

Covid-19 Evidence Update

Summarized and appraised resources

20/04/2021

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

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

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Royal College/Society Guidance and Point of Care Tools

Latest information and guidance

<p>NICE</p> <p>COVID-19 rapid guideline: managing COVID-19 (NG191) Published 23/03/2021</p> <p>Rapid guidelines and evidence summaries</p> <p>Speciality guides (NHS England and NHS Improvement advice has moved here)</p>	<p>NHS England and NHS Improvement Secondary care (Includes Prevention, Infection control, Assessment, Management, Discharge, Isolation, Estates and facilities, Finance, Workforce, Cancer ...)</p>
<p>Royal College of Emergency Medicine Covid-19 resources</p>	<p>Association for Palliative Medicine Covid 19 and Palliative, End of Life and Bereavement 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>

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

New NICE Guidance

None published since the last bulletin

New Guidance and Reports from other sources

[Coronavirus COVID-19 serology and viral detection tests: technical validation reports.](#)

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

<https://www.gov.uk/government/publications/coronavirus-covid-19-serology-and-viral-detection-tests-technical-validation-reports/>

[Findings from technical validations and in-service valuations reviewed by the Technical Validation Group. Recent updates: Added a new technical validation report for DNANudge/ Replaced 'LumiraDx: POC rapid COVID-19 Ag test' report (with updated results).]

Freely available online

[Coronavirus: Covid-19 vaccine roll-out. Frequently Asked Questions.](#)

House of Commons Library; 2021.

<https://commonslibrary.parliament.uk/research-briefings/cbp-9081/>

[This Commons Library briefing addresses commonly asked questions about the roll-out of the Covid-19 vaccine. Research briefing, updated 1 April 2021.]

Freely available online

[COVID-19 vaccination: blood clotting information for healthcare professionals.](#)

Public Health England (PHE); 2021.

<https://www.gov.uk/government/publications/covid-19-vaccination-blood-clotting-information-for-healthcare-professionals>

[Information for healthcare professionals on blood clotting following COVID-19 vaccination.]

Freely available online

[Guidance produced from the Expert Haematology Panel \(EHP\) focussed on Covid-19 Vaccine induced Thrombosis and Thrombocytopenia \(VITT\)](#)

British Society of Haematology; 2021.

https://b-s-h.org.uk/media/19530/guidance-version-13-on-mngmt-of-thrombosis-with-thrombocytopenia-occurring-after-c-19-vaccine_20210407.pdf

[There are currently no robust data to inform management of this condition. In the absence of evidence, these are pragmatic guidelines based on experience of managing alternative similar conditions and the theoretical risks and benefits of interventions. As evidence emerges, recommendations are expected to change. Patient management should be individualised according to specific circumstances.]

Freely available online

[Management of patients presenting to the Emergency Department/ Acute Medicine with symptoms](#)

Royal College of Emergency Medicine (RCEM); 2021.

<https://www.rcem.ac.uk/docs/Policy/ED-AM%20Vaccine%20pathway%20concerns%20-%20RCP%20-%20SAM%20-%20RCEM.pdf>

[The condition of concern is Covid-19 Vaccine induced Thrombosis and Thrombocytopenia (VITT).]

Freely available online

[Podiatry FAQs during COVID-19.](#)

College of Podiatry; 2021.

<https://cop.org.uk/api/documentlibrary/download?documentId=269>

[FAQs for podiatrists during COVID-19.]

Freely available online

[Rehabilitation of adults who are hospitalised due to acute Covid-19 or long Covid: physiotherapy service delivery.](#)

Chartered Society of Physiotherapy; 2021.

<https://www.csp.org.uk/publications/rehabilitation-adults-who-are-hospitalised-due-acute-covid-19-or-long-covid>

[These standards cover rehabilitation for adults of 18 years and over who are admitted to hospital with Covid-19.

This encompasses people with acute Covid-19 or long Covid. Version 2, updated 1 April.]

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
Diagnostic accuracy of two commercial SARS-CoV-2 antigen-detecting rapid tests at the point of care in community-based testing centers. <i>Berger A, Nsoga MTN, Perez-Rodriguez FJ, et al. PLoS One</i>
Performance and operational feasibility of antigen and antibody rapid diagnostic tests for COVID-19 in symptomatic and asymptomatic patients in Cameroon: a clinical, prospective, diagnostic accuracy study. <i>Boum Y, Fai KN, Nicolay B, et al. Lancet Infect Dis</i>
Field performance and public health response using the BinaxNOW TM Rapid SARS-CoV-2 antigen detection assay during community-based testing. <i>Pilarowski G, Marquez C, Rubio L, et al. Clin Infect Dis</i>
Etiology
Prescription of glucose-lowering therapies and risk of COVID-19 mortality in people with type 2 diabetes: a nationwide observational study in England. <i>Khunti K, Knighton P, Zaccardi F, et al. Lancet Diabetes Endocrinol</i>
Renin-Angiotensin-Aldosterone System Inhibitors and COVID-19: A Meta-Analysis and Systematic Review. <i>Hassib M, Hamilton S, Elkhoully A, et al. Cureus</i>
Clinical Prediction Guide
A risk score based on baseline risk factors for predicting mortality in COVID-19 patients. <i>Chen Z, Chen J, Zhou J, et al. Curr Med Res Opin</i>
Development of a multivariable prediction model for severe COVID-19 disease: a population-based study from Hong Kong. <i>Zhou J, Lee S, Wang X, et al. NPJ Digit Med</i>
Development and multicenter validation of a CT-based radiomics signature for predicting severe COVID-19 pneumonia. <i>Li L, Wang L, Zeng F, et al. Eur Radiol</i>
Clinical Features of the 60 Years and Older Patients Infected with 2019 Novel Coronavirus: Can We Predict Mortality Earlier? <i>Genc Yavuz B, Colak S, Guven R, et al. Gerontology</i>
Prognosis
Characteristics of Viral Shedding Time in SARS-CoV-2 Infections: A Systematic Review and Meta-Analysis. <i>Yan D, Zhang X, Chen C, et al. Front Public Health</i>
Antibody Response Following SARS-CoV-2 Infection and Implications for Immunity: A Rapid Living Review <i>Mackey K, Arkhipova-Jenkins I, Armstrong C, et al.</i>
Treatment
Methylprednisolone or dexamethasone, which one is superior corticosteroid in the treatment of hospitalized COVID-19 patients: a triple-blinded randomized controlled trial. <i>Ranjbar K, Moghadami M, Mirahmadizadeh A, et al. BMC Infect Dis</i>
The effect of tocilizumab on COVID-19 patient mortality: A systematic review and meta-analysis of randomized controlled trials.

<p><i>Lin WT, Hung SH, Lai CC, et al.</i> Int Immunopharmacol</p> <p>Safety of treatment with chloroquine and hydroxychloroquine: A ten-year systematic review and meta-analysis.</p> <p><i>Edington FLB, Gadellha SR, Santiago MB</i> Eur J Intern Med</p>
<p>Clinical effectiveness of drugs in hospitalized patients with COVID-19: a systematic review and meta-analysis.</p> <p><i>Abeldano Zuniga RA, Coca SM, Abeldano GF, et al.</i> Ther Adv Respir Dis</p>
<p>Evaluation of the Current Therapeutic Approaches for COVID-19: A Systematic Review and a Meta-analysis.</p> <p><i>Abdelrahman Z, Liu Q, Jiang S, et al.</i> Front Pharmacol</p>
<p>The effect of Chinese herbal medicine on digestive system and liver functions should not be neglected in COVID-19: an updated systematic review and meta-analysis.</p> <p><i>Shi S, Wang F, Li J, et al.</i> IUBMB Life</p>
<p>Peginterferon Lambda-1a for treatment of outpatients with uncomplicated COVID-19: a randomized placebo-controlled trial.</p> <p><i>Jagannathan P, Andrews JR, Bonilla H, et al.</i> Nat Commun</p>
<p>Mavrilimumab in patients with severe COVID-19 pneumonia and systemic hyperinflammation (MASH-COVID): an investigator initiated, multicentre, double-blind, randomised, placebo-controlled trial.</p> <p><i>Cremer PC, Abbate A, Hudock K, et al.</i> Lancet Rheumatol</p>
<p>Low dose radiation therapy for severe COVID-19 pneumonia: a randomized double-blind study.</p> <p><i>Papachristofilou A, Finazzi T, Blum A, et al.</i> Int J Radiat Oncol Biol Phys</p>
<p>IL-6 inhibition in the treatment of COVID-19: a meta-analysis and meta-regression.</p> <p><i>Tharmarajah E, Buazon A, Patel V, et al.</i> J Infect</p>
<p>Efficacy and safety of Levamisole treatment in clinical presentations of non-hospitalized patients with COVID-19: a double-blind, randomized, controlled trial.</p> <p><i>Roostaei Firozabad A, Meybodi ZA, Mousavinasab SR, et al.</i> BMC Infect Dis</p>
<p>Clinical efficacy and safety of remdesivir in patients with COVID-19: a systematic review and network meta-analysis of randomized controlled trials.</p> <p><i>Lai CC, Chen CH, Wang CY, et al.</i> J Antimicrob Chemother</p>

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

No new relevant systematic reviews published in this period.

Evidence Aid

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

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

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

[Genetic variations in COVID-19 patients \(multiple reviews\)](#)

Added April 7, 2021

What is this? Genetic variations in COVID-19 patients may have an impact on the severity of their illness.

Three reviews are summarised below and more details, including citations and links to the full text, are available lower down this page.

What was found: Several human genetic variants have been found that may affect a person's susceptibility to coronavirus infections.

In the Ramos-Lopez review (search done in March 2020), the included studies found 29 polymorphisms located in 21 genes that were associated with SARS-CoV susceptibility or resistance, disease severity and clinical manifestations or outcomes.

Subsequently, the Elhabyan review (originally submitted for publication in July 2020) identified 40 genes that were associated with viral susceptibility, 21 of which were associated with severe SARS disease and COVID-19.

The Di Maria review (search done on 17 June 2020) found 10 studies that analysed associations between *HLA* phenotypes and severity of coronavirus diseases. Positive signals were found in 7 studies, which were of SARS (5 studies), MERS (1) and COVID-19 (1) but none of the haplotypes tested provided a positive signal in more than one cohort. The review also found 22 studies investigating associations with single-gene variants but only 2 (*MBL* and *MxA*) provided a positive signal of association in more than one study.

What are the reviews:

Citation: Di Maria E, Latini A, Borgiani P, et al. *Genetic variants of the human host influencing the coronavirus-associated phenotypes (SARS, MERS and COVID-19): rapid systematic review and field synopsis*. Human genomics. 2020;14(1):30.

In this rapid review, the authors searched for studies testing human genetic variants as predictors of clinical phenotypes during outbreaks of SARS-CoV-1, MERS-CoV and SARS-CoV-2. They restricted their search to

articles published in English between January 2003 and 17 June 2020. They included 32 articles (28 on SARS, 1 on MERS, 3 on COVID-19) reporting on 26 independent cohorts, mostly from Asia. Ten studies investigated HLA loci and 22 investigated single-gene variants.

Citation: Elhabyan A, Elyaacoub S, Sanad E, et al. *The role of host genetics in susceptibility to severe viral infections in humans and insights into host genetics of severe COVID-19: A systematic review.* Virus Research. 2020;289:198163.

In this rapid review, the authors searched for case-report and case-control GWAS studies that investigated genes associated with SARS-CoV or SARS-CoV-2 viral susceptibility in humans. They restricted their searches to articles published in English but do not report when the last search was done. The manuscript was originally received by the journal on 4 July 2020. They included 29 case reports related to susceptibility to severe viral infections in general and 21 reports of GWAS studies related to susceptibility to severe infections of SARS-COV or SARS-COV-2.

Citation: Ramos-Lopez O, Daimiel L, Ramírez de Molina A, et al. *Exploring Host Genetic Polymorphisms Involved in SARS-CoV Infection Outcomes: Implications for Personalized Medicine in COVID-19.* International Journal of Genomics. 2020:6901217.

In this rapid review, the authors searched for studies investigating the genetic polymorphisms associated with clinical outcomes in SARS-CoV infection in humans. They restricted their searches to articles published in English but did not restrict by date or study population and did the search in March 2020. They included 26 studies, mostly from Asia.

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

Latest updates

Evidence Updated 16 Apr 2021

2-dose regimen of ChAdOx1 nCoV-19 vaccine may be 70% effective in preventing symptomatic COVID-19 due to B.1.1.7 variant in adults (Lancet 2021 Apr 10) [View in topic](#)

Evidence Updated 16 Apr 2021

chest x-ray may have moderate sensitivity and specificity for diagnosing COVID-19 in patients with suspected COVID-19 (Cochrane Database Syst Rev 2021 Mar 16) [View in topic](#)

Evidence Updated 16 Apr 2021

chest ultrasound may have high sensitivity and low specificity for diagnosing COVID-19 in patients with suspected COVID-19 (Cochrane Database Syst Rev 2021 Mar 16) [View in topic](#)

Evidence Updated 16 Apr 2021

chest CT may have high sensitivity for diagnosing COVID-19 in patients with suspected COVID-19 (Cochrane Database Syst Rev 2021 Mar 16) [View in topic](#)

Evidence Updated 15 Apr 2021

hospitalization for COVID-19 associated with increased risks of death, new-onset respiratory disease, diabetes, major adverse cardiovascular event, chronic kidney disease, and chronic liver disease up to 140 days after discharge compared to general population in England without COVID-19 (BMJ 2021 Mar 31) [View in topic](#)

Evidence Updated 13 Apr 2021

56% of patients with COVID-19 reported to have residual chest computed tomography (CT) abnormalities and 44% of patients reported to have residual pulmonary function test abnormalities 3 months after symptom onset or hospital discharge (BMC Pulm Med 2021 Mar 22) [View in topic](#)

Evidence Updated 9 Apr 2021

EMA safety committee finds association between AstraZeneca ChAdOx1-S COVID-19 vaccine (Vaxzevria) and very rare cases of thrombosis associated with thrombocytopenia (EMA Press Release 2021 Apr 7) [View in topic](#)

Evidence Updated 8 Apr 2021

SOARS score helps stratify risk of in-hospital death in adults with COVID-19 (Thorax 2021 Mar 10 early online) [View in topic](#)

BMJ Best Practice

Updates 15th April 2021

NICE updates guidance on use of dexamethasone and IL-6 inhibitors

- The UK National Institute for Health and Care Excellence (NICE) recommends offering dexamethasone (or a suitable alternative) to people who need supplemental oxygen to meet their prescribed oxygen saturation levels, or who have a level of hypoxia that needs supplemental oxygen but who are unable to have or tolerate it. See the Treatment algorithm for more information.
- NICE also now recommends a single dose of tocilizumab (or sarilumab) in hospitalised patients who meet specific criteria. See the Emerging section for more information.

NIH updates guidance on use of monoclonal antibodies

- The US National Institutes of Health guidelines panel has updated its guidance to recommend either casirivimab/imdevimab or bamlanivimab/etesevimab for the treatment of outpatients with mild to moderate disease who are at high risk of clinical progression.
- The panel recommends against the use of monoclonal antibodies in hospitalised patients, except in the context of a clinical trial. The panel also now recommends against the use of bamlanivimab monotherapy. See the Emerging section for more information.

PRINCIPLE trial reports benefit for inhaled budesonide

- The PRINCIPLE trial has reported a 3-day median benefit in self-reported recovery for patients in the community setting who received inhaled budesonide. As a consequence, UK guidance now recommends that inhaled budesonide can be considered on a case-by-case basis in eligible patients.
- See the Management recommendations section for more information.

B.1.1.7 UK variant not linked to more severe disease

- According to two new studies, the B.1.1.7 variant does not appear to be associated with more severe disease compared with the wild-type virus.
- See the Aetiology section for more information.

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/>

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