

COVID-19 Evidence Update

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Cochrane Library	Elsevier coronavirus information center
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Royal College Guidance

Royal College of Obstetrics & Gynaecologists

[Coronavirus \(COVID-19\) infection and pregnancy](#) – published 9th March 2020

This guidance covers:

- Epidemiology
- Transmission
- Effect of COVID-19 on pregnant women
- Effect of COVID-19 on the fetus
- Travel advice for pregnant women
- Advice for women who may have been exposed
- Diagnosis
- Advice for women who have been advised to self-isolate
- Management of pregnant women with confirmed COVID-19
- Postnatal management: neonatal care and infant feeding
- Admissions flowchart
- Information for women and their families

Royal College of Surgeons

[Statement on Coronavirus Action Plan](#) – published 5th March 2020

“Surgeons and surgical teams across the UK are rolling up their sleeves to help out. Many are holding back from booking family holidays. Recently retired staff might consider contacting their Trust to offer help. If the worst case scenario does come to pass, and a fifth of the country’s workforce go off sick, then it will be all hands on deck.”

Royal College of Physicians

[An expert update for doctors](#) – video of the COVID-19 expert update in February

Royal College of Nursing

[Covid-19 \(coronavirus\)](#) – guidance for members of the RCN

Royal College of Midwives

[Coronavirus – what you need to know](#) – News item

Royal College of Paediatrics and Child Health

[COVID-19 \(novel coronavirus\) update](#) - 10 March

[Novel coronavirus and how the College is responding](#) – 19 February

Royal College of General Practitioners

[COVID-19 updates page](#)

Dynamed Plus - COVID-19 (Novel Coronavirus)

Latest updates

16 MAR 2020

153,517 confirmed cases of coronavirus disease 2019 (COVID-19) including 5,735 deaths in 144 countries worldwide reported by World Health Organization (WHO) as of March 15, 2020 (WHO Situation Report 2020 Mar 15)

[View in topic](#)

11 MAR 2020

bilateral ground glass opacities common finding on chest computed tomography in patients with COVID-19 pneumonia (AJR Am J Roentgenol 2020 Mar 3 early online)

[View in topic](#)

Public Health England

[COVID-19: guidance for Ambulance Trusts](#) - 13 March 2020

[COVID-19: guidance for sampling and for diagnostic laboratories](#) - 12 March 2020

[COVID-19: guidance for healthcare providers who have diagnosed a case within their facility](#) - 14 March 2020

World Health Organisation – Rolling Updates

Updated clinical guidance

13 March 2020

Updated [#COVID19](#) clinical guidance covers:

- Early case recognition
- Guidance for care of children, pregnant women, adults & older people
- Managing cases
- Infection prevention & control
- Sample collection & an update on investigational therapeutics

<http://bit.ly/2QhIkKB>

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Key materials

[Interim guidance: Clinical management of severe acute respiratory infection when novel coronavirus \(nCoV\) infection is suspected](#)

WHO, UN Foundation and partners launch first-of-its-kind COVID-19 Solidarity Response Fund

13 March 2020

A new coronavirus disease (COVID-19) Solidarity Response Fund will raise money from a wide range of donors to support the work of the World Health Organization (WHO) and partners to help countries respond to the COVID-19 pandemic. The fund, the first-of-its-kind, enables private individuals, corporations and institutions anywhere in the world to come together to directly contribute to global response efforts, and has been created by the United Nations Foundation and the Swiss Philanthropy Foundation, together with WHO.

Key Materials:

[The COVID-19 Solidarity Response Fund](#)

[Press release](#)

[Audio file of press conference - 13 March](#)

[WHO Director-General's opening remarks at the media briefing on COVID-19 - 13 March 2020](#)

Novel Coronavirus Information Center – Elsevier

Expert guidance and commentary

JAMA Network video: Coronavirus in Italy – Q&A with ICU Physician Maurizio Cecconi of Humanitas University

March 13, 2020

Physicians in Lombardy, Italy, have been overwhelmed by COVID-19 patients requiring critical care. Based on an existing ECMO center network, they developed a network of ICUs to rapidly identify, triage and manage coronavirus-infected patients. In this interview with JAMA Editor-in-Chief Howard Bauchner, MD, Prof. Maurizio Cecconi of Humanitas University in Milan discusses the region's approach to the surge, including clinical and supply management, health worker training and protection, and ventilation strategies. [Watch the video](#)

COVID-19 drug therapy — potential options

Two pharmacists in Elsevier's Clinical Solutions group write about potential treatment options for COVID-19. [Read their paper.](#)

Clinical Overviews on ClinicalKey

Clinical Overviews are easy-to-scan clinically focused medical topic summaries designed to match the clinician workflow. Elsevier's Point-of-Care Editorial team develops Clinical Overviews through a process that includes review and revision by a medical editor; peer reviews performed

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by subject matter experts; a production review to ensure consistency in style, grammar, and punctuation; and a final evaluation by the editor-in-chief.

- [Novel coronavirus \(COVID-19\) infection](#)

Clinical Skills for Nursing

Clinical Skills for Nursing provides the highest quality evidence for nursing practice procedures for nurses to care for patients. Our Isolation Precautions and Personal Protective Equipment checklists align with CDC and OSHA guidelines:

- [Skills checklist “Isolation Precautions and Personal Protective Equipment”](#)
- [Extended text: “Isolation Precautions: Personal Protective Equipment”](#)
- [FAQ based the recommendations made by the CDC and WHO for nurses and patients](#)

Interprofessional Care Plans

These Interprofessional Care Plans provide an evidence-based and individualizable Interprofessional plan of care to manage fever and the possible development of pneumonia, which is consistent with the presentation of this virus. Using an interprofessional approach to patient care that aligns current evidence with the individual needs of the patient results in improved patient care outcomes.

- [Care Plan Guide: Fever — Adult](#)
- [Care Plan Guide: Fever — Pediatric](#)
- [Care Plan Guide: Pneumonia — Adult](#)
- [Care Plan Guide: Pneumonia — Pediatric](#)

Patient engagement resources

Patient engagement resources use plain language to support shared decision-making between patients and healthcare providers. The goal is to deliver the right message in the right way at the time the patient is most ready to learn. The following resources provide an overview of the novel coronavirus to help patients and their families understand their risk, identify signs and symptoms, and prevent it from spreading:

- [Patient Education document “Novel Coronavirus Infection”](#)
- [Video on hand hygiene](#)
- [Video on pneumonia](#)

Wiley Online Library Coronavirus & News

[Care of haematology patients in a COVID-19 epidemic](#)

British Journal of Haematology

Correspondence: "Clustering large groups of vulnerable and potentially unwell patients into waiting areas for phlebotomy has the potential to facilitate the spread of the infection.

Consideration should be given to extending the interval between monitoring blood tests, as the risks, and burdens on the health service of their provision increases."

[COVID-19 and mycoplasma pneumoniae coinfection](#)

Images in Hematology

Accepted article: Clinicians managing patients with COVID-19 infection should be mindful of coinfections with common respiratory pathogens during with COVID-19 outbreak and screen for these with appropriate microbiologic tests.

[Effectiveness of N95 respirators versus surgical masks against influenza: A systematic review and meta-analysis](#)

Journal of Evidence Based Medicine

Article: The use of N95 respirators compared with surgical masks is not associated with a lower risk of laboratory-confirmed influenza. It suggests that N95 respirators should not be recommended for general public and nonhigh-risk medical staff those are not in close contact with influenza patients or suspected patients.

Cochrane Library

Initial resuscitation for hypotension typically includes administration of intravenous fluids, followed by initiation of vasopressors when hypotension persists.

[Liberal versus conservative fluid therapy in adults and children with sepsis or septic shock](#)

Sepsis and septic shock are potentially life-threatening complications of infection that are associated with high morbidity and mortality in adults and children. Fluid therapy is regarded as crucial during initial treatment of sepsis, but it is unclear whether conservative or liberal fluid therapy can improve clinical outcomes in patients with sepsis. This review determines whether liberal versus conservative fluid therapy improves clinical outcomes in adults and children with initial sepsis and septic shock. *Associated CCA: [For children with sepsis or septic shock, how does liberal fluid therapy compare with conservative fluid therapy?](#)*

[Colloids versus crystalloids for fluid resuscitation in critically ill people](#)

Critically ill people may lose fluid because of serious conditions, infections (e.g. sepsis), trauma, or burns, and need additional fluids urgently to prevent dehydration or kidney failure. Colloid or crystalloid solutions may be used for this purpose. Crystalloids have small molecules, are inexpensive, easy to use but may increase oedema. Colloids have larger molecules, cost more, and may provide swifter volume expansion in the intravascular space, but may induce allergic reactions, blood clotting disorders, and kidney failure. This review assesses the effect of using colloids versus crystalloids in critically ill people requiring fluid volume replacement on mortality, need for blood transfusion or renal replacement therapy, and adverse events. *Associated CCA: [How do colloids compare with crystalloids for fluid resuscitation in critically ill people?](#)*

Healthcare Databases

Anti-inflammatory specific

[COVID-19: combining antiviral and anti-inflammatory treatments](#)

The Lancet Infectious Diseases

Comment: Use of this agent in patients with COVID-19 over 7–14 days, for example, suggests side-effects would be trivial.

Side note: New York Times article refutes claim ibuprofen products cause more harm in COVID-19 <https://www.nytimes.com/reuters/2020/03/16/world/europe/16reuters-reckittbenckiser-product.html>

General

[Breadth of concomitant immune responses prior to patient recovery: a case report of non-severe COVID-19](#)

Nature Medicine

Correspondence: “We report the kinetics of immune responses in relation to clinical and virological features of a patient with mild-to-moderate coronavirus disease 2019 (COVID-19) that required hospitalization. Increased antibody-secreting cells (ASCs), follicular helper T cells (TFH cells), activated CD4+ T cells and CD8+ T cells and immunoglobulin M (IgM) and IgG antibodies that bound the COVID-19-causing coronavirus SARS-CoV-2 were detected in blood before symptomatic recovery.” (as seen in BBC News report <https://www.bbc.co.uk/news/world-australia-51921403>)

[Critical Care Utilization for the COVID-19 Outbreak in Lombardy, Italy : Early Experience and Forecast During an Emergency Response](#)

JAMA

Viewpoint: “There was an immediate sharp increase in ICU admissions from day 1 to day 14. The increase was steady and consistent. Publicly available data indicate that ICU admissions (n = 556) represented 16% of all patients (n = 3420) who tested positive for COVID-19. As of March 7, the current total number of patients with COVID-19 occupying an ICU bed (n = 359) represents 16% of currently hospitalized patients with COVID-19 (n = 2217).”

[Budgeting for covid-19: changing the narrative and narrating the change](#)

BMJ

Feature: “It’s the experts—the clinicians—who are on the front line, dealing with the covid-19 pandemic. Good luck, and take care.”

[COVID-19 and *Rationally Layered Social Distancing*](#)

The International Journal of Clinical Practice

Letter “While we will certainly gain more insight into COVID-19 susceptible groups, at this point it appears critical to implement social distancing in a rationally layered manner.”

[The convalescent sera option for containing COVID-19](#)

The Journal of Clinical Investigation

Viewpoint: “This Viewpoint argues that human convalescent serum is an option for prevention and treatment of COVID-19 disease that could be rapidly available when there are sufficient numbers of people who have recovered and can donate immunoglobulin-containing serum.”

[Impact of international travel and border control measures on the global spread of the novel 2019 coronavirus outbreak](#)

Proceedings of the National Academy of Science of the United States of America

Research article: “With most cases arriving during the asymptomatic incubation period, our results suggest that rapid contact tracing is essential both within the epicenter and at importation sites to limit human-to-human transmission outside of mainland China”

[The origin, transmission and clinical therapies on coronavirus disease 2019 \(COVID-19\) outbreak – an update on the status](#)

Military Medical Research

Review: “In this review, we summarized the latest research progress of the epidemiology, pathogenesis, and clinical characteristics of COVID-19, and discussed the current treatment and scientific advancements to combat the epidemic novel coronavirus.”

[Interrupting transmission of COVID-19: lessons from containment efforts in Singapore](#)

Journal of Travel Medicine

Article: “Despite multiple importations resulting in local chains of transmission, Singapore has been able to control the COVID-19 outbreak without major disruption to daily living. In this article, we describe the combination of measures taken by Singapore to contain COVID-19 and share some early lessons learnt from the experience.”

[Case-Fatality Risk Estimates for COVID-19 Calculated by Using a Lag Time for Fatality](#)

Emerging Infectious Diseases

Research letter: “given the residual uncertainties, health sector decision-makers and disease modelers probably should consider a broad range of 0.25%–3.0% for COVID-19 case-fatality risk estimates.”

[Covid-19: UK holds off closing schools and restricts testing to people in hospital](#)

BMJ

News: “John Ashton, former regional director of public health for northwest England, told The BMJ that the government’s response had been “underwhelming” and “negligent.””

[Trainees and covid-19: your questions answered](#)

BMJ

News: “In a joint statement, UK training bodies and the General Medical Council have said that there will be increased requirements for trainees and trainers to support the management of acutely unwell patients”

[What further should be done to control COVID-19 outbreaks in addition to cases isolation and contact tracing measures?](#)

BMC Medicine

MedViews: “In the light that the strategies currently taken by China are beginning to prove effective, it would be of great interest to further discuss what can be learnt from their experience.”

[Evidence of the COVID-19 Virus Targeting the CNS: Tissue Distribution, Host–Virus Interaction, and Proposed Neurotropic Mechanisms](#)

ACS chemical neuroscience

ViewPoint: “In a short time following the outbreak, it has been shown that, similar to SARS-CoV, COVID-19 virus exploits the angiotensin-converting enzyme 2 (ACE2) receptor to gain entry inside the cells.”

[Audio Interview: Making Decisions about Covid-19 Testing and Treatment for Your Patients](#)

New England Journal of Medicine

Editorial: “In this audio interview conducted on March 10, 2020, the editors discuss the care of two hypothetical patients who present with equivocal symptoms.”

[2019 novel coronavirus patients’ clinical characteristics, discharge rate and fatality rate of meta-analysis](#)

Journal of Medical Virology

Review: “The results of single-arm meta-analysis showed that: the male took a larger percentage in the gender distribution of COVID-19 patients 60%[95%CI (0.54,0.65)], the

discharge rate of COVID-19 patients was 42%[95%CI (0.29,0.55)], and the fatality rate was 7%[95%CI (0.04,0.10)].”

[COVID-19 Infection: Early Lessons](#)

Canadian Association of Radiologists Journal

Editorial: “Canadian Association of Radiologists Journal editorial team discussed challenges of prompt detection of the coronavirus infection encountered by radiologists from the First Affiliated Hospital of Shenzhen University, Shenzhen, China”

[Using public health law to contain the spread of COVID-19](#)

British Journal of Nursing

Legal: “To protect the population from infectious and communicable diseases and contamination additional measures are available through the Public Health (Control of Disease) Act 1984 (as amended by the Health & Social Care Act 2008).”

[Implications of COVID-19 for patients with pre-existing digestive diseases](#)

The Lancet Gastroenterology & Hepatology

Comment: Given the use of biologics and immunosuppressive agents, whether patients with inflammatory bowel disease (IBD) are more susceptible to SARS-CoV-2 infection has raised great concern. Currently no patients with IBD have been reported to be infected with SARS-CoV-2 in the IBD Elite Union, which incorporates the seven largest IBD referral centres in China with more than 20 000 patients with IBD

[Preparing for a COVID-19 pandemic: a review of operating room outbreak response measures in a large tertiary hospital in Singapore](#)

Canadian Journal of Anaesthesia

Review: “This article aims to describe the measures taken to address these goals, including identification and set-up of an isolation operating room (OR), modification of workflow and processes, management of staff, and formulation of clinical guidelines for anesthetic management.”

Adults and older patients

[Care for Critically Ill Patients With COVID-19](#)

JAMA Insights

Clinical Update: “Management of severe COVID-19 is not different from management of most viral pneumonia causing respiratory failure (Figure). The principal feature of patients with severe disease is the development of ARDS: a syndrome characterized by acute onset of hypoxemic respiratory failure with bilateral infiltrates”

[Novel Coronavirus \(COVID-19\) Epidemic: What Are the Risks for Older Patients?](#)

Journal of the American Geriatrics Society

Research Letter: “Since COVID-19 seems to have a similar pathogenic potential as SARS-CoV and MERS-CoV,6 older adults are likely to be at increased risk of severe infections, cascade of complications, disability, and death, as observed with influenza and respiratory syncytial virus infections”

[How to balance acute myocardial infarction and COVID-19: the protocols from Sichuan Provincial People’s Hospital](#)

Intensive Care Medicine

Letter: “Unfortunately, the highly contagious COVID-19 pneumonia is obviously affecting the diagnosis and treatment of acute myocardial infarction (AMI) which includes ST-elevated myocardial infarction (STEMI) and non-ST-segment elevation acute myocardial infarction (NSTEMI).”

[Combination of western medicine and Chinese traditional patent medicine in treating a family case of COVID-19 in Wuhan](#)

Frontiers of Medicine

Case Report: "Here we report the first family case of coronavirus disease 2019 (COVID-19) confirmed in Wuhan and treated using the combination of western medicine and Chinese traditional patent medicine Shuanghuanglian oral liquid (SHL)."

[Bearing the brunt of covid-19: older people in low and middle income countries](#)

BMJ

Editorial: "The risk of dying from covid-19 increases with age, and most of the deaths observed are in people older than 60, especially those with chronic conditions such as cardiovascular disease. This has important implications for the way in which public health and clinical responses should be developed. Yet, to date, guidance largely ignores this issue, not only in high income countries,² but in low and middle income countries (LMICs), which contain 69% of the global population aged ≥ 60 and where health systems are weaker and covid-19 could potentially have the greatest impact."

[A Diabetic Patient With 2019-nCoV Infection Who Recovered and Was Discharged From Hospital](#)

Journal of Thoracic Imaging

Research letter: "The imaging findings of the 2019-nCoV infection in our young diabetic patient featured ground-glass opacities and consolidations in both lungs. The lung lesions may involute rapidly during the course. The patient showed improvement both clinically and on computed tomography imaging at discharged after 2 weeks' treatment"

[What are the risks of COVID-19 infection in pregnant women?](#)

The Lancet

Comment: "Previous studies have shown that SARS during pregnancy is associated with a high incidence of adverse maternal and neonatal complications, such as spontaneous miscarriage, preterm delivery, intrauterine growth restriction, application of endotracheal intubation, admission to the intensive care unit, renal failure, and disseminated intravascular coagulopathy., However, pregnant women with COVID-19 infection in the present study had fewer adverse maternal and neonatal complications and outcomes than would be anticipated for those with SARS-CoV-1 infection."

Children and Neonates

[What Does the Coronavirus Disease 2019 \(COVID-19\) Mean for Families?](#)

JAMA Pediatrics

Patient page (advice for USA): "So far, proportionately fewer children have gotten sick in China, and the effects on them have mostly been mild. It is important for families to prepare for spread in the US."

[Detection of Covid-19 in Children in Early January 2020 in Wuhan, China](#)

The New England Journal of Medicine

Correspondence: "This study showed that Covid-19 occurred in children, causing moderate-to-severe respiratory illness, in the early phase of the SARS-CoV-2 outbreak in Wuhan and was associated with ICU admission in one patient."

[A case report of neonatal COVID-19 infection in China](#)

Clinical Infectious Diseases

Case report: "We report a case of neonatal COVID-19 infection in China with pharyngeal swabs tested positive by rRT-PCR assay 36 hours after birth."

[Chest computed tomography in children with COVID-19 respiratory infection](#)

Pediatric Radiology

Article: "We studied children at a large tertiary-care hospital in China, during the period from 28 January 2020 to 8 February 2020, who had positive reverse transcriptase polymerase chain reaction (RT-PCR) for COVID-19. We recorded findings at any chest CT performed in the included children, along with core clinical observations."

Useful Links

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

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

[GOV.UK](#)

[Health protection Scotland](#)

[NHS UK](#)

[Oxford University Press](#)

[Patient.Info](#)

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Alternatively you can contact one of the team directly:

Rebecca.Howes@porthosp.nhs.uk

Aaron.Razack@porthosp.nhs.uk

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For more specific areas of interest within EM we would recommend a literature search or KnowledgeShare bulletin.