



WORSHIPFUL SOCIETY OF APOTHECARIES OF LONDON FACULTY OF CONFLICT AND CATASTROPHE MEDICINE

Covid-19/SARS-CoV-2: References, Resources & Guidance

[Updated 02/11/2021 – items added since the last update are placed in the “New Additions” section at the beginning and then moved to the relevant section in the next issue]

[Disclaimers: This is not a complete or comprehensive listing and it is not intended to compete with the huge resources of medical libraries nor the specific guidance of professional bodies. It is intended to provide a “Go To” resource, containing publications and links from a wide range of sources, that may be of practical use to health care workers dealing with the COVID-19 epidemic.

We will update this at intervals, and this will work best if you, the users, feed back to us. So if you know of any useful references or resources that are not included, or if you are aware that any of the references or resources listed are out of date or have been superseded, please let us know so that we can put them in, change them or cut them out!

(Inclusion of a title in this listing does not imply approval, endorsement or certification of the work or results therein by the Faculty of Conflict and Catastrophe Medicine or the Worshipful Society of Apothecaries of London. The items are included for information only and should be evaluated by the readers before use. When reading items published in printed or on-line journals, please bear in mind that the peer review process may have been curtailed or that an item may be a preprint that has not been certified by peer review. Such reports of new medical research may not yet have been evaluated and so should not be used to guide clinical practice).].

Contacts:

Faculty of Conflict & Catastrophe Medicine: facultycc@apothecaries.org

Dr Tim Healing: drtimhealing@hotmail.com

SECTIONS IN THIS LIST

NEW ADDITIONS / UPDATED MATERIAL

RESOURCES & GUIDANCE

- Journals

CLINICAL MATTERS

- Clinical characteristics/Symptoms
- Management of cases
- Children & Adolescents
- Care of recovering patients
- Long Covid

ETHICAL ISSUES

VENTILATORS

CARE OF HEALTH-CARE STAFF.

INFECTION CONTROL

- PPE and Masks

LOW INCOME SETTINGS

- Refugees and refugee camps
- Sphere

THE VIRUS

- General
- Epidemiology
- SARS-CoV-2 Seroprevalence
- Immunology
- Drug & other interactions

VACCINES, TESTS & TREATMENTS

- Vaccines
- Therapeutics
- Antimalarials & other drugs
- Tests & Testing

MISCELLANEOUS

- Environment, Animals
- Mass Gatherings
- Treatment, Health Care etc.
- Nutrition
- IHL & other Legal
- Taxonomy & genetics
- Other pathogens

PRESS & PUBLICATIONS

ON-LINE COURSES, WEBINARS, BLOGS & BOOKS

- Courses
- Blogs
- Webinars

UNIVERSITIES

- London University

BOOKS

NEW ADDITIONS / UPDATED MATERIAL

Clinical Matters

Clinical characteristics/Symptoms

Logette E, Lorin C, Favreau C et al. **A Machine-Generated View of the Role of Blood Glucose Levels in the Severity of COVID-19.** Front. Public Health, 28 July 2021 | <https://doi.org/10.3389/fpubh.2021.695139>

Management of cases

Writing Committee for the REMAP-CAP Investigators. **Effect of Convalescent Plasma on Organ Support–Free Days in Critically Ill Patients With COVID-19. A Randomized Clinical Trial.** JAMA. 2021;326(17):1690-1702.
doi:10.1001/jama.2021.18178.
<https://jamanetwork.com/journals/jama/fullarticle/2784914>

Long Covid.

Taquet M, Dercon Q, Luciano S et al. **Incidence, co-occurrence, and evolution of long-COVID features: A 6-month retrospective cohort study of 273,618 survivors of COVID-19.** PLOS Medicine Published: September 28, 2021
<https://doi.org/10.1371/journal.pmed.1003773>

Care of Health Care Staff

Murray E, Kaufman KR, Williams R. **Let us do better: learning lessons for recovery of healthcare professionals during and after COVID-19.** BJPsych Open. 2021 Aug 19;7(5):e151. doi: 10.1192/bjo.2021.981. PMID: 34457351; PMCID: PMC8376907. <https://pubmed.ncbi.nlm.nih.gov/34457351/>

The Virus:

General

Dhar MS, Marwal R, Radhakrishnan VS et al. **Genomic characterization and Epidemiology of an emerging SARS-CoV-2 variant in Delhi, India.** medRxiv August 20, 2021. doi: <https://doi.org/10.1101/2021.06.02.21258076>

Elliot J, Whitaker M, Bodinier B et al. **Predictive symptoms for COVID-19 in the community: REACT-1 study of over 1 million people.** PLOS Medicine. Published: September 28, 2021
<https://doi.org/10.1371/journal.pmed.1003777>

Sheikh a, McMenamain J, Taylor, R et al. **SARS-CoV-2 Delta VOC in Scotland: demographics, risk of hospital admission, and vaccine effectiveness.** The Lancet VOLUME 397, ISSUE 10293, P2461-2462, JUNE 26, 2021.
[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)01358-1/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)01358-1/fulltext)

Epidemiology

Ebrahim SH, Ahmed QA, Gozzer E et al. **Covid-19 and community mitigation strategies in a pandemic.**

BMJ 2020; 368 doi: <https://doi.org/10.1136/bmj.m1066> (Published 17 March 2020)

Singanayagam A, Hakki S, Dunning J et al. **Community transmission and viral load kinetics of the SARS-CoV-2 delta (B.1.617.2) variant in vaccinated and unvaccinated individuals in the UK: a prospective, longitudinal, cohort study.**

The Lancet Infectious Diseases. Open Access Published: October 29, 2021

DOI: [https://doi.org/10.1016/S1473-3099\(21\)00648-4](https://doi.org/10.1016/S1473-3099(21)00648-4)

Paul LA, Daneman MD, Schwartz KL et al. **Association of Age and Pediatric Household Transmission of SARS-CoV-2 Infection.** *JAMA Pediatr.* Published online August 16, 2021. doi:10.1001/jamapediatrics.2021.2770.

<https://jamanetwork.com/journals/jamapediatrics/fullarticle/2783022>

Twohig KA, Nyberg T, Zaidi A et al. **Hospital admission and emergency care attendance risk for SARS-CoV-2 delta (B.1.617.2) compared with alpha (B.1.1.7) variants of concern: a cohort study.** The Lancet Infectious Diseases.

Published: August 27, 2021 DOI: [https://doi.org/10.1016/S1473-3099\(21\)00475-8](https://doi.org/10.1016/S1473-3099(21)00475-8)

Immunology

Poon MML, Rybkina K, Kato Y et al. **SARS-CoV-2 infection generates tissue-localized immunological memory in humans.** *Sci Immunol.* 2021 Oct 7:eabl9105.

doi: 10.1126/sciimmunol.abl9105. Epub ahead of print. PMID: 34618554.

<https://pubmed.ncbi.nlm.nih.gov/34618554/>

Drug and other interactions.

Lenze EJ, Mattar C, Zorumski CF et al. **Fluvoxamine vs Placebo and Clinical Deterioration in Outpatients With Symptomatic COVID-19. A Randomized Clinical Trial.** *JAMA.* 2020;324(22):2292-2300. doi:10.1001/jama.2020.22760.

<https://jamanetwork.com/journals/jama/fullarticle/2773108>

Vaccines

Bozio CH, Grannis SJ, Naleway AL, et al. **Laboratory-Confirmed COVID-19 Among Adults Hospitalized with COVID-19–Like Illness with Infection-Induced or mRNA Vaccine-Induced SARS-CoV-2 Immunity — Nine States, January–September 2021.** *MMWR Morb Mortal Wkly Rep.* ePub: 29 October 2021.

DOI: <http://dx.doi.org/10.15585/mmwr.mm7044e1external icon>.

Nanduri S, Pilishvili T, Derado G, et al. **Effectiveness of Pfizer-BioNTech and Moderna Vaccines in Preventing SARS-CoV-2 Infection Among Nursing Home Residents Before and During Widespread Circulation of the SARS-CoV-2 B.1.617.2 (Delta) Variant — National Healthcare Safety Network, March 1–August 1, 2021.** MMWR Morb Mortal Wkly Rep. ePub: 18 August 2021.

DOI: <http://dx.doi.org/10.15585/mmwr.mm7034e3external icon>

Rosenberg ES, Holtgrave DR, Dorabawila V, et al. **New COVID-19 Cases and Hospitalizations Among Adults, by Vaccination Status — New York, May 3–July 25, 2021.** MMWR Morb Mortal Wkly Rep. ePub: 18 August 2021.

DOI: <http://dx.doi.org/10.15585/mmwr.mm7034e1external icon>

Tenforde MW, Self WH, Naioti EA, et al. **Sustained Effectiveness of Pfizer-BioNTech and Moderna Vaccines Against COVID-19 Associated Hospitalizations Among Adults — United States, March–July 2021.** MMWR Morb Mortal Wkly Rep. ePub: 18 August 2021.

DOI: <http://dx.doi.org/10.15585/mmwr.mm7034e2external icon>.

RESOURCES & GUIDANCE

CIDRAP (Centre for Infectious Disease Research and Policy). **COVID-19 Maps & visuals.** <https://www.cidrap.umn.edu/covid-19/maps-visuals>

International Society for Infectious Diseases. **(This page provides you with the latest information, publications, and news articles on the evolving novel coronavirus outbreak from trusted sources).** <https://isid.org/2019-novel-coronavirus/>

Huxtable, R. **COVID-19: where is the national ethical guidance?** *BMC Med Ethics* **21**, 32 (2020). <https://doi.org/10.1186/s12910-020-00478-2>

Johns Hopkins University. **Coronavirus resource center.** <https://coronavirus.jhu.edu/>

LitCovid: a curated literature hub for tracking up-to-date scientific information about the 2019 novel Coronavirus. It is the most comprehensive resource on the subject, providing a central access to more than 187,466 (and growing) relevant articles in PubMed. The articles are updated daily and are further categorized by different research topics and geographic locations for improved access.

<https://www.ncbi.nlm.nih.gov/research/coronavirus/>

LSHTM. **COVID-19** <https://www.lshtm.ac.uk/research/research-action/covid-19>

Medscape UK. **COVID-19.** https://www.medscape.com/resource/uk-coronavirus?src=ban_ret_ukcovid_728x90_desk_03172020_int

NICE website. **Coronavirus (COVID-19).** <https://www.nice.org.uk/covid-19>

NNEdPro Global Centre for Nutrition and Health. (COVID19: Useful Resources).
<https://www.nnedpro.org.uk/coronavirus>

Our World in Data. **Coronavirus Pandemic (COVID-19).**
<https://ourworldindata.org/coronavirus>

Oxford Centre for Evidence Based Medicine. **Oxford COVID-19 Evidence Service.**
<https://www.cebm.net/oxford-covid-19-evidence-service/>

PHE. **COVID-19: guidance for health professionals.** Updated on 24 December 2020
<https://www.gov.uk/government/collections/wuhan-novel-coronavirus>

PHE. **Coronavirus (COVID-19): guidance.** (Updated 5 March 2021)
<https://www.gov.uk/government/collections/coronavirus-covid-19-list-of-guidance>

ProMED. (International Society for Infectious Diseases - ISID). *(The Program for Monitoring Emerging Diseases (ProMED) is a program of ISID. It is an Internet service to identify unusual health events related to emerging and re-emerging infectious diseases and toxins affecting humans, animals and plants. It is the largest publicly-available system conducting global reporting of infectious diseases outbreaks)* <https://promedmail.org/about-promed/>

RCGP learning. **Covid-19 resource hub.**
<https://elearning.rcgp.org.uk/course/view.php?id=373>

Royal College of Physicians and Surgeons of Glasgow. **Publications and Academic Resources.** <https://rcpsg.ac.uk/college/covid-19/publications-and-academic-resources>

Royal College of Surgeons. **Covid-19 Information hub.**
<https://www.rcseng.ac.uk/coronavirus/>
<https://www.rcseng.ac.uk/coronavirus/coronavirus-resources/>
<https://www.rcseng.ac.uk/dental-faculties/fds/coronavirus/>

Royal College of Surgeons. **Covid-19. Guidance for surgeons working during the pandemic.** (Updated Friday 5 June 2020).
<https://www.rcseng.ac.uk/coronavirus/joint-guidance-for-surgeons-v2/>

UK Research and Innovation (UKRI). For latest information about the coronavirus research funded by UKRI [please visit our main website](#), or check out the links on the [About page](#) for other sources of coronavirus information.

WHO. **Country and Technical Guidance – Coronavirus Disease (COVID-19).** (All technical guidance on COVID-19 - select topic from drop down menu)
<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance-publications>

WHO. **Operational planning guidance to support country preparedness and response. COVID-19 strategic preparedness and response.** 22 May 2020.
<https://www.who.int/publications/i/item/draft-operational-planning-guidance-for-un-country-teams>

WHO. **Global Alert and Response Network (GOARN) Knowledge Hub.**
<https://extranet.who.int/goarn/COVID19Hub>

WHO. **Rolling updates on coronavirus disease (COVID-19).** (Updated 31 July 2020). <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen>

WHO. **COVID-19 dashboard.**
<https://who.sprinklr.com/>

WHO. **Health Cluster Guide 2nd Edition 2020.** <https://www.who.int/health-cluster/resources/publications/hc-guide/en>

WHO. **Considerations for implementing a risk-based approach to international travel in the context of COVID-19.** 16 December 2020.
<https://www.who.int/publications/i/item/WHO-2019-nCoV-Risk-based-international-travel-2020.1>

WHO. **Interim recommendations for use of the Pfizer–BioNTech COVID-19 vaccine, BNT162b2, under Emergency Use Listing.** 8 January 2021.
https://www.who.int/publications/i/item/WHO-2019-nCoV-vaccines-SAGE_recommendation-BNT162b2-2021.1

Worldometer. **Covid-19 coronavirus pandemic.**
<https://www.worldometers.info/coronavirus/>

Journals

BMJ's Coronavirus (Covid-19) Hub. This hub supports health professionals and researchers with practical guidance, online CPD courses, as well as the latest news, comment, and research from BMJ. The content is free and updated daily.
<https://www.bmj.com/coronavirus>

Journal of the American Medical Association. **JAMA Network. Coronavirus (COVID19).** (COVID-19 diagnosis and treatment).
<https://jamanetwork.com/collections/46099/coronavirus-covid19>

Lancet Coronavirus Resource Centre. This resource brings together new 2019 novel coronavirus disease (COVID-19) content from across *The Lancet* journals as it is published. (All of the Lancet COVID-19 content is free to access).
<https://www.thelancet.com/coronavirus>

Nature Medicine. Research, news and comments. <https://www.nature.com/nm/>

New England Journal of Medicine. Coronavirus (Covid-19). A collection of articles and other resources on the Coronavirus (Covid-19) outbreak, including clinical reports, management guidelines, and commentary. All *Journal* content related to the Covid-19 pandemic is freely available.
<https://www.nejm.org/coronavirus>

CLINICAL MATTERS

Clinical characteristics/Symptoms

Covid-19: Sore throat, fatigue, and myalgia are more common with new UK variant. *BMJ* 2021; 372 doi: <https://doi.org/10.1136/bmj.n288> (Published 29 January 2021)

Chen T. et al. **Clinical characteristics of 113 deceased patients with coronavirus disease 2019: retrospective study.**
BMJ 2020; 368 doi: <https://doi.org/10.1136/bmj.m1091> (Published 26 March 2020)

Feuth T. et al. **Is sleep apnoea a risk factor for Covid-19? Findings from a retrospective cohort study.** medRxiv.
<https://www.medrxiv.org/content/10.1101/2020.05.14.20098319v1>
[This article is a preprint and has not been peer-reviewed. It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice].

Galvan-Casas C. et al. **Classification of the cutaneous manifestations of COVID-19: a rapid prospective nationwide consensus study in Spain with 375 cases.**
Br J Dermatol. 2020 Apr 29. doi: 10.1111/bjd.19163. [Epub ahead of print].
<https://www.ncbi.nlm.nih.gov/pubmed/32348545>

Guan W et al. **Clinical Characteristics of Coronavirus Disease 2019 in China.**
New England Journal of Medicine. Feb28,2020.
<https://www.nejm.org/doi/full/10.1056/NEJMoa2002032>

Gupta, A., Madhavan, M.V., Sehgal, K. et al. **Extrapulmonary manifestations of COVID-19.** *Nat Med* 26, 1017–1032 (2020). <https://doi.org/10.1038/s41591-020-0968-3>

Huang C. *et al.* **Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China.** *Lancet* 395 Feb 15, 2020.
[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)30183-5/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30183-5/fulltext)

Patterson RW et al., **The emerging spectrum of COVID-19 neurology: clinical, radiological and laboratory findings,** *Brain*, awaa240, 08 July 2020 <https://doi.org/10.1093/brain/awaa240>

Public Health England. **Guidance. COVID-19: investigation and initial clinical management of possible cases.** Updated 14 December 2020. <https://www.gov.uk/government/publications/wuhan-novel-coronavirus-initial-investigation-of-possible-cases/investigation-and-initial-clinical-management-of-possible-cases-of-wuhan-novel-coronavirus-wn-cov-infection>

Richardson S et al. **Presenting Characteristics, Comorbidities, and Outcomes Among 5700 Patients Hospitalized With COVID-19 in the New York City Area** *JAMA*. Published online April 22, 2020. doi:10.1001/jama.2020.6775 <https://jamanetwork.com/journals/jama/fullarticle/2765184>

Roberts M & Colleagues. **Covid-19: a complex multisystem clinical syndrome.** *The bmj opinion*. 1 May.2020. <https://blogs.bmj.com/bmj/2020/05/01/covid-19-a-complex-multisystem-clinical-syndrome/>

Shi, Y., Yu, X., Zhao, H. *et al.* **Host susceptibility to severe COVID-19 and establishment of a host risk score: findings of 487 cases outside Wuhan.** *Crit Care* **24**, 108 (2020). <https://doi.org/10.1186/s13054-020-2833-7>

Varatharaj A et al., **Neurological and neuropsychiatric complications of COVID-19 in 153 patients: a UK-wide surveillance study.** *The Lancet Psychiatry*. 25 June 2020. DOI:[https://doi.org/10.1016/S2215-0366\(20\)30287-X](https://doi.org/10.1016/S2215-0366(20)30287-X)

Vincent J-L, Taccone FS. **Understanding pathways to death in patients with COVID-19.** *The Lancet Respiratory Medicine* 6 April 2020. DOI:[https://doi.org/10.1016/S2213-2600\(20\)30165-X](https://doi.org/10.1016/S2213-2600(20)30165-X)

The WHO Rapid Evidence Appraisal for COVID-19 Therapies (REACT) Working Group. **Association Between Administration of Systemic Corticosteroids and Mortality Among Critically Ill Patients With COVID-19 A Meta-analysis.** *JAMA*. Published online September 2, 2020. doi:10.1001/jama.2020.17023 <https://jamanetwork.com/journals/jama/fullarticle/2770279>

Wiersinga W J. et al. **Pathophysiology, Transmission, Diagnosis, and Treatment of Coronavirus Disease 2019 (COVID-19) A Review.** *JAMA*. Published online July 10, 2020. doi:10.1001/jama.2020.12839. <https://jamanetwork.com/journals/jama/fullarticle/2768391>

Wu Y et al., **Nervous system involvement after infection with COVID-19 and other coronaviruses.** *Brain, Behaviour and Immunity*. Volume 87, July 2020, Pages 18-22. <https://doi.org/10.1016/j.bbi.2020.03.031>

Management of cases

Angelidou A, Sullivan K, Melvin PR et al. **Association of Maternal Perinatal SARS-CoV-2 Infection With Neonatal Outcomes During the COVID-19 Pandemic in Massachusetts.** *JAMA Netw Open*. 2021;4(4):e217523. 23 April 2021. doi:10.1001/jamanetworkopen.2021.7523 <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2779051>

CDC Atlanta. **Interim Clinical Guidance for Management of Patients with Confirmed Coronavirus Disease (COVID-19)**. Updated Feb 16 2021.
<https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-guidance-management-patients.html>

Chatterjee NA, Jensen PN, Harris AW et al. **Admission respiratory status predicts mortality in COVID-19**. Influenza Other Respir Viruses. 2021 May 24.
doi: 10.1111/irv.12869. Online ahead of print.
<https://onlinelibrary.wiley.com/doi/10.1111/irv.12869>

Gautam N, Madathil S, Tahani N et al. **Medium-term outcome of severe to critically ill patients with SARS-CoV-2 infection**. Clinical Infectious Diseases, 24 April 2021, ciab341, <https://doi.org/10.1093/cid/ciab341>

Gupta S, Leaf DE. **Tocilizumab in COVID-19: some clarity amid controversy**. The Lancet. Published: May 01, 2021 DOI: [https://doi.org/10.1016/S0140-6736\(21\)00712-1](https://doi.org/10.1016/S0140-6736(21)00712-1)

Libster R, Gonzalo Perez M, Wappner D et al. **Early High-Titer Plasma Therapy to Prevent Severe Covid-19 in Older Adults**. NEJM. 6 January 2021.
<https://www.nejm.org/doi/full/10.1056/NEJMoa2033700#:~:text=In%20our%20randomized%2C%20controlled%20trial,Covid-19%20to%20severe%20illness.>

NICE. **COVID-19 rapid guideline: managing suspected or confirmed pneumonia in adults in the community**. NICE guideline [NG165] Published date: 03 April 2020 Last updated: 23 April 2020 <https://www.nice.org.uk/guidance/ng165>

Public Health England. **Guidance. COVID-19: investigation and initial clinical management of possible cases**. Updated 14 December 2020.
<https://www.gov.uk/government/publications/wuhan-novel-coronavirus-initial-investigation-of-possible-cases/investigation-and-initial-clinical-management-of-possible-cases-of-wuhan-novel-coronavirus-wn-cov-infection>

Phua J et al. **Intensive care management of coronavirus disease 2019 (COVID-19): challenges and recommendations**. The Lancet 6 April 2020.
[https://www.thelancet.com/journals/lanres/article/PIIS2213-2600\(20\)30161-2/fulltext](https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(20)30161-2/fulltext)

PHE. **COVID-19: guidance for health professionals**. Updated on 15 March 2021
<https://www.gov.uk/government/collections/wuhan-novel-coronavirus>

Royal College of Nursing. **Clinical guidance for managing COVID-19**.
<https://www.rcn.org.uk/clinical-topics/infection-prevention-and-control/novel-coronavirus>

Royal College of Physicians. **Specialty-specific guidance on aspects of clinical care and treatment for COVID-19.** <https://www.rcplondon.ac.uk/education-practice/advice/specialty-specific-guidance-aspects-clinical-care-and-treatment-covid-19>

WHO. **Clinical management of COVID-19. Interim Guidance.** 25 January 2021. <https://www.who.int/publications/i/item/clinical-management-of-covid-19>

WHO. **Use of chest imaging in COVID-19. A rapid Advice Guide.** 11 June 2020. <https://www.who.int/publications/i/item/use-of-chest-imaging-in-covid-19>

WHO. **Criteria for releasing COVID-19 patients from isolation. Scientific Brief.** 17 June 2020. <https://www.who.int/publications/i/item/criteria-for-releasing-covid-19-patients-from-isolation>

WHO. **Home care for patients with suspected or confirmed COVID-19 and management of their contacts. Interim Guidance.** WHO Publications 13 August 2020. [https://www.who.int/publications/i/item/home-care-for-patients-with-suspected-novel-coronavirus-\(ncov\)-infection-presenting-with-mild-symptoms-and-management-of-contacts](https://www.who.int/publications/i/item/home-care-for-patients-with-suspected-novel-coronavirus-(ncov)-infection-presenting-with-mild-symptoms-and-management-of-contacts)

WHO. **Therapeutics and COVID-19: living guideline.** 31 March 2021
COVID-19: Clinical care. WHO reference number: WHO/2019-nCoV/therapeutics/2021.1 <https://www.who.int/publications/i/item/WHO-2019-nCoV-therapeutics-2021.1>

Children & Adolescents

British Paediatric Respiratory Society. **Guidance for the clinical management of children admitted to hospital with suspected COVID-19.** (Version 2) https://www.rcpch.ac.uk/sites/default/files/2020-03/bprs_management_of_children_admitted_to_hospital_with_covid19_-_20200319.pdf

Gill PJ, Mahant S, Hall M et al. **Reasons for Admissions to US Children's Hospitals During the COVID-19 Pandemic.** *JAMA.* 2021;325(16):1676-1679. April 27 2021 doi:10.1001/jama.2021.4382 <https://jamanetwork.com/journals/jama/article-abstract/2779208>

Goldman PS, van Ijzendoorn MH, Sonuga-Barke EJS. **The implications of COVID-19 for the care of children living in residential institutions.** *The Lancet Child and Adolescent Health.* [https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642\(20\)30130-9/fulltext](https://www.thelancet.com/journals/lanchi/article/PIIS2352-4642(20)30130-9/fulltext)

Javalkar K, Robson VK, Gaffney L et al. **Socioeconomic and Racial and/or Ethnic Disparities in Multisystem Inflammatory Syndrome.** *Pediatrics* May 2021, 147 (5) e2020039933; DOI: <https://doi.org/10.1542/peds.2020-039933>

Jones VG, Mills M, Suarez D, et al. **COVID-19 and Kawasaki disease: novel virus and novel case.** *Hosp Pediatr.* 2020; doi: 10.1542/hpeds.2020-0123
<https://pubmed.ncbi.nlm.nih.gov/32265235/>

Liao J et al. **Epidemiological and clinical characteristics of COVID-19 in adolescents and young adults.** 21 May 2020 *The Innovation.* Published: April 28, 2020 DOI: <https://doi.org/10.1016/j.xinn.2020.04.001>

Ma, H., Hu, J., Tian, J. et al. **A single-center, retrospective study of COVID-19 features in children: a descriptive investigation.** *BMC Med* 18, 123 (2020).
<https://doi.org/10.1186/s12916-020-01596-9>

Paediatric Intensive Care Society. **PICS Statement: Increased number of reported cases of novel presentation of multisystem inflammatory disease.** 27 April 2020. <https://picsociety.uk/wp-content/uploads/2020/04/PICS-statement-re-novel-KD-C19-presentation-v2-27042020.pdf>

Paediatric Intensive Care Society. **Covid-19 Infection.** (Information on Covid-19 infection relevant to the paediatric critical care community).
<https://picsociety.uk/covid19/>

Parcha, V., Booker, K.S., Kalra, R. et al. **A retrospective cohort study of 12,306 pediatric COVID-19 patients in the United States.** *Sci Rep* 11, 10231 (2021).
<https://doi.org/10.1038/s41598-021-89553-1>

Pathak EB et al. **Covid-19 in Children in the United States. Intensive Care Admissions, Estimated Total Infected, and Projected Numbers of Severe Pediatric Cases in 2020.** *Journal of Public Health Management and Practice: April 16, 2020 - Volume Publish Ahead of Print*
<https://pubmed.ncbi.nlm.nih.gov/32282440/>

Care of recovering patients

Giné Servén E, Martínez Ramírez M, Boix Quintana E et al. **Emerging cycloid psychosis episodes during COVID-19 pandemic: a case series.** *Nord J Psychiatry.* 2021 Feb 25:1-6. doi: 10.1080/08039488.2021.1885061. Epub ahead of print. PMID: 33630694. <https://pubmed.ncbi.nlm.nih.gov/33630694/>

Graham EL, Clark JR, Orban ZS et al. **Persistent neurologic symptoms and cognitive dysfunction in non-hospitalized Covid-19 “long haulers”.** *Annals of Clinical and Translational Neurology.* First published: 23 March 2021.
<https://doi.org/10.1002/acn3.51350>

Nehme M, Braillard O, Chappuis F, Courvoisier DS, Guessous I. **Prevalence of Symptoms More Than Seven Months After Diagnosis of Symptomatic COVID-19 in an Outpatient Setting.** *Ann Intern Med.* 2021 Jul 6. doi: 10.7326/M21-0878. Epub ahead of print. PMID: 34224254. <https://pubmed.ncbi.nlm.nih.gov/34224254/>

NHS. **Supporting your recovery after COVID-19.**

<https://www.yourcovidrecovery.nhs.uk>

PHOSP-COVID Collaborative Group, Evans RA, McAuley H et al. **Physical, cognitive and mental health impacts of COVID-19 following hospitalisation – a multi-centre prospective cohort study.** medRxiv 25 March 2021.

doi: <https://doi.org/10.1101/2021.03.22.21254057>. [This article is a preprint and has not been peer-reviewed. It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice].

Puntmann VO et al. **Outcomes of Cardiovascular Magnetic Resonance Imaging in Patients Recently Recovered From Coronavirus Disease 2019 (COVID-19).** *JAMA Cardiol.* Published online July 27, 2020.

<https://jamanetwork.com/journals/jamacardiology/fullarticle/2768916>

Radin JM, Quer G, Ramos E et al. **Assessment of Prolonged Physiological and Behavioral Changes Associated With COVID-19 Infection.** *JAMA Netw*

Open. 2021;4(7):e2115959. doi:10.1001/jamanetworkopen.2021.15959

<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2781687>

Rentero D, Juanes A, Losada CP et al. **New-onset psychosis in COVID-19 pandemic: a case series in Madrid.** *Psychiatry Res.* 2020 Aug; 290: 113097.

Published online 2020 May 13. doi: [10.1016/j.psychres.2020.113097](https://doi.org/10.1016/j.psychres.2020.113097)

Stam HJ, Stucki G, Bickenbach J. **Covid-19 and Post Intensive Care Syndrome: A Call for Action.** *J Rehabil Med.* 2020 Apr 15;52(4):jrm00044.

<https://www.ncbi.nlm.nih.gov/pubmed/32286675>

Tu TM, Seet CYH, Koh JS et al. **Acute Ischemic Stroke During the Convalescent Phase of Asymptomatic COVID-2019 Infection in Men.** *JAMA Netw*

Open. 2021;4(4):e217498. April 22 2021. doi:10.1001/jamanetworkopen.2021.7498

<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2779040>

Long Covid

Carfi A et al. **Persistent Symptoms in Patients After Acute COVID-19.**

JAMA. 2020;324(6):603-605. Doi:10.1001/jama.2020.12603.

<https://jamanetwork.com/journals/jama/fullarticle/2768351>

Eiros R et al. **Pericarditis and myocarditis long after SARS-CoV-2 infection: a cross-sectional descriptive study in health-care workers.**

medRxiv 2020.07.12.20151316; doi: <https://doi.org/10.1101/2020.07.12.20151316>

[This article is a preprint and has not been peer-reviewed. It reports new medical research that has yet to be evaluated and so should *not* be used to guide clinical practice.]

Lambert, N. J. & Survivor Corps. **COVID-19 “Long Hauler” Symptoms Survey Report.** Indiana University School of Medicine; 2020.

<https://dig.abclocal.go.com/wls/documents/2020/072720-wls-covid-symptom-study-doc.pdf>

Munro KJ et al., **Persistent self-reported changes in hearing and tinnitus in post-hospitalisation COVID-19 cases**, International Journal of Audiology, (2020) DOI: [10.1080/14992027.2020.1798519](https://doi.org/10.1080/14992027.2020.1798519)

National Institute for Health Research. **Living with Covid19**. 15 Oct 2020.
Doi: [10.3310/themedreview_41169](https://doi.org/10.3310/themedreview_41169)

NICE guideline [NG188]. **COVID-19 rapid guideline: managing the long-term effects of COVID-19**. Published: 18 December 2020
<https://www.nice.org.uk/guidance/ng188>

Sigfrid L, Drake TM, Pauley E et al. **Long Covid in adults discharged from UK hospitals after Covid-19: A prospective, multicentre cohort study using the ISARIC WHO Clinical Characterisation Protocol**. medRxiv 25 March 2021.
doi: <https://doi.org/10.1101/2021.03.18.21253888> [This article is a preprint and has not been peer-reviewed. It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice].

Sudre CH, Murray B, Varsavsky T et al. **Attributes and predictors of Long-COVID: analysis of COVID cases and their symptoms collected by the Covid Symptoms Study App**. medRxiv 19 December 2020.
<https://www.medrxiv.org/content/10.1101/2020.10.19.20214494v2> [This article is a preprint and has not been peer-reviewed. It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice].

Tenford MW et al. **Symptom Duration and Risk Factors for Delayed Return to Usual Health Among Outpatients with COVID-19 in a Multistate Health Care Systems Network — United States, March–June 2020**. Morbidity and Mortality Weekly Report (MMWR). *Weekly* / July 31, 2020 / 69(30);993-998.
<https://www.cdc.gov/mmwr/volumes/69/wr/mm6930e1.htm>

ETHICAL ISSUES

BMA. **BMA Guidance COVID-19: ethical issues**. Updated Mon 7th September 2020. <https://www.bma.org.uk/advice-and-support/covid-19/ethics/covid-19-ethical-issues>

BMA. **COVID-19 Ethical Issues. A guidance note**
<https://www.bma.org.uk/media/2226/bma-covid-19-ethics-guidance.pdf>

Brady, E., Nielsen, M.W., Andersen, J.P. *et al.* **Lack of consideration of sex and gender in COVID-19 clinical studies**. *Nat Commun* 12, 4015 (2021).
<https://doi.org/10.1038/s41467-021-24265-8>

Gurdasani D, Drury J, Greenhalgh T et al. **Mass infection is not an option: we must do more to protect our young**. The Lancet. Published: July 07, 2021 DOI: [https://doi.org/10.1016/S0140-6736\(21\)01589-0](https://doi.org/10.1016/S0140-6736(21)01589-0)

Royal College of Physicians. **Ethical Dimensions of Covid-19 for frontline staff.** (Updated December 2020) <https://www.rcplondon.ac.uk/news/ethical-guidance-published-frontline-staff-dealing-pandemic>

Royal College of Psychiatrists. **COVID-19: Ethical Considerations.** <https://www.rcpsych.ac.uk/about-us/responding-to-covid-19/responding-to-covid-19-guidance-for-clinicians/covid-19-ethical-considerations>

Sokol D. **Decision Making for Intensive Care Triage in COVID-19 Emergency. A practical Guide for Clinicians and Hospital Mangers.** April 2020. <http://medicaethicist.net/wp-content/uploads/2016/06/v5-Sokol-ICU-Triage-April-2020.pdf>

VENTILATORS

Arulkumaran N. **Use of non-invasive ventilation for patients with COVID-19: a cause for concern?** The Lancet Respiratory Medicine. 20 April 2020. [https://www.thelancet.com/journals/lanres/article/PIIS2213-2600\(20\)30181-8/fulltext](https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(20)30181-8/fulltext)

Botta M et al. **Ventilation management and clinical outcomes in invasively ventilated patients with COVID-19 (PRoVENT-COVID): a national, multicentre, observational cohort study.** The Lancet Respiratory Medicine. Published: October 23, 2020 DOI:[https://doi.org/10.1016/S2213-2600\(20\)30459-8](https://doi.org/10.1016/S2213-2600(20)30459-8)

Truog, RD, Mitchell, C & Daley, GQ. **The Toughest Triage — Allocating Ventilators in a Pandemic.** March 23, 2020 New England Journal of Medicine. <https://www.nejm.org/doi/full/10.1056/NEJMp2005689>

Zangrillo A Beretta L Scandroglio AM et al. **Characteristics, treatment, outcomes and cause of death of invasively ventilated patients with COVID-19 ARDS in Milan, Italy.** Crit Care Resusc. 2020; 22: 200-211. <https://pubmed.ncbi.nlm.nih.gov/32900326/>

CARE OF HEALTH-CARE STAFF.

Greenberg N, Weston D, Hall C *et al.* **The mental health of staff working in intensive care during COVID-19.** medRxiv Nov 05 2020. <https://www.medrxiv.org/content/10.1101/2020.11.03.20208322v2>
[This article is a preprint and has not been peer-reviewed. It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice].

Royal College of Psychiatrists. **Covid-19: Workforce.** <https://www.rcpsych.ac.uk/about-us/responding-to-covid-19/responding-to-covid-19-guidance-for-clinicians/staff-and-workforce>

ICRC. **COVID-19 and Violence Against Health-Care – Safer COVID-19 Response: Checklist for Health-Care Services.** 16 June 2020. <https://www.icrc.org/en/publication/covid-19-and-violence-against-health-care-safer-covid-19-response-checklist-health-care>

NHS. **Workforce guidance for mental health, learning disabilities and autism, and specialised commissioning services during the coronavirus pandemic.** 08 April 2020. <https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/03/C0074-MHLDA-Covid-19-Guidance-Workforce-final-v1-1.pdf>

Walton M, Murray E, Christian MD. **Mental health care for medical staff and affiliated healthcare workers during the COVID-19 pandemic** [published online ahead of print, 2020 Apr 28]. *Eur Heart J Acute Cardiovasc Care.* 2020;2048872620922795. <https://pubmed.ncbi.nlm.nih.gov/32342698/>

INFECTION CONTROL

Centers for Disease Control and Prevention. **Coronavirus disease 2019 (COVID-19).** Updated 3 June 2020. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control.html>

Public Health England. **COVID-19: infection prevention and control (IPC).** (Guidance on infection prevention and control for COVID-19. Sustained community transmission is occurring across the UK.) (Includes link to dental appendix). Updated 20 October 2020. <https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control>

ECDC. (European Centers for Disease Prevention and Control). **Infection Prevention and Control and preparedness for COVID-19 in health care settings.** Second update 31 March 2020. https://www.ecdc.europa.eu/sites/default/files/documents/Infection-prevention-control-for-the-care-of-patients-with-2019-nCoV-healthcare-settings_update-31-March-2020.pdf

Homeland Security. Science and Technology. **Estimated Surface Decay of SARS-CoV-2 (virus that causes COVID-19) on surfaces under a range of temperatures, relative humidity, and UV Index.** <https://www.dhs.gov/science-and-technology/sars-calculator>

Al-Tawfiq JA, Memish ZA. **Guide to infection control in the healthcare setting. Covid-19, the 2019-novel coronavirus (2019-NCOV, SARS-CoV-2)**
Ed: Mehtar S. International Society for Infectious Diseases 2020. <https://isid.org/guide/pathogens/covid19/>

Chin AWH *et al.* **Stability of SARS-CoV-2 in different environmental conditions.** *The Lancet Microbe.* 2 April 2020 <https://www.sciencedirect.com/science/article/pii/S2666524720300033?via%3Dihub>

Di Novo NG, Carotenuto AR, Mensitieri G et al. **Modeling of Virus Survival Time in Respiratory Droplets on Surfaces: A New Rational Approach for Antivirus Strategies.** Front. Mater., 16 April 2021 <https://doi.org/10.3389/fmats.2021.631723>

Goldman E. **Exaggerated risk of transmission of COVID-19 by fomites.** [Comment] The Lancet July 3, 2020 [https://www.thelancet.com/pdfs/journals/laninf/PIIS1473-3099\(20\)30561-2.pdf](https://www.thelancet.com/pdfs/journals/laninf/PIIS1473-3099(20)30561-2.pdf)

Guo Z-D et al. **Aerosol and Surface Distribution of Severe Acute Respiratory Syndrome Coronavirus 2 in Hospital Wards, Wuhan, China, 2020.** EID Journal 26, No 7: https://wwwnc.cdc.gov/eid/article/26/7/20-0885_article

ICRC. **COVID-19: General Guidance for the Management of the Dead.** 16 June 2020. <https://www.icrc.org/en/publication/covid-19-general-guidance-management-dead>

Jiang F et al. **Detection of Severe Acute Respiratory Syndrome Coronavirus 2 RNA on Surfaces in Quarantine Rooms.** Emerg Infect Dis. 2020;26(9):2162-2164. <https://dx.doi.org/10.3201/eid2609.201435>

Kampf G et al. **Persistence of coronaviruses on inanimate surfaces and their inactivation with biocidal agents.** Journal of Hospital Infection 104,3; March 2020. 246-251. [https://www.journalofhospitalinfection.com/article/S0195-6701\(20\)30046-3/fulltext](https://www.journalofhospitalinfection.com/article/S0195-6701(20)30046-3/fulltext)

Kampf G et al. **Corrigendum to “Persistence of coronaviruses on inanimate surfaces and their inactivation with biocidal agents”** [J Hosp Infect 104 (2020) 246–251] June 17, 2020DOI:<https://doi.org/10.1016/j.jhin.2020.06.001>

Lendvay TS, Chen J, Harcourt BH et al. **Addressing Personal Protective Equipment (PPE) Decontamination: Methylene Blue and Light Inactivates SARS-CoV-2 on N95 Respirators and Medical Masks with Maintenance of Integrity and Fit.** Infect Control Hosp Epidemiol. 2021 May 21:1-83. doi: 10.1017/ice.2021.230. Epub ahead of print. PMID: 34016200. <https://www.medrxiv.org/content/10.1101/2020.12.11.20236919v2>

Otter JA, Donskey C, Yezli S, et al. **Transmission of SARS and MERS coronaviruses and influenza virus in healthcare settings: the possible role of dry surface contamination.** J Hosp Infect. 2016 Mar;92(3):235-50. doi: 10.1016/j.jhin.2015.08.027 Epub 2015 Oct 3. PMID: 26597631; PMCID: PMC7114921. <https://pubmed.ncbi.nlm.nih.gov/26597631/>

Riddell, S., Goldie, S., Hill, A. et al. **The effect of temperature on persistence of SARS-CoV-2 on common surfaces.** Virol J 17, 145 (2020). <https://doi.org/10.1186/s12985-020-01418-7>

Srivatsan S et al. **Preliminary support for a “dry swab, extraction free” protocol for SARS-CoV-2 testing via RT-qPCR.** (This article is a preprint and has not been certified by peer review). <https://www.biorxiv.org/content/10.1101/2020.04.22.056283v1>

van Doremalen N *et al.* **Aerosol and surface stability of SARS-CoV-2 as compared to SARS-CoV-1.** NEJM 17 March 2020.
<https://www.nejm.org/doi/full/10.1056/NEJMc2004973>

WHO. Infection prevention and control for the safe management of a dead body in the context of COVID-19: interim guidance, 24 March 2020.
<https://apps.who.int/iris/handle/10665/331538>

WHO. Cleaning and disinfection of environmental surfaces in the context of COVID-19. 16 May 2020. <https://www.who.int/publications-detail/cleaning-and-disinfection-of-environmental-surfaces-inthe-context-of-covid-19>

PPE and Masks

Bhaskar ME, Arun S. **SARS-CoV-2 Infection Among Community Health Workers in India Before and After Use of Face Shields.** JAMA. Published online August 17, 2020. doi:10.1001/jama.2020.15586
<https://jamanetwork.com/journals/jama/fullarticle/2769693>

BMJ. **Face masks for the public during the covid-19 crisis.** BMJ 2020;369:m1435. <https://www.bmj.com/content/369/bmj.m1435>

Chu DK *et al.* **Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis.** The Lancet. Published: June 01, 2020
[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)31142-9/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31142-9/fulltext)

Christakis D, Fontanarosa PB. **Notice of Retraction. Walach H, *et al.* Experimental Assessment of Carbon Dioxide Content in Inhaled Air With or Without Face Masks in Healthy Children: A Randomized Clinical Trial.** JAMA Pediatr. (Published online June 30, 2021). JAMA Pediatrics Editorial July 16, 2021.
<https://jamanetwork.com/journals/jamapediatrics/fullarticle/2782288>

ECDC (European Centre for Disease Prevention and Control). **Options for the decontamination and reuse of respirators in the context of the COVID-19 pandemic.** 8 June 2020. <https://www.ecdc.europa.eu/en/publications-data/options-decontamination-and-reuse-respirators-covid-19-pandemic>

ECDC. **Using face masks in the community. Reducing COVID-19 transmission from potentially asymptomatic or pre-symptomatic people through the use of face masks.** 8 April 2020.
<https://www.ecdc.europa.eu/sites/default/files/documents/COVID-19-use-face-masks-community.pdf>

ECDC. **Guidance for wearing and removing personal protective equipment in healthcare settings for the care of patients with suspected or confirmed COVID-19.** February 2020.
<https://www.ecdc.europa.eu/sites/default/files/documents/COVID-19-guidance-wearing-and-removing-personal-protective-equipment-healthcare-settings-updated.pdf>

Feng S et al. **Rational use of face masks in the COVID-19 pandemic.** Published: March 20, 2020 DOI: [https://doi.org/10.1016/S2213-2600\(20\)30134-X](https://doi.org/10.1016/S2213-2600(20)30134-X)

Ghandi M, Rutherford GW. **Facial Masking for Covid-19 — Potential for “Variolation” as We Await a Vaccine.** NEJM Sept 8 2020. <https://www.nejm.org/doi/full/10.1056/NEJMp2026913>

Howard, J. et al. **Face Masks Against COVID-19: An Evidence Review.** *Preprints* 2020, 2020040203 (doi: 10.20944/preprints202004.0203.v1). <https://www.preprints.org/manuscript/202004.0203/v1>

Leung, N.H.L., Chu, D.K.W., Shiu, E.Y.C. *et al.* **Respiratory virus shedding in exhaled breath and efficacy of face masks.** *Nat Med* 26, 676–680 (2020). <https://doi.org/10.1038/s41591-020-0843-2>

Mitze T, Kosfeld R, Rode J, Wälde K. **Face masks considerably reduce COVID-19 cases in Germany.** *Proc Natl Acad Sci U S A.* 2020 Dec 22;117(51):32293-32301. doi: 10.1073/pnas.2015954117. Epub 2020 Dec 3. PMID: 33273115; PMCID: PMC7768737. <https://pubmed.ncbi.nlm.nih.gov/33273115/>

Rader B, White LF, Burns MR et al. **Mask-wearing and control of SARS-CoV-2 transmission in the USA: a cross-sectional study.** *The Lancet Digital Health.* Published: January 19, 2021 DOI: [https://doi.org/10.1016/S2589-7500\(20\)30293-4](https://doi.org/10.1016/S2589-7500(20)30293-4)

The Royal Society and the British Academy. **Face masks and coverings for the general public: Behavioural knowledge, effectiveness of cloth coverings and public messaging.** 26 June 2020. <https://royalsociety.org/-/media/policy/projects/set-c/set-c-facemasks.pdf> [This paper is a pre-print and has not been subject to formal peer-review].

Shakleton R, Sirull R. **Why we must continue wearing masks and social distancing.** IHME August 18, 2020. <http://www.healthdata.org/acting-data/why-we-must-continue-wearing-masks-and-social-distancing>

WHO **Mask use in the context of Covid-19.** 1 December 2020. [https://www.who.int/publications-detail/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-\(2019-ncov\)-outbreak](https://www.who.int/publications-detail/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-(2019-ncov)-outbreak)

WHO. **Infection prevention and control during health care when Covid-19 is suspected.** 19th March 2020. [https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-\(ncov\)-infection-is-suspected-20200125](https://www.who.int/publications-detail/infection-prevention-and-control-during-health-care-when-novel-coronavirus-(ncov)-infection-is-suspected-20200125)

Zhao M et al. **Household Materials Selection for Homemade Cloth Face Coverings and Their Filtration Efficiency Enhancement with Triboelectric Charging.** *Nano Lett.* 2020, 20, 7, 5544–5552. Publication Date: June 2, 2020 <https://doi.org/10.1021/acs.nanolett.0c02211>

LOW INCOME SETTINGS

Massinga Loembé, M., Tshangela, A., Salyer, S.J. *et al.* **COVID-19 in Africa: the spread and response.** *Nat Med* (2020). <https://doi.org/10.1038/s41591-020-0961-x>

Mwananyanda L, Gill CJ, MacLeod W *et al.* **Covid-19 deaths in Africa: prospective systematic postmortem surveillance study.** *BMJ* 2021; 372:n334 doi:<https://doi.org/10.1136/bmj.n334> (Published 17 February 2021)

Refugees and refugee camps

Ayebare RR. **Adoption of COVID-19 triage strategies for low income settings.** *Lancet Respir Med* 2020;8:e11-e12. [https://www.thelancet.com/journals/lanres/article/PIIS2213-2600\(20\)30114-4/fulltext](https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(20)30114-4/fulltext)

Cranfield University. **Protecting refugees during COVID-19.** 8 April 2020. <https://www.cranfield.ac.uk/press/news-2020/protecting-refugees-during-covid-19>

Dahab N *et al.* **COVID-19 control in low-income settings and displaced populations: what can realistically be done?** 30 March 2020 (update 2 April 2020) <https://www.lshtm.ac.uk/newsevents/news/2020/covid-19-control-low-income-settings-and-displaced-populations-what-can>

IASC. **Interim guidance: Scaling-up COVID-19 outbreak readiness and response operations in humanitarian situations including camps and camp-like settings (Version 1.1, March 2020).** <https://reliefweb.int/report/world/interim-guidance-scaling-covid-19-outbreak-readiness-and-response-operations>

IASC. **Interim Guidance on Public Health and Social Measures for COVID-19 Preparedness and Response Operations in Low Capacity and Humanitarian Settings.** 6 May 2020. <https://interagencystandingcommittee.org/health/interim-guidance-public-health-and-social-measures-covid-19-preparedness-and-response>

IASC. **IASC Guidance on Operational considerations for Multisectoral Mental Health and Psychosocial Support Programmes during the COVID-19 Pandemic.** 29 May 2020. <https://interagencystandingcommittee.org/iasc-reference-group-mental-health-and-psychosocial-support-emergency-settings/iasc-guidance>

The Lancet Editorial. **Humanitarian crises in a global pandemic.** *The Lancet* 396, ISSUE 10249, P447, Aug 15, 2020. DOI: [https://doi.org/10.1016/S0140-6736\(20\)31749-9](https://doi.org/10.1016/S0140-6736(20)31749-9)

Refugees International. **COVID-19 and the displaced: addressing the threat of the novel coronavirus in humanitarian emergencies.** 30 March 2020. <https://www.refugeesinternational.org/reports/2020/3/29/covid-19-and-the-displaced-addressing-the-threat-of-the-novel-coronavirus-in-humanitarian-emergencies>

Truelove S et al. **The potential impact of COVID-19 in refugee camps in Bangladesh and beyond: a modeling study.** *PLoS Med.* 2020; 17e1003144
<https://doi.org/10.1371/journal.pmed.1003144>

UNSW Sydney, Kaldor Centre for International Refugee Law. **Considering the impact of COVID-19 on refugees.**
<https://www.kaldorcentre.unsw.edu.au/news/considering-impact-covid-19-refugees>

Sphere

Sphere. **Covid-19 guidance based on humanitarian standards.**
<https://spherestandards.org/coronavirus>

THE VIRUS

General

Acevedo ML, Alonso-Palomares L, Bustamante A. et al. **Infectivity and immune escape of the new SARS-CoV-2 variant of interest Lambda.**
medRxiv 2021.06.28.21259673; doi: <https://doi.org/10.1101/2021.06.28.21259673>

Amendola A, Bianchi S, Gori M, Colzani D, Canuti M, Borghi E, et al. **Evidence of SARS-CoV-2 RNA in an oropharyngeal swab specimen, Milan, Italy, early December 2019.** *Emerg Infect Dis.* 2021 Feb
<https://doi.org/10.3201/eid2702.204632>

Bojadzic D, Alcazar O, Buchwald P. **Methylene Blue Inhibits the SARS-CoV-2 Spike–ACE2 Protein-Protein Interaction—a Mechanism that can Contribute to its Antiviral Activity Against COVID-19.** *Front. Pharmacol.*, 13 January 2021
| <https://doi.org/10.3389/fphar.2020.600372>

Bryner J. **The coronavirus did not escape from a lab. Here's how we know.** *Live Science* 23 March 2020.
<https://www.livescience.com/coronavirus-not-human-made-in-lab.html?fbclid=IwAR1tWkfVZv8c19U5EyWjFbQ5ibTlhwHLRoF6M5mSLxfFz7ysysWMDUzXV4>

Cash, R., Patel, V. **Has COVID-19 subverted global health?** *The Lancet.* [VOLUME 395, ISSUE 10238](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31089-8/fulltext), P1687-1688, MAY 30, 2020.
[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)31089-8/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31089-8/fulltext)

Calisher C. et al. **Statement in support of the scientists, public health professionals and medical professionals of China combatting COVID-19.** February 2020. *Lancet.* [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)30418-9/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30418-9/fulltext)

European Association of Urology. News release 6-jul-2021. **Men with low testosterone more likely to die from Covid-19.**

https://www.eurekalert.org/pub_releases/2021-07/eaou-mwl070521.php

Jassat W, Mudara C, Ozougwu L et al. **Difference in mortality among individuals admitted to hospital with COVID-19 during the first and second waves in South Africa: a cohort study.** The Lancet Global Health. Published: July 09, 2021 DOI: [https://doi.org/10.1016/S2214-109X\(21\)00289-8](https://doi.org/10.1016/S2214-109X(21)00289-8)

Jones TC, Biele G, Muhlemann B et al. **Estimating infectiousness throughout SARS-CoV-2 infection course.** *Science* 25 May 2021: eabi5273

DOI: 10.1126/science.abi5273

<https://science.sciencemag.org/content/early/2021/05/24/science.abi5273>

Lancet Editorial. **COVID-19: the worst may be yet to come.** The Lancet 396; 71. July 11 2020 [https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(20\)31517-8.pdf](https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(20)31517-8.pdf)

Li, Z., Wang, Z., Dinh, P.U.C. *et al.* **Cell-mimicking nanodecoys neutralize SARS-CoV-2 and mitigate lung injury in a non-human primate model of COVID-19.** *Nat. Nanotechnol.* (2021). <https://doi.org/10.1038/s41565-021-00923-2>

Matuck BF, Dolhnikoff M, Nunes Duarte-Neto A, et al. **Salivary glands are a target for SARS-CoV-2: A source for saliva contamination.** The Journal of Pathology. 2021 Apr. DOI: [10.1002/path.5679](https://doi.org/10.1002/path.5679)

Salonia A, Pontillo M, Capogrosso P, et al. **Severely low testosterone in males with COVID-19: A case-control study.** *Andrology.* 2021 Feb

26:10.1111/andr.12993. doi: 10.1111/andr.12993. Epub ahead of print. PMID: 33635589; PMCID: PMC8013327 <https://pubmed.ncbi.nlm.nih.gov/33635589/>

Tada T, Zhou H, Dcosta BM, et al. **SARS-CoV-2 Lambda Variant Remains Susceptible to Neutralization by mRNA Vaccine-elicited Antibodies and Convalescent Serum.**

bioRxiv 2021.07.02.450959; doi: <https://doi.org/10.1101/2021.07.02.450959>

Wölfel, R., Corman, V.M., Guggemos, W. *et al.* **Virological assessment of hospitalized patients with COVID-2019.** *Nature* (2020).

<https://doi.org/10.1038/s41586-020-2196-x>

Epidemiology

Adam, D.C. *et al.* **Clustering and superspreading potential of SARS-CoV-2 infections in Hong Kong.** *Nat Med* (2020). <https://doi.org/10.1038/s41591-020-1092-0>

Althouse BM et al. **Stochasticity and heterogeneity in the transmission dynamics of SARS-CoV-2.** Cornell University. [arXiv:2005.13689](https://arxiv.org/abs/2005.13689) [q-bio.PE] [e-prints posted on arXiv are not peer-reviewed by arXiv; they should not be relied upon without context to guide clinical practice or health-related behaviour and should not be reported in news media as established information without consulting multiple experts in the field]

Armstrong RA, Kane AD, Kursumovic E et al. **Mortality in patients admitted to intensive care with COVID-19: an updated systematic review and meta-analysis of observational studies.** *Anaesthesia*. 1 Feb 2021.

<https://doi.org/10.1111/anae.15425>

Bandoy, D.J.D.R., Weimer, B.C. **Analysis of SARS-CoV-2 genomic epidemiology reveals disease transmission coupled to variant emergence and allelic variation.** *Sci Rep* 11, 7380 (2021). <https://doi.org/10.1038/s41598-021-86265-4>

Bilinski A, Emanuel EJ. **COVID-19 and Excess All-Cause Mortality in the US and 18 Comparison Countries.** *JAMA*. Published online October 12, 2020.

doi:10.1001/jama.2020.20717

<https://jamanetwork.com/journals/jama/fullarticle/2771841>

Casalegno JS, Ottmann M, Duchamp MB. et al. **Rhinoviruses delayed the circulation of the pandemic influenza A (H1N1) 2009 virus in France.** *Clin Microbiol Infect*. 2010 Apr;16(4):326-9. Epub 2010 Jan 28. PMID: 20121829.

DOI: [10.1111/j.1469-0691.2010.03167.x](https://doi.org/10.1111/j.1469-0691.2010.03167.x)

Cavanaugh AM, Thoroughman D, Miranda H, Spicer K. **Suspected Recurrent SARS-CoV-2 Infections Among Residents of a Skilled Nursing Facility During a Second COVID-19 Outbreak — Kentucky, July–November 2020.** *MMWR Morb Mortal Wkly Rep* 2021;70:273–277.

DOI: [http://dx.doi.org/10.15585/mmwr.mm7008a3external icon](http://dx.doi.org/10.15585/mmwr.mm7008a3external%20icon).

Challen R, Brooks-Pollock E, Read JM et al. **Risk of mortality in patients infected with SARS-CoV-2 variant of concern 202012/1: matched cohort study.**

BMJ 2021; 372:n579 (Published 10 March

2021) doi: <https://doi.org/10.1136/bmj.n579>

Chan J F-W et al. **A familial cluster of pneumonia associated with the 2019 novel coronavirus indicating person-to-person transmission: a study of a family cluster.** *Lancet* VOLUME 395, ISSUE 10223, P514-523, FEBRUARY 15, 2020 DOI:[https://doi.org/10.1016/S0140-6736\(20\)30154-9](https://doi.org/10.1016/S0140-6736(20)30154-9)

Chen N *et al.* **Epidemiological and clinical characteristics of 99 cases of 2019 novel coronavirus pneumonia in Wuhan, China: a descriptive study.** *The Lancet*

30 Jan 2020. [https://www.thelancet.com/journals/lancet/article/PIIS0140-](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30211-7/fulltext)

[6736\(20\)30211-7/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30211-7/fulltext)

Choi EM. et al. **In-flight transmission of severe acute respiratory syndrome coronavirus 2.** *Emerg Infect Dis*. 2020 Nov [*date*

cited]. <https://doi.org/10.3201/eid2611.203254>

Clark A et al. **Global, regional, and national estimates of the population at increased risk of severe COVID-19 due to underlying health conditions in 2020: a modelling study.** *The Lancet Global Health*. 15 June 2020.

[https://www.thelancet.com/journals/langlo/article/PIIS2214-109X\(20\)30264-3/fulltext](https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(20)30264-3/fulltext)

Cowger TL et al., **Comparison of Weighted and Unweighted Population Data to Assess Inequities in Coronavirus Disease 2019 Deaths by Race/Ethnicity Reported by the US Centers for Disease Control and Prevention.** *JAMA Netw Open.* 2020;3(7):e2016933.

<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2768722>

Davies, N.G., Klepac, P., Liu, Y. et al. **Age-dependent effects in the transmission and control of COVID-19 epidemics.** *Nat Med* (2020).

<https://doi.org/10.1038/s41591-020-0962-9>

Davies NG, Jarvis CI CMMID COVID-19 Working Group et al. **Increased hazard of death in community-tested cases of 4 SARS-CoV-2 Variant of Concern 202012/01.** medRxiv preprint doi: <https://doi.org/10.1101/2021.02.01.21250959>

this version posted February 3, 2021 (Preliminary – not peer reviewed)

Davies NG, Jarvis CI, CMMID COVID-19 Working Group, et al. **Increased mortality in community-tested cases of SARS-CoV-2 lineage B.1.1.7** medRxiv 05 March 2021 <https://www.medrxiv.org/content/10.1101/2021.02.01.21250959v3>

<https://www.medrxiv.org/content/10.1101/2021.02.01.21250959v3>

Davies NG, Abbott S, Barnard RC et al. **Estimated transmissibility and impact of SARS-CoV-2 lineage B.1.1.7 in England.** *Science* 03 March 2021

<https://science.sciencemag.org/content/early/2021/03/03/science.abg3055>

Deslandes A et al. **SARS-COV-2 was already spreading in France in late December 2019.** *International Journal of Antimicrobial Agents* 3 May 2020

<https://www.sciencedirect.com/science/article/pii/S0924857920301643>

Faust JS, del Rio C. **Assessment of Deaths From COVID-19 and From Seasonal Influenza.** *JAMA Intern Med.* Published online May 14, 2020.

doi:10.1001/jamainternmed.2020.2306

<https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2766121>

Fisher DA, Carson G. **Back to basics: the outbreak response pillars.** *The Lancet.* August 17, 2020 DOI:[https://doi.org/10.1016/S0140-6736\(20\)31760-8](https://doi.org/10.1016/S0140-6736(20)31760-8)

Frieden TR, Lee CT. **Identifying and Interrupting Superspreading Events—Implications for Control of Severe Acute Respiratory Syndrome Coronavirus 2.**

Emerg Infect Dis. 2020;26(6):1059-1066. <https://dx.doi.org/10.3201/eid2606.200495>

Furuse Y et al. **Clusters of Coronavirus Disease in Communities, Japan, January–April 2020.** *EID Journal*, Volume 26, Number 9-September 2020 (Early release). https://wwwnc.cdc.gov/eid/article/26/9/20-2272_article

Ganyani T et al. **Estimating the generation interval for coronavirus disease (COVID-19) based on symptom onset data, March 2020.** *Euro Surveill.* 2020;

25(17): pii=2000257. <https://doi.org/10.2807/1560-7917.ES.2020.25.17.2000257>

Gatalo O et al. **Associations between phone mobility data and COVID-19 cases** *The Lancet Infectious Diseases.* Published:September 15,

2020 DOI:[https://doi.org/10.1016/S1473-3099\(20\)30725-8](https://doi.org/10.1016/S1473-3099(20)30725-8)

Giordano, G., Blanchini, F., Bruno, R. *et al.* **Modelling the COVID-19 epidemic and implementation of population-wide interventions in Italy.** *Nat Med* (2020).
<https://doi.org/10.1038/s41591-020-0883-7>

Gudbjartsson DF *et al.* **Spread of SARS-CoV-2 in the Icelandic Population.** *New England Journal of Medicine*. 14 April 2020
<https://www.nejm.org/doi/full/10.1056/NEJMoa2006100>

He, X., Lau, E.H.Y., Wu, P. *et al.* **Temporal dynamics in viral shedding and transmissibility of COVID-19.** *Nat Med* **26**, 672–675 (2020).
<https://doi.org/10.1038/s41591-020-0869-5>

Hodcroft EB *et al.* **Emergence and spread of a SARS-CoV-2 variant through Europe in the summer of 2020.** *medRxiv* November 27, 2020
doi: <https://doi.org/10.1101/2020.10.25.20219063>

[This article is a preprint and has not been peer-reviewed. It reports new medical research that has yet to be evaluated and so should *not* be used to guide clinical practice.]

Jarvis CI *et al.* **Quantifying the impact of physical distance measures on the transmission of COVID-19 in the UK.** (Non-peer reviewed preprint.) 3 April 2020. *medRxiv* 2020.03.31.20049023; doi: <https://doi.org/10.1101/2020.03.31.20049023>

Jeffrey-Smith A, Dun-Campbell K, Janarthanan R *et al.* **Infection and transmission of SARS-CoV-2 in London care homes reporting no cases or outbreaks of COVID-19: Prospective observational cohort study, England 2020**
The Lancet Regional Health Vol 3. 25 Feb 2021
DOI:<https://doi.org/10.1016/j.lanepe.2021.100038>

Jing Q-L *et al.* **Household secondary attack rate of COVID-19 and associated determinants in Guangzhou, China: a retrospective cohort study.** *The Lancet Infectious Diseases*. 17 June 2020.
[https://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(20\)30471-0/fulltext](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(20)30471-0/fulltext)

Kearns C, Kearns N. **The role of comics in public health communication during the COVID-19 pandemic.** *J Vis Commun Med*. 2020 Jul;43(3):139-149. doi: 10.1080/17453054.2020.1761248. Epub 2020 Jul 9. PMID: 32643470.
<https://pubmed.ncbi.nlm.nih.gov/32643470/>

Kearns C, Fisher D, Chong YS. **The infective nurture of pandemic comics.** *The Lancet Correspondence*. Published:December 10, 2020
DOI:[https://doi.org/10.1016/S0140-6736\(20\)32550-2](https://doi.org/10.1016/S0140-6736(20)32550-2)

Kim D, Quinn J, Pinsky B *et al.* **Rates of Co-infection Between SARS-CoV-2 and Other Respiratory Pathogens.** *JAMA*. 2020;323(20):2085-2086.
doi:10.1001/jama.2020.6266
<https://jamanetwork.com/journals/jama/fullarticle/2764787>

Monod M, Blenkinsop A, Xi X et al. **Age groups that sustain resurging COVID-19 epidemics in the United States.** *Science* 26 Mar 2021: Vol. 371, Issue 6536, eabe8372 DOI: 10.1126/science.abe8372
<https://science.sciencemag.org/content/371/6536/eabe8372#:~:text=We%20estimate%20that%20as%20of,49%20in%20the%20United%20States.>

Morawsaka L, Allen J, Bahnfleth W. et al. **A paradigm shift to combat indoor respiratory infection.** *Science* 14 May 2021: Vol. 372, Issue 6543, pp. 689-691. DOI: 10.1126/science.abg2025
<https://science.sciencemag.org/content/372/6543/689>

Nicolelis M et al. **How super-spreader cities, highways, hospital bed availability, and dengue fever influenced the COVID-19 epidemic in Brazil.** medRxiv doi: <https://doi.org/10.1101/2020.09.19.20197749> [This article is a preprint and has not been peer-reviewed. It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice.]

Office for National Statistics. **Coronavirus (COVID-19) Infection Survey: characteristics of people testing positive for COVID-19 in England, 25 March 2021.**
<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/articles/coronaviruscovid19infectionsinthecommunityinengland/characteristicsofpeopletestingpositiveforcovid19inengland25march2021>

Pavelka M, Van-Zandvoort K, Abbott S et al. **The impact of population-wide rapid antigen testing on SARS-CoV-2 prevalence in Slovakia.** *Science* 07 May 2021: Vol. 372, Issue 6542, pp. 635-641 DOI: 10.1126/science.abf9648
<https://science.sciencemag.org/content/372/6542/635>

Pedro N, Silva CN, Magalhaes et al. **Dynamics of a dual SARS-CoV-2 strain co-infection on a prolonged viral shedding COVID-19 case: insights into clinical severity and disease duration.** *Microorganisms* 2021, 9, 300.
<https://doi.org/10.3390/microorganisms9020300>

Pietri L, Giorgi R, Begu A et al. **Excess body weight is an independent risk factor for severe forms of COVID-19.** *Metabolism* 117. April 2021.
<https://www.sciencedirect.com/science/article/pii/S0026049521000032>
Pekar J, Worobey M, Moshiri N et al. **Timing the SARS-CoV-2 index case in Hubei province.** *Science* 18 Mar 2021: DOI: <https://doi.org/10.1126/science.abf8003>

Popkin BM et al. **Individuals with obesity and COVID-19: A global perspective on the epidemiology and biological relationships.** *Obesity Reviews* 26 August 2020. <https://doi.org/10.1111/obr.13128>

Prather KA, Wang CC, Schooley RT. **Reducing transmission of SARS-CoV-2.** *Science* 27 May 2020.
<https://science.sciencemag.org/content/early/2020/05/27/science.abc6197>

Pung R et al. **Investigation of three clusters of COVID-19 in Singapore: implications for surveillance and response measures.** 16 March 2020.
[https://www.thelancet.com/journals/lanpub/article/PIIS0140-6736\(20\)30528-6/fulltext](https://www.thelancet.com/journals/lanpub/article/PIIS0140-6736(20)30528-6/fulltext)

Qin J et al. **Estimation of incubation period distribution of COVID-19 using disease onset forward time: A novel cross-sectional and forward follow-up study.** Science Advances 14 Aug 2020: Vol. 6, no. 33, eabc1202 DOI: 10.1126/sciadv.abc1202
[https://advances.sciencemag.org/content/6/33/eabc1202#:~:text=Such%20a%20method%20enhances%20the,CI%3A%2013.64%20to%2014.90\).](https://advances.sciencemag.org/content/6/33/eabc1202#:~:text=Such%20a%20method%20enhances%20the,CI%3A%2013.64%20to%2014.90).)

Qureshi AI, Baskett WI, Wei Huang W. et al. **Re-infection with SARS-CoV-2 in Patients Undergoing Serial Laboratory Testing.** *Clinical Infectious Diseases*, 2021; , ciab345, <https://doi.org/10.1093/cid/ciab345>

Revollo B, Blanco I, Soler P et al. **Same-day SARS-CoV-2 antigen test screening in an indoor mass-gathering live music event: a randomised controlled trial.** *The Lancet Infectious Diseases* Published: May 27, 2021 DOI: [https://doi.org/10.1016/S1473-3099\(21\)00268-1](https://doi.org/10.1016/S1473-3099(21)00268-1)

Riley S, Wang H, Eales O et al. **REACT-1 round 12 report: resurgence of SARS-CoV-2 infections in England associated with increased frequency of the Delta variant.** https://www.imperial.ac.uk/media/imperial-college/institute-of-global-health-innovation/react1_r12_preprint.pdf

Sakurai A et al. **Natural History of Asymptomatic SARS-CoV-2 Infection.** *N Engl J Med* 12 June 2020. <https://www.nejm.org/doi/full/10.1056/NEJMc2013020>
Tillet RL et al. **Genomic evidence for reinfection with SARS-CoV-2: a case study.** *The Lancet Infectious Diseases*. Published: October 12 2020, [https://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(20\)30764-7/fulltext#%20](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(20)30764-7/fulltext#%20)

Sermet-Gaudelus I, Temmam S, Huon C et al, . **Prior infection by seasonal coronaviruses, as assessed by serology, does not prevent SARS-CoV-2 infection and disease in children, France, April to June 2020.** *Euro Surveill.* 2021;26(13):pii=2001782. <https://doi.org/10.2807/1560-7917.ES.2021.26.13.2001782>

Swadi T, Geoghegan JL, Devine T, McElroy C, Sherwood J, Shoemack P, et al. **Genomic evidence of in-flight transmission of SARS-CoV-2 despite predeparture testing.** *Emerg Infect Dis.* 27; No 3. 2021
<https://doi.org/10.3201/eid2703.204714>

Vasileiou E, Simpson CR, Shi T et al. **Interim findings from first-dose mass COVID-19 vaccination roll-out and COVID-19 hospital admissions in Scotland: a national prospective cohort study.** *The Lancet*. Published: April 23, 2021 DOI: [https://doi.org/10.1016/S0140-6736\(21\)00677-2](https://doi.org/10.1016/S0140-6736(21)00677-2)

Volz E, Mishra S, Chand M et al. **Transmission of SARS-CoV-2 Lineage B.1.1.7 in England: Insights from linking epidemiological and genetic data.** medRxiv.31 Dec 2020. <https://virological.org/t/transmission-of-sars-cov-2-lineage-b-1-1-7-in-england-insights-from-linking-epidemiological-and-genetic-data/576>

Williamson, E.J., Walker, A.J., Bhaskaran, K. et al. **OpenSAFELY: factors associated with COVID-19 death in 17 million patients.** *Nature* (2020). <https://doi.org/10.1038/s41586-020-2521-4>

Worobey M et al. **The emergence of SARS-CoV-2 in Europe and North America.** *Science* 10 Sep 2020: eabc8169 DOI: 10.1126/science.abc8169 <https://science.sciencemag.org/content/early/2020/09/11/science.abc8169>

Wu, X., Nethery, R. C., Sabath, M. B., Braun, D. and Dominici, F., 2020. **Air pollution and COVID-19 mortality in the United States: Strengths and limitations of an ecological regression analysis.** *Science advances*, 6(45), p.eabd4049. <https://advances.sciencemag.org/content/6/45/eabd4049>

Wymant C, Ferretti L, Tsallis D. et al. **The epidemiological impact of the NHS COVID-19 App.** *Nature* (2021). <https://doi.org/10.1038/s41586-021-03606-z>

Yan, L., Zhang, H., Goncalves, J. et al. **An interpretable mortality prediction model for COVID-19 patients.** *Nat Mach Intell* 2, 283–288 (2020). <https://doi.org/10.1038/s42256-020-0180-7>

SARS-CoV-2 Seroprevalence

Eckerle I, Meyer B. **Comment. SARS-CoV-2 seroprevalence in COVID-19 hotspots.** *The Lancet* 6 July 2020. [https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(20\)31482-3.pdf](https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(20)31482-3.pdf)

Pollan M et al. **Prevalence of SARS-CoV-2 in Spain (ENE-COVID): a nationwide, population-based seroepidemiological study.** *The Lancet*. 6 July 2020. DOI:[https://doi.org/10.1016/S0140-6736\(20\)31483-5](https://doi.org/10.1016/S0140-6736(20)31483-5)

Stringhini S. et al. **Seroprevalence of anti-SARS-CoV-2 IgG antibodies in Geneva, Switzerland (SEROCoV-POP): a population-based study.** *The Lancet* 11 June 2020. DOI:[https://doi.org/10.1016/S0140-6736\(20\)31304-0](https://doi.org/10.1016/S0140-6736(20)31304-0)

Uyoga S et al. **Seroprevalence of anti-SARS-CoV-2 IgG antibodies in Kenyan blood donors.** medRxiv 2020.07.27.20162693; doi: <https://doi.org/10.1101/2020.07.27.20162693> [This article is a preprint and has not been peer-reviewed. It reports new medical research that has yet to be evaluated and so should *not* be used to guide clinical practice].

Immunology

Acevedo ML, Alonso-Palomares L, Bustamante A et al. **Infectivity and immune escape of the new SARS-CoV-2 variant of interest Lambda.** medRxiv July 01 2021. doi: <https://doi.org/10.1101/2021.06.28.21259673> [This article is a preprint and has not been peer-reviewed. It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice].

Aleksova A. et al. **COVID-19 and renin-angiotensin system inhibition: role of angiotensin converting enzyme 2 (ACE2) - Is there any scientific evidence for controversy?** *Journal of Internal Medicine* 27 May 2020.
<https://doi.org/10.1111/joim.13101>

American Society of Hematology. Covid-19 resources. Vaccine-induced Immune Thrombotic Thrombocytopenia. **Vaccine-induced Immune Thrombotic Thrombocytopenia: Frequently Asked Questions.** Version 1.1; last updated April 16, 2021 <https://www.hematology.org/covid-19/vaccine-induced-immune-thrombotic-thrombocytopenia>

Bastard P. et al. **Auto-antibodies against type I IFNs in patients with life-threatening COVID-19.** *Science* 24 Sep 2020: eabd4585 DOI: 10.1126/science.abd4585
<https://science.sciencemag.org/content/early/2020/09/23/science.abd4585>

Bourguignon A, Arnold DM, Warkentin TE et al. **Adjunct Immune Globulin for Vaccine-Induced Thrombotic Thrombocytopenia.** *New England Journal of Medicine.* June 9, 2021. <https://www.nejm.org/doi/full/10.1056/NEJMoa2107051>

Braun J et al. **SARS-CoV-2-reactive T cells in healthy donors and patients with COVID-19.** *Nature* (2020). <https://doi.org/10.1038/s41586-020-2598-9>

Cines DB, Bussel JB. **SARS-CoV-2 Vaccine-Induced Immune Thrombotic Thrombocytopenia.** *New England Journal of Medicine.* April 16, 2021
<https://www.nejm.org/doi/full/10.1056/NEJMe2106315>

Dee K, Goldfarb DM, Haney J et al. **Human rhinovirus infection blocks SARS-CoV-2 replication within the respiratory epithelium: implications for COVID-19 epidemiology.** *The Journal of Infectious Diseases,* 23 March 2021
jjab147, <https://doi.org/10.1093/infdis/jjab147>

Diao B et al. **Reduction and Functional Exhaustion of T Cells in Patients With Coronavirus Disease 2019 (COVID-19).** *Front. Immunol.,* 01 May 2020
<https://doi.org/10.3389/fimmu.2020.00827>

Dorward DA. et al. **Tissue-specific tolerance in fatal Covid-19.** medRxiv
doi: <https://doi.org/10.1101/2020.07.02.20145003>
[This article is a preprint and has not been peer-reviewed. It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice].

Fachetti F. et al. **SARS-CoV2 vertical transmission with adverse effects on the newborn revealed through integrated immunohistochemical, electron microscopy and molecular analyses of Placenta.** *The Lancet EBioMedicine* Volume 59, 102951, September 01, 2020
[https://www.thelancet.com/journals/ebiom/article/PIIS2352-3964\(20\)30327-3/fulltext](https://www.thelancet.com/journals/ebiom/article/PIIS2352-3964(20)30327-3/fulltext)

Garvin MR et al. **A mechanistic model and therapeutic interventions for COVID-19 involving a RAS-mediated bradykinin storm.** *eLife* July 7 2020.
<https://elifesciences.org/articles/59177>

Giamarellos-Bourboulis EJ et al. **Complex Immune Dysregulation in COVID-19 Patients with Severe Respiratory Failure.** (In Press – corrected proof) *Cell Host & Microbe* 2020. <https://doi.org/10.1016/j.chom.2020.04.009>

Georg P, Astaburuaga-Garcia R, Bonaguro L, et al. **Complement activation induces excessive T cell cytotoxicity in severe COVID-19.** medRxiv June 11 2021. doi: <https://doi.org/10.1101/2021.06.08.21258481>

[This article is a preprint and has not been peer-reviewed. It reports new medical research that has yet to be evaluated and so should *not* be used to guide clinical practice].

Greers D, Shamier MC, Bogers S et al. **SARS-CoV-2 variants of concern partially escape humoral but not T-cell responses in COVID-19 convalescent donors and vaccinees.** *Science Immunology* 25 May 2021: Vol. 6, Issue 59, eabj1750
DOI: 10.1126/sciimmunol.abj1750
<https://immunology.sciencemag.org/content/6/59/eabj1750>

Greinacher A, Thiele T, Warkentin T et al. **Thrombotic Thrombocytopenia after ChAdOx1 nCov-19 Vaccination.** *New England Journal of Medicine.* April 9, 2021
DOI: 10.1056/NEJMoa2104840
<https://www.nejm.org/doi/full/10.1056/NEJMoa2104840>

Huo, J., Le Bas, A., Ruza, R.R. et al. **Neutralizing nanobodies bind SARS-CoV-2 spike RBD and block interaction with ACE2.** *Nat Struct Mol Biol* (2020).
<https://doi.org/10.1038/s41594-020-0469-6>

Ivanova EN, Devlin JC, Buus TB et al. **Discrete immune response signature to SARS-CoV-2 mRNA vaccination versus infection.** medRxiv 21 April 2021.
doi: <https://doi.org/10.1101/2021.04.20.21255677> [This article is a preprint and has not been peer-reviewed. It reports new medical research that has yet to be evaluated and so should *not* be used to guide clinical practice.].

Joyner MJ, Carter RE, Senefeld JW et al. **Convalescent Plasma Antibody Levels and the Risk of Death from Covid-19.** *NEJM.* Jan 13 2021.
<https://www.nejm.org/doi/full/10.1056/NEJMoa2031893>

Khamsi R. **Rogue antibodies could be driving severe COVID-19.** *Nature News Feature.* 19 January 2021. <https://www.nature.com/articles/d41586-021-00149-1>

Korber B. et al. **Tracking changes in SARS-CoV-2 Spike: evidence that D614G increases infectivity of the COVID-19 virus.** *Cell.* 3 July 2020.
<https://doi.org/10.1016/j.cell.2020.06.043>

Lee J et al. (2020). **Immunophenotyping of COVID-19 and influenza highlights the role of type I interferons in development of severe COVID-19.** *Science Immunology.* 5. eabd1554. 10.1126/sciimmunol.abd1554.
[sciencemag.org/content/5/49/eabd1554](https://immunology.sciencemag.org/content/5/49/eabd1554)
<https://immunology.sciencemag.org/content/5/49/eabd1554>

Lee E-J, Cines DB, Gernsheimer T et al. **Thrombocytopenia following Pfizer and Moderna SARS-CoV-2 vaccination.** *Am J Hematol* . 2021 May 1;96(5):534-537. doi: 10.1002/ajh.26132. Epub 2021 Mar 9. <https://pubmed.ncbi.nlm.nih.gov/33606296/>

Lei Y, Zhang J, Schiavon CR et al. **SARS-CoV-2 Spike Protein Impairs Endothelial Function via Downregulation of ACE2.** *bioRxiv* 2020 Dec 4;2020.12.04.409144. doi: 10.1101/2020.12.04.409144. Preprint. <https://pubmed.ncbi.nlm.nih.gov/33300001/>

Li C, Yu D, Wu X et al. **Twelve-month specific IgG response to SARS-CoV-2 receptor-binding domain among COVID-19 convalescent plasma donors in Wuhan.** *bioRxiv* 5 Apr 2021. doi: <https://doi.org/10.1101/2021.04.05.437224> [This is a preliminary report that has not been peer-reviewed. It should not be regarded as conclusive, guide clinical practice/health-related behaviour, or be reported in news media as established information]

Le Bert N *et al.* **SARS-CoV-2-specific T cell immunity in cases of COVID-19 and SARS, and uninfected controls.** *Nature* (2020). <https://doi.org/10.1038/s41586-020-2550-z>

Lumley SF, Wei J, O'Donnell D et al. **The duration, dynamics and determinants of SARS-CoV-2 antibody responses in individual healthcare workers.** *medRxiv* 4 Nov 2020. <https://www.medrxiv.org/content/10.1101/2020.11.02.20224824v1> [This article is a preprint and has not been peer-reviewed. It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice].

Mackey K et al. **Risks and Impact of Angiotensin-Converting Enzyme Inhibitors or Angiotensin-Receptor Blockers on SARS-CoV-2 Infection in Adults: A Living Systematic Review.** *Ann Intern Med* 2020 Aug 4;173(3):195-203. doi: 10.7326/M20-1515. Epub 2020 May 15 <https://pubmed.ncbi.nlm.nih.gov/32422062/>

Nagarkatti P et al. **Cannabinoids as novel anti-inflammatory drugs.** *Future Med Chem.* 2009 Oct; 1(7): 1333–1349. doi: [10.4155/fmc.09.93](https://doi.org/10.4155/fmc.09.93)

Pierce CA et al. **Immune responses to SARS-CoV-2 infection in hospitalized pediatric and adult patients.** *Science Translational Medicine* 21 Sep 2020: eabd5487 DOI: 10.1126/scitranslmed.abd5487 <https://stm.sciencemag.org/content/early/2020/09/21/scitranslmed.abd5487>

Poston D, Weisblum Y, Wise H, et al **Absence of SARS-CoV-2 neutralizing activity in pre-pandemic sera from individuals with recent seasonal coronavirus infection.** *medRxiv* [Preprint]. 2020: 2020.10.08.20209650. doi: <https://doi.org/10.1101/2020.10.08.20209650> [This article is a preprint and has not been peer-reviewed. It reports new medical research that has yet to be evaluated and so should *not* be used to guide clinical practice.]

Ramanathan M, Ferguson ID, Miao W, Khavari P. **SARS-CoV-2 B.1.1.7 and B.1.351 spike variants bind human ACE2 with increased affinity.** *The Lancet Infectious Diseases.* Published:May 19, 2021DOI:[https://doi.org/10.1016/S1473-3099\(21\)00262-0](https://doi.org/10.1016/S1473-3099(21)00262-0)

Reynolds CJ, Pade C, Gibbons JM et al. **Prior SARS-CoV-2 infection rescues B and T cell responses to variants after first vaccine dose.** *Science* 30 Apr 2021: eabh1282 DOI: 10.1126/science.abh1282

<https://science.sciencemag.org/content/early/2021/04/29/science.abh1282>

Risitano, A.M., Mastellos, D.C., Huber-Lang, M. *et al.* **Complement as a target in COVID-19?** *Nat Rev Immunol* (2020). <https://doi.org/10.1038/s41577-020-0320-7>

Robbiani DF et al. **Convergent Antibody Responses to SARS-CoV-2 Infection in Convalescent Individuals.** bioRxiv preprint. 22 May 2020. [This article is a preprint and has not been certified by peer review]

<https://www.biorxiv.org/content/10.1101/2020.05.13.092619v2>

Roche JA, Roche R. **A hypothesized role for dysregulated bradykinin signaling in COVID-19 respiratory complications.** *FASEB J.* 2020 May 2 : 10.1096/fj.202000967.doi: [10.1096/fj.202000967](https://doi.org/10.1096/fj.202000967) [Epub ahead of print]

Scully M, Singh D, Lown R et al. **Pathologic Antibodies to Platelet Factor 4 after ChAdOx1 nCoV-19 Vaccination.** *New England Journal of Medicine.* April 16, 2021

<https://www.nejm.org/doi/full/10.1056/NEJMoa2105385>

Seow. J et al. **Longitudinal evaluation and decline of antibody responses in SARS-CoV-2 infection.** medRxiv. doi: <https://doi.org/10.1101/2020.07.09.20148429>

[This article is a preprint and has not been peer-reviewed. It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice].

Schultz NH, Sorvoll IH, Michelsen A, et al. **Thrombosis and Thrombocytopenia after ChAdOx1 nCoV-19 Vaccination.** *New England Journal of Medicine.* April 9, 2021 DOI: 10.1056/NEJMoa2104882

<https://www.nejm.org/doi/full/10.1056/NEJMoa2104882>

Supasa P, Zhou D, Dejnirattisai W. et al. **Reduced neutralization of SARS-CoV-2 B.1.1.7 variant by convalescent and vaccine sera.** *Cell* Volume 184, Issue 8, 15 April 2021, Pages 2201-2211.e7

<https://www.sciencedirect.com/science/article/pii/S0092867421002221>

Takahashi T et al. **Sex differences in immune responses to SARS-CoV-2 that underlie disease outcomes.** medRxiv

<https://www.medrxiv.org/content/10.1101/2020.06.06.20123414v2>

[This article is a preprint and has not been peer-reviewed. It reports new medical research that has yet to be evaluated and so should *not* be used to guide clinical practice.]

Toelzer C et al. **Unexpected free fatty acid binding pocket in the cryo-EM structure of SARS-CoV-2 spike protein.** *Science* 21Sep 2020:

eabd3255 <https://science.sciencemag.org/content/early/2020/09/18/science.abd3255>

Wang X et al. **SARS-CoV-2 infects T lymphocytes through its spike protein-mediated membrane fusion.** 7 April 2020 *Nature Cellular and Molecular Immunology.*

<https://www.nature.com/articles/s41423-020-0424-9>

Ward H et al. (for the REACT study team). **Declining prevalence of antibody positivity to SARS-CoV-2: a community study of 365,000 adults.** <https://www.imperial.ac.uk/media/imperial-college/institute-of-global-health-innovation/MEDRXIV-2020-219725v1-Elliott.pdf>

Ward SE, Fogarty H, Karampini E et al. **ADAMTS13 regulation of VWF multimer distribution in severe COVID-19.** *Journal of Thrombosis and Haemostasis*. 30 May 2021. <https://doi.org/10.1111/jth.15409> [This article has been accepted for publication and undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process, which may lead to differences between this version and the Version of Record. Please cite this article as doi:10.1111/jth.15409]

Wibmer CK, Ayres F, Hermanus T et al. **SARS-CoV-2 501Y.V2 escapes neutralization by South African COVID-19 donor plasma.** *bioRxiv* 19 January 2021. <https://www.biorxiv.org/content/10.1101/2021.01.18.427166v1> [These are preliminary reports that have not been peer-reviewed. They should not be regarded as conclusive, guide clinical practice/health-related behaviour, or be reported in news media as established information].

Zhang Q. et al. **Inborn errors of type I IFN immunity in patients with life-threatening COVID-19.** *Science* 24 Sep 2020: eabd4570 DOI: 10.1126/science.abd4570 <https://science.sciencemag.org/content/early/2020/09/25/science.abd4570>

Zhu F-C et al. **Immunogenicity and safety of a recombinant adenovirus type-5-vectored COVID-19 vaccine in healthy adults aged 18 years or older: a randomised, double-blind, placebo-controlled, phase 2 trial.** *Lancet*. 2020; (published online July 20.) [https://doi.org/10.1016/S0140-6736\(20\)31605-6](https://doi.org/10.1016/S0140-6736(20)31605-6)

Drug & other interactions

de Castro MJ, Pardo-Seco J, Martín-Torres F. **Nonspecific (Heterologous) Protection of Neonatal BCG Vaccination Against Hospitalization Due to Respiratory Infection and Sepsis.** *Clin Infect Dis*. 2015 Jun 1;60(11):1611-9. doi: 10.1093/cid/civ144. Epub 2015 Feb 27 <https://www.ncbi.nlm.nih.gov/pubmed/25725054>

Hinks TSC, Cureton L, Knight R. et al. **Azithromycin versus standard care in patients with mild-to-moderate COVID-19 (ATOMIC2): an open-label, randomised trial.** *The Lancet Respiratory Medicine*. Published: July 09, 2021 DOI:[https://doi.org/10.1016/S2213-2600\(21\)00263-0](https://doi.org/10.1016/S2213-2600(21)00263-0)

Li J et al. **Association of Renin-Angiotensin System Inhibitors With Severity or Risk of Death in Patients With Hypertension Hospitalized for Coronavirus Disease 2019 (COVID-19) Infection in Wuhan, China.** *JAMA Cardiol*. Published online April 23, 2020. doi:10.1001/jamacardio.2020.1624 <https://jamanetwork.com/journals/jamacardiology/fullarticle/2765049>

Mancia G et al. **Renin–Angiotensin–Aldosterone System Blockers and the Risk of Covid-19.** New England Journal of Medicine. 1 May 2020.
<https://www.nejm.org/doi/full/10.1056/NEJMoa2006923>

Miller A et al. **Correlation between universal BCG vaccination policy and reduced morbidity and mortality for COVID-19: an epidemiological study.**
doi: <https://doi.org/10.1101/2020.03.24.20042937>

Reynolds HR et al. **Renin–Angiotensin–Aldosterone System Inhibitors and Risk of Covid-19.** New England Journal of Medicine. 1 May 2020. medRxiv May 2020
<https://www.nejm.org/doi/full/10.1056/NEJMoa2008975>

VACCINES, TESTS & TREATMENTS

Vaccines

Allen CM, Ramsamy S, Tarr AW et al. **Guillain–Barré Syndrome Variant Occurring after SARS-CoV-2 Vaccination.** Annals of Neurology. First published: 10 June 202. <https://doi.org/10.1002/ana.26144>

Al-Mayhani T, Saber S, Stubbs MJ et al. **Ischaemic stroke as a presenting feature of ChAdOx1 nCoV-19 vaccine-induced immune thrombotic thrombocytopenia.** BMJ Journal of Neurology, Neurosurgery and Psychiatry.
<http://dx.doi.org/10.1136/jnnp-2021-326984>

Bar-Zeev N, Moss WJ. **Encouraging results from phase 1/2 COVID-19 vaccine trials.** The Lancet [396, Issue10249](#), P448-449, August 15, 2020.
DOI:[https://doi.org/10.1016/S0140-6736\(20\)31611-1](https://doi.org/10.1016/S0140-6736(20)31611-1)

Bernal JL, Andrews N, Gower C et al. **Early effectiveness of COVID-19 vaccination with BNT162b2 mRNA vaccine and ChAdOx1 adenovirus vector vaccine on symptomatic disease, hospitalisations and mortality in older adults in England.** medRxiv March 02, 2021.
doi: <https://doi.org/10.1101/2021.03.01.21252652>

Bernal JL, Andrews N, Gower C. et al. **Effectiveness of Covid-19 Vaccines against the B.1.617.2 (Delta) Variant.** New England Journal of Medicine July 21, 2021 DOI: 10.1056/NEJMoa2108891
<https://www.nejm.org/doi/full/10.1056/NEJMoa2108891>

Blumenthal KG, Robinson LB, Camargo Jr CA et al. **Acute Allergic Reactions to mRNA COVID-19 Vaccines.** JAMA. Published online March 8, 2021.
doi:10.1001/jama.2021.3976.
<https://jamanetwork.com/journals/jama/fullarticle/2777417#:~:text=In%20this%20prospective%20cohort%20of,2.47%20per%2010%20000%20vaccinations.>

Emary KRW, Golubchik T, Aley PK et al. **Efficacy of ChAdOx1 nCoV-19 (AZD1222) vaccine against SARS-CoV-2 variant of concern 202012/01 (B.1.1.7): an exploratory analysis of a randomised controlled trial.** *The Lancet* VOLUME 397, ISSUE 10282, P1351-1362, APRIL 10, 2021 Published: March 30, 2021
DOI: [https://doi.org/10.1016/S0140-6736\(21\)00628-0](https://doi.org/10.1016/S0140-6736(21)00628-0)

Folegatti PM et al. **Safety and immunogenicity of the ChAdOx1 nCoV-19 vaccine against SARS-CoV-2: a preliminary report of a phase 1/2, single-blind, randomised controlled trial.** *The Lancet*. Published: July 20, 2020
DOI: [https://doi.org/10.1016/S0140-6736\(20\)31604-4](https://doi.org/10.1016/S0140-6736(20)31604-4)

Greaney AJ, Loes AN, Gentles LE et al. **Antibodies elicited by mRNA-1273 vaccination bind more broadly to the receptor binding domain than do those from SARS-CoV-2 infection.** *Science Translational Medicine* 30 Jun 2021: Vol. 13, Issue 600, eabi9915 DOI:10.1126/scitranslmed.abi9915
<https://stm.sciencemag.org/content/13/600/eabi9915>

Guetl K, Gary T, Raggam RB et al. **SARS-CoV-2 vaccine-induced immune thrombotic thrombocytopenia treated with immunoglobulin and argatroban.** *The Lancet* VOLUME 397, ISSUE 10293, E19, JUNE 26, 2021
DOI: [https://doi.org/10.1016/S0140-6736\(21\)01238-1](https://doi.org/10.1016/S0140-6736(21)01238-1)

Heath PT, Galiza EP, Baxter DN et al. **Safety and Efficacy of NVX-CoV2373 Covid-19 Vaccine.** *New England Journal of Medicine* June 30, 2021.
<https://www.nejm.org/doi/full/10.1056/NEJMoa2107659>

Kim YI, Kim D, Yu KM, et al. **Development of spike receptor-binding domain nanoparticles as a vaccine candidate against SARS-CoV-2 infection in ferrets.** *mBio*. 2021 Mar 2; 2(2): e00230-21. doi: 10.1128/mBio.00230-21. PMID: 33653891;
<https://mbio.asm.org/content/12/2/e00230-21.long>

Krammer, F. **SARS-CoV-2 vaccines in development.** *Nature* **586**, 516–527 (2020).
<https://doi.org/10.1038/s41586-020-2798-3>

Logue J, Johnson R, Patel N et al. **Immunogenicity and In vivo protection of a variant nanoparticle vaccine that confers broad protection against emerging SARS-CoV-2 variants.** *bioRxiv* June 09, 2021.
doi: <https://doi.org/10.1101/2021.06.08.447631>
[bioRxiv posts many COVID19-related papers. A reminder: they have not been formally peer-reviewed and should not guide health-related behavior or be reported in the press as conclusive].

Mahdi SA, Baillie V, Cutland CL et al. **Efficacy of the ChAdOx1 nCoV-19 Covid-19 Vaccine against the B.1.351 Variant.** May 20, 2021 *N Engl J Med* 2021; 384:1885-1898 <https://www.nejm.org/doi/full/10.1056/nejmoa2102214>

Maramattom BV, Krishnan P, Paul R et al. **Guillain-Barré Syndrome following ChAdOx1-S/nCoV-19 Vaccine.** *Annals of Neurology*. First published: 10 June 2021.
<https://doi.org/10.1002/ana.26143>

Mehrotra DV et al. **Clinical Endpoints for Evaluating Efficacy in COVID-19 Vaccine Trials.** *Annals of Internal Medicine*. Research and Reporting Methods 22 October 2020. <https://doi.org/10.7326/M20-6169>

Micochova P, Kemp S, Dhar MS et al. **SARS-CoV-2 B.1.617.2 Delta variant emergence and vaccine breakthrough.** In Review. Nature Portfolio. DOI: [10.21203/rs.3.rs-637724/v1](https://doi.org/10.21203/rs.3.rs-637724/v1)

National Academies of Sciences, Engineering and Medicine. **A Framework for Equitable Allocation of Vaccine for the Novel Coronavirus.** 1st Sept 2020. <https://www.nationalacademies.org/our-work/a-framework-for-equitable-allocation-of-vaccine-for-the-novel-coronavirus>

Parry H, Bruton R, Stephens C et al. **Extended interval BNT162b2 vaccination enhances peak antibody generation in older people.** medRxiv 17 May 2021. doi: <https://doi.org/10.1101/2021.05.15.21257017>

[This article is a preprint and has not been peer-reviewed. It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice].

Ramasamy MN, Minassian AM, Ewer KJ et al. **Safety and immunogenicity of ChAdOx1 nCoV-19 vaccine administered in a prime-boost regimen in young and old adults (COV002): a single-blind, randomised, controlled, phase 2/3 trial.** The Lancet volume 396, issue 10267, p1979-1993, December 19, 2020. [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)32466-1/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)32466-1/fulltext)

Rinott E, Youngster I, Lewis YE. **Reduction in COVID-19 Patients Requiring Mechanical Ventilation Following Implementation of a National COVID-19 Vaccination Program — Israel, December 2020–February 2021.** MMWR Morb Mortal Wkly Rep. ePub: 26 February 2021. DOI: [http://dx.doi.org/10.15585/mmwr.mm7009e3external icon](http://dx.doi.org/10.15585/mmwr.mm7009e3external%20icon).

Simpson, C.R., Shi, T., Vasileiou, E. *et al.* **First-dose ChAdOx1 and BNT162b2 COVID-19 vaccines and thrombocytopenic, thromboembolic and hemorrhagic events in Scotland.** *Nat Med* (2021). <https://doi.org/10.1038/s41591-021-01408-4>

Sorensen B, Susrud A, Dalgleish AG. **Biovacc-19: A Candidate Vaccine for Covid-19 (SARS-CoV-2) Developed from Analysis of its General Method of Action for Infectivity.** Published online by Cambridge University Press: 02 June 2020 DOI: <https://doi.org/10.1017/qrd.2020.8>

Spencer AJ, McKay PF, Belij-Rammerstorfer S *et al.* **Heterologous vaccination regimens with self-amplifying RNA and Adenoviral COVID vaccines induce superior immune responses than single dose vaccine regimens in mice.** bioRxiv 29 January 2021. (Preliminary – not peer Reviewed) <https://www.biorxiv.org/content/10.1101/2021.01.28.428665v1>

Swissmedic. **Side effects of COVID-19 vaccines in Switzerland – update. 26 Feb 2021.** <https://www.swissmedic.ch/swissmedic/en/home/news/coronavirus-covid-19/nebenwirkungen-covid-19-impfungen-ch-update.html#:~:text=The%20known%2C%20non-serious%20and,body%20dealing%20with%20the%20vaccine>.

Than Le T et al. **The COVID-19 vaccine development landscape.** Nature 9 April 2020. <https://www.nature.com/articles/d41573-020-00073-5>

Thompson MG, Burgess JL, Naleway AL et al. **Prevention and Attenuation of Covid-19 with the BNT162b2 and mRNA-1273 Vaccines.** New England Journal of Medicine June 30 2021. <https://www.nejm.org/doi/full/10.1056/NEJMoa2107058>

Turner, J.S., O'Halloran, J.A., Kalaidina, E. et al. **SARS-CoV-2 mRNA vaccines induce persistent human germinal centre responses.** *Nature* (2021). *Nature* (Unedited Manuscript). 28 June 2021. <https://doi.org/10.1038/s41586-021-03738-2>

Vaccines and Related Biological Products Advisory Committee Meeting February 26, 2021. **FDA Briefing Document. Janssen Ad26.COV2.S Vaccine for the Prevention of COVID-19.** <https://www.fda.gov/media/146217/download>

Voysey M et al. **Safety and efficacy of the ChAdOx1 nCoV-19 vaccine (AZD1222) against SARS-CoV-2: an interim analysis of four randomised controlled trials in Brazil, South Africa, and the UK.** *The Lancet*. Open Access
Published:December 08, 2020 DOI:[https://doi.org/10.1016/S0140-6736\(20\)32661-1](https://doi.org/10.1016/S0140-6736(20)32661-1)

Voysey M, Costa Clemens SA, Madhi SA et al. **Single-dose administration and the influence of the timing of the booster dose on immunogenicity and efficacy of ChAdOx1 nCoV-19 (AZD1222) vaccine: a pooled analysis of four randomised trials.** *The Lancet* February 19, 2021
DOI:[https://doi.org/10.1016/S0140-6736\(21\)00432-3](https://doi.org/10.1016/S0140-6736(21)00432-3)

WHO. **Draft landscape of COVID-19 candidate vaccines.** 09/06/2020.
<https://www.who.int/publications/m/item/draft-landscape-of-covid-19-candidate-vaccines>

Yocum A, Simon EL. **Thrombotic Thrombocytopenic Purpura after Ad26.COV2-S Vaccination.** *American Journal of Emergency Medicine.* 4 May 2021.
<https://doi.org/10.1016/j.ajem.2021.05.001>

Zhu Feng-Cai et al. **Immunogenicity and safety of a recombinant adenovirus type-5-vectored COVID-19 vaccine in healthy adults aged 18 years or older: a randomised, double-blind, placebo-controlled, phase 2 trial.** *The Lancet.* July 20, 2020DOI:[https://doi.org/10.1016/S0140-6736\(20\)31605-6](https://doi.org/10.1016/S0140-6736(20)31605-6)

Therapeutics

Beigel JH et al. **Remdesivir for the Treatment of Covid-19 — Preliminary Report.** *New England Journal of Medicine* 22 May 2020
<https://www.nejm.org/doi/10.1056/NEJMoa2007764>

Beigel JH. et al. **Remdesivir for the Treatment of Covid-19 — Final Report.** *NEJM* Oct 8 2020. <https://www.nejm.org/doi/full/10.1056/NEJMoa2007764>

CDC. **Information for clinicians on Investigational Therapeutics for Patients with COVID-19.** 13 April 2020. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/therapeutic-options.html>

Cele, S., Gazy, I., Jackson, L. *et al.* **Escape of SARS-CoV-2 501Y.V2 from neutralization by convalescent plasma.** *Nature* **593**, 142–146 (2021).

<https://doi.org/10.1038/s41586-021-03471-w>

<https://www.nature.com/articles/s41586-021-03471-w>

Chen L *et al.* **Convalescent plasma as a potential therapy for COVID-19.** 27 February 2020. *Lancet*. [https://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(20\)30141-9/fulltext](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(20)30141-9/fulltext)

Duan K *et al.* **Effectiveness of convalescent plasma therapy in severe COVID-19 patients.** *PNAS* 18 March 2020.

<https://www.pnas.org/content/early/2020/04/02/2004168117>

Fernandez-Cruz A *et al.* **Impact of Glucocorticoid treatment in SARS-CoV-2.** 26 May 2020. medRxiv preprint. [This article is a preprint and has not been certified by peer review [what does this mean?]. It reports new medical research that has yet to be evaluated and so should *not* be used to guide clinical practice].

<https://www.medrxiv.org/content/10.1101/2020.05.22.20110544v1>

Hoffman M *et al.* **SARS-CoV-2 variant B.1.617 is resistant to Bamlanivimab and evades antibodies induced by infection and vaccination.** bioRxiv 05 May 2021.

doi: <https://doi.org/10.1101/2021.05.04.442663>

Mehta P, McAuley DF, Brown M, *et al.* **COVID-19: consider cytokine storm syndromes and immunosuppression.** *Lancet* 2020 Mar 28;395(10229): 1033-1034. [https://doi.org/10.1016/S0140-6736\(20\)30628-0](https://doi.org/10.1016/S0140-6736(20)30628-0)

Norrie JD. **Remdesivir for COVID-19: challenges of underpowered studies.** *The Lancet* 29 April 2020. DOI:[https://doi.org/10.1016/S0140-6736\(20\)31023-0](https://doi.org/10.1016/S0140-6736(20)31023-0)

The Recovery Collaborative Group. **Dexamethasone in Hospitalized Patients with Covid-19 — Preliminary Report.** *NEJM*. July 17, 2020

DOI: 10.1056/NEJMoa2021436

<https://www.nejm.org/doi/full/10.1056/NEJMoa2021436>

Rosas IO, Brau N, Waters M *et al.* **Tocilizumab in Hospitalized Patients with Severe Covid-19 Pneumonia.** April 22, 2021 *N Engl J Med* 2021; 384:1503-1516

<https://www.nejm.org/doi/full/10.1056/NEJMoa2028700#:~:text=The%20use%20of%20tocilizumab%2C%20a,randomized%2C%20placebo-controlled%20trials.>

Salazar E. *et al.* **Treatment of Coronavirus Disease 2019 (COVID-19) Patients with Convalescent Plasma.** *The American Journal of Pathology*. Published: May 26, 2020 DOI:<https://doi.org/10.1016/j.ajpath.2020.05.014>

Wang Y *et al.* **Remdesivir in adults with severe COVID-19: a randomised, double-blind, placebo-controlled, multicentre trial.** *The Lancet* 29 April 2020.

DOI:[https://doi.org/10.1016/S0140-6736\(20\)31022-9](https://doi.org/10.1016/S0140-6736(20)31022-9)

Wang L., Zhang Y., Zhang S. **Cardiovascular Impairment in COVID-19: Learning From Current Options for Cardiovascular Anti-Inflammatory Therapy.** *Frontiers in Cardiovascular Medicine*, April 2020. DOI. [10.3389/fcvm.2020.00078](https://doi.org/10.3389/fcvm.2020.00078)

WHO Solidarity trial consortium, Pan H et al. **Repurposed antiviral drugs for COVID-19 – interim WHO SOLIDARITY trial results.** [medRxiv doi: https://doi.org/10.1101/2020.10.15.20209817](https://doi.org/10.1101/2020.10.15.20209817)

[doi: https://doi.org/10.1101/2020.10.15.20209817](https://doi.org/10.1101/2020.10.15.20209817)

[This article is a preprint and has not been peer-reviewed. It reports new medical research that has yet to be evaluated and so should *not* be used to guide clinical practice.]

Antimalarials & other drugs

BMJ Editorial. **Chloroquine and hydroxychloroquine in covid-19.** 8 April 2020. *BMJ* 2020; 369 doi: <https://doi.org/10.1136/bmj.m1432>

Boulware DR et al. **A Randomized Trial of Hydroxychloroquine as Postexposure Prophylaxis for Covid-19.** *NEJ Med.* 3 June 2020

https://www.nejm.org/doi/full/10.1056/NEJMoa2016638#article_citing_articles

Caly, L et al. **The FDA-approved drug ivermectin inhibits the replication of SARS-CoV-2 *in vitro*.** [Antiviral Research Volume 178](https://doi.org/10.1016/j.antiviral.2020.104787), June 2020, 104787

<https://doi.org/10.1016/j.antiviral.2020.104787>

Chaccour C, Casellas A, Blanco-Di Matteo A et al. **The effect of early treatment with ivermectin on viral load, symptoms and humoral response in patients with non-severe COVID-19: A pilot, double-blind, placebo-controlled, randomized clinical trial.** *The Lancet EClinicalMedicine* 19 Jan 2021.

DOI:<https://doi.org/10.1016/j.eclinm.2020.100720>

Cohen MS. **Hydroxychloroquine for the Prevention of Covid-19 — Searching for Evidence.** *NEJ Med* 3 June 2020

<https://www.nejm.org/doi/full/10.1056/NEJMe2020388>

Cortegiani A, Ingoglia G, Ippolito M, Giarratano A, Einav S. **A systematic review on the efficacy and safety of chloroquine for the treatment of COVID-19.** *J Crit Care.* 2020;57: 279-283. doi: [10.1016/j.jcrc.2020.03.005](https://doi.org/10.1016/j.jcrc.2020.03.005)

[10.1016/j.jcrc.2020.03.005](https://doi.org/10.1016/j.jcrc.2020.03.005)

D'Alessandro S, Scaccabarozzi D, Signorini L, et al. **The Use of Antimalarial Drugs against Viral Infection.** *Microorganisms.* 2020;8(1):85. Published 2020 Jan 8.

<https://pubmed.ncbi.nlm.nih.gov/31936284/>

Gautret P et al. **Hydroxychloroquine and azithromycin as a treatment of COVID-19: Results of an open-label non-randomized clinical trial.** *Int J Antimicrob Agents* 2020; Mar 20. DOI: [10.1016/j.ijantimicag.2020.105949](https://doi.org/10.1016/j.ijantimicag.2020.105949)

[10.1016/j.ijantimicag.2020.105949](https://doi.org/10.1016/j.ijantimicag.2020.105949)

Geleris J et al. **Observational Study of Hydroxychloroquine in Hospitalized Patients with Covid-19.** *N Engl J Med* 2020; 382:2411-2418

<https://www.nejm.org/doi/full/10.1056/nejmoa2012410>

Jaffe S. **Regulators split on antimalarials for COVID-19.** 11 April 2020. Lancet. [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)30817-5/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30817-5/fulltext)

Joseph M et al. **Outcomes of hydroxychloroquine usage in United States veterans hospitalized with Covid-19** (Preprint not certified by peer review) doi: <https://doi.org/10.1101/2020.04.16.20065920>

Kelleni MT. **Nitazoxanide/azithromycin combination for COVID-19: A suggested new protocol for early management.** *Pharmacological Research Volume 157*, 2020, 104874. <https://doi.org/10.1016/j.phrs.2020.104874>

Lane J.C.E. et al. **Safety of hydroxychloroquine, alone and in combination with azithromycin, in light of rapid wide-spread use for COVID-19: a multinational, network cohort and self-controlled case series study.** (Preprint not certified by peer review) medRxiv doi: [10.1101/2020.04.08.20054551](https://doi.org/10.1101/2020.04.08.20054551)

Mayla GSB et al. **Chloroquine diphosphate in two different dosages as adjunctive therapy of hospitalized patients with severe respiratory syndrome in the context of coronavirus (SARS-CoV-2) infection: Preliminary safety results of a randomized, double-blinded, phase IIb clinical trial (CloroCovid-19 Study).** (Preprint not certified by peer review) medRxiv doi: [10.1101/2020.04.07.20056424](https://doi.org/10.1101/2020.04.07.20056424)

Million M et al. **Early treatment of COVID-19 patients with hydroxychloroquine and azithromycin: A retrospective analysis of 1061 cases in Marseille, France.** (In Press) *Travel Medicine and Infectious Disease*, May 2020 <https://doi.org/10.1016/j.tmaid.2020.101738>

Mitja O et al., **A Cluster-Randomized Trial of Hydroxychloroquine as Prevention of Covid-19 Transmission and Disease** medRxiv 2020.07.20.20157651; doi: <https://doi.org/10.1101/2020.07.20.20157651> [This article is a preprint and has not been peer-reviewed. It reports new medical research that has yet to be evaluated and so should *not* be used to guide clinical practice.]

The Pharmaceutical Journal. **Could chloroquine be effective against COVID-19?** 3 April 2020. <https://www.pharmaceutical-journal.com/news-and-analysis/opinion/correspondence/could-chloroquine-be-effective-against-covid-19/20207868.article?firstPass=false>

Principi N, Esposito S. **Chloroquine or hydrochloroquine for prophylaxis of COVID-19.** *Lancet Infectious Diseases*. April 17, 2020 DOI: [https://doi.org/10.1016/S1473-3099\(20\)30296-6](https://doi.org/10.1016/S1473-3099(20)30296-6)

The RECOVERY Collaborative Group. **Effect of Hydroxychloroquine in Hospitalized Patients with Covid-19.** *NEJM* Oct 8 2020. <https://www.nejm.org/doi/full/10.1056/NEJMoa2022926>

Silva Borba MG et al. **Effect of high vs low doses of chloroquine diphosphate as adjunctive therapy for patients hospitalised with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection. A randomized clinical trial.** JAMA Netw Open 2020;3(4.23):2e208857
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2765499>

Touret F, de Lamballerie X. **Of chloroquine and COVID-19.** Antiviral Res. 2020 Mar 5;177. <https://www.ncbi.nlm.nih.gov/pubmed/32147496>

Tucker R. **Chloroquine in severe COVID-19: reviewing the evidence.** Hospital HealthCare Europe. 6 May 2020. <https://hospitalhealthcare.com/covid-19/chloroquine-in-severe-covid-19-reviewing-the-evidence/>

University of Oxford News. **PRINCIPLE trial finds antibiotics azithromycin and doxycycline not generally effective treatments for COVID-19. 25 Jan 2021.**
<https://www.ox.ac.uk/news/2021-01-25-principle-trial-finds-antibiotics-azithromycin-and-doxycycline-not-generally>

Tests & Testing

Andersson M. et al. **Rapid roll out of SARS-CoV-2 antibody testing—a concern** BMJ 2020;369:m2420 doi: <https://doi.org/10.1136/bmj.m2420> (Letter to BMJ Published 24 June 2020)

(Rapid response to the above letter):

Rapid roll out of SARS-CoV-2 antibody testing—a concern

BMJ 2020;369:m2420 doi: <https://doi.org/10.1136/bmj.m2420> (Published 24 June 2020)

BMJ News. **Covid-19: Lateral flow tests are better at identifying people with symptoms, finds Cochrane review**
BMJ 2021; 372 doi: <https://doi.org/10.1136/bmj.n823> (Published 25 March 2021) Cite this as: BMJ 2021;372:n823

Bullard J et al. **Predicting infectious SARS-CoV-2 from diagnostic samples.** 22 May 2020. Clinical Infectious Diseases. <https://doi.org/10.1093/cid/ciaa638>

CIDRAP. **Antibody tests may hold clues to COVID-19 exposure, immunity – but it's complicated.** CIDRAP News 15 April 2020. <https://www.cidrap.umn.edu/news-perspective/2020/04/antibody-tests-may-hold-clues-covid-19-exposure-immunity>

Department of Health and Social Care. **Asymptomatic testing for SARSCoV-2 using antigen-detecting lateral flow devices. Evidence from performance data October 2020 – May 2021.** Published 7th July 2021.
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/999866/asymptomatic-testing-for-SARS-CoV-2-using-antigen-detecting-lateral-flow-devices-evidence-from-performance-data-Oct-2020-to-May-2021.pdf

Dinnes J, Deeks JJ, Berhane S, **Rapid, point-of-care antigen and molecular-based tests for diagnosis of SARS-CoV-2 infection.** Cochrane Database of Systematic Reviews 2021, Issue 3. Art. No.: CD013705.
<https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD013705.pub2/full>

FIND. **SARS-CoV-2 diagnostic pipeline.** (An overview of all SARS-CoV-2 tests commercially available or in development for the diagnosis of COVID-19).
<https://www.finddx.org/covid-19/pipeline/>

Hou YJ et al., **SARS-CoV-2 Reverse Genetics Reveals a Variable Infection Gradient in the Respiratory Tract,** Cell (2020),
<https://doi.org/10.1016/j.cell.2020.05.042>

Johns Hopkins, Bloomberg School of Public Health. **Serology-based tests for COVID-19.** 15 April 2020. <https://www.centerforhealthsecurity.org/resources/COVID-19/serology/Serology-based-tests-for-COVID-19.html>

Kennedy-Shaffer, Lee, Michael Baym, and William Hanage. **Perfect as the Enemy of the Good: Using Low-Sensitivity Tests to Mitigate SARS-CoV-2 Outbreaks** (2020). <https://dash.harvard.edu/handle/1/37363184>

Pickering S, Batra R, Merrick B, Snell LB, Nebbia G, Douthwaite S et al. **Comparative performance of SARS-CoV-2 lateral flow antigen tests and association with detection of infectious virus in clinical specimens: a laboratory evaluation study.** The Lancet Microbe. 2021 May 26.
[https://doi.org/10.1016/S2666-5247\(21\)00143-9](https://doi.org/10.1016/S2666-5247(21)00143-9)

Pilarowski G, Marquez C, Rubio L et al. **Field performance and public health response using the BinaxNOW TM Rapid SARS-CoV-2 antigen detection assay during community-based testing.** Clin Infect Dis. 2020 Dec 26:ciaa1890. doi: 10.1093/cid/ciaa1890. Epub ahead of print. PMID: 33367619.
<https://pubmed.ncbi.nlm.nih.gov/33367619/>

Sethuraman N et al. **Interpreting Diagnostic Tests for SARS-CoV-2.** JAMA. Published online May 6, 2020. [doi:10.1001/jama.2020.8259](https://doi.org/10.1001/jama.2020.8259)

Stockbridge M, Purver M, Solel T et al. **Liverpool coronavirus (COVID-19) community testing pilot: full evaluation report summary.** Department of Health and Social Care. 7th July 2021.
<https://www.gov.uk/government/publications/liverpool-coronavirus-covid-19-community-testing-pilot-full-evaluation-report-summary/liverpool-coronavirus-covid-19-community-testing-pilot-full-evaluation-report-summary>

Stockbridge M, Purver M, Solel T et al. **Technical Report: In vitro and clinical post-market surveillance of Biotime SARS-CoV-2 Lateral Flow Antigen Device in detecting the SARS-CoV-2 Delta variant (B.1.617.2)**. Department of Health and Social Care. 7th July 2021.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/999867/in-vitro-and-clinical-post-market-surveillance-of-Biotime-SARS-CoV-2-Lateral-Flow-Antigen-Device-in-detecting-the-SARS-CoV-2-Delta-variant-B.1.617.2.pdf

Takahashi S., Greenhouse B., Rodriguez-Barraquer I. **Are SARS-CoV-2 seroprevalence estimates biased?** OSFPREPRINTS. <https://osf.io/y3fxt/>

UK Government. **COVID-19: guidance for sampling and for diagnostic laboratories. (Information for clinical diagnostic laboratories regarding safety, sampling and packaging specimens associated with COVID-19)**. Updated 16 July 2020. https://www.gov.uk/government/publications/wuhan-novel-coronavirus-guidance-for-clinical-diagnostic-laboratories?utm_campaign=11461808_COVID-19%20webinars%20w%2Fc%207%20April&utm_medium=email&utm_source=BiologicalIndustry%20Association&dm_i=1TUV,6TNZK,TC908Y,RC8E6,1

UK Government. **Guidance. How tests and testing kits for coronavirus (COVID-19) work (Updated 23 December 2020)**

<https://www.gov.uk/government/publications/how-tests-and-testing-kits-for-coronavirus-covid-19-work>

WHO. **WHO lists two COVID-19 tests for emergency use.**

7 April 2020. <https://www.who.int/news-room/detail/07-04-2020-who-lists-two-covid-19-tests-for-emergency-use>

MISCELLANEOUS

Environment, Animals

Briz-Redon A, Serrano-Aroca A. **The effect of climate on the spread of the COVID-19 pandemic: A review of findings, and statistical and modelling techniques**. Progress in Physical Geography: Earth and Environment. 4 August 2020. <https://doi.org/10.1177/0309133320946302>

Conticini E et al. **Can atmospheric pollution be considered a co-factor in extremely high level of SARS-CoV-2 lethality in Northern Italy**. Science Direct. 4 April 2020. <https://doi.org/10.1016/j.envpol.2020.114465>

Dbouk T, Drikakis D. **Fluid dynamics and epidemiology: Seasonality and transmission dynamics**. Physics of Fluids 33, 021901 (2021); <https://doi.org/10.1063/5.0037640>

Lam, T.T., et al. **Identifying SARS-CoV-2-related coronaviruses in Malayan pangolins**. *Nature* 583, 282–285 (2020). <https://doi.org/10.1038/s41586-020-2169-0>

Netherlands Government. **COVID-19 on Mink Farms.**
<https://www.government.nl/latest/news/2020/05/19/new-results-from-research-into-covid-19-on-mink-farms>

NghiemLD, et al. **The COVID-19 pandemic: Considerations for the waste and wastewater services sector.** Case Studies in Chemical and Environmental Engineering Volume 1, May 2020, 100006.
<https://www.sciencedirect.com/science/article/pii/S2666016420300049>

Ogen Y. **Assessing nitrogen dioxide (NO₂) levels as a contributing factor to coronavirus (COVID-19) fatality.** *Sci Total Environ.* 2020 Apr 11;726:138605. doi: 10.1016/j.scitotenv.2020.138605. [Epub ahead of print].
<https://www.ncbi.nlm.nih.gov/pubmed/32302812>

OIE (World Organisation for Animal Health). **Considerations for sampling, testing, and reporting of SARS-CoV-2 in animals.** Version 1 7 May 2020.
https://www.oie.int/fileadmin/Home/eng/Our_scientific_expertise/docs/pdf/COV-19/Sampling_Testing_and_Reporting_of_SARS-CoV-2_in_animals_final_7May_2020.pdf

Pahuja S, Madan M, Mittal S, et al. **Weather Parameters and COVID-19: A Correlational Analysis.** *J Occup Environ Med.* 2021 Jan 1;63(1):69-73. doi: 10.1097/JOM.0000000000002082. PMID: 33177471; PMCID: PMC7773164.
<https://pubmed.ncbi.nlm.nih.gov/33177471/>

Shuai L et al. **Replication, pathogenicity, and transmission of SARS-CoV-2 in minks,** *National Science Review*, , nwa291, <https://doi.org/10.1093/nsr/nwaa291>

WHO, FAO, OIE. **A Tripartite Guide to Addressing Zoonotic Diseases in Countries.** <https://extranet.who.int/sph/docs/file/3853>

Mass Gatherings

WHO. **Critical preparedness, readiness and response actions for COVID-19 (Interim Guidance).** Geneva, 4 November 2020 <https://www.who.int/publications-detail/critical-preparedness-readiness-and-response-actions-for-covid-19>

WHO. **How to use WHO risk assessment and mitigation checklist for Mass Gatherings in the context of COVID-19.** 13 July 2020.
<https://www.who.int/publications/i/item/how-to-use-who-risk-assessment-and-mitigation-checklist-for-mass-gatherings-in-the-context-of-covid-19>

WHO. **Mass Gatherings risk assessment COVID-19: Key considerations.** Geneva, 20 March 2020 <https://www.who.int/who-documents-detail/mass-gathering-risk-assessment-covid-19-key-considerations>

WHO. **Decision tree for risk assessment for mass gathering.** Geneva 8 April 2020 <https://www.who.int/who-documents-detail/decision-tree-for-risk-assessment-for-mass-gathering>

WHO. **Public Health for Mass Gatherings: Key Considerations**. Geneva, 2015
https://www.who.int/ihr/publications/WHO_HSE_GCR_2015.5/en/

WHO. **Considerations for Mass Gatherings in the context of COVID-19. Annex: Considerations in adjusting public health and social measures in the context of COVID-19**. Geneva 14 May 2020.

https://apps.who.int/iris/bitstream/handle/10665/332079/WHO-2019-nCoV-Adjusting_PH_measures-Mass_gatherings-2020.1-eng.pdf?sequence=1&isAllowed=y

WHO. **Key planning recommendations for mass gatherings in the context of the current COVID-19 outbreak. Interim Guidance**. 29 May 2020.

<https://www.who.int/publications/i/item/10665-332235>

Treatment, Health Care etc.

Ahmad A et al. **What does it mean to be vulnerable in the era of COVID-19**. The Lancet 27 April 2020. DOI:[https://doi.org/10.1016/S0140-6736\(20\)30979-X](https://doi.org/10.1016/S0140-6736(20)30979-X)

BSGM. (The British Society for Genetic Medicine). **BSGM Guidance on Shielding for vulnerable patients**. 14 April 2020. <https://www.bsgm.org.uk/news/bsgm-guidance-on-shielding-for-vulnerable-patients/>

Burki T. **Prisons are “in no way equipped” to deal with COVID-19**. The Lancet VOLUME 395, ISSUE 10234, P1411-1412, MAY 02, 2020.

DOI:[https://doi.org/10.1016/S0140-6736\(20\)30984-3](https://doi.org/10.1016/S0140-6736(20)30984-3)

Cennimo DJ. **Coronavirus Disease 2019 (COVID-19) Treatment & Management**. Updated Jan 04 2021. <https://emedicine.medscape.com/article/2500114-treatment>

Flaxman, S., Mishra, S., Gandy, A. *et al.* **Estimating the effects of non-pharmaceutical interventions on COVID-19 in Europe**. *Nature* (2020).

<https://doi.org/10.1038/s41586-020-2405-7>

The Lancet Editorial. **Redefining vulnerability in the era of COVID-19**. The Lancet. VOLUME 395, ISSUE 10230, P1089, APRIL 04, 2020.

DOI:[https://doi.org/10.1016/S0140-6736\(20\)30757-1](https://doi.org/10.1016/S0140-6736(20)30757-1)

WHO. **Pulse survey on continuity of essential health services during the COVID-19 pandemic: interim report, 27 August 2020**.

https://www.who.int/publications/i/item/WHO-2019-nCoV-EHS_continuity-survey-2020.1

Nutrition

Kohlmeier M. **Avoidance of vitamin D deficiency to slow the COVID-19 pandemic**. *BMJ Nutrition, Prevention & Health*. 2020.

<http://dx.doi.org/10.1136/bmjnph-2020-000096>

Lanham-New SA, Webb AR, Cashman KD, et al. **Vitamin D and SARS-CoV-2 virus/COVID-19 disease**. *BMJ Nutrition, Prevention & Health* 15 May 2020
<http://dx.doi.org/10.1136/bmjnph-2020-000089>

IHL & other Legal

ICRC. **COVID-19: How IHL provides crucial safeguards during pandemics**. 31 March 2020. https://www.icrc.org/en/document/covid-19-how-ihl-provides-crucial-safeguards-during-pandemics?utm_campaign=DP_FORUM%20-%20%20%20COVID-19%20response%20in%20conflict%20zones%20hinges%20on%20respect%20for%20international%20humanitarian%20law&utm_source=hs_email&utm_medium=email&utm_content=86397599&hsenc=p2ANq

ICRC. **COVID-19 response in conflict zones hinges on respect for international humanitarian law**. 16 April 2020. https://blogs.icrc.org/law-and-policy/2020/04/16/covid-19-response-respect-international-humanitarian-law/?utm_campaign=DP_FORUM%20-%20%20%20COVID-19%20response%20in%20conflict%20zones%20hinges%20on%20respect%20for%20international%20humanitarian%20law&utm_source=hs_email&utm_medium=email&utm_content=86397599&

Taxonomy & genetics

Aksenova AY. **Von Willebrand factor and endothelial damage: a possible association with COVID-19**. *Ecological Genetics* 18; No 2, 2020.135-138
<https://journals.eco-vector.com/ecolgenet/article/view/33973>

Andersen, K.G., Rambaut, A., Lipkin, W.I. *et al.* **The proximal origin of SARS-CoV-2**. *Nat Med* 26, 450–452 (2020). <https://doi.org/10.1038/s41591-020-0820-9>

Caspar I van der Made et al. **Presence of Genetic Variants Among Young Men With Severe COVID-19**. *JAMA*. 2020;324(7):663-673. doi:10.1001/jama.2020.13719
<https://jamanetwork.com/journals/jama/fullarticle/2768926>

Daniloski Z et al. **The Spike D614G mutation increases SARS-CoV-2 infection of multiple human cell types**. *bioRxiv* 07/07/2020 [This article is a preprint and has not been certified by peer review]
doi: <https://doi.org/10.1101/2020.06.14.151357>

de Oliveira T, Lutucuta S, Nkengasong J et al. **A novel variant of interest of SARS-CoV-2 with multiple spike mutations detected through travel surveillance in Africa**. *medRxiv* 04 April 2021. doi: <https://doi.org/10.1101/2021.03.30.21254323>
[This article is a preprint and has not been peer-reviewed. It reports new medical research that has yet to be evaluated and so should *not* be used to guide clinical practice.]

Ellinghaus D. et al. **Genomewide Association Study of Severe Covid-19 with Respiratory Failure.** N Engl J Med. 17 June 2020.
<https://www.nejm.org/doi/full/10.1056/NEJMoa2020283>

EurekaAlert. **A genetic variant inherited from Neanderthals reduces the risk of severe COVID-19.** Okinawa Institute of Science and Technology (oist) Graduate University 16 Feb 2021. https://www.eurekaalert.org/pub_releases/2021-02/oios-agv021621.php#:~:text=16-Feb-2021-,%20genetic%20variant%20inherited%20from%20Neanderthals%20reduces%20the%20risk%20of,a%20new%20PNAS%20study%20finds.&text=Credit%3A%20Bjorn%20Oberg%2C%20Karolinska%20Institutet.

Gorbalenya A. et al. **Severe acute respiratory syndrome-related coronavirus: The species and its viruses – a statement of the Coronavirus Study Group.**
<https://www.biorxiv.org/content/10.1101/2020.02.07.937862v1.full.pdf>

Grubaugh et al., **Making Sense of Mutation: What D614G Means for the COVID-19 Pandemic Remains Unclear,** Cell (2020),
<https://doi.org/10.1016/j.cell.2020.06.040>

Greaney AJ, Starr TN, Gilchuk P et al. **Complete Mapping of Mutations to the SARS-CoV-2 Spike Receptor-Binding Domain that Escape Antibody Recognition.** Cell Host & Microbe. Volume 29, Issue 1, 13 January 2021, Pages 44-57.e9. <https://www.sciencedirect.com/science/article/pii/S1931312820306247>

Korber B et al., **Tracking Changes in SARS-CoV-2 Spike: Evidence that D614G Increases Infectivity of the COVID-19 Virus'** Cell. 3 July 2020.
<https://doi.org/10.1016/j.cell.2020.06.043>

Latinne A et al. **Origin and cross-species transmission of bat coronaviruses in China.** *BioRxiv pre-print.* 31 May 2020.
<https://www.biorxiv.org/content/10.1101/2020.05.31.116061v1>

Pairo-Castineira, E., Clohisey, S., Klaric, L. et al. **Genetic mechanisms of critical illness in Covid-19.** *Nature* (2020). <https://doi.org/10.1038/s41586-020-03065-y>

Phelan J. et al. **Controlling the SARS-CoV-2 outbreak, insights from large scale whole genome sequences generated across the world.** *BioRxiv pre-print.* DOI: [10.1101/2020.04.28.066977](https://doi.org/10.1101/2020.04.28.066977)

Rambaut A, Loman N, Pybus O et al. **Preliminary genomic characterisation of an emergent SARS-CoV-2 lineage in the UK defined by a novel set of spike mutations.** Dec 2020. <https://virological.org/t/preliminary-genomic-characterisation-of-an-emergent-sars-cov-2-lineage-in-the-uk-defined-by-a-novel-set-of-spike-mutations/563>

Rehman HA, Ramzan F, Basharat Z et al. **Comprehensive Comparative Genomic and Microsatellite Analysis of SARS, MERS, BAT-SARS and COVID-19 Coronaviruses.** J Med Virol. 30 March 2021.
<https://doi.org/10.1002/jmv.26974>

Rochman ND, Wolf YI, Faure G et al. **Ongoing Global and Regional Adaptive Evolution of SARS-CoV-2**. bioRxiv 02 March 2021.

doi: <https://doi.org/10.1101/2020.10.12.336644>

Starr TN, Greaney AJ, Addetia A, et al. **Prospective mapping of viral mutations that escape antibodies used to treat COVID-19**. Science 19 Feb 2021.

<https://science.sciencemag.org/content/371/6531/850.long>

Tchesnokova V, Kulakesara H, Larson L et al. **Acquisition of the L452R mutation in the ACE2-binding interface of Spike protein triggers recent massive expansion of SARS-Cov-2 variants**. bioRxiv 22 Feb 2021.

<https://www.biorxiv.org/content/10.1101/2021.02.22.432189v1>

[This is a preliminary report that has not been peer-reviewed. It should not be regarded as conclusive, guide clinical practice/health-related behaviour, or be reported in news media as established information]

Van Dorp L et al. **Emergence of genomic diversity and recurrent mutations in SARS-CoV-2**. Infect Genet Evol. 2020 May 5 : 104351.

doi: [10.1016/j.meegid.2020.104351](https://doi.org/10.1016/j.meegid.2020.104351) [Epub ahead of print]

WHO. **SARS-CoV-2 Variants**. Disease Outbreak News 31 Dec 2020.

<https://www.who.int/csr/don/31-december-2020-sars-cov2-variants/en/>

Yao H et al. **Patient-derived mutations impact pathogenicity of SARS-CoV-2**. (*Please note this is a preprint and has not been certified by peer review. It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice*)

<https://www.medrxiv.org/content/10.1101/2020.04.14.20060160v2>

Yong Jia et al. **Analysis of the mutation dynamics of SARS-CoV-2 reveals the spread history and emergence of 2 RBD mutant with lower ACE2 binding affinity**. doi: <https://doi.org/10.1101/2020.04.09.034942> [This article is a preprint and has not been certified by peer review]

Zeberg, H., Pääbo, S. **The major genetic risk factor for severe COVID-19 is inherited from Neanderthals**. *Nature* (2020). <https://doi.org/10.1038/s41586-020-2818-3>

Other pathogens

Clancy CJ, Schwartz IS, Kula B, Nguyen MH. **Bacterial Superinfections Among Persons With Coronavirus Disease 2019: A Comprehensive Review of Data From Postmortem Studies**. *Open Forum Infectious Diseases*, Volume 8, Issue 3, March 2021, ofab065, <https://doi.org/10.1093/ofid/ofab065>

Fricke LM, Glockner S, Drier M, Lange B. **Impact of non-pharmaceutical interventions targeted at COVID-19 pandemic on influenza burden – a systematic review**. *Journal of Infection*. Published:December 02, 2020
DOI:<https://doi.org/10.1016/j.jinf.2020.11.039>

Roberts L. **How COVID hurt the fight against other dangerous diseases**
Campaigns to battle tuberculosis, measles and polio have all been set back.
Nature News Feature 21 April 2021. <https://www.nature.com/articles/d41586-021-01022-x>

Stochino C et al., **Clinical characteristics of COVID-19 and active tuberculosis co-infection in an Italian reference hospital.** European Respiratory Journal 2020;
<https://erj.ersjournals.com/content/early/2020/05/29/13993003.01708-2020>

WHO. **Tailoring malaria interventions in the COVID-19 response**
<https://www.who.int/malaria/publications/atoz/tailoring-malaria-interventions-in-the-covid-19-response/en/>

WHO. Information Note. **Tuberculosis and COVID-19.** 4 April 2020.
https://www.who.int/tb/COVID_19considerations_tuberculosis_services.pdf

WHO. Scientific Brief. **Bacille Calmet-Guérin (BCG) vaccination and COVID-19.**
12 April 2020. [https://www.who.int/news-room/commentaries/detail/bacille-calmette-guérin-\(bcg\)-vaccination-and-covid-19](https://www.who.int/news-room/commentaries/detail/bacille-calmette-guérin-(bcg)-vaccination-and-covid-19)

Press & publications

BMJ Feature. **Covid 19; Ivermectin's politicisation is a warning sign for doctors.**
BMJ 2021; 373:n747 doi: <https://doi.org/10.1136/bmj.n747> (Published 01 April 2021)

NHS Providers. **Confronting Coronavirus in the NHS.**
<https://nhsproviders.org/confronting-coronavirus-in-the-nhs>

The New Humanitarian (formerly IRIN News): <https://www.thenewhumanitarian.org>
The New York Times. **Hoping Llamas Will Become Coronavirus Heroes.** 6 May 2020. <https://www.nytimes.com/2020/05/06/science/llama-coronavirus-antibodies.html>

ODI Newsletter – weekly. To sign up: <https://www.odi.org/newsletter-sign-up>
WHO. **Q & A on coronaviruses (COVID-19).** 8 April 2020.
<https://www.who.int/news-room/q-a-detail/q-a-coronaviruses>

Levitan R. **The Infection that's Silently Killing Coronavirus Patients** (Silent Hypoxia). New York Time Op Ed. 20 April 2020.
<https://www.nytimes.com/2020/04/20/opinion/coronavirus-testing-pneumonia.html>

Nature News. **Coronavirus blood-clot mystery intensifies.** 8 May 2020.
<https://www.nature.com/articles/d41586-020-01403-8>

Saplakoglu Y. **Recovered patients who tested positive for COVID-19 likely not reinfected.** LiveScience May 2020. <https://bit.ly/3fjZ7hE>

Woodruff Swan B et al. **Poop could help stop the pandemic. Really.** Politico May 2020. <https://www.politico.com/news/2020/05/01/cdc-human-waste-coronavirus-222253>

ON-LINE COURSES, WEBINARS, BLOGS & BOOKS

Courses

Royal College of Physicians and Surgeons of Glasgow. **Covid-19 Resource pages. Training and Assessment updates.** <https://rcpsg.ac.uk/covid-19>

SGUL. **Managing COVID-19 in Primary Care.** <https://www.futurelearn.com/courses/management-of-covid-19-in-general-practice>

WHO. **Coronavirus disease (COVID-19) training: Online training.** <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/training/online-training>

Courses include:

- Severe Acute Respiratory Infection (SARI) Treatment Facility Design
- COVID-19: Operational Planning Guidelines and COVID-19 Partners Platform to support country preparedness and response
- Infection Prevention and Control (IPC) for novel coronavirus (COVID-19)
- Introduction to emerging respiratory viruses, including novel coronavirus
- Clinical Care Severe Acute Respiratory Infection
- WHO-ICRC Basic Emergency Care: approach to the acutely ill and injured
- WHO Medical Emergency Checklist
- Resuscitation Area Designation Tool
- Health and safety briefing for respiratory diseases – ePROTECT

Blogs

NDORMS. (Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences). **OxImmuno Literature Blog - Covid-19 research papers explained simply.** <https://www.ndorms.ox.ac.uk/news/blog/oximmuno-literature-blog>

World Extreme Medicine. **Blog.** <https://worldextrememedicine.com/blog/tag/covid-19/>

Webinars

RSM. **COVID-19 Series.** (This webinar series is dedicated to give healthcare workers on the frontlines, regular and easy-to-access updates from healthcare

leaders on COVID-19). https://www.rsm.ac.uk/resources/rsm-live/?_cldee=bWFyaW9uLmJpcmNoMkBidGludGVybmV0LmNvbQ%3d%3d&recipe_ntid=contact-48958b9efc22e911a88100224800492f-07fc18bd6f7c468893d2bce9906d2412&utm_source=ClickDimensions&utm_medium=email&utm_campaign=PEN65%20%26%20PEN66%2018.4.2020&esid=c144d41e-c780-ea11-a811-000d3a86ad99

UNIVERSITIES Etc

Birmingham University. **COVID-19 research.**
<https://www.birmingham.ac.uk/research/coronavirus/index.aspx>

Cambridge University. **Research Covid-19.** <https://www.cam.ac.uk/topics/covid-19>

Glasgow University. **Centre for Virus Research.**
<https://www.gla.ac.uk/researchinstitutes/iii/cvr/researchprogrammes/covid/>

Liverpool University & Liverpool School of Tropical Medicine. **CEIDR and HPRU EZI COVID-19 research programme.** <https://www.liverpool.ac.uk/centre-of-excellence-infectious-diseases-research/covid-19/>
& <https://www.lstmed.ac.uk/covid-19>

Manchester University. **Biology Medicine and Health. Covid-19 research rapid response group.** <https://www.manchester.ac.uk/coronavirus-response/bmh-coronavirus-projects/>

Oxford University. **Coronavirus research.**
<https://www.research.ox.ac.uk/Area/coronavirus-research>

Royal College of Surgeons of England. **COVID-19 Research Group.**
<https://www.rcseng.ac.uk/coronavirus/rcs-covid-research-group/>

London University

Imperial College. **MRC Centre for Global Infectious Disease Analysis.**
<https://www.imperial.ac.uk/mrc-global-infectious-disease-analysis/covid-19/covid-19-reports/>

Kings College. **Research Portal.**
<https://kclpure.kcl.ac.uk/portal/en/search.html?searchall=covid-19>

LSHTM. **COVID-19.** <https://www.lshtm.ac.uk/research/research-action/covid-19>

UCL. **COVID-19 Research at UCL.** <https://www.ucl.ac.uk/covid-19-research/>

BOOKS

Arnold C. **Pandemic 1918: The Story of the Deadliest Influenza in History.** Michael O'Mara Books Ltd. 2018

Cartwright FF, Biddiss M. **Disease and History.** (3rd Edition). 2014. Thistle Publishing.

Dobson M. **Murderous Contagion. A Human History of Disease.** Quercus 2015.

Farrar J, Ahuja A. **Spike: The Virus vs The People. The Inside Story.** Profile Books Ltd. 2021.

Honigsbaum M. **The Pandemic Century. A History of Global Contagion from the Spanish Flu to Covid-19.** Penguin Books

Kelman L. **Disaster by Choice.** OUP 2020
<https://global.oup.com/academic/product/disaster-by-choice-9780198841340?cc=gb&lang=en&>

Kucharski A. **The Rules of Contagion: Why Things Spread - and Why They Stop.** Profile Books. Wellcome Collection 2020. <https://profilebooks.com/the-rules-of-contagion.html>

Oldstone MBA. **Viruses Plagues and History.** Oxford University Press 2010.

Spinney L. **Pale Rider: The Spanish Flu of 1918 and How it Changed the World.** Vintage (Penguin Random House) 2017.

Zeigler P. **The Black Death.** The History Press 2010.