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

[Updated 16/09/2020 – 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 regularly 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references or resources that are not included, or if you are aware that any of the references or resources listed are out of date or have been superseded, please let us know so that we can put them in, change them or cut them out!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please bear in mind that the peer review process may have been curtailed or that an item may be a preprint that has not been certified by peer review.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).].

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#### 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

#### 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**

**Publications** 

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

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

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

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 [Epub ahead of print]

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

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.]

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

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

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

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

The WHO Rapid Evidence Appraisal for COVID-19 Therapies (REACT) Working Group. Association Between Administration of Systemic Corticosteroids and Mortality Among Critically III 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

# **RESOURCES & GUIDANCE**

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

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

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

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

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

Medscape UK. **COVID-19**. <u>https://www.medscape.com/resource/uk-</u> coronavirus?src=ban\_ret\_ukcovid\_728x90\_desk\_03172020\_int

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

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) <u>https://promedmail.org/about-promed/</u>

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

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

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

UK Research and Innovation (UKRI). **Coronavirus: the science explained.** <u>https://coronavirusexplained.ukri.org/en/</u>

WHO. **Country and technical guidance – Coronavirus disease (COVID-19).** <u>https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance</u>

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). <u>https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen</u>

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

# 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). <u>https://jamanetwork.com/collections/46099/coronavirus-covid19</u>

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.** (Covid Research in Brief. (A weekly roundup of how science is responding to COVID-19). <u>https://www.nature.com/nm/</u>

**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. <u>https://www.nejm.org/coronavirus</u>

# **CLINICAL MATTERS**

## **Clinical characteristics/Symptoms**

<u>Chen T. et al.</u> 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]. <u>https://www.ncbi.nlm.nih.gov/pubmed/32348545</u>

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

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

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

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

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. <u>https://blogs.bmj.com/bmj/2020/05/01/covid-19-a-complex-multisystem-clinical-syndrome/</u>

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). <u>https://doi.org/10.1186/s13054-020-2833-7</u>

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:<u>https://doi.org/10.1016/S2215-0366(20)30287-X</u>

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

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. <u>https://jamanetwork.com/journals/jama/fullarticle/2768391</u>

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. <u>https://doi.org/10.1016/j.bbi.2020.03.031</u>

# Management of cases

CDC Atlanta. Interim Clinical Guidance for Management of Patients with Confirmed Coronavirus Disease (COVID-19). Updated June 30 2020. https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-guidance-managementpatients.html

NHS England. Clinical Management of persons admitted to hospital with suspected COVID-19 infection. 19 March 2020.

https://www.england.nhs.uk/coronavirus/wpcontent/uploads/sites/52/2020/03/clinical-management-of-persons-admitted-tohospita-v1-19-march-2020.pdf

NICE. COVID-19 rapid guideline: managing suspected or confirmed pneumonia in adults in the community. <u>https://www.nice.org.uk/guidance/ng165</u>

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

Public Health England. COVID-19: investigation and initial clinical management of possible cases. Updated on 31/07/2020 <u>https://www.gov.uk/government/publications/wuhan-novel-coronavirus-initial-</u> investigation-of-possible-cases/investigation-and-initial-clinical-management-of-

possible-cases-of-wuhan-novel-coronavirus-wn-cov-infection

PHE. **COVID-19: guidance for health professionals.** Updated on 02/06/2020 <u>https://www.gov.uk/government/collections/wuhan-novel-coronavirus</u>

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

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

WHO. **Clinical management of COVID-19. Interim Guidance.** 27 May 2020. <u>https://www.who.int/publications/i/item/clinical-management-of-covid-19</u>

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. <u>https://www.who.int/publications/i/item/criteria-for-releasing-covid-19-patients-from-isolation</u>

WHO. Home care for patients with suspected or confirmed COVID-19 and management of their contacts. Interim Guidance. WHO Publications 13 August 2020. <u>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</u>

# **Children & Adolescents**

British Paediatric Respiratory Society. Guidance for the clinical management of children admitted to hospital with suspected COVID-19.

https://www.rcpch.ac.uk/sites/default/files/2020-03/bprs\_management\_of\_children\_admitted\_to\_hospital\_with\_covid19\_-20200319.pdf

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

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 (This is a prepublication version of an article that has undergone peer review and been accepted for publication but is not the final version of record) <u>https://hosppeds.aappublications.org/content/hosppeds/early/2020/04/06/hpeds.202</u> <u>0-0123.full.pdf</u> Liao J et al. **Epidemiological and clinical characteristics of COVID-19 in adolescents and young adults.** 12 March 2020 (*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*) <u>https://www.medrxiv.org/content/10.1101/2020.03.10.20032136v1.full.pdf+html</u>

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. <u>https://picsociety.uk/wp-content/uploads/2020/04/PICS-statement-re-novel-KD-C19-presentation-v2-27042020.pdf</u>

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://journals.lww.com/jphmp/Abstract/publishahead/COVID\_19 in Children in th e\_United\_States\_.99293.aspx

# Care of recovering patients

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

NHS. **Supporting your recovery after COVID-19.** <u>https://www.yourcovidrecovery.nhs.uk</u>

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

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

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 6<sup>th</sup> July 2020. <u>https://www.bma.org.uk/advice-and-support/covid-19/ethics/covid-19-ethical-issues</u>

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

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

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

Sokol D. Decision Making for Intensive Care Triage in COVID-19 Emergency. A practical Guide for Clinicians and Hospital Mangers. April 2020. http://medicalethicist.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. <u>https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(20)30181-8/fulltext</u>

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

Italian Society of Anesthesia, Analgesia, Resuscitation and Intensive Care (Società Italiana di Anestesia Analgesia Rianimazione e Terapia Intensiva [SIAARTI]). **Clinical ethics recommendations for the allocation of intensive care** 

treatments, in exceptional, resource-limited circumstances.

http://www.siaarti.it/SiteAssets/News/COVID19%20-%20documenti%20SIAARTI/SIAARTI%20-%20Covid-19%20-%20Clinical%20Ethics%20Reccomendations.pdf

# CARE OF HEALTH-CARE STAFF.

Royal College of Psychiatrists. Workforce - COVID-19 guidance for clinicians. (Top 10 messages for supporting healthcare staff during the Covid-19 pandemic). 9 April 2020.

https://eur03.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.rcpsych. ac.uk%2Fabout-us%2Fresponding-to-covid-19%2Fresponding-to-covid-19guidance-for-clinicians%2Fworkforce-covid-19-guidance-for-

clinicians&data=02%7C01%7Crichard.williams%40southwales.ac.uk%7Cecbb07c6b 4214b30214808d7d2765daf%7Ce5aafe7c971b4ab7b039141ad36acec0%7C0%7C1 %7C637209278141940935&sdata=pwJb9nhRFWkJBRwltsLVE6%2F3Odv98yMCB %2Fg9ih6XFwl%3D&reserved=0

ICRC. COVID-19 and Violence Against Health-Care – Safer COVID-19 Response: Checklist for Health-Care Services. 4 May 2020.

https://www.icrc.org/en/publication/covid-19-and-violence-against-health-care-safercovid-19-response-checklist-health-care

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**

Public Health England. **COVID-19: infection prevention and control (IPC).** Updated 7 August 2020. <u>https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control</u>

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-preventioncontrol-for-the-care-of-patients-with-2019-nCoV-healthcare-settings\_update-31-March-2020.pdf

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

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

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

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: <u>https://wwwnc.cdc.gov/eid/article/26/7/20-0885\_article</u>

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. <u>https://dx.doi.org/10.3201/eid2609.201435</u>

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. <u>https://www.journalofhospitalinfection.com/article/S0195-6701(20)30046-3/fulltext</u>

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:<u>https://doi.org/10.1016/j.jhin.2020.06.001</u>

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* (2020). <u>https://doi.org/10.1038/s41591-020-0843-2</u>

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

# 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. <u>https://www.bmj.com/content/369/bmj.m1435</u>

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 DOI:https://doi.org/10.1016/S0140-6736(20)31142-9

ECDC (European Centre for Disease Prevention and Control). **Cloth masks and mask sterilisation as options in case of shortage of surgical masks and respirators.** 26 March 2020. <u>https://www.ecdc.europa.eu/en/publications-data/cloth-masks-sterilisation-options-shortage-surgical-masks-respirators</u>

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-facemasks-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-guidancewearing-and-removing-personal-protective-equipment-healthcare-settingsupdated.pdf

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

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

PHE. **COVID-19 personal protective equipment (PPE).** (Updated 7 April 2020) <u>https://www.gov.uk/government/publications/wuhan-novel-coronavirus-infection-prevention-and-control/covid-19-personal-protective-equipment-ppe</u>

WHO **Advice on the use of masks in the context of Covid-19**. 6<sup>th</sup> April 2020. <u>https://www.who.int/publications-detail/advice-on-the-use-of-masks-in-the-</u> <u>community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-</u> <u>coronavirus-(2019-ncov)-outbreak</u>

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

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). <u>https://doi.org/10.1038/s41591-020-0961-x</u>

## **Refugees and refugee camps**

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

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

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-incomesettings-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-outbreakreadiness-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. <u>https://interagencystandingcommittee.org/health/interim-</u> guidance-public-health-and-social-measures-covid-19-preparedness-and-response

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

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

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

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

## Sphere

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

# THE VIRUS

## General

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=IwAR1tWkfVZv8c19U5EyWjfFbQ5ibTIhwHLRoF6M5mSLxfFz7ysys WMDUzXV4

Cash, R., Patel, V. Has COVID-19 subverted global health? The Lancet. <u>VOLUME 395, ISSUE 10238</u>, P1687-1688, MAY 30, 2020. 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**.19 February 2020. Lancet. <u>https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30418-9/fulltext</u>

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

Wölfel, R., Corman, V.M., Guggemos, W. *et al.* **Virological assessment of hospitalized patients with COVID-2019.** *Nature* (2020). <u>https://doi.org/10.1038/s41586-020-2196-x</u>

# Epidemiology

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

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. <u>https://www.thelancet.com/journals/lancet/article/PIIS0140-</u> <u>6736(20)30211-7/fulltext</u>

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 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

Deslandes A et al. **SARS-COV-2 was already spreading in France in late December 2019.** International Journal of Antimicrobial Agents 3 May 2020 <u>https://www.sciencedirect.com/science/article/pii/S0924857920301643</u>

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, 2020DOI:<u>https://doi.org/10.1016/S0140-6736(20)31760-8</u>

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

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. <u>https://doi.org/10.2807/1560-7917.ES.2020.25.17.2000257</u>

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

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 et al. **Temporal dynamics in viral shedding and transmissibility of COVID-19.** 15 April 2020. Nature Medicine brief communication. <u>https://www.nature.com/articles/s41591-020-0869-5</u>

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). <u>https://doi.org/10.1038/s41591-020-0869-5</u>

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: <u>https://doi.org/10.1101/2020.03.31.20049023</u>

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

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

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%20met hod%20enhances%20the,CI%3A%2013.64%20to%2014.90).

Sakurai A et al. **Natural History of Asymptomatic SARS-CoV-2 Infection**. N Engl J Med 12 June 2020. <u>https://www.nejm.org/doi/full/10.1056/NEJMc2013020</u>

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

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

# SARS-CoV-2 Seroprevalence

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

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

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

# Uyoga S et al. Seroprevalence of anti-SARS-CoV-2 IgG antibodies in Kenyan blood donors.

medRxiv 2020.07.27.20162693; doi: <u>https://doi.org/10.1101/2020.07.27.20162693</u> [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

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

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

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

Dorward DA. et al. **Tissue-specific tolerance in fatal Covid-19.** medRxiv **doi:** <u>https://doi.org/10.1101/2020.07.02.20145003</u> [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].

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

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). <u>https://doi.org/10.1038/s41594-020-0469-6</u>

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

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

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

Wang X et al. SARS-CoV-2 infects T lymphocytes through its spike proteinmediated membrane fusion. 7 April 2020 Nature Cellular and Molecular Immunology. <u>https://www.nature.com/articles/s41423-020-0424-9</u>

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

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

Zhu F-C et al. Immunogenicity and safety of a recombinant adenovirus type-5vectored 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

# **Drug & other interactions**

de Castro MJ, Pardo-Seco J, Martinón-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 <u>https://www.ncbi.nlm.nih.gov/pubmed/25725054</u>

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: <u>https://doi.org/10.1101/2020.03.24.20042937</u>

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

# **VACCINES, TESTS & TREATMENTS**

#### Vaccines

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

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

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: <u>https://doi.org/10.1017/qrd.2020.8</u>

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

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

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:<u>https://doi.org/10.1016/S0140-6736(20)31605-6</u>

### Therapeutics

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

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

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

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

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

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

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

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:<u>https://doi.org/10.1016/S0140-6736(20)31022-9</u>

Wang I., 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. <u>10.3389/fcvm.2020.00078</u>

# Antimalarials & other drugs

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

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.* <u>Antiviral Research Volume 178</u>, *June 2020, 104787* <u>https://doi.org/10.1016/j.antiviral.2020.104787</u>

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: <u>10.1016/j.jcrc.2020.03.005</u>

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

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. <u>https://dx.doi.org/10.3201/eid2606.200495</u>

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: <u>10.1016/j.ijantimicag.2020.105949</u>

Geleris J et al. **Observational Study of Hydroxychloroquine in Hospitalized Patients with Covid-19.** N Engl J Med 2020; 382:2411-2418 <u>https://www.nejm.org/doi/full/10.1056/nejmoa2012410</u>

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

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

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

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: <u>10.1101/2020.04.08.20054551</u>

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: <u>10.1101/2020.04.07.20056424</u>

Million M et al. Early treatment of COVID-19 patients with hydroxychloroquine andazithromycin: 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. <u>https://www.pharmaceutical-journal.com/news-and-analysis/opinion/correspondence/could-chloroquine-be-effective-against-covid-19/20207868.article?firstPass=false</u>

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

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. <u>https://www.ncbi.nlm.nih.gov/pubmed/32147496</u>

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

## **Tests & Testing**

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

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

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

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). <u>https://www.finddx.org/covid-19/covid-19-backuplp/pipeline-2/</u>

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. <u>https://www.centerforhealthsecurity.org/resources/COVID-</u> <u>19/serology/Serology-based-tests-for-COVID-19.html</u>

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

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

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).** 15 January 2020. <u>https://www.gov.uk/government/publications/wuhan-novel-coronavirus-</u> guidance-for-clinical-diagnostic-laboratories?utm\_campaign=11461808\_COVID-19%20webinars%20w%2Fc%207%20April&utm\_medium=email&utm\_source=BioIn dustry%20Association&dm\_i=1TUV,6TNZK,TC908Y,RC8E6,1

UK Government. Guidance on coronavirus (COVID-19) tests and testing kits. (Initial specifications for tests and testing kits and advice for members of the public).13 April 2020. <u>https://www.gov.uk/guidance/guidance-on-coronavirus-covid-19-tests-and-testing-kits</u>

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

### MISCELLANEOUS

### **Environment, Animals**

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. <u>https://doi.org/10.1016/j.envpol.2020.114465</u>

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

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 (NO<sub>2</sub>) levels as a contributing factor to coronavirus (COVID-19) fatality. <u>Sci Total Environ</u>. 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. <u>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</u>

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. <u>https://www.who.int/publications-detail/cleaning-and-disinfection-of-environmental-surfaces-inthe-context-of-covid-19</u>

# **Mass Gatherings**

WHO. Critical preparedness, readiness and response actions for COVID-19 (Interim Guidance). Geneva, 24 June 2020 <u>https://www.who.int/publications-detail/critical-preparedness-readiness-and-response-actions-for-covid-19</u>

WHO. How to use WHO risk assessment and mitigation checklist for Mass Gatherings in the context of COVID-19. 19 March 2020. <u>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</u>

WHO. Mass Gatherings risk assessment COVID-19: Key considerations (Excel tool). Geneva, 2020 <u>https://www.who.int/who-documents-detail/mass-gathering-risk-assessment-covid-19-key-considerations</u>

WHO. Decision tree flow chart for mass gatherings in the context of COVID-19. Geneva 2020 <u>https://www.who.int/who-documents-detail/decision-tree-for-risk-assessment-for-mass-gathering</u>

WHO. **Public Health for Mass Gatherings: Key Considerations**. Geneva, 2015 <u>https://www.who.int/ihr/publications/WHO\_HSE\_GCR\_2015.5/en/</u>

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-2020.1eng.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:<u>https://doi.org/10.1016/S0140-6736(20)30979-X</u>

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

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:<u>https://doi.org/10.1016/S0140-6736(20)30984-3</u>

Cennimo DJ. Coronavirus Disease 2019 (COVID-19) Treatment & Management. Updated 27 Apr 2020. <u>https://emedicine.medscape.com/article/2500114-treatment</u>

Flaxman, S., Mishra, S., Gandy, A. *et al.* **Estimating the effects of non-pharmaceutical interventions on COVID-19 in Europe**. *Nature* (2020). <u>https://doi.org/10.1038/s41586-020-2405-7</u>

The Lancet Editorial. **Redefining vulnerability in the era of COVID-19. The Lancet.** VOLUME 395, ISSUE 10230, P1089, APRIL 04, 2020. DOI:<u>https://doi.org/10.1016/S0140-6736(20)30757-1</u>

#### 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. <u>https://www.icrc.org/en/document/covid-19-how-ihl-provides-crucial-safeguards-during-pandemics?utm\_campaign=DP\_FORUM%20-%20%20%20COVID-</u> 19%20response%20in%20conflict%20zones%20hinges%20on%20respect%20for%

20international%20humanitarian%20law&utm\_source=hs\_email&utm\_medium=email l&utm\_content=86397599&\_hsenc=p2ANq ICRC. COVID-19 response in conflict zones hinges on respect for international humanitarian law. 16 April 2020. <u>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&</u>

# **Taxonomy & genetics**

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

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: <u>https://doi.org/10.1101/2020.06.14.151357</u>

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

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

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. <u>https://www.biorxiv.org/content/10.1101/2020.05.31.116061v1</u>

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: <u>10.1101/2020.04.28.066977</u>

Van Dorp L et al. Emergence of genomic diversity and recurrent mutations in SARS-CoV-2. Infect Genet Evol. 2020 May 5 : 104351. doi: <u>10.1016/j.meegid.2020.104351</u> [Epub ahead of print]

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: <u>https://doi.org/10.1101/2020.04.09.034942</u> [This article is a preprint and has not been certified by peer review]

## Other pathogens

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

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

WHO. Information Note. **Tuberculosis and COVID-19.** 4 April 2020. <u>https://www.who.int/tb/COVID\_19considerations\_tuberculosis\_services.pdf</u>

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

# Press & publications

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

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

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

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

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

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

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

# **ON-LINE COURSES, WEBINARS, BLOGS & BOOKS**

## Courses

LSHTM. COVID-19: Tackling the Novel Coronavirus. https://www.futurelearn.com/courses/covid19-novel-coronavirus

# redr uk. Covid-19 training. Free online training courses for a UK based audience:

Module 1: Culturally Appropriate Hygiene Promotion for Covid-19 Module 2: Covid-19 Myth Busting Module 3: Managing Stress During the Covid-19 Pandemic https://www.redr.org.uk/Training-Learning/Covid-19-Training

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

## SGUL. Managing COVID-19 in General Practice.

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/onlinetraining

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

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). <u>https://www.rsm.ac.uk/resources/rsm-live/?\_cldee=bWFyaW9uLmJpcmNoMkBidGludGVybmV0LmNvbQ%3d%3d&recipie 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</u>

# UNIVERSITIES

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

Edinburgh University. Usher Institute. Acute Care Edinburgh. **The COVID-19 Research Group**. <u>https://www.ed.ac.uk/usher/acute-care-edinburgh/world-class-research/the-covid-19-research</u>

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

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

& https://www.lstmed.ac.uk/covid-19

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

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

London University

Imperial College. MRC Centre for Global Infectious Disease Analysis. https://www.imperial.ac.uk/mrc-global-infectious-disease-analysis/covid-19/covid-19reports/ 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**. (3<sup>rd</sup> Edition). 2014. Thistle Publishing.

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

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

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

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.