COVID-19: Topic Update

This topic update signposts to a range of open access resources. Most of the resources are free but some may require an OpenAthens sign-in. If you don’t have open Athens account you can [register here].

DynaMed topic update - COVID-19 (Novel Coronavirus) password free access available on the intranet

BMJ Best Practice topic update - password free access available on the intranet

Department of Health & Social Care: COVID-19: guidance for health professionals

Coronavirus (COVID-19): UK government response
Policy paper - Coronavirus (COVID-19) action plan

Cochrane Library Special Collections
- Coronavirus (COVID-19): infection control and prevention measures
- Coronavirus (COVID-19): evidence relevant to critical care
Coronavirus (COVID-19) infection and pregnancy
Guidance for healthcare professionals on Coronavirus (COVID-19) infection in pregnancy, published by the RCOG, Royal College of Midwives, Royal College of Paediatrics and Child Health, Public Health England and Health Protection Scotland.

Finding the Evidence: Coronavirus
Public Health England Knowledge and Library Services Team (KLS) has produced a web page to help those, working on the current coronavirus outbreak, embed evidence-informed decision-making in their daily practice.

Publisher links to the various resource centres - freely available:

Lancet – COVID-19 Resource Centre
Elsevier Resource centre
Springer Nature
Wiley
NEJM
BMJ
American Society for Microbiology
Oxford University Press

GIDEON (Global Infectious Diseases and Epidemiology Online Network) (Please note that the link to GIDEON is in the menu bar at the top, not in the list of Ovid products)
In the context of the spread of COVID19, this resource provides a tracker to identify areas and countries with cases and the number of cases, epidemiological reports, and clinical information. Access is enabled for all NHS Athens accounts nationally until end of April.

Some Published articles

Author(s) Zhang, Lei; Liu, Yunhui
Source Journal of medical virology; Feb 2020
Abstract
An outbreak of a novel coronavirus (COVID-19 or 2019-CoV) infection has posed significant threats to international health and the economy. In the absence of treatment for this virus, there is an urgent need to find alternative methods to control the spread of disease. Here, we have conducted an online search for all treatment options related to coronavirus infections as well as some RNA-virus infection and we have found that general treatments, coronavirus-specific treatments, and antiviral treatments should be useful in fighting COVID-19. We suggest that the nutritional status of each infected patient should be evaluated before the administration of general treatments and the current children’s RNA-virus vaccines including influenza vaccine should be immunized for uninfected people and health care workers. In addition, convalescent plasma should be given to COVID-19 patients if it is available. In conclusion, we suggest that all the potential interventions be implemented to control the emerging COVID-19 if the infection is uncontrollable.

Authors: Sun, Pengfei; Lu, Xiaosheng; Xu, Chao; Sun, Wenjuan; Pan, Bo
Source: Journal of medical virology; Feb 2020

Abstract:
Since December 2019, a series of unexplained pneumonia cases have been reported in Wuhan, China. On 12 January 2020, the World Health Organization (WHO) temporarily named this new virus as the 2019 novel coronavirus (2019-nCoV). On 11 February 2020, the WHO officially named the disease caused by the 2019-nCoV as coronavirus disease (COVID-19). The COVID-19 epidemic is spreading all over the world, especially in China. Based on the published evidence, we systematically discuss the characteristics of COVID-19 in the hope of providing a reference for future studies and help for the prevention and control of the COVID-19 epidemic.

Unique epidemiological and clinical features of the emerging 2019 novel coronavirus pneumonia (COVID-19) implicate special control measures.

Authors: Wang, Yixuan; Wang, Yuyi; Chen, Yan; Qin, Qingsong
Source: Journal of medical virology; Mar 2020

Abstract:
By Feb 27th, 2020, the outbreak of COVID-19 caused 82623 confirmed cases and 2858 deaths globally, more than Severe Acute Respiratory Syndrome (SARS) (8273 cases, 775 deaths) and Middle East Respiratory Syndrome (MERS) (1139 cases, 431 deaths) caused in 2003 and 2013 respectively. COVID-19 has spread to 46 countries internationally. Total fatality rate of COVID-19 is estimated at 3.46% by far based on published data from Chinese Center for Disease Control and Prevention (China CDC). Average incubation period of COVID-19 is around 6.4 days, ranges from 0-24 days. The basic reproductive number (R0) of COVID-19 ranges from 2-3.5 at the early phase regardless of different prediction models, which is higher than SARS and MERS. A study from China CDC showed majority of patients (80.9%) were considered asymptomatic or mild pneumonia but released large amounts of viruses at the early phase of infection, which posed enormous challenges for containing the
spread of COVID-19. Nosocomial transmission was another severe problem. 3019 health workers were infected by Feb 12, 2020, which accounted for 3.83% of total number of infections, and extremely burdened the health system, especially in Wuhan. Limited epidemiological and clinical data suggest that the disease spectrum of COVID-19 may differ from SARS or MERS. We summarize latest literatures on genetic, epidemiological, and clinical features of COVID-19 in comparison to SARS and MERS and emphasize special measures on diagnosis and potential interventions. This review will improve our understanding of the unique features of COVID-19 and enhance our control measures in the future.


Author(s) Sohrabi, Catrin; Alsafi, Zaid; O’Neill, Niamh; Khan, Mehdi; Kerwan, Ahmed; Al-Jabir, Ahmed; Iosifidis, Christos; Agha, Riaz
Source International journal of surgery (London, England); Feb 2020
Abstract
An unprecedented outbreak of pneumonia of unknown aetiology in Wuhan City, Hubei province in China emerged in December of 2019. A novel coronavirus was identified as the causative agent and was subsequently termed COVID-19 by the World Health Organization (WHO). Considered a relative of severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS), COVID-19 is a betacoronavirus that affects the lower respiratory tract and manifests as pneumonia in humans. Despite rigorous global containment and quarantine efforts, the incidence of COVID-19 continues to rise, with 50,580 laboratory-confirmed cases and 1,526 deaths worldwide. In response to this global outbreak, we summarise the current state of knowledge surrounding COVID-19.

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and coronavirus disease-2019 (COVID-19): The epidemic and the challenges.

Author(s) Lai, Chih-Cheng; Shih, Tzu-Ping; Ko, Wen-Chien; Tang, Hung-Jen; Hsueh, Po-Ren
Source International journal of antimicrobial agents; Feb 2020 ; p. 105924
Abstract
The emergence of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2; previously provisionally named 2019 novel coronavirus or 2019-nCoV) disease (COVID-19) in China at the end of 2019 has caused a large global outbreak and is a major public health issue. As of 11 February 2020, data from the World Health Organization (WHO) have shown that more than 43 000 confirmed cases have been identified in 28 countries/regions, with >99% of cases being detected in China. On 30 January 2020, the WHO declared COVID-19 as the sixth public health emergency of international concern. SARS-CoV-2 is closely related to two bat-
derived severe acute respiratory syndrome-like coronaviruses, bat-SL-CoVZC45 and bat-SL-CoVZXC21. It is spread by human-to-human transmission via droplets or direct contact, and infection has been estimated to have mean incubation period of 6.4 days and a basic reproduction number of 2.24-3.58. Among patients with pneumonia caused by SARS-CoV-2 (novel coronavirus pneumonia or Wuhan pneumonia), fever was the most common symptom, followed by cough. Bilateral lung involvement with ground-glass opacity was the most common finding from computed tomography images of the chest. The one case of SARS-CoV-2 pneumonia in the USA is responding well to remdesivir, which is now undergoing a clinical trial in China. Currently, controlling infection to prevent the spread of SARS-CoV-2 is the primary intervention being used. However, public health authorities should keep monitoring the situation closely, as the more we can learn about this novel virus and its associated outbreak, the better we can respond.

Coronavirus Disease 2019 (COVID-19) and Pregnancy: What obstetricians need to know.

Author(s) Rasmussen, Sonja A; Smulian, John C; Lednicky, John A; Wen, Tony S; Jamieson, Denise J
Source American journal of obstetrics and gynecology; Feb 2020
Abstract
Coronavirus Disease 2019 (COVID-19) is an emerging disease with a rapid increase in cases and deaths since its first identification in Wuhan, China, in December 2019. Limited data are available about COVID-19 during pregnancy; however, information on illnesses associated with other highly pathogenic coronaviruses (i.e., severe acute respiratory syndrome (SARS) and the Middle East respiratory syndrome (MERS)) might provide insights into COVID-19’s effects during pregnancy.

Coronavirus disease (COVID-19) and neonate: What neonatologist need to know.

Author(s) Lu, Qi; Shi, Yuan
Source Journal of medical virology; Mar 2020
Abstract
Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) cause china epidemics with high morbidity and mortality, the infection has been transmitted to other countries. About 3 neonates and more than 230 children cases are reported. The disease condition of mainly children was mild. There is currently no evidence that SARS-CoV-2can be transmitted transplacentally from mother to the newborn. The treatment strategy for children with Coronavirus disease (COVID-19) is based on adult experience. Thus far, no deaths have been reported in the paediatric age group. This review describes the current understanding of COVID-19 infection in newborns and children. This article is protected by copyright. All rights reserved.

What we know so far: COVID-19 current clinical knowledge and research.
Author(s) Lake, Mary A
Source Clinical medicine (London, England); Mar 2020
Abstract
In December 2019, health authorities in Wuhan, China, identified a cluster of pneumonia cases of unknown aetiology linked to the city’s South China Seafood Market. Subsequent investigations revealed a novel coronavirus, SARS-CoV-2, as the causative agent now at the heart of a major outbreak. The rising case numbers have been accompanied by unprecedented public health action, including the wholesale isolation of Wuhan. Alongside this has been a robust scientific response, including early publication of the pathogen genome, and rapid development of highly specific diagnostics. This article will review the new knowledge of SARS-CoV-2 COVID-19 acute respiratory disease, and summarise its clinical features.

Management strategies of neonatal jaundice during the coronavirus disease 2019 outbreak.

Author(s) Ma, Xiao-Lu; Chen, Zheng; Zhu, Jia-Jun; Shen, Xiao-Xia; Wu, Ming-Yuan; Shi, Li-Ping; Du, Li-Zhong; Fu, Jun-Fen; Shu, Qiang
Source World journal of pediatrics : WJP; Feb 2020
Abstract
The outbreak of coronavirus disease 2019 (COVID-19; formally known as 2019-nCoV) has become a most challenging health emergency. Owing to rigorous quarantine and control measures taken in China, routine neonatal health surveillance and follow-up have become challenging. Without follow-up surveillance, some rapid and progressive newborn diseases, such as bilirubin encephalopathy, may be ignored. The characteristics of onset age of kernicterus suggest that monitoring of bilirubin level at home provides a useful way to alert hospital visits and to prevent the development of extremely hyperbilirubinemia. Therefore, we developed an online follow-up program for convenient monitoring of bilirubin level of newborns that is based on our practical experiences. The aim is to make our management strategies of neonatal jaundice tailored to the infection prevention and control during the COVID-19 epidemic.

Coronavirus Disease 2019: Coronaviruses and Blood Safety.

Author(s) Chang, Le; Yan, Ying; Wang, Lunan
Source Transfusion medicine reviews; Feb 2020
Abstract
With the outbreak of unknown pneumonia in Wuhan, China, in December 2019, a new coronavirus, Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2), aroused the attention of the entire world. The current outbreak of infections with SARS-CoV-2 is termed Coronavirus Disease 2019 (COVID-19). The World Health Organization declared COVID-19 in China as a Public Health Emergency of International Concern. Two other coronavirus infections-SARS in 2002-2003 and Middle East Respiratory Syndrome (MERS) in 2012-both caused severe respiratory syndrome in humans. All 3 of these emerging infectious diseases leading to a global spread are caused by β-coronaviruses. Although coronaviruses usually
infect the upper or lower respiratory tract, viral shedding in plasma or serum is common. Therefore, there is still a theoretical risk of transmission of coronaviruses through the transfusion of labile blood products. Because more and more asymptomatic infections are being found among COVID-19 cases, considerations of blood safety and coronaviruses have arisen especially in endemic areas. In this review, we detail current evidence and understanding of the transmission of SARS-CoV, MERS-CoV, and SARS-CoV-2 through blood products as of February 10, 2020, and also discuss pathogen inactivation methods on coronaviruses.

Features, Evaluation and Treatment Coronavirus (COVID-19)
Marco Cascella; Michael Rajnik; Arturo Cuomo; Scott C. Dulebohn; Raffaela Di Napoli.

Radiology Perspective of Coronavirus Disease 2019 (COVID-19): Lessons From Severe Acute Respiratory Syndrome and Middle East Respiratory Syndrome
Melina Hosseiny, Soheil Kooraki, Ali Gholamrezanezhad, et al.

Link to pubmed search results and Treatment results

More Useful Links

EPI.WIN - WHO Information Network for Epidemic - myth busters, advice, FAQs, and useful infographics

National Library of Medicine (USA) Coronavirus Disease 2019 (COVID-19)

World Health Organisation: Global research on coronavirus disease (COVID-19)

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