

Covid -19 Evidence Update

31/03/2020

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

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Royal College/Society Guidance

Latest information and guidance

Royal College of Emergency Medicine

Covid-19 resources

Royal College of Obstetrics & Gynaecologists

<u>Coronavirus (COVID-19) infection and pregnancy</u> – updated 28th March

Royal College of Paediatrics and Child Health

- <u>COVID-19 guidance for planning paediatric staffing and rotas</u>
- <u>COVID-19 guidance for paediatric services</u> updated 30th March

Royal College of Surgeons

• Saturday 28 March: Assessment of an unwell patient: We have made <u>educational materials available from</u> <u>our CCrISP and START courses</u> openly available to support with COVID-19 challenges.

British Society of Gastroenterology

- <u>BSG, BASL & RCP Guidance for Healthcare Workers with Moderate Risk Inflammatory Bowel Disease and Liver Disease</u>
- <u>BSG expanded consensus advice for the management of IBD during the COVID-19 pandemic update</u> <u>30.03.20</u>

<u>BSG/JAG summary recommendations for PPE in Endoscopy – protecting staff, patients and the PPE supply chain</u>

British Society of Echocardiography

<u>COVID-19 clinical guidance – updated 25 March</u>

British Society for Haematology COVID-19 Updates – updated 30 March

British Society for Rheumatology

COVID-19 updates for members updated 25 March

Combined Intensive Care Society, Association of Anaesthetists, Royal College of Anaesthetists, Faculty of Intensive Care Medicine guidance

Clinical Guidance

Don't forget the Bubbles

An Evidence Summary of Paediatric Covid-19 Literature Executive Summary (updated 26 March)

Epidemiology

Following the initial epidemiological data released from China, it appeared children were significantly less affected by infection with SARS-CoV-2 than their adult counterparts. This was reflected both in total case numbers, but also severity, with very few cases in young children and no deaths in children under 10yrs in the initial report. This finding has been reproduced in subsequent data from other countries, most notably Italy, which showed much lower rates of infection in children and no deaths in those under 30 years of age. Some concerns exist that low case rates reflect selective testing of only the most unwell, however data from South Korea which has undertaken widespread community testing has also demonstrated significantly lower case numbers in children.

More detailed information has emerged from China into childhood severity of COVID-19. A large number of children appear asymptomatic. Critical illness was very rare (0.6%) and concentrated in the youngest infants. It should be noted that large numbers of "suspected" cases in this group leave room for a significant number of illnesses to have been caused by other, familiar respiratory viruses.

To date, deaths remain extremely rare in children from COVID-19, with only a handful of reported cases.

Transmission

Precise details regarding paediatric transmission remain unclear. Low case numbers in children suggest a more limited role than was initially feared. Contact tracing data from Shenzen in China demonstrated an equivalent attack rate in children as adults, however this has been contradicted by subsequent data in Japan which showed a significantly lower attack rate in children. This, coupled with low case numbers

would suggest at least that children are less likely to acquire the disease. The role of children in passing the disease to others is unknown, in particular given large numbers of asymptomatic cases. Notably, the China/WHO joint commission could not recall episodes during contact tracing where transmission occurred from a child to an adult. A recent modelling study from the London School of Hygiene and Tropical Medicine (pre-print, not peer reviewed) however has suggested the most plausible explanation for low case rates was that children are more likely to be asymptomatic, rather than less likely to acquire the disease.

Several studies have now shown that SARS-CoV-2 can be detected by PCR in the stool of affected infants for several weeks after symptoms have resolved. This has raised the possibility of faecal-oral transmission. It remains unclear whether this detection represents live virus, or viral genetic debris. Further studies will be needed to shed further light on this.

Clinical features

A significant proportion of children with COVID-19 do not appear to develop any symptom, or have subclinical symptoms. In the absence of widespread community or serological testing, it is uncertain what this proportion is. The most detailed paediatric population data from China showed 13% of confirmed cases had no symptoms (cases detected by contact tracing). Considering both confirmed and suspected cases, 32% of children aged 6-10yrs were asymptomatic.

Clinical features in symptomatic children are somewhat different to adults. Children tend to have more mild illness. The most common presenting features are cough and fever, occurring in over half of symptomatic patients. Upper respiratory tract symptoms such as rhinorrhoea and sore throat are also relatively common, occurring in 30-40% of patients. It is not uncommon for children to have diarrhoea and/or vomiting (around 10% of cases), even in some cases as their sole presenting features.

Blood tests also show slightly different features to adults. Lymphocytopaenia is relatively rare in children, with the majority having normal or sometimes raised lymphocyte counts. Inflammatory markers such as CRP and Procalcitonin are often raised but only very mildly. Slight elevations in liver transaminases appears common.

Radiographic features in children are also somewhat different to their adult counterparts. Chest X-rays are often normal, and many CT chest scans are also normal. When present abnormalities are often less severe, however a reasonable number of children have bilateral pneumonia. Changes may be found on CT even in asymptomatic children. Common features in abnormal CT scans include mild, bilateral ground glass opacities, but with less peripheral predominance than is reportedly found in adults.

There appears to be little in the way of clinical signs in children to differentiate COVID-19 from other childhood respiratory virus infections.

Newborns

A number of case reports have been published looking at the outcomes of pregnant mothers with COVID-19 and their newborn babies, with nearly 50 cases of infants now reported. Mothers and their babies in general appear to do well. As yet, cord blood, amniotic fluid and placental swabs persistently testing negative for SARS-CoV-2. There has been a single case of an infant delivered to a mother with COVID-19, who had elevated SARS-CoV-2 IgM, which may indicate intrauterine transmission. The vast majority of newborns have not acquired COVID-19 themselves. There have been case reports of newborns and very young infants testing positive (one at 36hrs of age) however they have not suffered any complications of the disease and required minimal respiratory support. One case series has described 10 infants delivered prematurely via emergency caesarean section who had a more difficult neonatal course, including one death with disseminated intravascular coagulation. All of these infants tested negative for SARS-CoV-2, and the reason for their premature delivery is unclear from the report.

Children with comorbidities

There is little clinical data to inform us on the effect of COVID-19 on children with other comorbidities. Some data has been published from a liver transplant unit in Lombardy, Italy, which had 3 cases of COVID-19 in post-transplant patients who all suffered very mild symptoms.

Conclusion

COVID-19 appears to affect children less often, and with less severity, including frequent asymptomatic or subclinical infection. There is evidence of critical illness, but it is rare. The role of children in transmission is unclear, but it seems likely they do not play a significant role. Changes in laboratory or radiographic parameters are slightly different to adults, and changes usually mild. There is no evidence of vertical transmission, and early evidence suggests both infected mothers and infants are no more severely affected than other groups. Early evidence suggests no significant increased risk for children with immunosuppression, but further data is needed.

Dynamed Plus - COVID-19 (Novel Coronavirus)

Latest updates

27 MAR 2020

462,684 confirmed cases of coronavirus disease 2019 (COVID-19) including 20,834 deaths worldwide reported by World Health Organization (WHO) as of March 26, 2020 (WHO Situation Report 2020 Mar 26) <u>View in topic</u>

24 MAR 2020

wide spectrum of clinical features and disease severity reported in children with SARS-CoV2-infection in China (N Engl J Med 2020 Mar 18 early online) View in topic

24 MAR 2020

addition of lopinavir/ritonavir to standard care may not shorten time to clinical improvement or decrease 28-day mortality in adults hospitalized with severe COVID-19 (N Engl J Med 2020 Mar 18 early online) <u>View in topic</u>

Public Health England

COVID-19: investigation and initial clinical management of possible cases - 27 March 2020

COVID-19: infection prevention and control - 27 March 2020

COVID-19: background information - 27 March 2020

COVID-19: guidance for sampling and for diagnostic laboratories - 28 March 2020

<u>COVID-19: evaluation of commercially available diagnostic products</u> - 27 March 2020 <u>COVID-19: guidance for households with possible coronavirus infection</u> - 24 March 2020 <u>COVID-19: guidance for the public on mental health and wellbeing</u> - 29 March 2020 <u>COVID-19: guidance on supporting children and young people's mental health and wellbeing</u> - 29 March 2020

<u>COVID-19: guidance on shielding and protecting people defined on medical grounds as extremely</u> <u>vulnerable</u> - 24 March 2020

World Health Organisation – Rolling Updates

Off-label use of medicines for COVID-19 25 March 2020

No pharmaceutical products have yet been shown to be safe and effective for the treatment of COVID-19. However, a number of medicines have been suggested as potential investigational therapies, many of which are now being or will soon be studied in clinical trials, including the SOLIDARITY trial co-sponsored by WHO and participating countries.

In many countries, doctors are giving COVID-19 patients medicines that have not been approved for this disease. The use of licensed medicines for indications that have not been approved by a national medicines regulatory authority is considered "off-label" use. The prescription of medicines for off-label use by doctors may be subject to national laws and regulations. All health care workers should be aware of and comply with the laws and regulations governing their practice. Further, such prescribing should be done on a case-by-case basis. Unnecessary stockpiling and the creation of shortages of approved medicines that are required to treat other diseases should be avoided.

It can be ethically appropriate to offer individual patients experimental interventions on an emergency basis outside clinical trials, provided that no proven effective treatment exists; it is not possible to initiate clinical studies immediately; the patient or his or her legal representative has given informed consent; and the emergency use of the intervention is monitored, and the results are documented and shared in a timely manner with the wider medical and scientific community.[1]

The decision to offer a patient an unproven or experimental treatment is between the doctor and the patient but must comply with national law. Where it is possible and feasible for the treatment to be given as part of a clinical trial, this should be done unless the patient declines to participate in the trial.

If it is not possible to give the treatment as part of a clinical trial, appropriate records of the use of the medicine must be kept, in compliance with national law, and outcomes for patients should be monitored and recorded. If early results from an unproven or experimental treatment are promising, the treatment should be studied in the context of a formal clinical trial to establish its safety, efficacy, risks, and benefits.

Novel Coronavirus Information Center – Elsevier

Early-stage research Preprints on SSRN

Emerging and rapidly evolving healthcare emergencies necessitate the quick dissemination of research. The growing role of preprints, or early-stage research, was acknowledged in the Ebola and Zika virus outbreaks as a way of "accelerating the dissemination of scientific findings to support responses to infectious disease outbreaks."

<u>SSRN</u>, Elsevier's world-leading platform devoted to the rapid worldwide dissemination of early-stage research, is committed to making authors' coronavirus related research available immediately. Research on SSRN is free to download and upload. It is important to note that these papers have not benefited from the pivotal role of the peer-review process, which validates and improves the quality of final published journal articles.

- <u>The Abnormal ACE2 Expression Correlated with Immune Infiltration May Worsen Progression After</u> <u>SARS-CoV-2 Infection in UCEC and KIRP</u>, *Preprints with The Lancet* (March 26, 2020)
- <u>Self-Reported Depression of Cancer Patients Under 2019 Novel Coronavirus Pandemic</u>, *Preprints with The Lancet* (March 26, 2020)
- <u>The Impact of School Closure for COVID-19 on the US Healthcare Workforce and the Net Mortality</u> <u>Effects</u>, *Preprints with The Lancet* (March 26, 2020)
- <u>The Research of Mental Health Status Among Medical Personnel in China: A Cross-Sectional</u> <u>Study</u>, *Preprints with The Lancet* (March 26, 2020)
- <u>Tropism of the Novel Coronavirus SARS-CoV-2 in Human Respiratory Tract: An Analysis in Ex Vivo</u> and In Vitro Cultures, *Preprints with The Lancet* (March 25, 2020)
- <u>The First Report of the Prevalence of COVID-19 in Chronic Myelogenous Leukemia Patients in the</u> <u>Core Epidemic Area of China: A Multicentre, Cross-Sectional Survey</u>, *Preprints with The Lancet* (March 25, 2020)

Wiley Online Library Coronavirus & News

Adult

Safe Delivery for COVID-19 Infected Pregnancies

BJOG

"On the basis of knowledge obtained from a previous coronavirus outbreak², pregnant women are believed to be susceptible to this virus. Once a maternal infection of COVID-19 is suspected or confirmed, childbirth becomes complicated and challenging."

Maternal health care management during the outbreak of coronavirus disease 2019 (COVID-19)

Journal of Medical Virology

"Here, we present the managing processes of three pregnant women that had a fever during hospitalization at gynecology or obstetrics department, then further summarize and demonstrate our maternal health care management strategies including antenatal care planning, patient triage based on risk level, admission control, and measures counteracting emergencies and newly discovered high risk cases at in-patient department."

<u>ISUOG Safety Committee Position Statement: safe performance of obstetric and gynecological scans and equipment</u> <u>cleaning in the context of COVID-19</u>

Ultrasound in Obstetrics & Gynecology

confirmed cases of COVID-19."

"The guidance assumes that robust local processes are in place for cleaning ultrasound equipment after each patient routinely, and gives specific recommendations for ultrasound examinations in suspected or

How to perform lung ultrasound in pregnant women with suspected COVID-19 infection

Ultrasound in Obstetrics & Gynecology

"We propose a practical approach for obstetricians/gynecologists to perform lung ultrasound, showing potential applications, semiology and practical aspects, which should be of particular importance in emergency situations, such as the current pandemic infection of COVID-19."

Coronavirus Disease 2019 in Geriatrics and Long-term Care: The ABCDs of COVID-19

Journal of the American Geriatrics Society

"In this article we provide information, insights, and recommended approaches to COVID-19 in the long-term facility setting. Since the situation is fluid and changing rapidly, readers are encouraged to access the resources cited in this article frequently"

Pragmatic Recommendations for Intubating Critically III Patients with Suspected COVID-19

JACEP Open

"While basic airway management principles apply to known or suspected COVID patients as they do with other critically ill patients needing intubation, there are important considerations and practical modifications that should be instituted. We present pragmatic multidisciplinary recommendations for airway management in these patients."

Leukoerythroblastic reaction in a patient with COVID-19 infection

American Journal of Hematology

"Although we are only reporting the findings of a single patient with COVID-19, our aim is to describe the unusual finding of leukoerythroblastosis in this viral infection. We cannot definitively conclude that our findings are secondary to infection with COVID-19"

Anticoagulant treatment is associated with decreased mortality in severe coronavirus disease 2019 patients with coagulopathy

Journal of Thrombosis and Haemostasis

"Anticoagulant therapy mainly with LMWH appears to be associated with better prognosis in severe COVID-19 patients meeting SIC criteria or with markedly elevated D-dimer."

Early antiviral treatment contributes to alleviate the severity and improve the prognosis of patients with novel coronavirus disease (COVID-19)

Journal of Internal Medicine

"The elderly and patients with underlying diseases are more likely to experience a severe progression of COVID-19. It is recommended that timely antiviral treatment should be initiated to slow the disease progression and improve the prognosis."

Perioperative Presentation of COVID-19 Disease in a Liver Transplant Recipient

Hepatology

"Here, we report the case of a patient with hepatocellular carcinoma (HCC) who underwent liver transplantation and experienced COVID-19 infection during the perioperative period."

General

Prevention of pathogen transmission during ultrasound use in the Intensive Care Unit: Recommendations from the College of Intensive Care Medicine Ultrasound Special Interest Group (USIG) Australasian Journal of Ultrasound in Medicine "This purpose of this document is to adapt and expand the 2017 ASUM/ACIPC guidelines to the specifics of intensive care medicine and provide advice to the ICU practitioners and health care administrators. It considers the medical, administrative, financial and practical controversies surrounding implementation, and addresses emerging issues of care for patients with confirmed or suspected Corona Virus Disease 2019 (COVID-19)."

Life in the pandemic: some reflections on nursing in the context of COVID-19

Journal of Clinical Nursing

Editorial "we see reports that nurses in many parts of the world are grappling with shortages of much needed supplies including personal protective equipment such as masks, gloves and gowns, yet are actively embracing the challenges presented by COVID-19."

Covid-19 and the Digestive System

Journal of Gastroenterology and Hepatology

"Studies have identified the SARS-CoV-2 RNA in stool specimens of infected patients, and its viral receptor angiotensin converting enzyme 2 (ACE2) was found to be highly expressed in gastrointestinal epithelial cells. These suggest that SARS-CoV-2 can actively infect and replicate in the gastrointestinal tract."

Gastrointestinal endoscopy during COVID-19 pandemic

Journal of Gastroenterology and Hepatology

"For confirmed or suspected cases of COVID-19 infection needing emergency endoscopy, the use of powered, air-purifying respirator (PAPR) in addition to N95 mask will provide an additional safety barrier if it is available, and is currently practiced in Singapore"

ISTH interim guidance on recognition and management of coagulopathy in COVID-19

Journal of Thrombosis and Haemostasis

"The aim of this guidance document is to provide a risk stratification at admission for a COVID-19 patient and management of coagulopathy which may develop in some of these patients, based on easily available laboratory parameters."

Cutaneous manifestations in COVID-19: a first perspective

Journal of the European Academy of Dermatology and Venereology Letter to the editor from Italy: "From the collected data 18 patients developed cutaneous manifestations"

Alcohol and isolation: Experts comment on drinking behavior during COVID-19

Alcoholism & Drug Abuse Weekly

Bottom Line...

Alcohol relieves stress, temporarily, and people are probably using it now — and using too much of it.

Advice regarding COVID-19 and use of immunomodulators, in patients with severe dermatological diseases

Australasian Journal of Dermatology

"There is very limited evidence base to formulate specific advice for dermatology patients on immunomodulators with regards to COVID-19. The following is based on expert opinion, taking into account known risks of influenza (a negative sense single-stranded RNA virus) and other, positive-sense single-stranded, RNA virus infections (such as SARS, MERS, and the common cold)."

COVID-19 and the otolaryngologist – preliminary evidence-based review

The Laryngoscope

"Otolaryngologists are at unique risk due to the close contact with mucus membranes of the upper respiratory tract and have been among the most affected healthcare workers in Wuhan, China."

Cochrane Library

Coronavirus (COVID-19): evidence relevant to critical care

Healthcare Databases

Children and Neonates

Clinical Characteristics of Children with Coronavirus Disease 2019 in Hubei, China

Current Medical Science

"It was concluded that children were susceptible to COVID-19 like adults, while the clinical presentations and outcomes were more favorable in children. However, children less than 3 years old accounted for majority cases and critical cases lied in this age group, which demanded extra attentions during home caring and hospitalization treatment."

Antibodies in Infants Born to Mothers With COVID-19 Pneumonia

JAMA

Research letter: "Among 6 mothers with confirmed COVID-19, SARS-CoV-19 was not detected in the serum or throat swab by RT-PCR in any of their newborns. However, virus-specific antibodies were detected in neonatal blood sera samples"

<u>Neonatal Early-Onset Infection With SARS-CoV-2 in 33 Neonates Born to Mothers With COVID-19 in Wuhan, China</u> JAMA Pediatrics

Research Letter: "Consistent with previous studies, the clinical symptoms from 33 neonates with or at risk of COVID-19 were mild and outcomes were favorable"

Healthcare workers

Special attention to nurses' protection during the COVID-19 epidemic

Critical Care

"Our hospital has maintained a "zero nurse infection" rate while battling SARS in 2003 and during the present COVID-19 epidemic. The following are the key measures implemented in our hospital."

COVID-19 – what should anaethesiologists and intensivists know about it?

Anaesthesiology Intensive Therapy

"The article presents basic information about etiology, pathogenesis and diagnostics (with particular emphasis on the importance of tomocomputer imaging), clinical picture, treatment and prevention of the infection. It goes on to emphasize the specific risks of providing anesthesiology and intensive care services."

Letter to editor: Role of masks/respirator protection against 2019-novel coronavirus (COVID-19)

Infection Control & Hospital Epidemiology

"Of note, 10 of 213 medical staffs with no mask were infected by COVID-19 while 0 of 278 wearing N95 respirators was infected (6). Interestingly, a higher risk of infection was noticed in male professionals"

Factors Associated With Mental Health Outcomes Among Health Care Workers Exposed to Coronavirus Disease 2019

JAMA Network Open

"In this cross-sectional study of 1257 health care workers in 34 hospitals equipped with fever clinics or wards for patients with COVID-19 in multiple regions of China, a considerable proportion of health care workers reported experiencing symptoms of depression, anxiety, insomnia, and distress, especially women, nurses, those in Wuhan, and front-line health care workers directly engaged in diagnosing, treating, or providing nursing care to patients with suspected or confirmed COVID-19."

Lack of SARS-CoV-2 RNA environmental contamination in a tertiary referral hospital for infectious diseases in Northern Italy.

Journal of Hospital Infection

"At the time of writing no cases of COVID-19 has been detected in the staff involved in the patient care. While this of course does not exclude the risk of transmission, it does provide evidence that the protective measures

implemented in our setting significantly decrease the risk of environmental contamination and reduce concerns over healthcare workers contamination and infection, at least from inanimate surfaces in areas that are either preserved as clean or decontaminated."

Protecting healthcare personnel from 2019-nCoV infection risks: lessons and suggestions

Frontiers of Medicine

"Based on literature search and interviews with some HCP working at Wuhan, capital city of Hubei, we have summarized some of the effective measures taken to reduce infection among HCP, and also made suggestions for improving occupational safety during an infectious disease outbreak"

Covid-19: Protecting Worker Health

Annals of Work Exposures and Health

"There is the potential that wearing masks may discourage people from touching their face or, conversely, could increase such activity due to frequent moving of the mask, unconscious 'fidgeting' or from irritation of the area around the nose and mouth: there is a need for research to examine the frequency of hand to peri-oral contact during mask wearing in different environmental situations."

<u>Management strategy of novel coronavirus (COVID-19) pneumonia in the radiology department: a Chinese experience</u>

Diagnostic and Interventional Radiology

"Imaging, especially CT and x-ray, plays a critical role in the diagnosis of COVID-19 pneumonia and triage of patients for appropriate management. It is critical to make sure that suspected or confirmed COVID-19 patients are scanned and diagnosed safely. In doing so, available guidelines have to be applied strictly."

The Rheumatologist's Role in Covid-19

The Journal of Rheumatology

"Similar to deadly flu outbreaks, such as 2009 H1N1 influenza, SARS-CoV-2 appears to trigger a cytokine storm in a subset of individuals. Interestingly, in a cohort of patients who died from 2009 H1N1 influenza, 36% percent harbored one or two different heterozygous familial HLH gene mutations critical to the perforin pathway of lymphocyte mediated target cell lysis"

<u>Critical Organizational Issues for Cardiologists in the COVID-19 Outbreak: A Frontline Experience From Milan, Italy</u> Circulation

"In this context, cardiologists' clinical activities have been reorganized into two teams; those taking care of cardiovascular emergencies and those focusing on the management of cardiovascular comorbidities and myocardial involvement in critical COVID-19 patients."

Perioperative COVID-19 Defense - An Evidence-Based Approach for Optimization of Infection Control and Operating Room Management

Anesthesia & Analgesia

"Do not have patients go into a large, pooled phase I post-anesthesia care unit, because of the risk of contaminating facility at large along with many staff. Instead, have most patients recover in the room where they had surgery, like done routinely in Japan."

Videolaryngoscopy increases 'mouth-to-mouth' distance compared with direct laryngoscopy

Anaesthesia

Correspondence: "We conclude that VL significantly extends the 'mouth-to-mouth' distance from laryngoscopist to patient compared with DL, and places the laryngoscopist's face above the direct line of sight to the pharynx."

Pregnancy

Experience of Clinical Management for Pregnant Women and Newborns with Novel Coronavirus Pneumonia in Tongji Hospital, China Current Medical Science "This article focused on the issues of greatest concern of pregnant women including severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection diagnostic criteria, inspection precautions, drug treatment options, indications and methods of termination of pregnancy, postpartum fever, breastfeeding considerations, mode of mother-to-child transmission, neonatal isolation and advice on neonatal nursing, to provide valuable experience for better management of SARS-CoV-2 infection in pregnant women and newborns."

Possible Vertical Transmission of SARS-CoV-2 From an Infected Mother to Her Newborn

JAMA

Research letter: "A neonate born to a mother with COVID-19 had elevated antibody levels and abnormal cytokine test results 2 hours after birth. The elevated IgM antibody level suggests that the neonate was infected in utero."

Clinical analysis of pregnant women with 2019 novel coronavirus pneumonia

Journal of Medical Virology

"To evaluate the pregnant women infected with coronavirus disease 2019 (COVID-19) and provide help for clinical prevention and treatment"

Adults and older patients

Cardiac Involvement in a Patient With Coronavirus Disease 2019 (COVID-19)

JAMA Cardiology

In this case report, an otherwise healthy 53-year-old patient developed acute myopericarditis with systolic dysfunction confirmed on cardiac magnetic resonance imaging a week after onset of fever and dry cough due to COVID-19.

Potential Effects of Coronaviruses on the Cardiovascular System

JAMA Cardiology

"Coronavirus disease 2019 is associated with a high inflammatory burden that can induce vascular inflammation, myocarditis, and cardiac arrhythmias."

Case-Fatality Rate and Characteristics of Patients Dying in Relation to COVID-19 in Italy

JAMA

"In conclusion, the current data illustrate that Italy has a high proportion of older patients with confirmed COVID-19 infection and that the older population in Italy may partly explain differences in cases and case-fatality rates among countries."

Mediastinal Emphysema, Giant Bulla, and Pneumothorax Developed during the Course of COVID-19 Pneumonia

Korean Journal of Radiology

"This case, occurring in the epicenter of the COVID-19 pneumonia outbreak, illustrates the potential severity of this disease. Serial follow-up chest CT showed the progression of the pulmonary lesions into confluent bilateral consolidation with a lower lung predominance."

Renin-Angiotensin System Blockers and the COVID-19 Pandemic

Hypertension

"At Present There Is No Evidence to Abandon Renin-Angiotensin System Blockers"

An Acute Respiratory Infection Runs Into the Most Common Noncommunicable Epidemic—COVID-19 and

Cardiovascular Diseases

JAMA Cardiology

"Dyspnea and fatigue, 2 cardinal symptoms of heart failure, are very common in patients with COVID-19, particularly in its severe stages"

COVID-19 pandemic: palliative care for elderly and frail patients at home and in residential and nursing homes

Swiss Medical Weekly

"In spite of any ban on visits to care homes, relatives must be offered the chance to be with the patient and say goodbye, while complying with protective measures. They should also receive appropriate support."

COVID-19: decision making and palliative care

Swiss Medical Weekly

"The COVID-19 pandemic, at its foreseeable peak, is likely to surpass the capacity of the Swiss health care system, particularly with regard to ICU beds (ICU stays are usually longer than a week). If no effective treatment is found quickly, triage decisions will have to be taken concerning access to hospitals and ICUs. To maximize numbers of lives saved, the triage should give best possibilities to those patients who have the highest probability to benefit from intensive care."

<u>Recommendations for the admission of patients with COVID-19 to intensive care and intermediate care units (ICUs and IMCUs)</u>

Swiss Medical Weekly

Guidance from the Swiss Society of Intensive Care Medicine

Elevated plasmin(ogen) as a common risk factor for COVID-19 susceptibility

Physiology Reviews

"Patients with hypertension, diabetes, coronary heart disease, cerebrovascular illness, COPD, and kidney dysfunction have worse clinical outcomes when infected with SARS-CoV-2, for unknown reasons. The purpose of this review is to summarize the evidence for the existence of elevated plasmin(ogen) in COVID-19 patients with these comorbid conditions."

End-of-life care in the Emergency Department for the patient imminently dying of a highly transmissible acute respiratory infection (such as COVID-19)

Canadian Journal of Emergency Medicine

"This document and the associated appendices provide a framework for end of-life care that focuses on symptom management as well as minimizing risks of transmission to healthcare providers."

Urgent need of a management plan for survivors of COVID-19

European Respiratory Journal

"it is likely that similarly to patients with exacerbations of COPD and/or community acquired pneumonia, the survivors of COVID will be at high risk of cardiovascular events and mortality following the acute phase of the disease."

Comorbidity and its impact on 1590 patients with Covid-19 in China: A Nationwide Analysis

European Respiratory Journal

"None of the cases had physician-diagnosed asthma. At least one comorbidity was seen more commonly in severe cases than in non-severe cases (32.8% versus 10.3%). Patients with at least one comorbidity were older (mean: 60.8 versus 44.8 years), were more likely to have shortness of breath (41.4% versus 17.8%), nausea or vomiting (10.4% versus 4.3%), and tended to have abnormal chest X-ray manifestations (29.2% versus 15.1%)"

Management of Critically III Adults With COVID-19

JAMA

"The panel issued a suggestion against the routine use of systematic corticosteroids for respiratory failure without ARDS in COVID-19, but issued a suggestion for use in patients with ARDS. One retrospective, non-peer-reviewed report of 46 patients6 suggested treatment with methylprednisolone, 1 to 2 mg/kg/d for 5 to 7 days, was associated with a reduction in duration of fever and the need for supplemental oxygen"

General

Simulation as a tool for assessing and evolving your current personal protective equipment: lessons learned during the coronavirus disease (COVID-19) pandemic

Canadian Journal of Anesthesia

Correspondence: "Simulation was a powerful tool to test and adapt PPE that has significantly enhanced provider safety compared with baseline recommendations."

Non-steroidal anti-inflammatory drugs and covid-19

BMJ

"reasonable evidence exists of a link between NSAIDs and both respiratory and cardiovascular adverse effects in several settings, but so far we have no evidence relating specifically to people with covid-19"

A War on Two Fronts: Cancer Care in the Time of COVID-19

Annals of Internal Medicine

"the potential for increased vulnerability to adverse outcomes from COVID-19 after oncologic treatments, such as surgery, systemic chemotherapy, or radiation therapy, must be considered."

Use of in situ simulation to evaluate the operational readiness of a high-consequence infectious disease intensive

care unit

Anaesthesia

"We recommend that staff working in clinical areas expected to receive patients with COVID-19 conduct in-situ simulation in order to detect their own unique risks and aid in the creation of local guidelines of management of patients with COVID-19."

Consensus guidelines for managing the airway in patients with COVID-19

Anaesthesia

"The fundamental principles of airway management in these settings are described for: emergency tracheal intubation; predicted or unexpected difficult tracheal intubation; cardiac arrest; anaesthetic care; and tracheal extubation."

The Italian coronavirus disease 2019 outbreak: recommendations from clinical practice

Anaesthesia

"we describe key elements of clinical management, including: safe oxygen therapy; airway management; personal protective equipment; and non-technical aspects of caring for patients diagnosed with coronavirus disease 2019."

Turbulent Gas Clouds and Respiratory Pathogen Emissions - Potential Implications for Reducing Transmission of COVID-19

JAMA Insights

"In the latest World Health Organization recommendations for COVID-19, health care personnel and other staff are advised to maintain a 3-foot (1-m)^b distance away from a person showing symptoms of disease, such as coughing and sneezing."

Are certain drugs associated with enhanced mortality in COVID-19?

QJM

"Through their mechanism of action, by ARBs increasing viral entry and statins increasing IL-18 levels, these drugs might synergistically promote severe pneumonia, ARDS, and death in the setting of COVID-19, particularly in older individuals who are more likely to be taking these drugs"

Controversies about COVID-19 and anticancer treatment with immune checkpoint inhibitors

Future Medicine

"In the recent weeks, in the countries heavily interested by the COVID-19 outbreak, such as Italy, the scientific associations recommended the prudential postponing of active cancer treatments, especially for stable patients not needing urgent interventions"

Screening of faecal microbiota transplant donors during the COVID-19 outbreak: suggestions for urgent updates from an international expert panel

Lancet Gastroenterology and Hepatology

"To prevent SARS-CoV-2 transmission, we propose additions to the current donor screening measures. In all countries, before each donation, physicians should screen for two main items: the presence of typical COVID-19 symptoms (including fever, fatigue, dry cough, myalgia, dyspnoea, and headache) within the previous 30 days; and the donor's history of travel to regions known to be affected by COVID-19 or close contact with individuals with proven or suspected infection, within the previous 30 days."

Autopsy in suspected COVID-19 cases

Journal of Clinical Pathology

"It includes a description of hazard group 3 organisms to which SARS-CoV-2 has been assigned, a brief description of what is currently known about the pathological and autopsy findings in COVID-19, a summary of the recommendations for conducting autopsies in suspected COVID-19 cases and the techniques for making the diagnosis at autopsy."

Practical laboratory considerations amidst the COVID-19 outbreak: early experience from Singapore

Journal of Clinical Pathology

"The aim of this article is to present our tertiary institution's early experience with managing this emerging crisis and offer practical considerations for the preanalytical, analytical and postanalytical phases of laboratory testing in this cohort of patients."

Hydroxychloroquine and azithromycin as a treatment of COVID-19: results of an open-label non-randomized clinical trial

International Journal of Antimicrobial Agents

"Despite its small sample size our survey shows that hydroxychloroquine treatment is significantly associated with viral load reduction/disappearance in COVID-19 patients and its effect is reinforced by azithromycin"

Laboratory Diagnosis of Emerging Human Coronavirus Infections — The State of the Art

Emerging Microbes & Infections

"Wang et al have just reported that the OP 8 swabs (n=398) were used much more frequently than in NP swabs (n=8) in China during the COVID-19 outbreak; however, the SARS-CoV-2 RNA was detected only in 32% of OP swabs, which was significantly lower than that in NP swabs (63%). The US CDC recommends collecting only the upper respiratory nasopharyngeal (NP) swab."

Hypothesis for potential pathogenesis of SARS-CoV-2 infection—a review of immune changes in patients with viral pneumonia

Emerging Microbes & Infections

"Combined with the published literature, the potential pathogenesis of COVID-19 is inferred, and the treatment recommendations for giving high-doses intravenous immunoglobulin and low-molecular-weight heparin anticoagulant therapy to severe type patients are proposed."

Comprehensive analysis for diagnosis of novel coronavirus disease (COVID-19) infection

Journal of Infection

"RT-PCR results, chest CT features, clinical manifestation, laboratory results, and exposure history should be made a comprehensive analysis to diagnose COVID-19 infection for the clinical decisions beyond clinical and radiological features."

Viral dynamics in mild and severe cases of COVID-19

The Lancet Infectious Diseases

"The mean viral load of severe cases was around 60 times higher than that of mild cases, suggesting that higher viral loads might be associated with severe clinical outcomes."

<u>Updated approaches against SARS -CoV – 2</u>

Antimicrobial agents and chemotherapy

"More than 15 potential vaccine candidates of COVID -19 are being developed 202 around the world, including inactivated vaccine, recombinant subunits vaccine, 203 nucleic acid -based vaccine , adenoviral vector vaccine , recombinant influenza viral 204 vector vaccine, etc"

Predicting the angiotensin converting enzyme 2 (ACE2) utilizing capability as the receptor of SARS-CoV-2

Microbes and Infection

"We have shown that, besides currently confirmed ACE2s utilized by SARS-CoV-2, pangolin, cat, cow, buffalo, goat, sheep and pigeon ACE2s might be utilized by SARS-CoV-2, indicating potential interspecies transmission of the virus from bats to these animals and among these animals."

Practical considerations for performing regional anesthesia: lessons learned from the COVID-19 pandemic

Canadian Journal of Anesthesia

"This article explores the practical considerations and recommended measures for performing regional anesthesia in this group of patients, focusing on control measures geared towards ensuring patient and staff safety, equipment protection, and infection prevention."

Translating COVID-19 Pandemic Surge Theory to Practice in the Emergency Department: How to Expand Structure

Disaster Medicine and Public Health Preparedness

"A checklist was created to guide the Emergency Department team's COVID-19 surge structural response."

Useful Links

BMJ – latest news and resources for COVID-19

European Centre for Disease Prevention and Control

<u>GOV.UK</u>

Health protection Scotland

<u>NHS UK</u>

Oxford University Press

Patient.Info

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

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