

Covid-19 Evidence Update

Summarized and appraised resources

06/05/2021

The following resources are available via electronically or in print. Please follow links to access full text online, or contact the library if you have any difficulties with the links.

The resources included in this update are summaries or critically appraised articles. If you would like a more specific search conducted please email kgh-tr.library.service@nhs.net

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Royal College/Society Guidance and Point of Care Tools

Latest information and guidance

<p>NICE</p> <p>COVID-19 rapid guideline: managing COVID-19 (NG191) Published 23/03/2021</p> <p>Rapid guidelines and evidence summaries</p> <p>Speciality guides (NHS England and NHS Improvement advice has moved here)</p>	<p>NHS England and NHS Improvement Secondary care (Includes Prevention, Infection control, Assessment, Management, Discharge, Isolation, Estates and facilities, Finance, Workforce, Cancer ...)</p>
<p>Royal College of Emergency Medicine</p> <p>Covid-19 resources</p>	<p>Association for Palliative Medicine</p> <p>Covid 19 and Palliative, End of Life and Bereavement Care</p>
<p>Royal College of General Practitioners</p> <p>COVID-19</p>	<p>Royal College of Obstetrics & Gynaecologists</p> <p>Coronavirus (COVID-19), pregnancy and women's health</p>
<p>Royal College of Paediatrics and Child Health</p> <p>Key topics COVID 19</p>	<p>Royal College of Pathologists</p> <p>COVID-19 Resources Hub</p>
<p>Royal College of Psychiatrists</p> <p>COVID-19: Community mental health settings</p>	<p>Royal College of Surgeons</p> <p>COVID 19 Information Hub</p>
<p>Royal Pharmaceutical Society</p> <p>COVID-19</p>	<p>British Society of Echocardiography</p> <p>COVID-19 clinical guidance</p>
<p>British Society of Gastroenterology</p> <p>COVID 19 updates</p>	<p>British Society for Haematology</p> <p>COVID-19 Updates</p>

<p>British Society for Rheumatology COVID-19 updates for members</p>	<p>Combined Intensive Care Society, Association of Anaesthetists, Royal College of Anaesthetists, Faculty of Intensive Care Medicine guidance Clinical Guidance</p>
<p>BMJ Best Practice Coronavirus disease 2019 (COVID-19) Management of coexisting conditions in the context of COVID-19</p>	<p>DynaMed Covid 19 (Novel Coronavirus) Covid-19 and Pediatric Patients Covid 19 and Special Populations Covid-19 and Patients with Cancer Covid-19 and Cardiovascular Disease Patients Covid-19 and Patients with Chronic Kidney Disease and End-stage renal Disease Covid-19 and Pregnant Patients Covid-19-associated Coagulopathy</p>
<p>Don't forget the bubbles An evidence summary of paediatric Covid-19 literature Covid-19 – a seslection of evidence based summaries and articles.</p>	

New NICE Guidance

None published since the last bulletin

New Guidance and Reports from other sources

[Assessing England's response to Covid-19: A framework.](#)

The King's Fund; 2021.

<https://www.kingsfund.org.uk/publications/assessing-englands-response-covid-19>

[Learning the lessons from Covid-19 would allow England to better prepare for future pandemics, and understand the weaknesses and strengths of health, care and public health systems. This framework sets out a structure to help untangle the complicated interactions between different elements of the response in England.]

Freely available online

[COVID-19: long-term health effects.](#)

Public Health England (PHE); 2021.

<https://www.gov.uk/government/publications/covid-19-long-term-health-effects>

[Information and guidance on persistent health problems reported following acute COVID-19 disease. There is accumulating evidence to suggest that cases of coronavirus (COVID-19) who have experienced both mild and severe symptoms can experience long-term health effects. This document provides information on the health problems reported in COVID-19 cases following acute disease, and guidance for healthcare professionals on how to advise recovering COVID-19 patients.]

Freely available online

[Thawing small numbers of Pfizer-BioNTech Covid-19 Vaccine vials.](#)

Specialist Pharmacy Service (SPS); 2021.

<https://www.sps.nhs.uk/articles/thawing-small-numbers-of-pfizer-biontech-covid-19-vaccine-vials/>

[This Standard Operating Procedure is for moving small numbers of Pfizer-BioNTech Covid-19 Vaccine vials from an

ultra-low temperature freezer into a fridge to thaw.]
 Freely available online

Transmission characteristics of SARS-CoV-2 variants of concern.

SPOR Evidence Alliance; 2021.

<https://sporevidencealliance.ca/wp-content/uploads/2021/03/Transmission-characteristics-SARS-CoV-2-VOC-Full-Report-17MAR2021.pdf>

[The aim of this rapid scoping review is to map the literature related to the transmission characteristics of the COVID-19 variants of concern (VOCs). The specific research questions were: 1. How much more transmissible are they? 2. Why are they more transmissible? 3. What criteria can be used to define new variants of concern?]

Freely available online

Covid-19 Evidence Alerts from McMaster Plus

COVID-19 Evidence Alerts to current best evidence for clinical care of people with threatened, suspected or confirmed COVID-19 infection. Reports are critically appraised for scientific merit, and those with acceptable scientific merit are appraised for relevance and importance by frontline clinicians. The studies listed below meet their criteria for quality. The site also lists other studies published which do not meet their criteria, or do not belong to a study category they appraise. [\(More information available\).](#)

Diagnosis
Performance and Implementation Evaluation of the Abbott BinaxNOW Rapid Antigen Test in a High-throughput Drive-through Community Testing Site in Massachusetts. <i>Pollock NR, Jacobs JR, Tran K, et al. J Clin Microbiol</i>
Chest CT Diagnosis of COVID-19: Accuracy using CO-RADS and CT-Involvement Scoring. <i>Van Berkel B, Vandevienne J, Coursier K, et al. J Belg Soc Radiol</i>
Efficacy of chest CT scan for COVID-19 diagnosis in a low prevalence and incidence region. <i>Thomas C, Naudin M, Tasu JP, et al. Eur Radiol</i>
Diagnostic performance of different sampling approaches for SARS-CoV-2 RT-PCR testing: a systematic review and meta-analysis. <i>Tsang NNY, So HC, Ng KY, et al. Lancet Infect Dis</i>
Etiology
Non-steroidal anti-inflammatory drugs and susceptibility to COVID-19. <i>Chandan JS, Zemedikun DT, Thayakaran R, et al. Arthritis Rheumatol</i>
Angiotensin II receptor blocker or angiotensin-converting enzyme inhibitor use and COVID-19-related outcomes among US Veterans. <i>Derington CG, Cohen JB, Mohanty AF, et al. PLoS One</i>
Clinical Prediction Guide
Development of a severity of disease score and classification model by machine learning for hospitalized COVID-19 patients. <i>Marcos M, Belhassen-Garcia M, Sanchez-Puente A, et al. PLoS One</i>
Prognosis
Association of Maternal SARS-CoV-2 Infection in Pregnancy With Neonatal Outcomes. <i>Norman M, Naver L, Soderling J, et al. JAMA</i>
Vertical transmission of Severe Acute Respiratory Syndrome Coronavirus 2: A scoping review. <i>Tolu LB, Ezeh A, Feyissa GT PLoS One</i>
SARS-COV-2 infection in pregnant women and newborns in a Spanish cohort (GESNEO-COVID) during the first wave. <i>Carrasco I, Munoz-Chapuli M, Vigil-Vazquez S, et al. BMC Pregnancy Childbirth</i>
The occurrence of long COVID: a rapid review. <i>Iwu CJ, Iwu CD, Wiysonge CS Pan Afr Med J</i>
Maternal and Neonatal Morbidity and Mortality Among Pregnant Women With and Without COVID-19 Infection: The INTERCOVID Multinational Cohort Study.

Villar J, Ariff S, Gunier RB, et al. JAMA Pediatr
Prevalence and Persistent Shedding of Fecal SARS-CoV-2 RNA in Patients With COVID-19 Infection: A Systematic Review and Meta-analysis.
Zhang Y, Cen M, Hu M, et al. Clin Transl Gastroenterol
Primary Prevention
Prophylaxis against covid-19: living systematic review and network meta-analysis.
Bartoszek JJ, Siemieniuk RAC, Kum E, et al. BMJ
Safety and Efficacy of Single-Dose Ad26.COVS.2.S Vaccine against Covid-19.
Sadoff J, Gray G, Vandebosch A, et al. N Engl J Med
Quality Improvement
Mortality outcomes with hydroxychloroquine and chloroquine in COVID-19 from an international collaborative meta-analysis of randomized trials.
Axfors C, Schmitt AM, Janiaud P, et al. Nat Commun
Treatment
The link between COVID-19 and Vitamin D (VIVID): a systematic review and meta-analysis.
Bassatne A, Basbous M, Chakhtoura M, et al. Metabolism
Effect of Early Treatment With Hydroxychloroquine or Lopinavir and Ritonavir on Risk of Hospitalization Among Patients With COVID-19: The TOGETHER Randomized Clinical Trial.
Reis G, Moreira Silva EADS, Medeiros Silva DC, et al. JAMA Netw Open
The effect of propolis plus Hyoscyamus niger L. methanolic extract on clinical symptoms in patients with acute respiratory syndrome suspected to COVID-19: A clinical trial.
Kosari M, Nouredini M, Khamechi SP, et al. Phytother Res
Corticosteroids in COVID-19 and non-COVID-19 ARDS: a systematic review and meta-analysis.
Chaudhuri D, Sasaki K, Karkar A, et al. Intensive Care Med
Assessment of the Safety and Therapeutic Benefits of Convalescent Plasma in COVID-19 Treatment: A Systematic Review and Meta-Analysis.
Barreira DF, Lourenco RA, Calisto R, et al. Front Med (Lausanne)
COVID-19 related pressure injuries in patients and personnel: A systematic review.
Yu JN, Wu BB, Feng LP, et al. J Tissue Viability
Mortality Benefit of Convalescent Plasma in COVID-19: A Systematic Review and Meta-Analysis.
Bansal V, Mahapure KS, Mehra I, et al. Front Med (Lausanne)
Anticoagulation and In-Hospital Mortality From Coronavirus Disease 2019: A Systematic Review and Meta-Analysis.
Moonla C, Sosothikul D, Chiasakul T, et al. Clin Appl Thromb Hemost
Severe Acute Respiratory Syndrome Coronavirus 2 Convalescent Plasma Versus Standard Plasma in Coronavirus Disease 2019 Infected Hospitalized Patients in New York: A Double-Blind Randomized Trial.
Bennett-Guerrero E, Romeiser JL, Talbot LR, et al. Crit Care Med
Safety and Efficacy of Ivermectin and Doxycycline Monotherapy and in Combination in the Treatment of COVID-19: A Scoping Review.
Bhowmick S, Dang A, Vallish BN, et al. Drug Saf
A Phase II Safety and Efficacy Study on Prognosis of Moderate Pneumonia in COVID-19 patients with Regular Intravenous Immunoglobulin Therapy.
R S R, Barge VB, Darivenula AK, et al. J Infect Dis
Management of hospitalised adults with coronavirus disease-19 (COVID-19): A European Respiratory Society living guideline.
Chalmers JD, Crichton ML, Goeminne PC, et al. Eur Respir J
Third force in the treatment of COVID-19: A systematic review and meta-analysis.
Ibekwe T, Ibekwe P, Orimadegun EA Ann Med Surg (Lond)
Inhaled budesonide in the treatment of early COVID-19 (STOIC): a phase 2, open-label, randomised controlled trial.
Ramakrishnan S, Nicolau DV Jr, Langford B, et al. Lancet Respir Med
Role of interferon therapy in severe COVID-19: the COVIFERON randomized controlled trial.
Alavi Darazam I, Shokouhi S, Pourhoseingholi MA, et al. Sci Rep
Effect of nasal corticosteroid in the treatment of anosmia due to COVID-19: A randomised double-blind

[placebo-controlled study.](#)

Rashid RA, Zgair A, Al-Ani RM *Am J Otolaryngol*

[A randomized clinical trial evaluating the immunomodulatory effect of convalescent plasma on COVID-19-related cytokine storm.](#)

Pouladzadeh M, Safdarian M, Eshghi P, et al. *Intern Emerg Med*

Cochrane Systematic Reviews

[Cochrane Evidence on COVID-19: a roundup](#)

No new relevant systematic reviews published in this period.

Evidence Aid

<https://evidenceaid.org/evidence/coronavirus-covid-19/>

This evidence collection contains plain-language summaries of high-quality research which are available in English, and translated into French, Spanish, Portuguese, Arabic and Chinese (simplified and traditional).

The collection includes summaries of systematic reviews that might be relevant to the direct impact of COVID-19 (including reviews of emerging research, as well as existing reviews of relevant interventions) on health and other outcomes, the impact of the COVID-19 response on other conditions, and issues to consider for the recovery period after COVID-19.

[Contact tracing during infectious disease outbreaks \(search done on 15 July 2020\)](#)

Added April 30, 2021

Citation: Megnin-Viggars O, Carter P, Melendez-Torres GJ, et al. *Facilitators and barriers to engagement with contact tracing during infectious disease outbreaks: A rapid review of the evidence.* PLoS ONE. 2020;15(10):e0241473.

What is this? During the COVID-19 pandemic, contact tracing and case isolation have been used to try to control disease outbreaks.

In this rapid review, the authors searched for studies of factors associated with contact tracing and participant experiences following a major contagious viral health incident. They restricted their searches to articles published in English but did not restrict their searches to COVID-19. They did the search on 15 July 2020. They included 12 studies, relating to COVID-19 (6 studies), Ebola (5) and a hypothetical scenario of scabies, shigella and mumps (1).

What was found: At the time of this review, the included studies showed that engagement with COVID-19 contact tracing systems could be facilitated by clear communication about contact tracing, involvement of stakeholders in the development of contact tracing systems, and evaluation and quality assurance of the contact tracing system.

The authors identified 4 themes that may act as facilitators to the uptake of contact tracing: collective responsibility, personal benefit, co-production of contact tracing systems, and the perception of the system as efficient, rigorous, and reliable.

The authors identified 5 themes that may act as barriers to the uptake of contact tracing: privacy concerns, mistrust and/or apprehension, unmet need for more information and support, fear of stigmatization, and specific challenges associated with the use of both virtual and manual contact tracing systems.

[Thoracic imaging for diagnosing COVID-19 \(search done on 30 September 2020\)](#)

Added April 30, 2021

Citation: Islam N, Ebrahimzadeh S, Salameh J, et al. *Thoracic imaging tests for the diagnosis of COVID-19*. Cochrane Database of Systematic Reviews. 2021;(3):CD013639.

What is this? A variety of tests, including thoracic imaging, are being used to diagnose COVID-19.

In this Cochrane living review, the authors searched for studies comparing the diagnostic accuracy of thoracic imaging versus laboratory-based PCR tests in people with suspected COVID-19. They did not restrict their searches by language of publication and did the search for the current version on 30 September 2020. They included 51 studies (19,775 patients), which evaluated chest CT-scans (41 studies), chest X-ray (9) and ultrasound of the lungs (5). You can listen to the podcast about this review here[<https://www.cochrane.org/podcasts/10.1002/14651858.CD013639.pub4>]

What was found: At the time of this review, the included studies showed that chest CT-scans are better at ruling out COVID-19 infection than distinguishing it from other respiratory problems.

The accuracy of chest X-ray and ultrasound of the lungs in diagnosing or ruling out COVID-19 remains uncertain due to limited evidence.

Thoracic imaging for diagnosing COVID-19 (search done on 30 September 2020)

[Awake prone position in COVID-19 patients with respiratory problems \(search up to 5 July 2020\)](#)

Added April 27, 2021

Citation: Anand S, Baishya M, Singh A, et al. *Effect of awake prone positioning in COVID-19 patients – A systematic review*. Trends in Anaesthesia and Critical Care. 2021;36:17-22.**DOI:** 10.1016/j.tacc.2020.09.008

What is this? Some COVID-19 patients will develop respiratory problems and might be placed in the prone position to try to help with this.

In this rapid review, the authors searched for studies of the use of the prone position for awake, non-intubated COVID-19 patients. They do not report if they restricted their searches by language or type of publication. They did the search up to 5 July 2020 and included 13 studies (210 participants).

What was found: At the time of this review, the included studies suggested that prone positioning improved oxygenation of awake COVID-19 patients with related respiratory disease.

The authors recommend early and frequent proning in patients suffering from COVID-19 associated acute respiratory distress syndrome but note that randomized trials are needed before any definite conclusions are drawn.

[Awake prone position and need for intubation in COVID-19 patients \(search up to 15 August 2020\)](#)

Added April 27, 2021

Citation: Cardona S, Downing J, Alfasasi R, et al. *Intubation rate of patients with hypoxia due to COVID-19 treated with awake proning: A meta-analysis*. American Journal of Emergency Medicine. 2021;43:88-96. DOI: 10.1016/j.ajem.2021.01.058

What is this? Some COVID-19 patients will have problems with their breathing and might be placed in the prone position to try to avoid the need for intubation.

In this rapid review, the authors searched for studies of the intubation rate for adult COVID-19 patients requiring oxygen or noninvasive ventilatory support who underwent awake prone positioning. They did not restrict their searches by type of publication but restricted their searches to articles published in English. They did the search up to 15 August 2020 and included 18 observational studies (364 participants).

What was found: At the time of this review, the meta-analysis of the included studies gave an intubation rate of 28% (95% confidence interval: 20% to 38%) among COVID-19 patients who underwent awake prone positioning.

The authors concluded that awake prone positioning is feasible and practical for COVID-19 patients but noted that more rigorous research is needed to confirm its effects.

[Extracorporeal membrane oxygenation \(ECMO\) versus mechanical ventilation for adults with ARDS \(search up to May 2020\)](#)

Added April 27, 2021

Citation: Zhu Y, Zhang M, Zhang R, et al. *Extracorporeal membrane oxygenation versus mechanical ventilation alone in adults with severe acute respiratory distress syndrome: a systematic review and meta-analysis*. International Journal of Clinical Practice. 2021;e14046.

Free to view: No

What is this? Some COVID-19 patients will develop acute respiratory distress syndrome (ARDS) and need help with their breathing. This might be provided by extracorporeal membrane oxygenation (ECMO) or mechanical ventilation (MV) in an intensive care unit.

In this systematic review, the authors searched for randomized trials and observational studies comparing ECMO and MV in adult patients with ARDS. They did not restrict their searches by date, language or type of publication and did the search in May 2020. They identified 2 randomized trials and 5 observational studies (total: 867 patients).

What was found: In a meta-analysis of the results of the 2 randomized trials (429 patients), there was significantly lower 90-day mortality in the ECMO group compared to the MV group (risk ratio: 0.74, 95% confidence interval: 0.59 to 0.93).

In a meta-analysis of the results of the 5 observational studies (438 patients), there was significantly lower 90-day mortality in the ECMO group compared to the MV group (RR: 0.61, 95% CI: 0.46 to 0.81).

Device related adverse events were similar for the ECMO and MV groups.

[Positive end-expiratory pressure \(PEEP\) levels for mechanically ventilated adults \(search up to May 2020\)](#)

Added April 27, 2021

Citation: Santa Cruz R, Villarejo F, Irrazabel C, et al. [High versus low positive end-expiratory pressure \(PEEP\) levels for mechanically ventilated adult patients with acute lung injury and acute respiratory distress syndrome](#). Cochrane Database of Systematic Reviews. 2021;(3):CD009098.

What is this? Some COVID-19 patients will develop acute respiratory distress syndrome (ARDS) or acute lung injury (ALI) and need help with their breathing. This might be provided by mechanical ventilation in an intensive care unit. High levels of positive end-expiratory pressure (PEEP) might be used to prevent lung damage during this treatment.

In this Cochrane systematic review, the authors searched for randomized trials of high versus low levels of PEEP in patients with ARDS or ALI. They did not restrict their searches by date, language or type of publication and did the search in May 2020. They identified 10 randomized trials (3851 participants).

What was found: At the time of this review, there was moderate certainty evidence that high levels of PEEP did not reduce hospital mortality compared to low levels in patients with ARDS or ALI.

At the time of this review, there was moderate certainty evidence that high levels of PEEP improve oxygenation up to the seventh day of mechanical ventilation.

At the time of this review, the authors noted a need for further studies to determine the appropriate method of using high levels of PEEP and the advantages and disadvantages associated with high levels of PEEP in different ARDS and ALI patient populations.

[Prone position during mechanical ventilation in critically ill patients: effects on mortality](#)

Added April 27, 2021

Citation: Bloomfield R, Noble DW, Sudlow A. [Prone position for acute respiratory failure in adults](#). Cochrane Database of Systematic Reviews. 2015;(11):CD008095.

What is this? Some COVID-19 patients will become critically ill and develop acute respiratory distress syndrome (ARDS). They may require mechanical ventilation (MV) in an intensive care unit. They might be placed in the prone position for this.

In this Cochrane systematic review, the authors searched for randomized trials of using a prone position rather than a supine or semi-recumbent position during conventional MV for adults with acute respiratory failure. They did not restrict their searches by language of publication and did the main search in June 2015. They updated the search in May 2020 but did not identify any additional trials for inclusion, so the review continues to include 9 studies (2165 participants). The authors searched trial registries in November 2020 and identified 3 ongoing studies.

What works: The evidence suggests that three subgroups of patients may have reduced mortality if placed in the prone position: those with the most severe lung damage and those who received treatment early or for prolonged periods.

[Oxygen targets during mechanical ventilation for acute respiratory distress syndrome \(search up to 15 May 2020\)](#)

Added April 23, 2021

Citation: Cumpstey AF, Oldman AH, Smith AF, et al. *Oxygen targets in the intensive care unit during mechanical ventilation for acute respiratory distress syndrome: a rapid review*. Cochrane Database of Systematic Reviews. 2020;9:CD013708.

What is this? Some COVID-19 patients will become critically ill with acute respiratory distress syndrome (ARDS) and will need help with their breathing, which might include supplemental oxygen.

In this rapid Cochrane review, the authors searched for randomized trials comparing different oxygen targets for patients receiving mechanical ventilation for ARDS. They did not restrict their searches by language of publication and did the search on 15 May 2020. They identified one study (205 patients), which was conducted in France in 2016 to 2018 and which they rated as high risk of bias.

What was found: At the time of this review, the authors concluded that they were very uncertain about whether a higher or lower oxygen target is more beneficial in patients with ARDS who are receiving mechanical ventilation in an intensive care setting. They called for further well-conducted studies of this topic.

[Rehabilitation for COVID-19 patients \(search up to 2 March 2021\)](#)

Added April 23, 2021

Citation: Andrenelli E, Negrini F, de Sire A, et al; International Multiprofessional Steering Committee of Cochrane Rehabilitation REH-COVER action. *Rehabilitation and COVID-19: update of the rapid living systematic review by Cochrane Rehabilitation Field as of February 28th, 2021*. European Journal of Physical and Rehabilitation Medicine. 2021 Apr 16.

What is this? Many COVID-19 patients may require rehabilitation therapy.

In this living review, the authors search for studies related to the rehabilitation needs and management of COVID-19 patients. They restrict their searches to articles published in English and did the most recent search on 2 March 2021. They added 36 studies in this latest update, bringing the total to 266 included studies.

What was found: At the time of this version of the review, the authors concluded that findings on the natural history of COVID-19 infection and the effects of interventions on patients are growing compared to 2020.

They found that more information is now available about the clinical scenario after hospital discharge and that most recent papers about the acute phase of COVID-19 report on progress during and after early rehabilitation in patients with respiratory failure and musculoskeletal symptoms. They found that studies done in the post-acute and chronic phases mainly report on medium (2 to 4 months after infection onset) and long-term health consequences of COVID-19. The largest cohort study they included (from China with 1733 cases) highlighted the persistence of fatigue and muscle weakness in 63% of patients at 6 months after COVID-19 onset. The authors suggest that comprehensive clinical and functional monitoring may help in the development of specific rehabilitation strategies for patients in the post-acute and chronic phase, given that COVID-19 can affect physiological systems other than the respiratory system.

[Incubation period for COVID-19 \(search up to 1 December 2020\)](#)

Added April 21, 2021

Citation: Dhoub W, Maatoug J, Ayouni I, et al. *The incubation period during the pandemic of COVID-19: a systematic review and meta-analysis*. Systematic Reviews. 2021;10(1):101.

What is this? The incubation period of COVID-19 is important for considering epidemiological case definition, duration of quarantine and the size of epidemics.

In this systematic review, the authors searched for studies of the length of time between exposure to SARS-CoV-2 and the onset of COVID-19 symptoms. They restricted their searches to articles published in English between 1 December 2019 and 1 December 2020. They included 42 studies in their qualitative synthesis, all of which were conducted between January and May 2020, in Argentina (1 study), Brunei (1), China (30), France (1), Germany (2), Korea (4), Saudi Arabia (1) and Singapore (3). They included 10 studies in their meta-analysis, which were from Argentina (1), China (8) and Singapore (1).

What was found: The meta-analysis (10 studies) gave a **pooled mean incubation period** of 6.2 days. When this was adjusted for study quality and method of calculation, the **pooled mean incubation period** ranged from 5.2 to 6.7 days.

The **individual study median incubation period** (from 17 studies) ranged from 2 to 12 days. The **individual study mean incubation period** (from 9 studies) ranged from 3.9 to 9.0 days.

Dynamed - [COVID-19 \(Novel Coronavirus\)](#)

Latest updates

Evidence Updated 6 May 2021 SARS-CoV-2 notable emerging variants update (CDC 2021 May 5) [View in topic](#)

Evidence Updated 5 May 2021

effectiveness of first dose of BNT162b2 mRNA (Pfizer-BioNTech) vaccine to prevent hospitalization in Scotland may be 91% at 28-34 days after injection (Lancet 2021 May 1) [View in topic](#)

Evidence Updated 5 May 2021 effectiveness of first dose of ChAdOx1 nCoV-19 (Oxford-AstraZeneca) vaccine to prevent hospitalization in Scotland may be 88% at 28-34 days after injection (Lancet 2021 May 1) [View in topic](#)

Evidence Updated 3 May 2021 Janssen (Johnson & Johnson) adenovirus-vectored vaccine expressing SARS-CoV-2 spike protein (Ad26.COV2.S) may be 66% effective against moderate-to-severe/critical COVID-19 in adults (N Engl J Med 2021 Apr 21 early online) [View in topic](#)

Evidence Updated 30 Apr 2021 in first week after onset of COVID-19 symptoms, lateral flow antigen-based test appears to have lower false-positive rate than RT-PCR for predicting presence of infectious virus based on culture (Clin Infect Dis 2021 Jan 20 early online) [View in topic](#)

Evidence Updated 30 Apr 2021 saliva and nasal samples each have high sensitivity and specificity for detection of SARS-CoV-2 infection by RT-PCR (Lancet Infect Dis 2021 Apr 12 early online. [View in topic](#)

Evidence Updated 30 Apr 2021 pooled nasal and throat swabs may have higher sensitivity compared to throat swabs for detecting SARS-CoV-2 infection by RT-PCR in outpatients (Lancet Infect Dis 2021 Apr 12 early online) [View in topic](#)

Evidence Updated 29 Apr 2021 vaccine breakthrough infection with SARS-CoV-2 variants reported in 0.5% of adults \geq 19 days after second vaccination with BNT162b2 or mRNA-1273 (N Engl J Med 2021 Apr 21 early online) [View in topic](#)

Evidence Updated 29 Apr 2021 effectiveness of mRNA vaccines (Pfizer-BioNTech BNT162b2 or Moderna mRNA-1273) may be 90% \geq 14 days after second dose and 80% after first dose to prevent SARS-CoV-2 infection in healthcare workers, first responders, and other essential and frontline workers (MMWR Morb Mortal Wkly Rep 2021 Apr 2) [View in topic](#)

Evidence Updated 29 Apr 2021 antiplatelet factor 4 (PF4) antibodies reported in 96% of adults presenting with thrombosis or thrombocytopenia after first dose of ChAdOx1 nCoV-19 vaccine (N Engl J Med 2021 Apr 16 early online) [View in topic](#)

Drug/Device Alert Updated 27 Apr 2021 FDA recommends use of Janssen (Johnson & Johnson) COVID-19 vaccine should be resumed in the United States; at this time, available data suggest risk of thrombosis-thrombocytopenia syndrome (TTS) is very low, but FDA and CDC will continue to investigate (FDA Press Release 2021 Apr 23) [View in topic](#)

Evidence Updated 22 Apr 2021 compared to other respiratory infections, COVID-19 or SARS-CoV-2 infection associated with increased risk of neurologic or psychiatric diagnosis within 6 months (Lancet Psychiatry 2021 Apr 1 early online) [View in topic](#)

Evidence Updated 21 Apr 2021 previous SARS-CoV-2 infection associated with reduced risk of reinfection at 7 months in healthcareworkers in England (Lancet 2021 Apr 17) [View in topic](#)

BMJ Best Practice

06 May 2021

What's new at this update

EMA starts evaluation of Pfizer/BioNTech vaccine in adolescents 12 to 15 years

- The European Medicines Agency's human medicines committee will carry out an accelerated assessment of data, including results from a large ongoing clinical study that included adolescents 12 years of age and older, in order to decide whether to recommend an extension to the current indication. The Pfizer/BioNTech vaccine is currently authorized in people 16 years of age and older. A decision is expected in June.

AHA/ASA publish guidance on management of vaccine-induced immune thrombotic thrombocytopenia

- The American Heart Association/American Stroke Association have published new guidance on the management of cerebral venous sinus thrombosis with vaccine-induced immune thrombotic thrombocytopenia. The guideline recommends treatment with intravenous immune globulin first-line, alongside treatment with an alternative anticoagulant to heparin.

New variants under investigation

- Two new SARS-CoV-2 variants, VUI-21APR-02 and VUI-21APR-03, have been designated variants under investigation in the UK. These variants were first identified in India and cases have been reported in the UK. There is currently no evidence that these variants cause more severe disease or render vaccines any less effective.

Useful Links

[BMJ – latest news and resources for COVID-19](#)

[Cochrane Library Coronavirus \(COVID-19\): evidence relevant to critical care](#)

[Elsevier - Novel Coronavirus Information Center – Elsevier](#)

[European Centre for Disease Prevention and Control](#)

[GOV.UK](#)

[Health protection Scotland](#)

[New England Journal of Medicine](#)

[NHS UK](#)

[Oxford University Press](#)

[Patient.Info](#)

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