COVID-19 weekly update

10th December2021

clinical management

**Title:** EMA recommends approval for use of RoActemra in adults with severe COVID-19

European Medicines Agency | 6th December 2021

EMA’s human medicines committee (CHMP) has recommended extending the indication of RoActemra (tocilizumab) to include the treatment of adults with COVID-19 who are receiving systemic treatment with corticosteroids and require supplemental oxygen or mechanical ventilation.

In reaching its conclusion, the CHMP evaluated data from a main study involving 4,116 hospitalised adults with severe COVID-19 who required extra oxygen or mechanical ventilation and had high levels of C-reactive protein in the blood (indicating inflammation).

The study showed that treatment with RoActemra given by infusion in addition to standard treatment reduces the risk of death when compared with standard treatment alone. The study also indicated that an increase in mortality cannot be excluded when using RoActemra in patients who are not receiving systemic corticosteroids. However, the safety profile of the medicine was favourable in those who are already receiving treatment with corticosteroids and the CHMP concluded that the medicine’s benefits are greater than the risks for these patients.

Full detail: [EMA recommends approval for use of RoActemra in adults with severe COVID-19](https://www.ema.europa.eu/en/news/ema-recommends-approval-use-roactemra-adults-severe-covid-19)

**Title:** UK's most vulnerable people to receive life-saving COVID-19 treatments in the community

Department of Health and Social Care | 8th December 2021

Thousands of the UK’s most vulnerable people will be among the first in the world to access life-saving, cutting-edge antiviral and antibody treatments from today, the government has announced.

A national study ‘PANORAMIC’, run by the University of Oxford in close collaboration with GP hubs, has now launched and is recruiting around 10,000 UK patients at risk of serious illness from COVID-19 to have the opportunity to take the treatment molnupiravir at home after receiving a positive PCR test.

Those at highest risk who test positive for the virus - for example, people who are immunocompromised, cancer patients or those with Down’s syndrome - will also be able to access either molnupiravir or the novel monoclonal antibody Ronapreve outside of the study from 16 December.

Molnupiravir has shown in clinical trials to reduce the risk of hospitalisation or death for at-risk, non-hospitalised adults with mild to moderate COVID-19 by 30% and Ronapreve reduced the risk by 70%.

Full detail: [UK's most vulnerable people to receive life-saving COVID-19 treatments in the community](https://www.gov.uk/government/news/uks-most-vulnerable-people-to-receive-life-saving-covid-19-treatments-in-the-community)

**Title:** Update to living WHO guideline on drugs for covid-19

World Health Organization | 7th December 2021

The latest version of this WHO living guidance provides (*a*) a strong recommendation against the use of convalescent plasma in patients with non-severe illness, and (*b*) a recommendation against its use in patients with severe and critical illness, except in the context of a randomised clinical trial.

Full detail: [Therapeutics and COVID-19: living guideline](https://app.magicapp.org/#/guideline/nBkO1E)

**Title:** Laboratory confirmed vaccine-induced immune thrombotic thrombocytopenia: Retrospective analysis of reported cases after vaccination with ChAdOx-1 nCoV-19 in Germany

The Lancet Regional Health – Europe | 5th December 2021

Vaccine-induced immune thrombotic thrombocytopenia (VITT) is a severe adverse event of SARS-CoV-2 vaccination. We describe the characteristics of patients reported in Germany based on the Brighton Collaboration (BC) case definition criteria for Thrombosis and Thrombocytopenia Syndrome (TTS) and focus on patients with complete anti-platelet factor 4 (PF4)-antibody laboratory work up.

VITT has high mortality and can present with isolated thrombocytopenia, severe headache, and bleeding. Demonstration of platelet activating anti-PF4 IgG has high sensitivity for TTS and captures a wider spectrum of clinically relevant VITT than the current BC case definition.

Full paper: [Laboratory confirmed vaccine-induced immune thrombotic thrombocytopenia: Retrospective analysis of reported cases after vaccination with ChAdOx-1 nCoV-19 in Germany](https://www.thelancet.com/action/showPdf?pii=S2666-7762%2821%2900256-8)

recovery

**Title:** Assessing the Global Burden of Post-COVID-19 Conditions

The IQVIA Institute | 6th December 2021

As the number of reported cases of Covid-19 exceeds 250 million globally and deaths exceed 5 million, there is growing awareness and concern about those who suffer long-term conditions that appear to be associated with the virus. These long-term conditions are likely to impose a large burden on the health care system. The objective of the research reflected in this report is to quantify the magnitude of patients with post-Covid-19 conditions based on analysis of medical open claims data and a review of the growing body of literature globally.

The research also models the potential demand for medicines required to treat these patients with the post-COVID conditions, even as optimal treatment for these patients is currently based on existing therapeutics.

Full detail: [Assessing the global burden of post-COVID-19 conditions](https://www.iqvia.com/Insights/The-IQVIA-Institute/Reports/Assessing-the-Global-Burden-of-Post-COVID-19-Conditions)

**Title:** Tackling population health challenges as we build back from the pandemic

BMJ | 2021; 375: e066232 | 7th December 2021

This BMJ analysis argues that a new model of equitable, holistic, and sustainable public health should be central to recovery plans

Key messages:

* A decade of austerity, stalled mortality trends, widening health inequalities, and climate change present profound health challenges that predate the pandemic
* The pandemic has shown that population health in the UK is insecure
* It has created additional challenges from ongoing covid-19, unmet health and social care needs, and social and economic disruption
* A radical shift in the government’s approach to population health is needed, integrating equity and health in all policies, and shifting to a wellbeing economy

Full detail: [Tackling population health challenges as we build back from the pandemic](https://www.bmj.com/content/375/bmj-2021-066232)

Infection control

**Title:** What you need to know about the new Omicron COVID-19 variant [world health organization]

World Health Organization | 3rd December 2021

On 26 November, WHO’s Technical Advisory Group on SARS-CoV-2 Virus Evolution (TAG-VE) designated the B.1.1.529 variant, first reported by South Africa 2 days earlier, as a variant of concern, named Omicron.

This article looks at Omicron, asking:

* Why is Omicron a variant of concern?
* What do we know about the variant at the moment?
* What can we do as individuals to stop the virus circulating?
* What can governments and authorities do?
* What is WHO doing in response to Omicron?

Full detail: [What you need to know about the new Omicron COVID-19 variant](https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/news/news/2021/12/what-you-need-to-know-about-the-new-omicron-covid-19-variant)

**Title:** Immunogenicity, safety, and reactogenicity of heterologous COVID-19 primary vaccination incorporating mRNA, viral-vector, and protein-adjuvant vaccines in the UK (Com-COV2): a single-blind, randomised, phase 2, non-inferiority trial

The Lancet | 6th December 2021

Given the importance of flexible use of different COVID-19 vaccines within the same schedule to facilitate rapid deployment, this paper studied mixed priming schedules incorporating an adenoviral-vectored vaccine (ChAdOx1 nCoV-19 [ChAd], AstraZeneca), two mRNA vaccines (BNT162b2 [BNT], Pfizer–BioNTech, and mRNA-1273 [m1273], Moderna) and a nanoparticle vaccine containing SARS-CoV-2 spike glycoprotein and Matrix-M adjuvant (NVX-CoV2373 [NVX], Novavax).

Heterologous second dosing with m1273, but not NVX, increased transient systemic reactogenicity compared with homologous schedules. Multiple vaccines are appropriate to complete primary immunisation following priming with BNT or ChAd, facilitating rapid vaccine deployment globally and supporting recognition of such schedules for vaccine certification.

Full paper: [Immunogenicity, safety, and reactogenicity of heterologous COVID-19 primary vaccination incorporating mRNA, viral-vector, and protein-adjuvant vaccines in the UK (Com-COV2): a single-blind, randomised, phase 2, non-inferiority trial](https://www.thelancet.com/action/showPdf?pii=S0140-6736%2821%2902718-5)

See also:

* [“Mix and match” primary vaccines are safe and effective, study finds](https://www.bmj.com/content/375/bmj.n3030) | BMJ
* [Moderna or Novavax after AstraZeneca jab confers high Covid immunity, study finds](https://www.theguardian.com/society/2021/dec/06/moderna-or-novavax-after-astrazeneca-jab-confers-high-covid-immunity-study-finds) | The Guardian
* [Study supports flexible second dose options following Pfizer or Oxford-AstraZeneca jabs](https://www.nihr.ac.uk/news/study-supports-flexible-second-dose-options-following-pfizer-or-oxford-astrazeneca-jabs/29510) | National Institute for Health Research
* [‘Mix-and-match’ approach can be used for both initial courses and boosters](https://www.ema.europa.eu/en/news/ema-ecdc-recommendations-heterologous-vaccination-courses-against-covid-19) | European Medical Agency

**Title:** Immunogenicity and safety of a third dose of CoronaVac, and immune persistence of a two-dose schedule, in healthy adults

The Lancet Infectious Diseases | 7th December 2021

Large-scale vaccination against COVID-19 is being implemented in many countries with CoronaVac, an inactivated vaccine. The authors of this study aimed to assess the immune persistence of a two-dose schedule of CoronaVac, and the immunogenicity and safety of a third dose of CoronaVac, in healthy adults aged 18 years and older.

A third dose of CoronaVac in adults administered 8 months after a second dose effectively recalled specific immune responses to SARS-CoV-2, which had declined substantially 6 months after two doses of CoronaVac, resulting in a remarkable increase in the concentration of antibodies and indicating that a two-dose schedule generates good immune memory, and a primary third dose given 2 months after the second dose induced slightly higher antibody titres than the primary two doses.

Full paper: [Immunogenicity and safety of a third dose of CoronaVac, and immune persistence of a two-dose schedule, in healthy adults: interim results from two single-centre, double-blind, randomised, placebo-controlled phase 2 clinical trials](https://www.thelancet.com/action/showPdf?pii=S1473-3099%2821%2900681-2)

**Title:** Spike protein encounters determine protection against variants

UK Research and Innovation | Science | 6th December 2021

New research shows that the first SARS-CoV-2 spike protein a person encounters shapes their subsequent immune response against current and future variants. This encounter could be by vaccination or infection.

The spike protein imparts different properties that have an impact on the immune system’s ability to protect against variants, and also affects the rate of decay of protection. It is known that antibody levels wane over time following infection or vaccination. But the new research shows that an individual’s protective immune responses are also affected by which strain or combination of strains they have been exposed to.

Further detail: [Spike protein encounters determine protection against variants](https://www.ukri.org/news/spike-protein-encounters-determine-protection-against-variants/?utm_source=Twitter&utm_medium=social&utm_campaign=Orlo)

Full research: [Heterologous infection and vaccination shapes immunity against SARS-CoV-2 variants](https://www.science.org/doi/10.1126/science.abm0811) | Science

**Title:** Investigating Omicron: what UKHSA is doing now

UK Health Security Agency | 8th December 2021

Last month, a new variant of the virus that causes COVID-19 infection named Omicron was identified and countries around the world are taking action to identify cases and outbreaks and control the spread while we learn more.

This blog looks at how the UK Health Security Agency are reducing the spread of the Omicron variant.

Full detail: [Investigating Omicron: what UKHSA is doing now](https://ukhsa.blog.gov.uk/2021/12/08/investigating-omicron-what-ukhsa-is-doing-now/)

**Title:** BNT162b2 Vaccine Booster and Mortality Due to Covid-19

New England Journal of Medicine | 8th December 2021

The emergence of the B.1.617.2 (delta) variant of severe acute respiratory syndrome coronavirus 2 and the reduced effectiveness over time of the BNT162b2 vaccine (Pfizer–BioNTech) led to a resurgence of coronavirus disease 2019 (Covid-19) cases in populations that had been vaccinated early. On July 30, 2021, the Israeli Ministry of Health approved the use of a third dose of BNT162b2 (booster) to cope with this resurgence. Evidence regarding the effectiveness of the booster in lowering mortality due to Covid-19 is still needed.

This study concludes that participants who received a booster at least 5 months after a second dose of BNT162b2 had 90% lower mortality due to Covid-19 than participants who did not receive a booster.

Full paper: [BNT162b2 vaccine booster and mortality due to Covid-19](https://www.nejm.org/doi/pdf/10.1056/NEJMoa2115624?articleTools=true)

**Title:** Protection against Covid-19 by BNT162b2 Booster across Age Groups

New England Journal of Medicine | 8th December 2021

After promising initial results from the administration of a third (booster) dose of the BNT162b2 messenger RNA vaccine (Pfizer–BioNTech) to persons 60 years of age or older, the booster campaign in Israel was gradually expanded to persons in younger age groups who had received a second dose at least 5 months earlier.

Across the age groups studied, rates of confirmed Covid-19 and severe illness were substantially lower among participants who received a booster dose of the BNT162b2 vaccine than among those who did not.

Full paper: [Protection against Covid-19 by BNT162b2 booster across age groups](https://www.nejm.org/doi/pdf/10.1056/NEJMoa2115926?articleTools=true)

**Title:** Whatever happened to the Novavax vaccine?

BMJ | 2021; 375: n2965 | 8th December 2021

Novavax had a vaccine with big promise. Its more traditional technology and easy storage attracted big global investment but, as year two of the pandemic draws to a close, the company struggles with regulators, disappoints hopeful governments, and lags far behind its competitors. Is there still hope, asks this BMJ Feature.

Full detail: [Whatever happened to the Novavax vaccine?](https://www.bmj.com/content/375/bmj.n2965)

**Title:** The R value and growth rate

UK Health Security Agency | updated 10th December 2021

The latest reproduction number (R) and growth rate of coronavirus (COVID-19).

As of 10 December 2021:

The R range for England is 0.9 to 1.1 and the growth rate range for England is -1% to +2% per day as of 10 December 2021.

Full detail: [The R value and growth rate](https://www.gov.uk/guidance/the-r-value-and-growth-rate#history)

**Title:** Booster bookings surge as National Booking Service expands to over 40s three months on from second dose

NHS England | 9th December 2021

More than 410,000 people snapped up booster appointments yesterday (Wednesday 8 December) after the National Booking Service (NBS) opened to those age 40 and over to book their top-up after the updated three-month interval.

Almost half a million jabs were booked through the NBS in total, including 20,559 first doses and 39,623 second doses as people continue to take up the NHS’ evergreen offer.

Full detail: [Booster bookings surge as National Booking Service expands to over 40s three months on from second dose](https://www.england.nhs.uk/2021/12/booster-bookings-surge-as-national-booking-service-expands-to-over-40s-three-months-on-from-second-dose/)

See also: [People 40 and over to get their lifesaving booster jab three months on from second dose](https://www.england.nhs.uk/2021/12/people-40-and-over-to-get-their-lifesaving-booster-jab-three-months-on-from-second-dose/) | NHS England

**Title:** COVID-19 variants: genomically confirmed case numbers

UK Health Security Agency | updated 10th December 2021

Latest genomically confirmed case numbers for SARS-CoV-2 variants of concern and variants under investigation. The tables include the breakdown of numbers for the UK and for the four devolved administrations.

Full detail: [COVID-19 variants: genomically confirmed case numbers](https://www.gov.uk/government/publications/covid-19-variants-genomically-confirmed-case-numbers)

**Title:** Prime Minister confirms move to Plan B in England

Prime Minister's Office, 10 Downing Street | 8th December 2021

The Prime Minister has confirmed that England will move to Plan B following the rapid spread of the Omicron variant in the UK, with early analysis suggesting cases could be doubling at a rate of as little as 2.5 to 3 days.

From Friday 10 December, face coverings will become compulsory in most public indoor venues, such as cinemas, theatres and places of worship. There will be exemptions in venues where it is not practical to wear one, such as when you are eating, drinking or exercising. For that reason, face masks will not be required in hospitality settings.

From Monday 13 December, those who can will be advised to work from home.

From Wednesday 15 December, and subject to parliamentary approval, the NHS Covid Pass on the NHS App will become mandatory for entry into nightclubs and settings where large crowds gather – including unseated indoor events with 500 or more attendees, unseated outdoor events with 4,000 or more attendees and any event with 10,000 or more attendees.

People will be able to demonstrate proof of two vaccine doses via the app. Having considered the evidence since the emergence of Omicron, proof of a negative lateral flow test will also be accepted.

Full detail: [Prime Minister confirms move to Plan B in England](https://www.gov.uk/government/news/prime-minister-confirms-move-to-plan-b-in-england)

See also:

* [Covid-19: Face masks required in more indoor venues in England](https://www.bbc.co.uk/news/uk-59602664?at_medium=RSS&at_campaign=KARANGA)  | BBC News
* [Stricter measures than plan B may be needed to rein in UK’s Omicron growth](https://www.theguardian.com/world/2021/dec/09/plan-b-measures-omicron-variant-growth-uk-analysis) | The Guardian

**Title:** Stressing the personal benefits of the covid-19 vaccine might encourage more people to accept it

BMJ | 2021; 375: n2923 | 10th December 2021

This article reports on a recent study that found that among those who were vaccine-hesitant:

* The most effective way to reduce hesitancy was extra information about the personal benefits of vaccination (prevention of serious illness or long covid)
* Information on the safety of the vaccines, addressing concerns about the speed of development, had some, but less, effect on the views of people who were hesitant
* Information about the collective benefit of vaccination was less persuasive
* Information about personal benefit alone was more effective than a combination of personal and collective benefit.

Full detail: [Stressing the personal benefits of the covid-19 vaccine might encourage more people to accept it](https://www.bmj.com/content/375/bmj.n2923)

Related study: [Effects of different types of written vaccination information on COVID-19 vaccine hesitancy in the UK (OCEANS-III): a single-blind, parallel-group, randomised controlled trial](https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(21)00096-7/fulltext) | The Lancet Public Health

See also: [Stressing the personal benefits of the COVID-19 vaccine could encourage more people to accept](https://evidence.nihr.ac.uk/alert/stressing-personal-benefits-of-covid-vaccine-could-reduce-hesitancy/) | National Institute for Health Research

workforce wellbeing

**Title:** Busiest November ever as new figures show pressures on NHS staff

NHS England | 9th December 2021

NHS staff answered the highest number of 999 calls for any November on record, an average of around one every three seconds, new figures have revealed.

Last month was also the second busiest November on record for A&E with more than two million patients seen at emergency departments and urgent treatment centres. That was up by half a million on the same time last year.

Demand for NHS 111 services also remained high, with almost 1.4 million calls answered during November, the latest available figures show.

NHS staff are continuing to make progress on elective activity with almost 150,000 more people starting elective treatment in October compared to the same month last year.

Patients on the waiting list are prioritised based on their need and at the end of October, were waiting an average of 12 weeks to begin treatment, compared to a high of 19.6 weeks on average in July last year.

The data comes as cases of Omicron increase throughout the country, and the NHS is urging the public to get their booster when invited.

Full detail: [Busiest November ever as new figures show pressures on NHS staff](https://www.england.nhs.uk/2021/12/busiest-november-ever-as-new-figures-show-pressures-on-nhs-staff/)

See also:

* [Almost 6 million people on waiting lists for NHS surgery in England](https://www.theguardian.com/society/2021/dec/09/almost-6-million-people-on-waiting-lists-for-nhs-surgery-in-england) | The Guardian
* [Health Foundation highlights need for a credible and realistic strategy to bring NHS waiting lists down](https://www.health.org.uk/news-and-comment/news/health-foundation-highlights-need-for-a-credible-and-realistic-strategy-to-bring-nhs-waiting-lists-down)

**Title:** Funding to extend research into impact of COVID-19 on nurse and midwife wellbeing

King’s College London | 3rd December 2021

A team of experts including researchers from King’s College London, have received additional funding to extend their previous work examining the impact of COVID-19 on the mental health of nurses, midwives and other health care assistants.

The Colt Foundation has awarded nearly £60,000 to enable further interviews to be conducted as part of the ICON (Impact of COVID on Nurses) interview study so that the ongoing impact of the pandemic on nurses can be evaluated and mitigations identified.

The ICON interview study, initially funded by the Burdett Trust and Florence Nightingale Foundation, began in 2020 with a first round of in-depth interviews with 27 nurses after the first wave of COVID-19 in July 2020 which were repeated in December 2020. Health care assistants, registered nurses, registered midwives, and those re-deployed to COVID areas spoke about their experiences of working through the pandemic, often revealing emotional distress like anxiety, frustration, guilt and inner turmoil. High levels of burnout and Post Traumatic Stress Disorder (PTSD) were reported, both of which affect nurses’ experiences at work and influence their ability to provide compassionate care.

Full detail: [Funding to extend research into impact of COVID-19 on nurse and midwife wellbeing](https://www.kcl.ac.uk/news/funding-to-extend-research-into-impact-of-covid-19-on-nurse-and-midwife-wellbeing)

other

**Title:** What has happened to non-COVID mortality during the pandemic?

The Health Foundation | 6th December 2021

In England, deaths from causes other than COVID-19 have been lower than usual for 80% of the pandemic. In January to September 2021, this was equivalent to about 34,000 (or 9%) fewer deaths than we would expect, based on historical mortality patterns. This analysis explores some of the questions arising from this reduction.

Full detail: [What has happened to non-COVID mortality during the pandemic?](https://www.health.org.uk/publications/long-reads/what-has-happened-to-non-covid-mortality-during-the-pandemic)

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