COVID-19 weekly update

19th November 2021

clinical management

**Title:** COVID-19 vaccines and medicines: updates for November 2021

Medicines and Healthcare products Regulatory Agency | 16th November 2021

Recent information relating to COVID-19 vaccines and medicines that has been published since the October 2021 issue of Drug Safety Update, up to 12 November 2021.

The MHRA have approved Lagevrio (molnupiravir), following a rigorous review of its safety, quality and effectiveness by MHRA and the government’s independent expert scientific advisory body, the Commission on Human Medicines (CHM), making it the first oral antiviral for the treatment of COVID-19 to be approved.

Lagevrio (molnupiravir) is safe and effective at reducing the risk of hospitalisation and death in people with mild to moderate COVID-19 who are at increased risk of developing severe disease.

Lagevrio works by interfering with the virus’ replication. Based on the clinical trial data, Lagevrio is most effective when taken during the early stages of infection and so we recommend its use as soon as possible following a positive COVID-19 test and within five days of symptoms onset.

Full detail: [COVID-19 vaccines and medicines: updates for November 2021](https://www.gov.uk/drug-safety-update/covid-19-vaccines-and-medicines-updates-for-november-2021)

**Title:** Long-term use of immunosuppressive medicines and in-hospital COVID-19 outcomes

The Lancet Rheumatology | 15th November 2021

Many individuals take long-term immunosuppressive medications. This retrospective cohort study evaluated whether these individuals have worse outcomes when hospitalised with COVID-19 compared with non-immunosuppressed individuals.

Among this cohort, with the exception of rituximab, there was no increased risk of mechanical ventilation or in-hospital death for the rheumatological, antineoplastic, or antimetabolite therapies examined.

Full paper: [Long-term use of immunosuppressive medicines and in-hospital COVID-19 outcomes: a retrospective cohort study using data from the National COVID Cohort Collaborative](https://www.thelancet.com/action/showPdf?pii=S2665-9913%2821%2900325-8)

**Title:** Aspirin in patients admitted to hospital with COVID-19 (RECOVERY): a randomised, controlled, open-label, platform trial

Aspirin has been proposed as a treatment for COVID-19 on the basis of its anti-thrombotic properties. The authors of this paper aimed to evaluate the efficacy and safety of aspirin in patients admitted to hospital with COVID-19.

In this randomised, controlled, open-label, platform trial, several possible treatments were compared with usual care in patients hospitalised with COVID-19. In patients hospitalised with COVID-19, aspirin was not associated with reductions in 28 day mortality or in the risk of progressing to invasive mechanical ventilation or death, but was associated with a small increase in the rate of being discharged alive within 28 days.

Full paper: [Aspirin in patients admitted to hospital with COVID-19 (RECOVERY): a randomised, controlled, open-label, platform trial](https://www.thelancet.com/action/showPdf?pii=S0140-6736%2821%2901825-0)

**Title:** Sarilumab in adults hospitalised with moderate-to-severe COVID-19 pneumonia (CORIMUNO-SARI-1): An open-label randomised controlled trial

The Lancet Rheumatology | 17th November 2021

Patients with COVID-19 pneumonia can have increased inflammation and elevated cytokines, including interleukin (IL)-6, which might be deleterious. Thus, sarilumab, a high-affinity anti-IL-6 receptor antibody, might improve the outcome of patients with moderate-to-severe COVID-19 pneumonia.

The authors did a multicentric, open-label, Bayesian randomised, adaptive, phase 2/3 clinical trial, nested within the CORIMUNO-19 cohort, to test a superiority hypothesis. Sarilumab treatment did not improve early outcomes in patients with moderate-to-severe COVID-19 pneumonia. Further studies are warranted to evaluate the effect of sarilumab on long-term survival.

Full paper: [Sarilumab in adults hospitalised with moderate-to-severe COVID-19 pneumonia (CORIMUNO-SARI-1): An open-label randomised controlled trial](https://www.thelancet.com/action/showPdf?pii=S2665-9913%2821%2900315-5)

**Title:** Treating COVID-19 patients using Continuous Positive Airway Pressure (CPAP) outside of a critical care unit

Healthcare Safety Investigation Branch | 18th November 2021

This investigation explores the issues associated with caring for patients attending hospital with COVID-19 who need help with their breathing.

Continuous positive airway pressure (CPAP) is often used to support a patient’s breathing in critical care or high dependency units, where there are high numbers of staff to patients. Staff in these units are trained and familiar with the use of non-invasive respiratory support. During the first and second waves of the COVID-19 pandemic, however, many more patients needed CPAP than there were beds in critical care and high-dependency units. Thus, hospitals had to create alternative areas and arrangements for delivering and caring for patients who needed CPAP.

This investigation explores the use of CPAP outside of critical care and high dependency units during the COVID-19 pandemic. Specifically, the investigation explores the risks of caring for acutely unwell patients requiring CPAP in the side rooms of general wards.

Full report: [Treating COVID-19 patients using Continuous Positive Airway Pressure (CPAP) outside of a critical care unit](https://hsib-kqcco125-media.s3.amazonaws.com/assets/documents/Treating_COVID-19_patients_using_CPAP_outside_of_a_critical_care_unit_Report_Final.pdf)

Report summary: [Treating COVID-19 patients using Continuous Positive Airway Pressure (CPAP) outside of a critical care unit](https://hsib-kqcco125-media.s3.amazonaws.com/assets/documents/Treating_COVID-19_patients_using_CPAP_outside_of_a_critical_care_unit_Summary.pdf)

**Title:** Which outcomes are most important to measure in patients with COVID-19 and how and when should these be measured? Development of an international standard set of outcomes measures for clinical use in patients with COVID-19

BMJ Open | 15th November 2021

The COVID-19 pandemic has resulted in widespread morbidity and mortality with the consequences expected to be felt for many years. Significant variation exists in the care even of similar patients with COVID-19, including treatment practices within and between institutions.

Outcome measures vary among clinical trials on the same therapies. Understanding which therapies are of most value is not possible unless consensus can be reached on which outcomes are most important to measure. Furthermore, consensus on the most important outcomes may enable patients to monitor and track their care, and may help providers to improve the care they offer through quality improvement.

To develop a standardised minimum set of outcomes for clinical care, the International Consortium for Health Outcomes Measurement (ICHOM) assembled a working group (WG) of 28 volunteers, including health professionals, patients and patient representatives.

Implementation of these consensus recommendations could help institutions to monitor, compare and improve the quality and delivery of care to patients with COVID-19. Their consistent definition and collection could also broaden the implementation of more patient-centric clinical outcomes research.

Full paper: [Which outcomes are most important to measure in patients with COVID-19 and how and when should these be measured? Development of an international standard set of outcomes measures for clinical use in patients with COVID-19: a report of the International Consortium for Health Outcomes Measurement (ICHOM) COVID-19 Working Group](https://bmjopen.bmj.com/content/bmjopen/11/11/e051065.full.pdf)

recovery

**Title:** Health systems resilience during COVID-19: Lessons for building back better

European Observatory on Health Systems and Policies | 15th November 2021

This study, developed together with the WHO Regional Office for Europe and the European Commission, draws out lessons for strengthening resilience to future health threats. It gathers the evidence on how countries have managed (or not managed) to re-engineer how they work, the ways in which they utilize their resources and the methods they use to face and counter the pressures exerted by both Covid and non-Covid challenges.

Full report: [Health systems resilience during COVID-19: Lessons for building back better](https://apps.who.int/iris/rest/bitstreams/1390564/retrieve)

Press release: [New study helps policy-makers to rebuild more resilient health systems](https://eurohealthobservatory.who.int/news-room/news/item/15-11-2021-new-study-helps-policy-makers-to-rebuild-more-resilient-health-systems)

**Title:** Association of SARS-CoV-2 Infection With Psychological Distress, Psychotropic Prescribing, Fatigue, and Sleep Problems Among UK Primary Care Patients

JAMA | 16th November 2021

Many people infected with SARS-CoV-2 experience symptoms beyond the acute phase of COVID-19, particularly fatigue, brain fog, and sleep problems.Studies have also reported worsening mental health and an increased risk of psychiatric illness after COVID-19, and mechanisms linking the immune system, inflammation, and the brain have been proposed.

The objective of this study was to assess risk of risk of incident or repeat psychiatric illness, fatigue, or sleep problems following SARS-CoV-2 infection and to analyse changes according to demographic subgroups.

This cohort study of individuals registered at an English primary care practice during the pandemic, found consistent evidence that SARS-CoV-2 infection was associated with increased risk of fatigue and sleep problems. However, the results from the negative control analysis suggest that unobserved confounding may be responsible for at least some of the positive association between COVID-19 and psychiatric morbidity.

Full paper: [Association of SARS-CoV-2 infection with psychological distress, psychotropic prescribing, fatigue, and sleep problems among UK primary care patients](https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2786180)

Infection control

**Title:** England is preparing to offer annual booster vaccination, says NHS boss

BMJ | 2021; 375: n2824 | 17th November 2021

The NHS in England is preparing to offer an annual covid-19 booster vaccine programme if one is required, the service’s chief executive has said.

Amanda Pritchard also said that there could be “further expansions” to the Joint Committee on Vaccination and Immunisation (JCVI) advice on which groups should receive booster vaccines. Officials are awaiting more data before deciding whether annual covid-19 vaccine boosters will be recommended in a similar way to the annual winter flu vaccination programme.

Full detail: [England is preparing to offer annual booster vaccination, says NHS boss](https://www.bmj.com/content/375/bmj.n2824)

**Title:** Neutralising antibody titres as predictors of protection against SARS-CoV-2 variants and the impact of boosting: a meta-analysis

The Lancet Microbe | 15th November 2021

Several SARS-CoV-2 variants of concern have been identified that partly escape serum neutralisation elicited by current vaccines. Studies have also shown that vaccines demonstrate reduced protection against symptomatic infection with SARS-CoV-2 variants. This study explored whether in-vitro neutralisation titres remain predictive of vaccine protection from infection with SARS-CoV-2 variants.

In-vitro neutralisation titres remain a correlate of protection from SARS-CoV-2 variants and modelling of the effects of waning immunity predicts a loss of protection to the variants after vaccination. However, booster vaccination with current vaccines should enable higher neutralisation to SARS-CoV-2 variants than is achieved with primary vaccination, which is predicted to provide robust protection from severe infection outcomes with the current SARS-CoV-2 variants of concern, at least in the medium term.

Full paper: [Neutralising antibody titres as predictors of protection against SARS-CoV-2 variants and the impact of boosting: a meta-analysis](https://www.thelancet.com/action/showPdf?pii=S2666-5247%2821%2900267-6)

**Title:** Booster vaccine gives “significant increased protection” in over 50s

 BMJ | 2021; 375: n2814 | 17th November 2021

A third Pfizer BioNTech covid-19 vaccine dose—known as a booster dose—provides “significant increased protection” against symptomatic disease in those aged 50 and over, irrespective of which vaccine they initially received.

A study by the UK Health Security Agency (UKHSA) found that at least 20 weeks after being fully vaccinated with two doses of the AstraZeneca vaccine effectiveness against symptomatic disease was 44.1%, while for Pfizer it was 62.5%.

But two weeks after receiving the booster dose, protection against symptomatic infection increased to 93.1% in those who initially had two doses of the Oxford AstraZeneca vaccine, and 94.0% for those who had Pfizer.

Further detail: [Booster vaccine gives “significant increased protection” in over 50s](https://www.bmj.com/content/375/bmj.n2814)

Full research: [Effectiveness of BNT162b2 (Comirnaty, PfizerBioNTech) COVID-19 booster vaccine against COVID-19 related symptoms in England: test negative case-control study](https://khub.net/documents/135939561/390853656/Effectiveness%2Bof%2BBNT162b2%2B%28Comirnaty%2C%2BPfizer-BioNTech%29%2BCOVID-19%2Bbooster%2Bvaccine%2Bagainst%2Bcovid-19%2Brelated%2Bsymptoms%2Bin%2BEngland.docx/a366af4e-9c7f-ce86-bc58-1cb3b88e3378)

**Title:** COVID-19 booster vaccine programme for winter 2021 to 2022: JCVI statement, November 2021

Department of Health and Social Care | 15th November 2021

Updated advice from the Joint Committee on Vaccination and Immunisation (JCVI) on the COVID-19 booster vaccine programme for winter 2021 to 2022. This statement sets out further advice from JCVI on extension of the booster programme to revaccinate adults aged 40 to 49 years against COVID-19.

The main aim of this booster vaccination programme is to reduce deaths, serious disease and hospitalisations from COVID-19 over the 2021 to 2022 winter period and through 2022.

Further detail: [COVID-19 booster vaccine programme for winter 2021 to 2022: JCVI statement, November 2021](https://www.gov.uk/government/publications/covid-19-booster-vaccine-programme-for-winter-2021-to-2022-jcvi-statement-november-2021)

See also: [Government accepts JCVI advice on COVID-19 vaccination programme](https://www.gov.uk/government/news/government-accepts-jcvi-advice-on-covid-19-vaccination-programme) | Department of Health and Social Care

**Title:** COVID-19 vaccination in children and young people aged 16 to 17 years: JCVI statement, November 2021

Department of Health and Social Care | 15th November 2021

Advice from the Joint Committee on Vaccination and Immunisation (JCVI) on COVID-19 vaccination in children and young people aged 16 to 17 years. This statement sets out further advice on the offer of second doses of COVID-19 vaccine to children and young people aged 16 to 17 years.

Further detail: [COVID-19 vaccination in children and young people aged 16 to 17 years: JCVI statement, November 2021](https://www.gov.uk/government/publications/covid-19-vaccination-in-children-and-young-people-aged-16-to-17-years-jcvi-statement-november-2021)

See also: [Government accepts JCVI advice on COVID-19 vaccination programme](https://www.gov.uk/government/news/government-accepts-jcvi-advice-on-covid-19-vaccination-programme) | Department of Health and Social Care

**Title:** PPE procurement in the early pandemic

Department of Health and Social Care | 17th November 2021

The government has published further information about its procurement exercise to secure critical personal protective equipment (PPE) during the early months of the coronavirus (COVID-19) pandemic.

Full detail: [PPE procurement in the early pandemic](https://www.gov.uk/government/news/ppe-procurement-in-the-early-pandemic)

**Title:** Effectiveness of public health measures in reducing the incidence of covid-19, SARS-CoV-2 transmission, and covid-19 mortality

BMJ | 2021; 375: e068302 | 18th November 2021

This systematic review and meta-analysis suggests that several personal protective and social measures, including handwashing, mask wearing, and physical distancing are associated with reductions in the incidence covid-19. Public health efforts to implement public health measures should consider community health and sociocultural needs, and future research is needed to better understand the effectiveness of public health measures in the context of covid-19 vaccination.

Full paper: [Effectiveness of public health measures in reducing the incidence of covid-19, SARS-CoV-2 transmission, and covid-19 mortality: systematic review and meta-analysis](https://www.bmj.com/content/bmj/375/bmj-2021-068302.full.pdf)

See also:

* [Public health measures for covid-19](https://www.bmj.com/content/375/bmj.n2729) | BMJ [editorial]
* [Investing in public health is our best route to sustainable healthcare](https://www.bmj.com/content/375/bmj.n2812) | BMJ

**Title:** Chart of the week: How many care home staff in England have received two Covid-19 vaccine doses?

Nuffield Trust | 18th November 2021

After the deadline passed last week for staff to have received two doses of a Covid-19 vaccine as a condition of deployment in care homes in England, this week’s chart looks at how many had been vaccinated twice only a few weeks before the deadline.

The government projected that between 3% and 13% of this workforce would not have received two doses by 11 November (including those with medical exemptions). The latest data suggests that, as of 26 October, around 11% (just under 63,000 staff) had not received a second dose.

Full detail: [Chart of the week: How many care home staff in England have received two Covid-19 vaccine doses?](https://www.nuffieldtrust.org.uk/resource/chart-of-the-week-how-many-care-home-staff-in-england-have-received-two-covid-19-vaccine-doses)

**Title:** 13 million top-up COVID-19 vaccines given across the UK

Department of Health and Social Care | 16th November 2021

More than 13 million booster jabs have been given across the UK, marking another significant milestone in the COVID-19 vaccination programme.

* A total of 13,147,333 people in the UK have received a COVID-19 booster or third jab
* Milestone comes as government accepts advice to extend booster programme to 40 to 49 year olds and new data shows boosters give over 90% protection against symptomatic COVID-19

Full detail: [13 million top-up COVID-19 vaccines given across the UK](https://www.gov.uk/government/news/13-million-top-up-covid-19-vaccines-given-across-the-uk)

**Title:** Safety, immunogenicity, and efficacy of a COVID-19 vaccine (NVX-CoV2373) co-administered with seasonal influenza vaccines

The Lancet Respiratory Medicine | 17th November 2021

The safety and immunogenicity profile of COVID-19 vaccines when administered concomitantly with seasonal influenza vaccines have not yet been reported. This paper therefore aimed to report the results of a substudy within a phase 3 UK trial, by evaluating the safety, immunogenicity, and efficacy of NVX-CoV2373 when co-administered with licensed seasonal influenza vaccines.

The results suggest concomitant vaccination might be a viable immunisation strategy. To the author’s knowledge, this substudy is the first to show the safety, immunogenicity, and efficacy profile of a COVID-19 vaccine when co-administered with seasonal influenza vaccines.

Full paper: [Safety, immunogenicity, and efficacy of a COVID-19 vaccine (NVX-CoV2373) co-administered with seasonal influenza vaccines: an exploratory substudy of a randomised, observer-blinded, placebo-controlled, phase 3 trial](https://www.thelancet.com/action/showPdf?pii=S2213-2600%2821%2900409-4)

**Title:** Vaccination against COVID-19 and society’s return to normality in England: a modelling study of impacts of different types of naturally acquired and vaccine-induced immunity

BMJ Open | 16th November 2021

The objectives of this study were to project impacts of mass vaccination against COVID-19, and investigate possible impacts of different types of naturally acquired and vaccine-induced immunity on future dynamics of SARS-CoV-2 transmission from 2021 to 2024 in England.

The authors conclude that under optimistic scenarios, mass immunisation using efficacious vaccines may enable society safely to return to normality. However, under plausible scenarios with low vaccine efficacy and short durability of immunity, COVID-19 could continue to cause recurrent waves of severe morbidity and mortality despite frequent vaccinations. It is crucial to monitor the vaccination effects in the real world, and to better understand characteristics of naturally acquired and vaccine-induced immunity against SARS-CoV-2.

Full paper: [Vaccination against COVID-19 and society’s return to normality in England: a modelling study of impacts of different types of naturally acquired and vaccine-induced immunity](https://bmjopen.bmj.com/content/bmjopen/11/11/e053507.full.pdf)

workforce wellbeing

**Title:** Life in the time of COVID-19: the 2020 UK consultant census

Royal College of Physicians | Royal College of Physicians of Edinburgh |Royal College of Physicians and Surgeons of Glasgow | 15th November 2021

The most recent census of the consultant physician workforce in the UK shows that the number of doctors needed to meet patient demand continues to significantly outnumber the supply. It found that the proportion of unfilled medical consultant posts across the UK is at its highest level in almost a decade. Nearly half (48 per cent) of advertised consultant posts across the UK were unfilled last year – up from 36 per cent in 2013. Of the 48% of posts that went unfilled in the UK, 49% were unfilled due to a lack of any applicants at all and 34% due to a lack of suitable candidates.

The three Royal Colleges of Physicians believe a lack of long-term workforce planning is the primary factor behind the 33 per cent increase in unfilled consultant posts across the UK since 2013.

* 55% of consultants reported that their morale was worse during the pandemic and only 5% reported that it was better; 69% reported that morale was worse in their department and only 4% reported that it was better.
* 36% of consultants described being in control of their workload only ‘sometimes’ or ‘almost never’. 38% said that they worked excessive hours or had an excessive workload ‘almost always’ or ‘most of the time’.

Full detail: [Life in the time of COVID-19: the 2020 UK consultant census](https://www.rcplondon.ac.uk/file/33491/download%20)

Press release: [RCP census finds physician vacancies at highest level in almost a decade](https://www.rcplondon.ac.uk/news/rcp-census-finds-physician-vacancies-highest-level-almost-decade)

**Title:** State of the Provider Sector 2021

NHS Providers | 16th November 2021

This briefing sets out the results of NHS Providers' annual survey of trust leaders. It highlights concerns about winter pressures and rising demand for services and staffing challenges. The results emphasise the strong sense amongst NHS leaders that the health and care system is entering an unpredictable time in which colleagues will need to navigate seasonal winter pressures, Covid-19, workforce burnout and staff shortages.

Trust leaders are deeply concerned about the combined impact of increased demand for emergency care, growing waiting lists, significant and sustained staff shortages, potential staff burnout, the extra resource needed for vital vaccination campaigns and the prospect of high levels of COVID-19, flu and other respiratory viruses.

Full briefing: [State of the Provider Sector 2021](https://nhsproviders.org/media/692535/state-of-the-provider-sector-briefing-nov-2021.pdf)

Press release: [NHS beyond full stretch and preparing for most difficult winter ever](https://nhsproviders.org/news-blogs/news/nhs-beyond-full-stretch-and-preparing-for-most-difficult-winter-ever)

See also: [NHS is facing most difficult winter in its history, trust leaders warn](https://www.bmj.com/content/375/bmj.n2820) | BMJ

other

**Title:** Characteristics of people testing positive for COVID-19 from the Coronavirus (COVID-19) Infection Survey

Office for National Statistics | 17th November 2021

Main points:

* Those who have received at least one dose of a coronavirus (COVID-19) vaccine continued to be less likely to test positive for COVID-19 than those not vaccinated; people who received a booster were even less likely to test positive than those who had a second dose of Astra Zeneca or Pfizer more than 90 days ago in the fortnight ending 6 November 2021.
* Those living in a household of two or more people continued to be more likely to test positive than those living in single occupancy households in the fortnight ending 6 November 2021.
* Adults who lived with someone aged 16 years or under were more likely to test positive, and people aged under 70 years who lived with someone aged 70 years or over were less likely to test positive, in comparison to those not living with people of these ages in the fortnight ending 6 November 2021.
* People working in the education industry sector continued to be more likely to test positive in comparison to those working in other sectors in the fortnight ending 6 November 2021; the higher risk is likely related to the recent high infection levels among school aged children.
* Those who spent more time socialising outside the home were more likely to test positive for COVID-19 in the fortnight ending 6 November 2021.
* The number of socially distanced and physical contacts that adults and school-age children reported with people outside their household has continued to increase across the UK since March 2021, although school age children had fewer contacts during the school holidays.

Full detail: [Characteristics of people testing positive for COVID-19 from the Coronavirus (COVID-19) Infection Survey](https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionsurveycharacteristicsofpeopletestingpositiveforcovid19uk/17november2021)

**Title:** The government’s preparedness for the COVID-19 pandemic: lessons for government on risk management

National Audit Office | 19th November 2021

This report sets out central government’s risk analysis, planning, and mitigation strategies prior to the arrival of the COVID-19 pandemic, with the aim of drawing out wider learning for the government’s overall risk management approach. It does not cover local-level risk planning, wider aspects of resilience planning or top-level disaster response procedures. It also does not cover the government’s response to COVID-19 or how prepared it was for subsequent waves of the pandemic.

The report finds that the pandemic has exposed a vulnerability to whole-system emergencies – that is, emergencies that are so broad that they engage the entire system. Although the government had plans for an influenza pandemic, it did not have detailed plans for many non-health consequences and some health consequences of a pandemic like COVID-19.

There were lessons from previous simulation exercises that were not fully implemented and would have helped prepare for a pandemic like COVID-19. There was limited oversight and assurance of plans in place, and many pre-pandemic plans were not adequate. In addition, there is variation in capacity, capability and maturity of risk management across government departments.

Full report: [The government’s preparedness for the COVID-19 pandemic: lessons for government on risk management](https://www.nao.org.uk/wp-content/uploads/2021/11/The-governments-preparedness-for-the-COVID-19-pandemic-lessons-for-government-on-risk-management.pdf)

Press release: [The government’s preparedness for the COVID-19 pandemic: lessons for government on risk management](https://www.nao.org.uk/press-release/the-governments-preparedness-for-the-covid-19-pandemic-lessons-for-government-on-risk-management/)

See also: [UK government wasn't ready for pandemic, report finds](https://www.bbc.co.uk/news/uk-59342607?at_medium=RSS&at_campaign=KARANGA) | BBC News

**Title:** REACT-1 study of coronavirus transmission: October 2021, final results

UK Health Security Agency | Imperial College London | 18th November 2021

New data from the REACT study show that infections have been falling but are still very high, and are now at a similar rate to January this year.

Results from swab tests taken at home by over 100,000 people in England between 19 October and 5 November showed that 1.57% of people were infected, or 1 in 64. This is slightly lower than the study’s recent interim data, when 1.72% were infected as of 29th October, but almost twice as high as data from September.

School-aged children had the highest infection prevalence at 5.21% for 13-17-year-olds, and 4.95% for those aged 5-12, or around 1 in 20. However the study, led by Imperial College London with Ipsos MORI, also found that vaccination was helping to reduce virus spread among children. Those aged 12-17 who had received a single Pfizer/BioNTech dose had around a 56% lower risk of infection compared to unvaccinated children. The risk was even lower for symptomatic infection, at around 68%.

The study also looked at the effectiveness of booster doses at preventing infection, finding that the risk of infection was around three times lower in those who had received a third dose, compared to those who had received two. For those who were aged 50 and above, having a third dose reduced the infection risk by around half compared to two doses.

Further detail: [REACT-1 study of coronavirus transmission: October 2021, final results](https://www.gov.uk/government/publications/react-1-study-of-coronavirus-transmission-october-2021-final-result)

Pre-print report: [REACT-1 round 15 final report: Increased breakthrough SARS-CoV-2 infections among adults who had received two doses of vaccine, but booster doses and first doses in children are providing important protection](https://spiral.imperial.ac.uk/bitstream/10044/1/92501/2/REACT1_Round15_Final.pdf)

See also: [COVID-19 vaccination cuts infection risk by half in school-aged children – REACT | Imperial College London](https://www.imperial.ac.uk/news/231959/covid-19-vaccination-cuts-infection-risk-half/)

We

[TRFT Library & Knowledge Service](https://www.trftlibraryknowledge.com/) aim to bring together the latest guidelines, research and news on Covid-19 through our [Covid-19 portal](https://www.trftlibraryknowledge.com/coronavirus.html). For daily updates on Covid-19 visit our '[Latest Health](https://trfthealthweeklydigest.wordpress.com/)' newsfeed, or use the hashtag [#covid19rftlks](https://twitter.com/hashtag/covid19rftlks?src=hashtag_click) to see our latest tweets on Covid-19 research, guidelines and news.

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