled trial of angiotensin receptor blockers for COVID-19 treatment here
- A narrative review on a 'VaxTax' model for a global vaccine pandemic response here
- Observational studies on:
 - o Bivalent mRNA vaccines in preventing symptomatic SARS-CoV-2 infection here
 - o Paxlovid associated with decreased hospitalisation rate in US COVID-19 adults here
 - Herpes zoster risk among recipients of COVID-19 vaccine here
 - Wild-type COVID-19 vaccine cross-neutralisation of BA.4/5/2.75 subvariants in BA.2 breakthrough infections <u>here</u>
 - o Four vaccine doses or hybrid immunity in patients on immunosuppressive therapies here
 - o In-hospital and 6-month outcomes in COVID-19 patients supported with ECMO here
 - Safety of the fourth Comirnaty (Pfizer) vaccine <u>here</u> and associated commentary <u>here</u>
 - o Vaccine effectiveness against reinfection during Alpha, Delta, or Omicron waves here
 - Effectiveness of sotrovimab and molnupiravir for preventing severe COVID-19 here
 - o Meta-summaries for awareness and understanding of COVID-19 vaccine safety here
 - o Vitamin D status and severity of COVID-19 here
 - Thrombosis and thrombocytopenia after COVID-19 vaccination in the UK here
- Commentary on:
 - o COVID-19 waves in Canada here
 - Understanding and neutralising COVID-19 misinformation and disinformation here
 - Surveillance of COVID-19 effects and future emerging infections in pregnancy here

Letters and correspondence discussed:

- Vaccination status among parents of hospitalised children during Delta and Omicron waves here
- COVID-19 and excess all-cause mortality in the US and 20 comparison countries here
- Omicron sublineage BQ.1.1 resistance to monoclonal antibodies here
- Mucosal IgA against Omicron infection <u>here</u>
- Neutralisation of Omicron subvariant BA.2.75 after bivalent vaccination here



Pre-peer review articles featured:

- Incidence, characteristics, risk factors, and outcomes of diabetic ketoacidosis in COVID-19 patients without prior insulin dependence and compared with influenza here
- Improved neutralisation of Omicron BA.4/5, BA.4.6, BA.2.75.2, BQ.1.1, and XBB.1 with bivalent BA.4/5 vaccine here
- Characterising post-COVID syndrome in outpatient and inpatient setting in Sweden <u>here</u>
- Viral and symptom rebound differences between paxlovid and untreated COVID-19 people here
- Resistance of Omicron subvariants BA.2.75.2, BA.4.6 and BQ.1.1 to neutralising antibodies here
- Efficacy of the wild-type/Omicron BA.1 bivalent vaccine as the second booster dose against Omicron BA.2 and BA.5 here
- Factors associated with relief of long COVID symptoms at 12-months here
- Al based simulation for predicting future high-risk SARS-CoV-2 variants here
- Neutralising antibodies to Omicron after fourth vaccine dose in immunocompromised patients <u>here</u>
- Changes in US population immunity against infection and severe disease from Omicron here
- Circulating monocytes and monocyte activation in pulmonary long COVID here
- Comparative aerosol and surface stability of SARS-CoV-2 variants of concern here

Guidance and reports

- The World Health Organization published its weekly epidemiological report on COVID-19 here
- The National Clinical Evidence Taskforce released updated recommendations and flowcharts here
- The BMJ updated its best practice guides on COVID-19 here

News and blogs

- How immune-evasive Omicron offspring and a lack of mitigation measures could shape a COVID-19 winter wave in the US here
- "Grotesque inequity" that only a quarter of paxlovid courses go to poorer countries here
- UK tracking of COVID-19 here

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Living Evidence Tables

Living Evidence tables are up-to-date summaries of emerging evidence. Tables are available on SARS-CoV-2 <u>vaccines</u>, and <u>variants</u> of concern, and <u>post-acute sequelae of COVID-19 (long COVID)</u>.



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