

Covid -19 Evidence Update

Summarized and appraised resources

25/02/2021

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

Royal College Guidance	2
NICE – new guidance -	3
New Guidance and reports from other sources	4
COVID-19 Evidence alerts from McMaster Plus	7
Cochrane Systematic Review	
Signs and symptoms to determine if a patient presenting in primary care or hospital outpatient settings has COVID-19	9
Chloroquine or hydroxychloroquine for prevention and treatment of COVID-19	10
Evidence Aid	
Health messages to encourage vaccination during a pandemic or epidemic (search done in May 2020)	12
Kidney conditions and COVID-19 (multiple reviews)	12
Pregnancy and COVID-19 (multiple reviews)	15
Antiviral therapies for COVID-19 (multiple reviews)	20
Routine laboratory tests don't help determine if someone has COVID-19 (search done on 4 May 2020)	22
Extracorporeal membrane oxygenation (ECMO) in COVID-19 (research up to June 2020)	23
Neurological manifestations and COVID-19 (multiple reviews)	23
Eyes and COVID-19 (multiple reviews)	26
Lung imaging features of COVID-19 in children (search up to 11 July 2020)	27
Pharmacological treatments for COVID-19 patients (research up to July 2020)	28
Tuberculosis and COVID-19 (search done on 12 May 2020)	28
SARS-CoV-2 positivity can remain after recovery from COVID-19 (research from before 22 July 2020)	29
Cellular therapy for COVID-19: ongoing research in mid 2020 (search done on 23 April 2020)	29
Dynamed – latest updates	29
Useful Links	32

Royal College/Society Guidance and Point of Care Tools

Latest information and guidance

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

British Society for Rheumatology COVID-19 updates for members	Combined Intensive Care Society, Association of Anaesthetists, Royal College of Anaesthetists, Faculty of Intensive Care Medicine guidance Clinical Guidance
BMJ Best Practice Coronavirus disease 2019 (COVID-19) Management of coexisting conditions in the context of COVID-19	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
Don't forget the bubbles An evidence summary of paediatric Covid-19 literature Covid-19 – a selection of evidence based summaries and articles.	

New NICE Guidance

[COVID-19 rapid guideline: critical care in adults.](#)

National Institute for Health and Care Excellence (NICE); 2021.

<https://www.nice.org.uk/guidance/ng159>

[On 12 February 2021, NICE added advice to follow NHS England's interim clinical commissioning policies on tocilizumab and sarilumab for treating critically ill patients with COVID-19 pneumonia.]

Freely available online

[COVID-19 rapid guideline: delivery of radiotherapy.](#)

National Institute for Health and Care Excellence (NICE); 2021.

<https://www.nice.org.uk/guidance/ng162>

[12 February 2021: NICE added 3 recommendations for research following a review of the evidence on the effects of systemic anticancer treatment or radiotherapy on the risk of severe illness or death in patients with cancer and COVID-19.]

Freely available online

[COVID-19 rapid guideline: delivery of systemic anticancer treatments.](#)

National Institute for Health and Care Excellence (NICE); 2021.

<https://www.nice.org.uk/guidance/ng161>

[12 February 2021: NICE reviewed the evidence on the effects of systemic anticancer treatment on risk of severe illness or death in patients with cancer and COVID-19 and made new recommendations.]

Freely available online

New Guidance and Reports from other sources

[American Society of Hematology 2021 guidelines on the use of anticoagulation for thromboprophylaxis in patients with COVID-19.](#)

Cuker A. *Blood Advances* 2021;5(3):872-888.

[These recommendations were based on very low certainty in the evidence, underscoring the need for high-quality, randomized controlled trials comparing different intensities of anticoagulation. They will be updated using a living recommendation approach as new evidence becomes available.]

Freely available online

[An Evidence-Based Guide to SARS-CoV-2 Vaccination of Patients on Immunotherapies in Dermatology.](#)

Gresham LM. *Journal of the American Academy of Dermatology* 2021;Jan 19 2021(Epub):doi:10.1016/j.jaad.2021.01.047.

[The vaccine platforms being used to develop SARS-CoV-2 vaccines are expected to be safe and potentially effective for dermatology patients on immunotherapeutics. Current guidelines for vaccination of an immunocompromised host remain appropriate when considering future administration of SARS-CoV-2 vaccine.]

Freely available online

[Effectiveness of Mask Wearing to Control Community Spread of SARS-CoV-2.](#)

Brooks JT. *JAMA* 2021;;doi:10.1001/jama.2021.1505.

[This review summarises accumulating evidence that mask wearing reduces spread of SARS-CoV-2 infection and that universal mandatory mask wearing policies reduce infections and deaths, and emphasizes face masks are just one component of pandemic control measures.]

Freely available online

[COVID-19 guidance: TOE and stress echo \(third wave\)](#)

British Society of Echocardiography; 2021.

<https://www.bsecho.org/Public/News/Articles/2021/2021-02/202102-COVID-guidance-TOE-stress.aspx>

[Earlier guidance has rightly focussed on the risks of potential infection between patients and healthcare staff,. It is increasingly important to acknowledge that cardiac conditions themselves are a source of potential morbidity and mortality. The provision of cardiac diagnostics is a vital component of recognising this risk in individual patients and providing a platform for further treatment to then be put in place, in line with Department of Health and NHS England aims.]

Freely available online

[Colchicine in the Management of COVID-19 \(SARS-CoV 2\) Positive Patients](#)

Medicines and Healthcare Products Regulatory Agency (MHRA); 2021.

<https://icmanaesthesiacovid-19.org/s/Theraputic-alert-Colchicine-in-management-of-COVID-19-Positive-Patients.pdf>

[Colchicine should not be used in the management of COVID-19 positive patients other than in the context of a trial, or unless there is an additional licensed indication for its use]

Freely available online

[COVID-19 surveillance and immunity studies.](#)

Department of Health and Social Care (DHSC); 2020.

<https://www.gov.uk/government/publications/covid-19-surveillance/>

[This guidance is an overview of current population surveillance studies in the UK and is for healthcare professionals, academics, industry and the general public (Updated 18 February 2021)]

Freely available online

COVID-19: infection prevention and control (IPC).

Public Health England (PHE); 2021.

<https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control>

[Guidance on infection prevention and control for COVID-19. Sustained community transmission is occurring across the UK. 21 January 2021: Addition of mental health appendix and title change for IPC guidance to 'Guidance for maintaining services within health and care settings.' Guidance amended to strengthen existing messaging and provide further clarity where needed, such as care pathways to recognise testing and exposure.]

COVID-19: Occupational health and safety for health workers.

World Health Organization (WHO); 2021.

https://www.who.int/publications/i/item/WHO-2019-nCoV-HCW_advice-2021.1

[Occupational hazards for health workers on the front line include exposure to SARS-CoV-2 and other pathogens, violence, harassment, stigma, discrimination, heavy workload and prolonged use of personal protective equipment (PPE). This document provides specific measures to protect occupational health and safety of health workers and highlights the duties, rights and responsibilities for health and safety at work in the context of COVID-19.]

Designated settings for people discharged to a care home.

Public Health England (PHE); 2021.

<https://www.gov.uk/government/publications/designated-settings-for-people-discharged-to-a-care-home>

[Guidance on the designated settings scheme for people discharged from hospital to a care home with a positive coronavirus (COVID-19) test. 18 February 2021: Updated 'Discharge into care homes: designated settings' to reflect updated information in the 'clarification note' on 14 to 90 day testing, and to reflect clarification on the need for clinical assessments on discharge from the designated setting to a care home.]

Interleukin-6 inhibitors (tocilizumab or sarilumab) for critically ill patients with COVID-19 pneumonia (adults)

Medicines and Healthcare Products Regulatory Agency (MHRA); 2021.

<https://static1.squarespace.com/static/5e6613a1dc75b87df82b78e1/t/6023e71e460d1d1544ae3915/1612965663638/COVID+19+Therapeutic+alert.pdf>

[UK Interim Clinical Commissioning Policies have now been published, recommending that two Interleukin-6 (IL-6) inhibitors -tocilizumab and sarilumab-are made available as a treatment option for critically ill adult patients (aged 18 years and older) hospitalised with COVID-19 in accordance with the agreed criteria]

Freely available online

Managing the long-term effects of COVID-19.

Scottish Intercollegiate Guidelines Network (SIGN); 2020.

<https://www.sign.ac.uk/our-guidelines/managing-the-long-term-effects-of-covid-19/>

[SIGN 161. This guideline on managing the long-term effects of COVID-19 (also known as long COVID) covers the care of people who have signs and symptoms that develop during or after an infection that is consistent with COVID-19, which continue for more than four weeks and are not explained by an alternative diagnosis. Targeted areas of the guideline will be continuously reviewed and updated in response to emerging evidence.]

Freely available online

SARS-CoV-2 lateral flow antigen tests: evaluation of VOC1 and VOC2.

Public Health England (PHE); 2021.

<https://www.gov.uk/government/publications/sars-cov-2-lateral-flow-antigen-tests-evaluation-of-voc1-and-voc2>

[PHE Porton Down has carried out a rapid assessment on whether lateral flow devices can detect VOC1 and VOC2.]

[Summary of COVID-19 medicines guidance: Learning disabilities.](#)

Specialist Pharmacy Service (SPS); 2021.

<https://www.sps.nhs.uk/articles/summary-of-covid-19-medicines-guidance-learning-disabilities/>

[This page summarises and signposts to medicine related guidance we're aware of from professional and government bodies relating to coronavirus and learning disabilities.]

Freely available online

[Summary of COVID-19 medicines guidance: Respiratory disorders.](#)

Specialist Pharmacy Service (SPS); 2021.

<https://www.sps.nhs.uk/articles/summary-of-covid-19-medicines-guidance-respiratory-disorders/>

[This page summarises and signposts to medicine related guidance we're aware of from professional and government bodies relating to coronavirus and respiratory disorders.]

Freely available online

[Surviving Sepsis Campaign Guidelines on the Management of Adults With Coronavirus Disease 2019 \(COVID-19\) in the ICU: First Update.](#)

Surviving Sepsis Campaign; 2021.

<https://pubmed.ncbi.nlm.nih.gov/33555780/>

[The Surviving Sepsis Campaign Coronavirus Disease 2019 panel issued several recommendations to guide healthcare professionals caring for adults with critical or severe coronavirus disease 2019 in the ICU. Based on a living guideline model the recommendations will be updated as new evidence becomes available.]

Contact the library for a copy of this article

[Understanding lateral flow antigen testing for people without symptoms.](#)

Department of Health and Social Care (DHSC); 2021.

<https://www.gov.uk/guidance/understanding-lateral-flow-antigen-testing-for-people-without-symptoms/>

[An explanation of the technology behind asymptomatic testing and the role these tests play in the national COVID-19 testing programme (Updated 11 February 2021)]

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
Pragmatic Recommendations for the Use of Diagnostic Testing and Prognostic Models in Hospitalized Patients with Severe COVID-19 in Low- and Middle-Income Countries. <i>Schultz MJ, Gebremariam TH, Park C, et al. Am J Trop Med Hyg</i>
Diagnostic Performance of SARS-CoV-2 IgM/IgG Rapid Test Kits for the Detection of the Novel Coronavirus in Ethiopia. <i>Sisay A, Tesfaye A, Desale A, et al. J Multidiscip Healthc</i>
Performance of the BinaxNOW COVID-19 Antigen Card test relative to the SARS-CoV-2 real-time reverse transcriptase polymerase chain reaction assay among symptomatic and asymptomatic healthcare employees. <i>James AE, Gulley T, Kothari A, et al. Infect Control Hosp Epidemiol</i>
Clinical applications of detecting IgG, IgM, or IgA antibody for the diagnosis of COVID-19: A meta-analysis and systematic review. <i>Chen M, Qin R, Mei J, et al. Int J Infect Dis</i>
Evaluation of a rapid antigen test (Panbio COVID-19 Ag rapid test device) for SARS-CoV-2 detection in asymptomatic close contacts of COVID-19 patients. <i>Torres I, Poujois S, Albert E, et al. Clin Microbiol Infect</i>
Real-life validation of the Panbio COVID-19 antigen rapid test (Abbott) in community-dwelling subjects with symptoms of potential SARS-CoV-2 infection. <i>Gremmels H, Winkel BMF, Schuurman R, et al. EClinicalMedicine</i>
Etiology
Statin use and clinical outcomes in patients with COVID-19: An updated systematic review and meta-analysis. <i>Pal R, Banerjee M, Yadav U, et al. Postgrad Med J</i>
Clinical Outcomes From COVID-19 Following Use of Angiotensin-Converting Enzyme Inhibitors or Angiotensin-Receptor Blockers Among Patients with Hypertension in South Korea: A nationwide study. <i>Kim JH, Baek YH, Lee H, et al. Epidemiol Health</i>
Mortality, Severity, and Hospital Admission among COVID-19 Patients with ACEI/ARB Use: A Meta-Analysis Stratifying Countries Based on Response to the First Wave of the Pandemic. <i>Alamer AA, Almulhim AS, Alrashed AA, et al. Healthcare (Basel)</i>
Renin-angiotensin system blocker and outcomes of COVID-19: a systematic review and meta-analysis. <i>Lee HW, Yoon CH, Jang EJ, et al. Thorax</i>
Primary Prevention
Facemask use in community settings to prevent respiratory infection transmission: a rapid review and meta-analysis. <i>Chaabna K, Doraiswamy S, Mamtani R, et al. Int J Infect Dis</i>
Safety and efficacy of an rAd26 and rAd5 vector-based heterologous prime-boost COVID-19 vaccine: an interim analysis of a randomised controlled phase 3 trial in Russia. <i>Logunov DY, Dolzhikova IV, Shcheblyakov DV, et al. Lancet</i>
Face Mask Use in the Community for Reducing the Spread of COVID-19: A Systematic Review. <i>Coclite D, Napolitano A, Gianola S, et al. Front Med (Lausanne)</i>
Digital contact tracing technologies in epidemics: a rapid review. <i>Anglemyer A, Moore TH, Parker L, et al. Cochrane Database Syst Rev</i>
Travel-related control measures to contain the COVID-19 pandemic: a rapid review. <i>Burns J, Movsisyan A, Stratil JM, et al. Cochrane Database Syst Rev</i>

Prognosis
The Profile of the Obstetric Patients with SARS-CoV-2 Infection According to Country of Origin of the Publication: A Systematic Review of the Literature. <i>Cunarro-Lopez Y, Pintado-Recarte P, Cueto-Hernandez I, et al. J Clin Med</i>
Clinical Prediction Guide
National Early Warning Score 2 (NEWS2) to identify inpatient COVID-19 deterioration: a retrospective analysis. <i>Baker KF, Hanrath AT, van der Loeff IS, et al. Clin Med (Lond)</i>
Validating the RISE UP score for predicting prognosis in patients with COVID-19 in the emergency department: a retrospective study. <i>van Dam PM, Zelis N, Stassen P, et al. BMJ Open</i>
Developing and validating COVID-19 adverse outcome risk prediction models from a bi-national European cohort of 5594 patients. <i>Jimenez-Solem E, Petersen TS, Hansen C, et al. Sci Rep</i>
Development and validation of a risk score using complete blood count to predict in-hospital mortality in COVID-19 patients. <i>Liu H, Chen J, Yang Q, et al. Med (N Y)</i>
Treatment
Safety and effectiveness of high-dose vitamin C in patients with COVID-19: a randomized open-label clinical trial. <i>Jamali Moghadam Siahkali S, Zarezade B, Koolaji S, et al. Eur J Med Res</i>
Interferon-beta offers promising avenues to COVID-19 treatment: a systematic review and meta-analysis of clinical trial studies. <i>Nakhilband A, Fakhari A, Azizi H Naunyn Schmiedeberg's Arch Pharmacol</i>
Anakinra for patients with COVID-19: a meta-analysis of non-randomized cohort studies. <i>Pasin L, Cavalli G, Navalesi P, et al. Eur J Intern Med</i>
Systematic review and meta-analysis of anakinra, sarilumab, siltuximab and tocilizumab for COVID-19. <i>Khan FA, Stewart I, Fabbri L, et al. Thorax</i>
Peginterferon lambda for the treatment of outpatients with COVID-19: a phase 2, placebo-controlled randomised trial. <i>Feld JJ, Kandel C, Biondi MJ, et al. Lancet Respir Med</i>
American Society of Hematology 2021 guidelines on the use of anticoagulation for thromboprophylaxis in patients with COVID-19. <i>Cuker A, Tseng EK, Nieuwlaat R, et al. Blood Adv</i>
Surviving Sepsis Campaign Guidelines on the Management of Adults With Coronavirus Disease 2019 (COVID-19) in the ICU: First Update. <i>Alhazzani W, Evans L, Alshamsi F, et al. Crit Care Med</i>
Azithromycin in patients admitted to hospital with COVID-19 (RECOVERY): a randomised, controlled, open-label, platform trial. Lancet
Efficacy and safety of sofosbuvir/ ledipasvir in treatment of patients with COVID-19; A randomized clinical trial. <i>Khalili H, Nourian A, Ahmadinejad Z, et al. Acta Biomed</i>
The effect of tocilizumab on mortality in hospitalized patients with COVID-19: a meta-analysis of randomized controlled trials. <i>Kow CS, Hasan SS Eur J Clin Pharmacol</i>

Cochrane Evidence on COVID-19: a roundup

Signs and symptoms to determine if a patient presenting in primary care or hospital outpatient settings has COVID-19

Thomas Struyf, Jonathan J Deeks, Jacqueline Dinnes, Yemisi Takwoingi, Clare Davenport, Mariska MG Leeflang, René Spijker, Lotty Hooft, Devy Emperador, Julie Domen, Sebastiaan R A Horn, Ann Van den Bruel, Cochrane COVID-19 Diagnostic Test Accuracy Group

The included studies

We found 44 relevant studies with 26,884 participants. The studies assessed 84 separate signs and symptoms, and some assessed combinations of signs and symptoms. Three studies were conducted in primary care (1824 participants), nine in specialist COVID-19 testing clinics (10,717 participants), 12 studies in hospital outpatient settings (5061 participants), seven studies in hospitalised patients (1048 participants), 10 studies in the emergency department (3173 participants), and in three studies the setting was not specified (5061 participants). No studies focused specifically on children, and only one focused on older adults.

Main results

The studies did not clearly distinguish between mild and severe COVID-19, so we present the results for mild, moderate and severe disease together.

The symptoms most frequently studied were cough and fever. In our studies, on average 21% of the participants had COVID-19, which means in a group of 1000 people, around 210 would have COVID-19. According to the studies in our review, in the same 1000 people, around 655 people would have a cough. Of these, 142 would actually have COVID-19. Of the 345 who do not have a cough, 68 would have COVID-19. In the same 1000 people, around 371 people would have a fever. Of these, 113 would actually have COVID-19. Of the 629 patients without fever, 97 would have COVID-19.

The loss of sense of smell or taste also substantially increase the likelihood of COVID-19 when they are present. For example, in a population where 2% of the people have COVID-19, having either loss of smell or loss of taste would increase a persons' likelihood of having COVID-19 to 8%.

How reliable are the results?

The accuracy of individual symptoms and signs varied widely across studies. Moreover, the studies selected participants in a way that meant the accuracy of tests based on symptoms and signs may be uncertain.

Conclusions

Most studies were conducted in hospital settings, so the results may not be entirely representative of primary care settings. The results do not apply to children or older adults specifically, and do not clearly differentiate between disease severities.

The results suggest that a single symptom or sign included in this review cannot accurately diagnose COVID-19. However, the presence of loss of taste or smell may serve as a red flag for the presence of the disease. The presence of high temperature or cough may also be useful to identify people who might have COVID-19. These symptoms may be useful to prompt further testing when they are present.

Further research is needed to investigate combinations of symptoms and signs; and testing unselected populations, in primary care settings and in children and older adults.

How up to date is this review?

For this update of the review, the authors searched for studies published from January to July 2020.

Chloroquine or hydroxychloroquine for prevention and treatment of COVID-19

Bhagteshwar Singh, Hannah Ryan, Tamara Kredo, Marty Chaplin, Tom Fletcher

Key messages

Hydroxychloroquine does not reduce deaths from COVID-19, and probably does not reduce the number of people needing mechanical ventilation.

Hydroxychloroquine caused more unwanted effects than a placebo treatment, though it did not appear to increase the number of serious unwanted effects.

We do not think new studies of hydroxychloroquine should be started for treatment of COVID-19.

What was studied in the review?

We searched for studies that looked at giving chloroquine and hydroxychloroquine to people with COVID-19; people at risk of being exposed to the virus; and people who have been exposed to the virus.

We found 14 relevant studies: 12 studies of chloroquine or hydroxychloroquine used to treat COVID-19 in 8569 adults; two studies of hydroxychloroquine to stop COVID-19 in 3346 adults who had been exposed to the virus but had no symptoms of infection. We did not find any completed studies of these medicines to stop COVID-19 in people who were at risk of exposure to the virus; studies are still under way.

The studies took place in China, Brazil, Egypt, Iran, Taiwan, North America, and Europe; one study was worldwide. Some studies were partly funded by pharmaceutical companies that manufacture hydroxychloroquine.

What are the main results of our review?

Treating COVID-19

Compared with usual care or placebo, hydroxychloroquine:

- clearly did not affect how many people died (of any cause; 9 studies in 8208 people);
- probably did not affect how many people needed mechanical ventilation (3 studies; 4521 people);
- may not affect how many people still tested positive for the virus after 14 days (3 studies; 213 people).

We are uncertain whether hydroxychloroquine affected the number of people whose symptoms improved after 28 days.

Compared with other antiviral treatment (lopinavir plus ritonavir), chloroquine made little or no difference to the time taken for symptoms to improve (1 study; 22 people).

Compared with usual care in one study in 444 people, hydroxychloroquine given with azithromycin (an antibiotic) made no difference to:

- how many people died;
- how many needed mechanical ventilation; or
- time spent in hospital.

Compared with febuxostat (a medicine to treat gout), hydroxychloroquine made no difference to how many people were admitted to hospital or to changes seen on scans of people's lungs; no deaths were reported (1 study; 60 people).

Preventing COVID-19 in people exposed to it

We are uncertain whether hydroxychloroquine affected how many people developed COVID-19, or how many people were admitted to hospital with COVID-19, compared with those receiving a placebo treatment (1 study; 821 people).

Compared with usual care, hydroxychloroquine made no difference to the risk of developing COVID-19, or antibodies to the virus, in people exposed to it (1 study; 2525 people).

Unwanted effects

When used for treating COVID-19, compared with usual care or placebo, hydroxychloroquine:

- probably increases the risk of mild unwanted effects (6 studies; 1394 people);
- may not increase the risk of serious harmful effects (6 studies; 1004 people).

When given along with azithromycin, hydroxychloroquine increased the risk of any unwanted effects, but made no difference to the risk of serious unwanted effects (1 study; 444 people).

Compared with lopinavir plus ritonavir, chloroquine made little or no difference to the risk of unwanted effects (1 study; 22 people).

When used for preventing COVID-19, hydroxychloroquine probably causes more unwanted effects than placebo, but may not increase the risk of serious, harmful unwanted effects (1 study; 700 people).

How confident are we in our results?

We are confident about our results for how many people died and moderately confident about how many needed mechanical ventilation. We are moderately confident about the unwanted effects of hydroxychloroquine treatment, but less confident about our results for serious unwanted effects; these results might change with further evidence.

How up-to-date is this review?

We included evidence published up to 15 September 2020.

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.

[Health messages to encourage vaccination during a pandemic or epidemic \(search done in May 2020\)](#)

Added February 24, 2021

Citation: Lawes-Wickwar S, Ghio D, Tang MY, et al. *A rapid systematic review of public responses to health messages encouraging vaccination against infectious diseases in a pandemic or epidemic*. Vaccines. 2021;9(2):72.

What is this? Several vaccines have been shown to be effective against COVID-19. Existing research on the public's responses to messages encouraging vaccination during a pandemic or epidemic might provide useful information for policy makers.

In this rapid systematic review, the authors searched for studies testing at least one type of health message on vaccination-related behaviour and behavioural influences. They restricted their searches to articles published in English and did the search in May 2020. They included 35 eligible studies; half of which scored highly in their quality assessment, and most of which reported messages for seasonal influenza (11 studies) or H1N1 influenza (11).

What works: Messages were more effective if they (a) used credible sources (e.g. Centre for Disease Control and Prevention); (b) used community-wide outreach methods including mixed media; (c) considered appropriate risk-reducing framing; and (d) were personally relevant, short and focused on the benefits of vaccination to society as a whole.

The authors of the review also recommended consulting local communities in the design and dissemination of messages to ensure they are acceptable and accessible by target groups.

What doesn't work: Messages which over-emphasised the health benefits of vaccines and used terminology that the target populations could not understand had negative impacts on beliefs and intentions to take up a vaccine and were less acceptable to the public.

What's uncertain: The most effective messaging medium (e.g. text message or TV broadcast) and intensity of delivery for improving vaccine uptake are uncertain.

[Kidney conditions and COVID-19 \(multiple reviews\)](#)

What is this? COVID-19 patients with pre-existing kidney conditions or who develop renal disease may be at higher risk of poorer outcomes and death.

Several reviews have been done and are summarized here. More details on these, including citations and links to the full reviews, are available lower down this page.

What was found? In general, the reviews found that acute kidney injury (AKI) was associated with poorer outcomes in COVID-19 patients, including higher mortality rates.

In general, the reviews suggest that particular attention should be given to COVID-19 patients already on immunosuppressive therapy, such as those with chronic kidney disease or renal transplant patients.

In general, the reviews recommend early evaluation and monitoring of hepatic, renal and haematology markers in COVID-19 patients.

The Hansrivijt review (search done on 24 April 2020) found that increasing age, diabetes, hypertension and elevated baseline serum creatinine levels might be predisposing factors for AKI in COVID-19 patients.

The Ali review (research from before 7 April 2020) found that AKI in COVID-19 patients may be multifactorial, including sepsis-related multi organ failure, direct kidney involvement and acute respiratory distress syndrome.

The Kunutsor review (search done up to 13 June 2020) found that the most common kidney complications among hospitalized COVID-19 patients were electrolyte disturbances, AKI and the need for renal replacement therapy.

The Lim review (search done on 11 April 2020) found that the presence of AKI, acute liver injury and coagulopathy were associated with poor outcomes in COVID-19 patients.

The Oyelade review (search done on 14 April 2020) found that the prevalence of liver diseases and chronic kidney diseases in COVID-19 patients were both low.

The Moris review (search done up to 10 June 2020) found that kidney transplant patients often present with lymphopenia and increased CRP, which were both associated with poor COVID-19 outcomes. The authors concluded that immunomodulatory drugs, such as IL-6 inhibitors may improve outcomes in kidney transplant patients with severe COVID-19, but note there is no high-level data supporting the use of immunomodulatory drugs in these cases.

What are the reviews:

Citation: Ali H, Daoud A, Mohamed MM, et al. *Survival rate in acute kidney injury superimposed COVID-19 patients: a systematic review and meta-analysis*. Renal Failure. 2020;42(1):393-7.

In this rapid review, the authors searched for studies on the survival of COVID-19 patients who developed severe acute kidney injury. The date of their search is not reported but they submitted their paper for publication on 7 April 2020. They included 6 cohort studies (1277 patients), all from China.

Citation: Bajwa H, Riaz Y, Ammar M, et al. *The Dilemma of Renal Involvement in COVID-19: A Systematic Review*. Cureus. 2020;12(6):e8632.

In this rapid review, the authors searched for studies of the pathogenesis of acute kidney injury in COVID-19 patients. They restricted their searches to articles in English, published between December 2019 and 13 April 2020. They included 2 prospective cohort studies, 1 retrospective cohort study and 2 case series (total: 1098 patients).

Citation: Chen YT, Shao SC, Lai EC, et al. Mortality rate of acute kidney injury in SARS, MERS, and COVID-19 infection: a systematic review and meta-analysis. Critical Care. 2020;24(1):439.

In this rapid review, the authors searched for studies of mortality rates for patients with SARS, MERS or COVID-19 who developed acute kidney injury. They did not restrict their searches by date, type or language of publication and did the search on 5 June 2020. They included 23 studies (9647 participants), for COVID-19 (16 studies), MERS (3) and SARS (4). The COVID-19 studies were from China (10), Italy (1), UK (1) and USA (4).

Citation: Cheruiyot I, Kipkorir V, Ngure B, et al. Acute kidney injury is associated with worse prognosis in COVID-19 patients: a systematic review and meta-analysis. Acta Bio Medica: Atenei Parmensis. 2020;91(3):e2020029.

In this rapid review, the authors searched for studies of ≥ 10 COVID-19 patients with data on acute kidney injury. They did not restrict their searches by language of publication and searched for studies published between November 2019 and 15 May 2020. They included 15 studies (5832 patients), from China (12 studies), South Korea (1) and USA (2).

Citation: Hansrivijit P, Qian C, Boonpheng B, et al. Incidence of acute kidney injury and its association with mortality in patients with COVID-19: a meta-analysis. Journal of Investigative Medicine. 2020;68(7):1261-70.

In this rapid review, the authors searched for studies of the effect of acute kidney injury on mortality in COVID-19 patients. They did not restrict their searches by date, type or language of publication and did the search on 24 April 2020. They included 26 studies (5497 patients), from China (21), Hong Kong (1), Spain (1) and USA (1).

Citation: Kunutsor SK, Laukkanen JA. Renal complications in COVID-19: a systematic review and meta-analysis. Annals of Medicine. 2020;52(7):345-53.

In this rapid review, the authors searched for studies of renal complications in COVID-19 patients. They restricted their searches to articles published in English and searched up to 13 June 2020. They included 21 retrospective cohort studies and 1 prospective cohort study (total: 17,391 patients), from China (16 studies) and USA (6).

Citation: Lim MA, Pranata R, Huang I, et al. Multiorgan failure with emphasis on acute kidney injury and severity of COVID-19: systematic review and meta-analysis. Canadian Journal of Kidney Health and Disease. 2020;7:2054358120938573.

In this rapid review, the authors searched for studies reporting information on AKI, acute liver injury or coagulopathy in adult COVID-19 patients. They restricted their searches to published and pre-published studies in English and did the search on 11 April 2020. They included 15 studies (3616 patients).

Citation: Moris D, Kesseli SJ, Barbas AS. Kidney transplant recipients infected by COVID-19: Review of the initial published experience. Transplant Infectious Disease. 2020;22:e13426.

In this rapid review, the authors searched for studies of COVID-19 in kidney transplant recipients. They did not restrict their searches by type or language of publication and included articles published between 1 January 2020 and 10 June 2020. They included 12 case series and 25 case reports (total: 221 kidney transplant patients).

Citation: Oyelade T, Alqahtani J, Canciani G. Prognosis of COVID-19 in patients with liver and kidney diseases: an early systematic review and meta-analysis. Tropical Medicine and Infectious Disease. 2020;5(2):80.

In this rapid review, the authors searched for studies reporting clinical characteristics and outcomes of COVID-19 patients with underlying kidney or liver disease. They restricted their searches to articles published in English between 21 November 2019 and 14 April 2020. They included 22 studies (5595 patients), from China (21 studies) and Italy (1).

Citation: Robbins-Juarez SY, Qian L, King KL, et al. Outcomes for patients with COVID-19 and acute kidney injury: a systematic review and meta-Analysis. Kidney International Reports. 2020;5(8):1149-60.

In this rapid review, the authors searched for studies reporting outcomes for COVID-19 patients with acute kidney injury. They restricted their searches to studies published in English between 1 December 2019 and 24 May 2020. They included 20 studies (13,137 patients), 13 of which were from China.

Other review relevant to this topic:

Citation: Zaki N, Alashwal H, Ibrahim S. Association of hypertension, diabetes, stroke, cancer, kidney disease, and high-cholesterol with COVID-19 disease severity and fatality: a systematic review. Diabetes & Metabolic Syndrome: Clinical Research & Reviews. 2020;14(5):1133-42.

[Pregnancy and COVID-19 \(multiple reviews\)](#)

What is this? Some pregnant women will develop COVID-19.

Many rapid reviews have been done and some are summarized here. More details for the reviews, including citations and links to their full text, are available further down this page.

What was found: At the time of the reviews, the symptoms and outcomes of COVID-19 in pregnant women were reported to be similar to those of non-pregnant women. However, the studies included in the reviews were typically those from early in the pandemic, meaning that the women will probably have been diagnosed with COVID-19 during the third trimester of their pregnancy. Outcomes may be different when infection occurs during earlier stages.

In general, the main complications reported for pregnant women with COVID-19 were higher rates of fetal distress, premature birth, caesarean section and premature rupture of membranes compared to pregnant women who did not have COVID-19. However, fetal and neonatal outcomes appeared to be generally good.

The Turan review (search done on 29 May 2020) found that increasing age, obesity, elevated d-dimer and interleukin-6 biomarkers and diabetes were associated with poor outcomes of COVID-19 infection during pregnancy. The Khalil review (search done on 8 June 2020) reported that BAME (Black And Minority Ethnic groups) background and maternal co-morbidities were predictive of poor outcomes in COVID-19 infection during pregnancy.

The Abdollahpour review (search done on 25 March 2020) found no evidence of an increased risk of miscarriage or stillbirth with COVID-19 infection. The Kasraeian (search done on 18 March 2020) and Trocado (search done in March 2020) reviews reported that first- and fifth-minute Apgar scores of newborn babies whose mother had COVID-19 were in the normal range. However, the Di Mascio review (search done on 13 March 2020) found an increased rate of neonatal death, and both this and the Huntley review (search done on 29 April 2020) reported a higher rate of admission into neonatal intensive care.

Several reviews reported low numbers of neonates that tested positive for the SARS-CoV-2 virus or virus-specific antibodies but the evidence for vertical transmission from mothers to babies was uncertain. For example, the Gordon review (search done on 12 May 2020) included three cases of suspected vertical

transmission but noted that neonates typically had a mild illness. The Walker review (search done on 5 June 2020) found that neonatal infection of babies born to women with COVID-19 was rarely symptomatic. The Simões e Silva (search up to April 2020) and Yang N (search done on 31 March 2020) reviews reported that SARS-CoV-2 had not been detected in breast milk.

The Abdollahpour (search done on 25 March 2020) and Freitas (search done on 31 March 2020) reviews provided recommendations for maternal and child care.

What are the reviews:

Citation: Abdollahpour S, Khadivzadeh T. Improving the quality of care in pregnancy and childbirth with coronavirus (COVID-19): a systematic review. Journal of Maternal-Fetal & Neonatal Medicine. 2020 May 14;1-9.

In this rapid review, the authors searched for studies of pregnancy, childbirth and COVID-19. They restricted their searches to articles published in English up to 25 March 2020. They included 29 studies.

Citation: Ashraf MA, Keshavarz P, Hosseinpour P, et al. Coronavirus Disease 2019 (COVID-19): A Systematic Review of Pregnancy and the Possibility of Vertical Transmission. Journal of Reproduction & Infertility. 2020;21(3):157-68.

In this rapid review, the authors searched for studies reporting test results for newborn babies and mothers who had COVID-19 during pregnancy. They restricted their searches to articles published in English up to 14 April 2020. They included 21 studies (90 pregnant women and 92 babies).

Citation: Capobianco G, Saderi L, Aliberti S, et al. COVID-19 in pregnant women: A systematic review and meta-analysis. European Journal of Obstetrics & Gynecology and Reproductive Biology. 2020;252:543-58.

In this rapid review, the authors searched for studies of clinical complications in pregnant women and neonates infected with COVID-19. They restricted their searches to articles published in English between December 2019 and 15 April 2020. They included 13 studies, which were all from China.

Citation: Della Gatta AN, Rizzo R, Pilu G, et al. Coronavirus 19 during pregnancy: a systematic review of reported cases. American Journal of Obstetrics and Gynecology. 2020;223(1):36-41.

In this rapid review, the authors searched for articles on clinical outcomes for pregnant women who had COVID-19. They did not restrict their searches by language of publication and completed the search on 16 March 2020. They included 6 retrospective studies (51 pregnant women), which were all from China.

Citation: Di Mascio D, Khalil A, Saccone G, et al. Outcome of Coronavirus spectrum infections (SARS, MERS, COVID-19) during pregnancy: a systematic review and meta-analysis. American Journal of Obstetrics & Gynecology MFM. 2020;2(2):100107.

In this rapid review, the authors searched for articles investigating outcomes related to babies and mothers who had a coronavirus infection during pregnancy. They restricted their searches to articles published in English and did the search on 13 March 2020. They included 19 studies (79 pregnant women).

Citation: Elshafeey F, Magdi R, Hindi N, et al. A systematic scoping review of COVID-19 during pregnancy and childbirth. International Journal of Gynecology & Obstetrics. 2020;150:47-52.

In this rapid review, the authors searched for articles describing clinical presentation, maternal and perinatal outcomes of COVID-19 during pregnancy. They did not restrict their searches by type or language of

publication and did the search on 19 April 2020. They included 33 studies (385 pregnant women), which included one case-control study from China, and 16 case reports and 16 case series from multiple countries.

Citation: Freitas BH, Alves MD, Gaíva MA. Prevention and control measures for neonatal COVID-19 infection: a scoping review. Revista Brasileira de Enfermagem. 2020;73(Suppl 2):e20200467.

In this scoping review, the authors searched for studies of COVID-19 prevention measures and neonatal infection rates. They did not restrict their searches by type of study, and included articles published in English, Spanish and Portuguese published up to 31 March 2020. They included 25 studies.

Citation: Gordon M, Kagalwala T, Rezk K, et al. Rapid systematic review of neonatal COVID-19 including a case of presumed vertical transmission. BMJ Paediatrics Open. 2020;4(1):e000718.

In this rapid review, the authors searched for studies of COVID-19 infection in neonates. They restricted their searches to studies published in English between 1 December 2019 and 12 May 2020. They included 8 observational studies (10 published cases of COVID-19 in neonates).

Citation: Huntley BJ, Huntley ES, Di Mascio D, et al. Rates of Maternal and Perinatal Mortality and Vertical Transmission in Pregnancies Complicated by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Infection: A Systematic Review. Obstetrics & Gynecology. 2020; 136(2):303-12.

In this rapid review, the authors searched for case series describing COVID-19 infection in pregnancy, including maternal and perinatal outcomes, in at least 10 pregnant women with COVID-19. They did not restrict their searches by language of publication and did the search up to 29 April 2020. They included 13 studies (538 pregnant women), from China (10 studies), Italy (1) and USA (2).

Citation: Khalil A, Kalafat E, Benlioglu C, et al. SARS-CoV-2 infection in pregnancy: A systematic review and meta-analysis of clinical features and pregnancy outcomes. EclinicalMedicine. 2020;25:100446.

In this rapid review, the authors searched for studies describing clinical features and pregnancy outcomes of COVID-19 infection. They did not restrict their searches by language of publication, did their main search on 6 April 2020, and ran updated searches to 8 June 2020. They included 86 studies and used 17 studies (2567 pregnant women) in the quantitative synthesis.

Citation: Kasraeian M, Zare M, Vafaei H, et al. COVID-19 pneumonia and pregnancy; a systematic review and meta-analysis. Journal of Maternal-Fetal & Neonatal Medicine. 2020 May 19:1-8.

In this rapid review, the authors searched for studies of the effects of COVID-19 on pregnant women and their babies. They restricted their searches to articles published in English and Chinese up to 18 March 2020. They included 9 studies (87 pregnant women and 86 babies), all from China.

Citation: Kotlyar A, Grechukhina O, Chen A, et al. Vertical transmission of COVID-19: a systematic review and meta-analysis. American Journal of Obstetrics and Gynecology 2021;224(1):35-53.

In this rapid review, the authors searched for research relevant to vertical transmission of COVID-19 in pregnancy. They restricted their searches to studies published in English up to 28 May 2020. They included 69 studies in their qualitative synthesis, and 38 studies in their quantitative synthesis.

Citation: Lopes de Sousa ÁF, de Carvalho HEF, de Oliveira LB, et al. Effects of COVID-19 Infection during Pregnancy and Neonatal Prognosis: What Is the Evidence? International Journal of Environmental Research and Public Health. 2020;17(11):4176.

In this rapid review, the authors searched for studies of the potential risks of COVID-19 infection in pregnant women and foetal transmission. They did not restrict their searches by language of publication and did the search up to 26 May 2020. They included 49 studies (755 pregnant women and 598 infants), mostly from China.

Citation: Melo GC, Araújo KC. COVID-19 infection in pregnant women, preterm delivery, birth weight, and vertical transmission: a systematic review and meta-analysis. Cadernos de Saude Publica. 2020;36:e00087320.

In this rapid review, the authors searched for studies of the correlation between preterm delivery, birth weight and COVID-19 infection in pregnant women, and vertical transmission to newborns. They did not restrict their searches by language of publication and did the search up to 4 May 2020. They included 11 cross-sectional studies, 11 case reports, 10 series reports, 4 case control studies and 2 cohort studies.

Citation: Muhidin S, Moghadam ZB, Vizheh M. Analysis of Maternal Coronavirus Infections and Neonates Born to Mothers with 2019-nCoV; a Systematic Review. Archives of Academic Emergency Medicine. 2020;8(1):e49

In this rapid review, the authors searched for studies of the impact of COVID-19 on pregnant women and maternal and neonatal outcomes. They restricted their searches to articles published in English or Persian from December 2019 to 19 March 2020. They included 9 studies, all from China (89 pregnant women and 89 babies).

Citation: Pastick KA, Nicol MR, Smyth E, et al. A systematic review of treatment and outcomes of pregnant women with COVID-19 – A call for clinical trials. Open Forum Infectious Diseases 2020;7(9):ofaa350.

In this rapid review, the authors searched for studies of COVID-19 in pregnancy or the postpartum period and evaluated the proportion of COVID-19 clinical trials excluding pregnant or breastfeeding women. They did not restrict their searches by language of publication and did the search up to 29 June 2020. They included 52 case reports, 44 case series, 25 cohort studies, 3 governmental or national reports and 2 case control studies.

Citation: Simões e Silva AC, Leal CRV. Is SARS-CoV-2 Vertically Transmitted? Frontiers in Pediatrics. 2020;8:276.

In this rapid review, the authors searched for case reports and case series for women infected with SARS-CoV-2 during pregnancy or neonates born to infected mothers. The date of the search is not reported but the article was submitted to the journal on 2 April 2020. The authors included 5 case series and 7 case reports.

Citation: Thomas P, Alexander PE, Ahmed U, et al. Vertical transmission risk of SARS-CoV-2 infection in the third trimester: a systematic scoping review. Journal of Maternal-Fetal & Neonatal Medicine. 2020 Jul 1:1-8.

In this rapid review, the authors searched for studies on foetal and neonatal outcomes among women with COVID-19 in the third trimester of pregnancy. They restricted their searches to articles published in English between January and 7 May 2020. They included 18 studies (157 hospitalized mothers and 160 babies).

Citation: Trocado V, Silvestre-Machado J, Azevedo L, et al. Pregnancy and COVID-19: a systematic review of maternal, obstetric and neonatal outcomes. Journal of Maternal-Fetal & Neonatal Medicine. 2020 Jul 7:1-3.

In this rapid review, the authors searched for research on COVID-19 in pregnancy and its effects on maternal, obstetric and neonatal outcomes. They restricted their searches to articles published in English and did the search in March 2020. They included 8 studies, all from China.

Citation: Turan O, Hakim A, Dashraath P, et al. Clinical characteristics, prognostic factors, and maternal and neonatal outcomes of SARS-CoV-2 infection among hospitalized pregnant women: A systematic review. International Journal of Gynecology & Obstetrics. 2020;151(1):7-16.

In this rapid review, the authors searched for studies of the clinical characteristics, prognostic factors and maternal and neonatal outcomes of COVID-19 among hospitalised pregnant women. They restricted their searches to articles published in English or Mandarin and did the search up to 29 May 2020. They included 31 case reports, 28 case series and 4 retrospective cohort studies.

Citation: Walker KF, O'Donoghue K, Grace N, et al. Maternal transmission of SARS-COV-2 to the neonate, and possible routes for such transmission: A systematic review and critical analysis. BJOG: An International Journal of Obstetrics & Gynaecology. 2020;127:1324-36.

In this rapid review, the authors searched for case reports or case series for pregnant women with COVID-19 where neonatal outcomes were reported. They did not restrict their searches by date or language of publication and did the search on 5 June 2020. They included 49 studies (655 mothers and 666 babies), from multiple countries.

Citation: Yang N, Che S, Zhang J, et al. Breastfeeding of infants born to mothers with COVID-19: a rapid review. Annals of Translational Medicine. 2020;8(10):618.

In this rapid review, the authors searched for case reports or case series relevant to virus transmission through milk and respiratory droplets during breastfeeding by mothers with COVID-19, SARS, MERS or influenza. They restricted their searches to articles published in English or Chinese up to 31 March 2020. They included 6 studies, 5 case reports from China and 1 case series from USA, reporting on 58 mothers (16 with COVID-19 and 43 with influenza).

Citation: Yang Z, Liu Y. Vertical transmission of severe acute respiratory syndrome coronavirus 2: a systematic review. American Journal of Perinatology. 2020;37(10):1055-60.

In this rapid review, the authors searched for studies of SARS-CoV-2 infection in neonates born to mothers with COVID-19. They did not restrict their searches by language and searched for studies published between 1 January and 20 April 2020. They included 22 studies (83 neonates), mostly from China.

Citation: Yang Z, Wang M, Zhu Z, et al. Coronavirus disease 2019 (COVID-19) and pregnancy: a systematic review. Journal of Maternal-Fetal & Neonatal Medicine. 2020 Apr 30:1-4.

In this rapid review, the authors searched for studies of maternal, foetal and neonatal outcomes for pregnant women with COVID-19. They did not restrict their searches by language of publication and searched for studies published between 1 January and 26 March 2020. They included 18 studies (114 pregnant women).

Other Reviews

Citation: Boyadzhieva VV, Stoilov NR, Stoilov RM. Coronavirus disease 2019 (COVID-19) during pregnancy in patients with rheumatic diseases. Rheumatology International. 2020;40(11):1753-62.

Citation: Deniz M, Tezer H. *Vertical transmission of SARS CoV-2: a systematic review*. Journal of Maternal-Fetal & Neonatal Medicine. 2020 Jul 21:1-8.

[Antiviral therapies for COVID-19 \(multiple reviews\)](#)

What is this? Antiviral therapies have been suggested and tested as possible treatments for COVID-19 patients.

Many rapid reviews have been done and some are summarised here. More details, including citations and links to the full reviews, are available lower down this page.

What was found: All the included reviews noted uncertainty about the effects of using antiviral treatments for COVID-19 patients on outcomes such as symptoms, viral clearance, clinical outcomes and mortality. At the time of these reviews, there were many ongoing studies of the effects of these therapies.

At the time of their reviews, Jiang (search done on 2 June 2020) and Yokoyama (search done before July 2020) reported that **remdesivir** may have clinical benefits.

At the time of their review, Jiang (search done on 2 June 2020) reported that although early use of antiviral therapy with **Lopinave/Litonawe (LPV/r)** reduced mortality from SARS and MERS, it was uncertain if it will be an effective treatment for COVID-19.

At the time of their review, Luo (search done in February 2020) reported that although **ribavirin** therapy was beneficial for SARS and MERS, it was uncertain if it will be an effective treatment for COVID-19.

At the time of their review, Pilkington (search done on 27 March 2020) noted that **favipiravir** had a favourable safety profile, but that its effectiveness for COVID-19 patients was uncertain.

At the time of their review, Huang (search done on 1 June 2020) reported that there was no evidence to support the use of **umifenovir** for improving patient-important outcomes in COVID-19 patients.

At the time of their review, Liu (search done on 30 April 2020) reported that there was no conclusive evidence of benefit for any antiviral agent in patients with COVID-19 and described several adverse effects, including anaemia, bradycardia, gastrointestinal effects and potential interactions with other medications.

At the time of their review, Shi (search done on 31 March 2020) noted that there was no evidence to support the use of antiviral treatments in children outside of clinical trials.

What are the reviews:

Citation: Huang D, Yu H, Wang T, et al. *Efficacy and safety of umifenovir for coronavirus disease 2019 (COVID-19): A systematic review and meta-analysis*. Journal of Medical Virology. 2021;93(1):481-90.

In this rapid review, the authors searched for studies of umifenovir in adult COVID-19 patients. They did not restrict their searches by language of publication and searched for articles published between 1 December 2019 and 1 June 2020. They included 10 retrospective observational studies and 2 randomized trials.

Citation: Jiang Y, Chen D, Cai D, et al. *Effectiveness of remdesivir for the treatment of hospitalized COVID-19 persons: A network meta-analysis*. Journal of Medical Virology. 2021;93(2):1171-4.

In this rapid review, the authors searched for randomized trials of remdesivir for COVID-19 patients. They searched up to 7 June 2020. They included 4 randomized trials (2049 patients).

Citation: Jiang H, Deng H, Wang Y, et al. *The possibility of using Lopinave/Litonawe (LPV/r) as treatment for novel coronavirus 2019-nCov pneumonia: a quick systematic review based on earlier coronavirus clinical studies.* Chinese Journal of Emergency Medicine 2020;29:E001. [Language: Chinese]

In this rapid review, the authors searched for studies that compared Lopinave/Litonawe (LPV/r) versus placebo or standard care for patients with SARS or MERS. They restricted their searches to Chinese and English literature databases and searched for studies published between January 2003 and 24 January 2020. They identified 2 cohort studies (both for SARS), 1 case report (MERS) and 1 clinical guideline (MERS).

Citation: Liu W, Zhou P, Chen K, et al. *Efficacy and safety of antiviral treatment for COVID-19 from evidence in studies of SARSCoV-2 and other acute viral infections: a systematic review and meta-analysis.* CMAJ. 2020;192(27):E734-44.

In this rapid review, the authors searched for studies of ribavirin, chloroquine, hydroxychloroquine, umifenovir, favipiravir, interferon and lopinavir/ritonavir for COVID-19, MERS, SARS and other acute respiratory infectious diseases. They did not restrict their searches by language and completed these on 30 April 2020. They included 7 randomized trials, 11 cohort studies and one case-control study, with 12 included studies focused on COVID-19.

Citation: Luo T, Na Y, Tan L, et al. *The Possibility of Ribavirin in the Treatment of the Coronavirus Disease 2019: A Systematic Review.* China Pharmaceuticals. 2020;29(5):34-9. [Language: Chinese]

In this rapid review, the authors searched for studies of ribavirin as a treatment for SARS or MERS. They restricted their searches to Chinese and English literature databases and did these in February 2020. They identified 8 retrospective cohort studies, 8 case reports and 2 systematic reviews, which were for MERS (9 studies) and SARS (9).

Citation: Pilkington V, Pepperrell T, Hill A. *A review of the safety of favipiravir – a potential treatment in the COVID-19 pandemic?* Journal of Virus Eradication. 2020;6(2):45-51.

In this rapid review, the authors searched for studies on the safety of favipiravir for COVID-19 patients. They did not restrict their searches by type or language of publication and did the search on 27 March 2020. They included 6 studies that provided safety data allowing a comparison of adverse events in favipiravir and control groups (4299 participants with 175 person years of follow-up).

Citation: Shi Q, Zhou Q, Wang X, et al. *Potential Effectiveness and Safety of Antiviral Agents in Children with Coronavirus Disease 2019: A Rapid Review and Meta-Analysis.* Annals of Translational Medicine. 2020;8(10):624.

In this rapid review, the authors searched for studies of antiviral agents for children with COVID-19, and children or adults with SARS-CoV or MERS-CoV. They restricted their searches to articles published in English or Chinese up to 31 March 2020. They included 23 studies (6008 patients) related to COVID-19 (7 studies), SARS (13) and MERS (3).

Citation: Thoguluva Chandrasekar V, Venkatesalu B, Patel HK, et al. *Systematic review and meta-analysis of effectiveness of treatment options against SARS-CoV-2 infection.* Journal of Medical Virology 2021;93(2):775-85.

In this rapid review, the authors searched for research measuring clinical outcomes related to interventions for COVID-19 patients. They did not restrict their searches by language of publication and searched for articles published between December 2019 and 11 May 2020. They included 8 randomized trials, 4 prospective studies and 17 retrospective studies (total: 5207 patients), mostly from China (19 studies).

Citation: Yokoyama Y, Briasoulis A, Takagi H, et al. Effect of remdesivir on patients with COVID-19: A network meta-analysis of randomized control trials. Virus Research. 2020;288:198137.

In this rapid review, the authors searched for randomized trials of remdesivir for COVID-19 patients. The date of the search is not reported but the article was submitted to the journal on 8 July 2020. They included 4 randomized trials (2290 patients).

Citation: Yousefifard M, Zali A, Mohamed Ali K, et al. Antiviral therapy in management of COVID-19: a systematic review on current evidence. Archives of Academic Emergency Medicine. 2020;8(1):e45.

In this rapid review, the authors searched for studies of antiviral therapies for COVID-19. They searched for studies published from early 2019 to March 2020. They included 1 randomized trial, 16 case series and 5 case reports, with most (20) studies being carried out in China.

Other reviews of this topic:

Citation: Alizadeh F, Khodavandi A. Systematic Review and Meta-analysis of the Efficacy of Nanoscale Materials against Coronaviruses – Possible Potential Antiviral Agents for SARS-CoV-2. IEEE Transactions on NanoBioscience. 2020;19(3):485-97.

Citation: Dongyuan W, Zigang L, Yihui L. An overview of the safety, clinical application and antiviral research of the COVID-19 therapeutics. Journal of Infection and Public Health. 2020;13(10):1405-14.

Citation: Gross AE, Bryson ML. Oral Ribavirin for the Treatment of Noninfluenza Respiratory Viral Infections: A Systematic Review. Annals of Pharmacotherapy. 2015;49(10):1125-35.

Citation: Siordia JA, Bernaba M, Yoshino K, et al. Systematic and Statistical Review of COVID19 Treatment Trials. SN Comprehensive Clinical Medicine. 2020;2:1120-31.

Routine laboratory tests don't help determine if someone has COVID-19 (search done on 4 May 2020)

Citation: Stegeman I, Ochodo EA, Guleid F, et al. Routine laboratory testing to determine if a patient has COVID-19. Cochrane Database of Systematic Reviews 2020;(11):CD013787.

What is this? In the absence of specific tests for SARS-CoV-2 or COVID-19, tests for routine laboratory biomarkers might be used as a triage test for the infection and it is important to know if they are accurate for this purpose.

In this Cochrane rapid review, the authors searched for studies of the diagnostic accuracy of routine laboratory testing as a triage test for COVID-19. They did not restrict their searches by language of publication and did the search on 4 May 2020. They included 21 studies (14,126 COVID-19 patients and 56,185 non-COVID-19 patients), from China (17 studies), Iran (1), Italy (1), Taiwan (1) and USA (1).

What was found: At the time of this review, the included studies showed that none of the 67 different laboratory tests reviewed could be used to accurately rule in or rule out COVID-19 on their own, due to low sensitivity and specificity.

At the time of this review, the included studies showed that only three tests had a summary sensitivity and specificity above 50% (interleukin-6, increase in C-reactive protein and lymphocyte count decrease), which is below the threshold of 80% sensitivity required to prioritize patients for treatment.

Extracorporeal membrane oxygenation (ECMO) in COVID-19 (research up to June 2020)

Citation: Haiduc AA, Alom S, Melamed N, et al. *Role of extracorporeal membrane oxygenation in COVID-19: A systematic review*. Journal of Cardiac Surgery. 2020;35(10):2679-87.

What is this? Extracorporeal membrane oxygenation (ECMO) has been suggested as a treatment for COVID-19 patients.

In this systematic review, the authors searched for studies of ECMO for supporting the cardiorespiratory system in COVID-19 patients. They restricted their searches to articles published in English. They do not report the date of their search but the manuscript was submitted to the journal on 15 June 2020. They included 25 articles (3428 COVID-19 patients, of whom 479 required ECMO).

What was found: At the time of this review, the included studies suggest that while ECMO is beneficial in some patients, the recuperative effects of ECMO are uncertain.

Neurological manifestations and COVID-19 (multiple reviews)

What is this? Some patients with neurological conditions develop COVID-19 and some COVID-19 patients may develop neurological complications.

Many potentially relevant reviews have been done and findings are summarised here. More details on the reviews, including citations and links to their full text, are available further down this page.

What was found: These reviews found a variable prevalence of pre-existing neurological conditions in COVID-19 patients. Several reviews noted that individuals with pre-existing neurological conditions may be more vulnerable to severe COVID-19.

These reviews found a variable incidence of neurological complications in COVID-19 patients and found that these complications are usually present with more severe COVID-19 infection. These include:

- Non-specific neurological manifestations: fatigue, shortness of breath (due to brainstem regulation of breathing), anorexia, dizziness and malaise.
- Central nervous system manifestations: impaired consciousness, cerebrovascular events, ataxia, seizures, acute inflammation, and autoimmune complications including Guillan-Barré Syndrome.
- Peripheral nervous system and cranial nerve manifestations: changes in smell, taste or speech, and nerve pain. Several reviews found that cranial nerve involvement is common in patients with mild or moderate COVID-19.
- Neuromuscular manifestation: sensory disturbances in the limbs.

Some neurological symptoms, such as delirium and chronic illness myopathy/neuropathy, are known to occur with severe or critical illness generally, therefore it is unclear whether these are specific features of COVID-19 or a broader consequence of a systemic infection.

What are the reviews:

Citation: Chen X, Laurent S, Onur OA, et al. *A systematic review of neurological symptoms and complications of COVID-19*. Journal of Neurology. 2020 Jul 20:1-11.

In this rapid review, the authors searched for studies of neurological issues in COVID-19. They did not restrict their searches by language of publication and searched for articles published between April 2019 and 20 April 2020. They included 92 studies of neurological complications, and 8 studies of potential mechanisms of neurotropism and neuropathogenesis.

Citation: de Sire A, Andrenelli E, Negrini F, et al. Systematic rapid living review on rehabilitation needs due to Covid-19: update to April 30th 2020. European Journal of Physical and Rehabilitation Medicine. 2020;56(3):354-60.

In this living review, the authors searched for studies on the rehabilitation of COVID-19 patients, updating their previous version (which had included 9 articles published up to 31 March 2020). They searched for articles published in English during April 2020 on 4 May 2020. They included 35 expert opinions, 7 guidelines, 4 qualitative descriptive studies, 1 scoping review, 1 randomized trial, 1 case series and 1 case report.

Citation: Egbert AR, Cankurtaran S, Karpiak S. Brain abnormalities in COVID-19 acute/subacute phase: A rapid systematic review. Brain, Behavior, and Immunity. 2020; 89:543-54.

In this rapid review, the authors searched for studies of brain abnormalities in COVID-19 patients, with a focus on identifying the frequency of typology and the topographical distribution of brain abnormalities. They searched for articles published between 1 January and 5 July 2020. They included 21 case reports and 5 cohort studies (total: 361 participants).

Citation: Florez-Perdomo WA, Serrato-Vargas SA, Bosque-Varela P, et al. Relationship between the history of cerebrovascular disease and mortality in COVID-19 patients: A systematic review and meta-analysis. Clinical Neurology and Neurosurgery. 2020;197:106183.

In this rapid review, the authors searched for studies of the relationship between previous cerebrovascular disease and mortality risk in COVID-19 patients. They did not restrict their searches by language or date of publication and searched up to May 2020. They included 7 observational studies (3314 participants).

Citation: Herman C, Mayer K, Sarwal A. Scoping review of prevalence of neurologic comorbidities in patients hospitalized for COVID-19. Neurology. 2020;95(2):77-84.

In this rapid review, the authors searched for studies that reported data on pre-existing neurologic comorbidities in adult COVID-19 patients or neurologic events occurring during their illness. They restricted their searches to articles published in English since January 2020 and did the search on 15 April 2020. They included information from 31 observational studies and 1 randomized trial.

Citation: Leonardi M, Padovani A, McArthur JC. Neurological manifestations associated with COVID-19: a review and a call for action. Journal of Neurology 2020;267(6):1573-6.

In this rapid review, the authors searched for studies on neurological symptoms or involvement related to COVID-19 infection. They restricted their searches to articles published in English up to 5 April 2020. They included 29 papers, from China and Italy.

Citation: Tan YK, Goh C, Leow AS, et al. COVID-19 and ischemic stroke: a systematic review and meta-summary of the literature. Journal of Thrombosis and Thrombolysis. 2020;50(3):587-95.

In this rapid review, the authors searched for studies of acute ischaemic stroke in COVID-19 patients. They restricted their searches to studies published up to 29 May 2020. They included 39 studies, of which 5 were

observational cohort studies from China, France, Italy, Netherlands, and USA, and the rest were case series and case studies.

Citation: Vonck K, Garrez I, De Herdt V, et al. Neurological manifestations and neuro-invasive mechanisms of the severe acute respiratory syndrome coronavirus type 2. European Journal of Neurology. 2020;27(8):1578-87.

In this rapid review, the authors searched for studies of neurological conditions and COVID-19. They searched for pre-prints and publications up to 10 May 2020, and also checked social media channels. They included 2 cohort studies, 2 multi-centre studies, 7 case series and 6 case reports.

Citation: Wang L, Shen Y, Li M, et al. Clinical manifestations and evidence of neurological involvement in 2019 novel coronavirus SARS-CoV-2: a systematic review and meta-analysis. Journal of Neurology. 2020;267(10):2777-89.

In this rapid review, the authors searched for studies of neurological manifestations of COVID-19. They restricted their searches to pre-prints and articles published in English up to 3 May 2020. They included 1 cohort study, 25 case series and 15 case reports.

Other reviews of this topic:

Citation: Collantes ME, Espiritu AI, Sy MC, et al. Neurological manifestations in COVID-19 infection: A systematic review and meta-analysis. Canadian Journal of Neurological Sciences. 2021;48(1):66-76.

Citation: Correia AO, Feitosa PW, de Sousa Moreira JL, et al. Neurological manifestations of COVID-19 and other coronaviruses: a systematic review. Neurology, Psychiatry and Brain Research. 2020; 37:27-32.

Citation: Hermans G, De Jonghe B, Bruyninckx F, et al. Interventions for preventing critical illness polyneuropathy and critical illness myopathy. Cochrane Database of Systematic Reviews 2014;(1):CD006832.

Citation: Marra DE, Hamlet KM, Bauer RM, Bowers D. Validity of teleneuropsychology for older adults in response to COVID-19: A systematic and critical review. Clinical Neuropsychologist. 2020;34(7-8):1411-52.

Citation: Mehrholz J, Pohl M, Kugler J, et al. Physical rehabilitation for critical illness myopathy and neuropathy. Cochrane Database of Systematic Reviews 2015;(3):CD010942.

Citation: Munhoz RP, Pedroso JL, Nascimento FA, et al. Complicações neurológicas em pacientes infectados pelo SARS-CoV-2: uma revisão sistemática [Neurological complications in patients with SARS-CoV-2 infection: a systematic review]. Arquivos de Neuro-Psiquiatria. 2020;78(5):290-300. [Language: Portuguese and English.]

Citation: Nepal G, Rehrig JH, Shrestha GS, et al. Neurological manifestations of COVID-19: a systematic review. Critical Care. 2020;24:421.

Citation: Pranata R, Huang I, Lim MA, et al. Impact of cerebrovascular and cardiovascular diseases on mortality and severity of COVID-19—systematic review, meta-analysis, and meta-regression. Journal of Stroke and Cerebrovascular Diseases. 2020;29(8):104949.

Citation: Robinson CP, Busl KM. Neurologic manifestations of severe respiratory viral contagions. Critical Care Explorations. 2020;2(4):e0107.

Citation: Rogers JP, Chesney E, Oliver D, et al. Psychiatric and neuropsychiatric presentations associated with severe coronavirus infections: a systematic review and meta-analysis with comparison to the COVID-19 pandemic. Lancet Psychiatry. 2020;7(7):611-27.

Citation: Romoli M, Jelcic I, Bernard-Valnet R, et al. A systematic review of neurological manifestations of SARS-CoV-2 infection: the devil is hidden in the details. European Journal of Neurology. 2020;27(9):1712-26.

Citation: Scoppettuolo P, Borrelli S, Naeije G. Neurological involvement in SARS-CoV-2 infection: a clinical systematic review. Brain, Behavior, and Immunity – Health. 2020;5:100094.

Citation: Siepmann T, Sedghi A, Simon E, et al. Increased risk of acute stroke among patients with severe COVID-19: a multicenter study and meta-analysis. European Journal of Neurology. 2021;28:238-47.

Citation: Taherifard E, Taherifard E. Neurological complications of COVID-19: a systematic review. Neurological research. 2020;42(11):905-12.

Citation: Whittaker A, Anson M, Harky A. Neurological manifestations of COVID-19: A review. Acta Neurologica Scandinavica. 2020;142(1):14-22.

Citation: Xu J, Xiao W, Liang X, et al. The association of cerebrovascular disease with adverse outcomes in COVID-19 patients: a meta-analysis based on adjusted effect estimates. Journal of Stroke and Cerebrovascular Diseases. 2020;29(11):105283.

Citation: Zaki N, Alashwal H, Ibrahim S. Association of hypertension, diabetes, stroke, cancer, kidney disease, and high-cholesterol with COVID-19 disease severity and fatality: a systematic review. Diabetes & Metabolic Syndrome: Clinical Research & Reviews. 2020;14(5):1133-42.

Other Evidence Aid combined summary topics related to this topic: Sinonasal pathophysiology and COVID-19

Eyes and COVID-19 (multiple reviews)

What is this? COVID-19 is a viral infection with a range of symptoms and modes of transmission, which might include the eye.

Three rapid reviews of COVID-19 and the eye are summarized here. More details on these, including citations and links to the full reviews, are available lower down this page.

What was found: Although the mucous membranes of the eye might be sites of infection and transmission of COVID-19, the reviews found that the evidence for these hypotheses was uncertain and of low quality.

The reviews recommended the use of eye protection within personal protective equipment for COVID-19, particularly in healthcare settings. They found no evidence that wearing prescription glasses provides protection against infection.

The Emparan review (search done on 21 April 2021) noted the possibility of COVID-19 transmission through the conjunctiva, but that the proportion of patients with evidence of viral particles in tears was low and controversial. The review included anecdotal reports identifying non-specific ocular symptoms as the first manifestation of COVID-19. The authors concluded that ocular manifestations are not common in COVID-19 patients and could resemble viral infections of the ocular surface.

The Mahayana review (search done in April 2020) reported a low yield of positive conjunctival COVID-19 RT-PCR results. The Aiello review (search up to 5 April 2020) found inconsistencies in RT-PCR assay results and concluded that conjunctival-swab RT-PCR should not be proposed as a standard diagnostic technique for COVID-19.

What are the reviews:

Citation: Aiello F, Afflitto GG, Mancino R, et al. *Coronavirus disease 2019 (SARS-CoV-2) and colonization of ocular tissues and secretions: a systematic review*. Eye. 2020;34:1206-11.

In this rapid review, the authors searched for studies on the presence of SARS-CoV-2 in cornea, conjunctiva, lacrimal sac and tears. They did not restrict their searches by language of publication and searched for articles published between December 2019 and 5 April 2020. They included 11 studies (252 COVID-19 patients).

Citation: Emparan JP, Sardi-Correa C, López-Ulloa JA, et al. *COVID-19 e o olho: quanto sabemos realmente? Uma revisão das melhores evidências. [COVID-19 and the eye: how much do we really know? A best evidence review.]* Arquivos Brasileiros de Oftalmologia. 2020;83(3):250-61.

Languages: Portuguese and English

In this review, the authors searched for research related to COVID-19 and ophthalmology, including evidence of the SARS-CoV-2 virus in tears and the ocular surface, infection via the conjunctival route, ocular manifestations, and best practice recommendations. They did not restrict their searches by language of publication and completed the search on 21 April 2020. They included 6 literature reviews, 5 cross-sectional studies, 5 case series, 4 case reports and 6 intervention descriptions.

Citation: Mahayana IT, Angsana NC, Ayyasy MZ, et al. *Ocular involvement of coronavirus disease (covid-19): A systematic review of conjunctival swab results*. Journal of Community Empowerment for Health. 2020;3(2):118-22.

In this rapid review, the authors searched for studies of the use of conjunctival swabs with real-time PCR to detect SARS-CoV-2. They did not restrict their searches by date or language of publication and did the search in April 2020. They included 2 case series, 1 retrospective cohort study and 1 observational study.

Lung imaging features of COVID-19 in children (search up to 11 July 2020)

Citation: Nino G, Zember J, Sanchez-Jacob R, et al. *Pediatric lung imaging features of COVID-19: A systematic review and meta-analysis*. Pediatric Pulmonology. 2020;56(1):252-63.

What is this? Lung disease patterns in COVID-19 patients are highly variable with age. Research on COVID-19 lung imaging in children may provide useful information for healthcare providers and policy makers.

In this rapid review, the authors searched for studies in which lung imaging features of SARS-CoV-2 were described in children (≤ 18 years) with COVID-19. They restricted their searches to articles published in English from 1 December 2019 to 11 July 2020. They included 29 studies (1026 participants).

What was found: At the time of this review, the included studies showed that more than a third of pediatric COVID-19 patients had normal chest CT scans and 28% had bilateral lesions.

At the time of this review, the included studies showed that the most typical pediatric chest CT findings of COVID-19 were ground-glass opacities and the presence of consolidations or pneumonic infiltrates.

At the time of this review, the included studies showed that typical lung imaging features of viral respiratory infections in the pediatric population, including perihilar markings and hyperinflation, were not reported in children with COVID-19.

At the time of this review, the included studies showed that lung imaging findings in children with COVID-19 were less frequent and less severe than in adult patients.

At the time of this review, the authors concluded that chest CT manifestations in children with COVID-19 might be useful for early identification and prompt intervention.

Pharmacological treatments for COVID-19 patients (research up to July 2020)

Citation: Siordia JA, Bernaba M, Yoshino K, et al. *Systematic and Statistical Review of Coronavirus Disease 19 Treatment Trials*. SN Comprehensive Clinical Medicine. 2020;2:1120-31. DOI: 10.1007/s42399-020-00399-6

What is this? Many treatments have been proposed for COVID-19 patients.

In this rapid review, the authors searched for studies of medications to treat COVID-19 patients. They did not restrict their searches by date or language of publication. They do not report the date of their search but the article was accepted for publication on 7 July 2020. The authors included 12 retrospective studies, 10 randomized trials and 4 prospective studies.

What works: At the time of this review, the included studies showed that heparin and dexamethasone led to improvements in patients with severe COVID-19 who needed supplemental oxygen.

At the time of this review, the included studies showed that favipiravir resulted in quicker symptom improvement than lopinavir/ritonavir or arbidol.

What doesn't work: At the time of this review, the included studies found that lopinavir/ritonavir, arbidol, hydroxychloroquine and remdesivir did not lead to clinical improvements in COVID-19 patients.

What is uncertain: At the time of this review, the effects of tocilizumab were judged to be uncertain.

Tuberculosis and COVID-19 (search done on 12 May 2020)

Citation: Gao Y, Liu M, Chen Y, et al. *Association between tuberculosis and COVID-19 severity and mortality: A rapid systematic review and meta-analysis*. Journal of Medical Virology. 2021;93(1):194-6.

What is this? Some COVID-19 patients have pre-existing tuberculosis.

In this rapid review, the authors searched for studies of the impact of tuberculosis on the risk of severe illness or death in COVID-19 patients. They restricted their searches to articles published in English and Chinese and did the search on 12 May 2020. They included 4 studies (2383 patients) on tuberculosis and COVID severity and 2 studies (382 patients) on tuberculosis and COVID mortality, all from China.

What was found: At the time of this review, the included studies showed that pre-existing tuberculosis is associated with an increased risk of severe COVID-19. Therefore, impaired lung function from tuberculosis may be a risk factor for disease progression, although pre-existing tuberculosis does not increase the risk of contracting COVID-19.

At the time of this review, existing research provided conflicting evidence on the association between tuberculosis and mortality from COVID-19.

[SARS-CoV-2 positivity can remain after recovery from COVID-19 \(research from before 22 July 2020\)](#)

Citation: Mattiuzzi C, Henry BM, Sanchis-Gomar F, et al. *SARS-CoV-2 recurrent RNA positivity after recovering from coronavirus disease 2019 (COVID-19): a meta-analysis.* Acta Bio Medica: Atenei Parmensis. 2020;91(3):e2020014.

What is this? Some COVID-19 patients who have recovered may have recurrent SARS-CoV-2 RNA positivity.

In this rapid review, the authors searched for studies of the detection of SARS-CoV-2 RNA in COVID-19 patients who had recovered. They did not restrict their searches by date, type or language of publication. The date of the search is not reported but the article was submitted to the journal on 22 July 2020. The authors included 17 studies (5182 patients) from Brunei (1 study), China (14), Italy (1) and USA (1).

What was found: At the time of this review, the meta-analysis showed that 12% of COVID-19 patients displayed a recurrent SARS-CoV-2 RNA positivity after disease recovery (as defined by at least two negative tests).

At the time of this review, the authors recommended retesting COVID-19 patients one and two months after disease recovery for identification, isolation and clinical management of patients with SARS-CoV-2 recurrent positivity.

[Cellular therapy for COVID-19: ongoing research in mid 2020 \(search done on 23 April 2020\)](#)

Citation: Liao G, Zheng K, Lalu MM, et al *Scoping Review of Registered Clinical Trials of Cellular Therapy for COVID-19 and a Framework for Accelerated Synthesis of Trial Evidence—FAST Evidence.* Transfusion Medicine Reviews. 2020;34(3):165-71.

What is this? Cell and cell-derived products have been suggested as treatments for COVID-19 patients.

In this rapid scoping review, the authors searched for registered clinical trials testing cell or cell-derived products to prevent or treat COVID-19. They did the search on 23 April 2020. They identified 54 studies, 41 of which used mesenchymal stem cells.

What was found: The authors concluded that the ongoing research should provide clear answers on the effects of cellular therapy and that mesenchymal stromal cells represent the most promising candidate for future meta-analyses on the effects of cell products.

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

Latest updates

EvidenceUpdated 25 Feb 2021

question-based one-time screening strategies appear to have low sensitivity for SARS-CoV-2 infection in general population (Cochrane Database Syst Rev 2020 Sep 15)

[View in topic](#)

EvidenceUpdated 25 Feb 2021

insufficient evidence to evaluate effectiveness of universal screening strategies for SARS-CoV-2 infection in general populations prior to clinical presentation (Cochrane Database Syst Rev 2020 Sep 15)

[View in topic](#)

EvidenceUpdated 23 Feb 2021

30% of patients with COVID-19 report persistent symptoms 3-9 months after illness onset (JAMA Netw Open 2021 Feb 1)

[View in topic](#)

Drug/Device AlertUpdated 19 Feb 2021

heterologous recombinant adenovirus type 26 (rAd26-S) and type 5 (rAd5-S) vector-based Gam-COVID-Vac vaccine may be 91.6% effective against COVID-19 in adults in Russia (Lancet 2021 Feb 2 early online)

[View in topic](#)

EvidenceUpdated 19 Feb 2021

lung ultrasound plus clinical evaluation may have high sensitivity and specificity for diagnosing SARS-COV-2 pneumonia in adults presenting to emergency department with symptoms of SARS-COV-2 infection (Ann Emerg Med 2020 Oct 13 early online)

[View in topic](#)

EvidenceUpdated 19 Feb 2021

saliva and nasopharyngeal swab nucleic acid amplification testing (NAAT) appear to have similar sensitivity and specificity for detecting SARS-CoV-2 (JAMA Intern Med 2021 Jan 15 early online)

[View in topic](#)

Guideline SummaryUpdated 18 Feb 2021

National Institutes of Health (NIH) recommendations on use of IL-6 inhibitors (NIH 2021 Feb 3)

[View in topic](#)

Guideline SummaryUpdated 18 Feb 2021

Infectious Disease Society of America (IDSA) guideline on treatment and management of patients with COVID-19 (IDSA 2021 Jan 29)

[View in topic](#)

Guideline SummaryUpdated 18 Feb 2021

National Institutes of Health (NIH) guideline on treatment of COVID-19 recommendations on corticosteroid therapy (NIH 2021 Feb 11)

[View in topic](#)

Guideline SummaryUpdated 18 Feb 2021

National Institutes of Health (NIH) guideline on treatment of COVID-19 recommendations for pharmacologic management based on disease severity (NIH 2020 Feb 11)

[View in topic](#)

Drug/Device AlertUpdated 18 Feb 2021

FDA issues Emergency Use Authorization for bamlanivimab in combination with etesevimab for treatment of mild to moderate COVID-19 in adults and children ≥ 12 years old weighing ≥ 40 kg with positive direct SARS-CoV-2 viral test result and at high risk of progressing to severe COVID-19 and/or hospitalization (FDA Press Release 2021 Feb 9)

[View in topic](#)

Drug/Device AlertUpdated 18 Feb 2021

FDA issues Emergency Use Authorization for investigational high-titer convalescent plasma for treatment of COVID-19 in hospitalized patients early in disease course and in hospitalized patients with impaired humoral immunity (FDA Press Release 2021 Feb 5)

[View in topic](#)

Guideline SummaryUpdated 18 Feb 2021

National Institutes of Health (NIH) guideline on treatment of COVID-19 (NIH 2021 Feb 11)

[View in topic](#)

Guideline SummaryUpdated 18 Feb 2021

National Institutes of Health (NIH) guideline on treatment of COVID-19 (NIH 2021 Feb 11)

[View in topic](#)

EvidenceUpdated 18 Feb 2021

Centers for Disease Control and Prevention (CDC) warn that pulse oximeters may exhibit suboptimal accuracy in persons with dark skin (CDC 2021 Feb 16)

[View in topic](#)

EvidenceUpdated 16 Feb 2021

addition of anakinra to usual care might not improve clinical outcomes in adults hospitalized with mild-to-moderate COVID-19 pneumonia (Lancet Respir Med 2021 Jan 22 early online)

[View in topic](#)

EvidenceUpdated 16 Feb 2021

transfusion of convalescent plasma with high-titer anti-SARS-CoV-2 IgG antibodies may reduce 30-day mortality compared to transfusion with low-titer IgG antibody plasma in adults hospitalized with COVID-19 without mechanical ventilation but not in adults receiving mechanical ventilation (N Engl J Med 2021 Jan 13 early online)

[View in topic](#)

EvidenceUpdated 12 Feb 2021

in adults without preexisting liver disease hospitalized with SARS-CoV-2 infection, hyperbilirubinemia associated with increased COVID-19-specific mortality, and hypoalbuminemia, elevated AST, and elevated ALT each associated with increased risk of composite of COVID-19-specific mortality and ICU admission (Gut 2021 Jan 29 early online)

[View in topic](#)

Guideline SummaryUpdated 11 Feb 2021

SCCM Surviving Sepsis Campaign guideline on management of adults with coronavirus disease 2019 (COVID-19) in the ICU recommendations on hemodynamic support (Crit Care Med 2021 Jan 28)

[View in topic](#)

Guideline SummaryUpdated 11 Feb 2021

Society of Critical Care Medicine (SCCM) Surviving Sepsis Campaign guideline on management of adults with coronavirus disease 2019 (COVID-19) in the ICU recommendations for ventilatory support (Crit Care Med 2021 Jan 28)

[View in topic](#)

Drug/Device AlertUpdated 11 Feb 2021

vaccination with SARS-CoV-2 stabilized trimeric form of spike (S)-protein (SCB-2019c) reported to be safe and induce humoral response in healthy adults ≤ 75 years old (Lancet 2021 Jan 29 early online)

[View in topic](#)

EvidenceUpdated 9 Feb 2021

atrial fibrillation associated with increased in-hospital mortality in patients with COVID-19 (Heart Rhythm 2021 Jan 22 early online)

[View in topic](#)

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](#)

For **access to online book resources** go to our catalogue at <https://kgh.koha-ptfs.co.uk>, Search for the book record by title, and then click on 'Click here to access online'. You will then be asked to login using your NHS OpenAthens username. If you don't have an OpenAthens account you can self register at <https://openathens.nice.org.uk/>

KGH Knowledge and Library Service

Phone: 01536 492862

Email: kgh-tr.library.index@nhs.net

Library Website:

<http://kghlibrary.koha-ptfs.co.uk>



[@KGHNHSLibrary](#)

Would you like help to find information to support CPD and revalidation?
Or to receive personal alerts to articles and reports on topics of particular interest to you?

Ask us about **KnowledgeShare** to receive fortnightly emails highlighting relevant reports and articles