COVID-19 Critical Intelligence Unit

Evidence digest

3 February 2023

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

mRNA vaccines in children aged 5-11 years, pregnancy outcomes, changes in COVID-19 symptoms

Peer reviewed journals featured:

- Systematic reviews on:
 - o mRNA vaccines in children aged 5 to 11 years here and associated editorial here
 - Protective effectiveness of previous SARS-CoV-2 infection and hybrid immunity against Omicron and severe disease <u>here</u> and associated commentary <u>here</u>
 - o Comparing preprints of COVID-19 clinical trials and corresponding journal articles here
- Randomised trials of:
 - Molnupiravir as early treatment for adults with COVID-19 at increased risk of adverse outcomes (PANORAMIC) <u>here</u>
 - o VV116 vs nirmatrelvir-ritonavir for COVID-19 oral treatment here
 - Antimicrobial audit and feedback in hospitalised COVID-19 patients here and here
- Observational studies on:
 - o Pregnancy outcomes and vaccine effectiveness during Omicron outbreak here
 - o SARS-CoV-2 variant-related abnormalities detected by prenatal MRI here
 - Australian general practices adaptation to COVID-19 <u>here</u>
 - COVID-19 vaccination in cancer patients treated with immunotherapy here
 - o Global investments in pandemic preparedness and COVID-19 here and here
 - o Maternal, foetal, & newborn outcomes in women with SARS-CoV-2 infection here
 - o Bivalent mRNA booster dose effectiveness in immunocompetent US adults here
 - o COVID-19 as the underlying cause of death in children and young people in the US here
 - Natural course of health and well-being in non-hospitalised children and young people after testing for SARS-CoV-2 <u>here</u> and <u>here</u>
 - Omicron reinfection risk factors in previously infected frontline workers in the US here
- SARS-CoV-2 incubation period during the Omicron BA.5–dominant period in Japan <u>here</u> Commentary on:
 - How COVID-19 symptoms are changing <u>here</u>
 - \circ Facing the new COVID-19 reality <u>here</u>
 - The adaptive immune response to COVID-19 here
 - Global pandemic preparedness and response here
 - o Postural orthostatic tachycardia syndrome, COVID-19 vaccination & infection here



Health

Letters and correspondence discussed:

- Coenzyme Q10 therapy in patients with post COVID-19 condition here and authors' reply here
- Hybrid immunity and bivalent booster vaccination vs Omicron here and here
- Neutralisation of BA.4-5, BA.4.6, BA.2.75.2, BQ.1.1, & XBB.1 with bivalent vaccine <u>here</u> and <u>here</u>

Pre-peer review articles featured:

- Long-term respiratory mucosal immune memory to SARS-CoV-2 after infection and COVID-19 vaccination <u>here</u>
- Effects of intrauterine exposure to SARS-CoV-2 on infants' development here
- Baby and maternal outcomes after SARS-CoV-2 infection and COVID-19 vaccination during pregnancy <u>here</u>

Guidance and reports

- The World Health Organization published its weekly epidemiological report on COVID-19 here
- The CDC published information on SARS-CoV-2 infection prevention and treatment for immunocompromised people in current circulation of Omicron sublineages in the US <u>here</u>
- The National Clinical Evidence Taskforce COVID-19 released updated recommendations and flowcharts <u>here</u>
- The Therapeutic Goods Administration (TGA) issued provisional approval to Pfizer's COVID-19 bivalent (COMIRNATY Original/Omicron BA.4-5 COVID-19 vaccine) booster dose vaccine here

News and blogs

- The US life expectancy in 2021 was at its lowest level since 1996 here
- Sex-specific effect of COVID-19 on the immune system here
- Vaccination plus infection offers best protection here
- What do we know about XBB.1.5 and should we be worried? here
- The next worrisome coronavirus variant could come from China here
- Should COVID-19 vaccines be given yearly? <u>here</u>
- Portable device rapidly detects SARS-CoV-2 antigen here
- The National Institutes of Health pilots telehealth program for COVID-19 here
- Patients with mild COVID-19 at risk of some post-COVID-19 condition symptoms here
- The US Joint Committee Vaccination Immunisation (JCVI) recommends autumn vaccine booster for the most vulnerable <u>here</u>
- Annual flu-like booster approach may not be appropriate 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 vaccines, variants of concern, and post-acute sequelae of COVID-19 (long COVID).



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