COVID-19 Critical Intelligence Unit

Evidence digest

17 February 2023

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

Long-term effectiveness of COVID-19 vaccines, bradycardia after remdesivir, COVID-19 knowledge gaps and research priorities

Peer reviewed journals featured:

- A systematic review on long-term effectiveness of COVID-19 vaccines in adults <u>here</u>
- Observational studies on:
 - o Pulmonary recovery from COVID-19 in patients with metabolic diseases here
 - SARS-CoV-2 variants in Beijing during 2022 <u>here</u> and commentary <u>here</u>
 - o Resistance of Omicron BA.2.75.2, BA.4.6, and BQ.1.1 to neutralising antibodies here
 - Maternal mRNA vaccination during pregnancy and Delta or Omicron infection or hospital admission in infants <u>here</u> and associated editorial <u>here</u>
 - Comirnaty (Pfizer) vaccine in children younger than 5 years of age here
 - Association between vitamin D3 and thiols status and COVID-19 outcomes <u>here</u>
 - Real-world use of nirmatrelvir-ritonavir against Omicron variants including BA.4 and BA.5 in Colorado here associated commentary here
 - Viral burden rebound in hospitalised COVID-19 patients on oral antivirals <u>here</u> and <u>here</u>
 - Incidence, risk, and severity of paediatric SARS-CoV-2 reinfections in Serbia here
 - o Identification of bradycardia following remdesivir administration here
 - Symptoms, disability, and financial trajectories in COVID-19 inpatients at 6 months here
 - Patient safety and hospital visiting at the end of life during COVID-19 restrictions <u>here</u>
 - 'Test to treat' care delivery model in Los Angeles here
 - COVID-19 incidence and mortality in 12-year-olds by time since vaccination here
- Commentary on:
 - o Coronavirus knowledge gaps and research priorities here
 - Maintaining health care innovations after the pandemic <u>here</u>
 - Mitigating the return of acute respiratory virus infections <u>here</u>

Letters and correspondence discussed:

- COVID-19 vaccination and risk of incident diabetes after COVID-19 infection here
- Antiviral and bivalent vaccine efficacy against an Omicron XBB.1.5 isolate here
- Substantial neutralisation escape by Omicron variants BQ.1.1 and XBB.1 here
- Protection against reinfection with the Omicron BA.2.75 subvariant here
- Immunologic effect of bivalent mRNA booster in patients undergoing haemodialysis here



Pre-peer review articles featured:

- SARS-CoV-2 neutralising antibodies after bivalent vs monovalent booster here
- Long COVID in US elderly patients <u>here</u>
- Long COVID and T cell dysregulation, inflammation, and adaptive immune responses here
- Real-world effectiveness of molnupiravir and nirmatrelvir/ritonavir among highly vaccinated patients at high risk for severe disease here
- Estimating serum cross-neutralising responses to Omicron sub-lineages elicited by pre-Omicron or Omicron breakthrough infection here
- The long COVID evidence gap in the UK population here
- Impacts of COVID-19 physical distancing measures on vulnerable population groups here
- Comparison of two COVID-19 mortality measures used in the pandemic response in England here
- COVID-19-related mortality risk among people with disabilities here
- COVID-19 resurgence and intervention, vaccination, mutation, and ethnic conditions <u>here</u>
- Effects on mortality of shielding clinically extremely vulnerable patients in Liverpool, UK here
- Factors associated with non-invasive positive pressure ventilation (NIPPV) failure in a COVID-19 intermediate care unit here

Guidance and reports

- The World Health Organization published its weekly COVID-19 epidemiological report here
- The UK Health Security Agency published an update on SARS-CoV-2 variants of concern and variants under investigation here

News and blogs

- WHO abandons plans for crucial second phase of COVID-origins investigation here
- WHO treaty hopes to overcome "catastrophic failures" of pandemic response here
- Australia's future policies after "profound impact" of latest wave 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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