Erratum: Are UK doctors getting sufficient protective equipment against covid-19? (BMJ (Clinical research ed.) (2020) 369 (m1297))

Abstract:
Takian A, Raoofi A, Kazempour-Ardebili S. COVID-19 battle during the toughest sanctions against Iran. Lancet 2020; 395: 1035–36—In this Correspondence, the year from which US-imposed sanctions against Iran increased was incorrect and should have been 2018, not 2019. The correction has been made to the online version as of April 16, 2020.

Covid-19 wake-up call for exotic pet trade

Resources during covid-19

Free 24-hour specialist support during Covid-19
Tracking COVID-19 from a Journalist’s Perspective with STAT’s Helen Branswell

Open Forum Infectious Diseases
DOI: 10.1093/ofid/ofaa129

Don’t miss
New Scientist
DOI: 10.1016/S0262-4079(20)30770-3

The race against COVID-19
Nature nanotechnology
DOI: 10.1038/s41565-020-0680-y

Pick of the coronavirus papers: vaccine from viral spikes holds promise
Nature
DOI: 10.1038/d41586-020-00502-w

Coronavirus latest: China death toll jumps dramatically
Nature
DOI: 10.1038/d41586-020-00154-w

COVID-19 leads to jump in people seeking MH help in NYC
Mental Health Weekly
DOI: 10.1002/mhw.32328

It’s a stressful time to be a New Yorker. People are stuck at home, worrying about their health, their family and their paycheck, Spectrum News New York 1 reported April 13. ?We are seeing a lot of calls related to anxiety and stress that people are experiencing today,? said Matt Kudish, executive director of the National Alliance on Mental Illness of New York City. The organization says the number of callers seeking help has jumped 60% over the last few weeks, and that conversations now last about 15 minutes longer than average. The city says it’s also seeing an increase in demand. Web sessions to its NYC Well service jumped 185% last month to more than
81,000. ?We're hearing from people who are worried about their own physical health, they're worried about their mental health being forced to stay socially distant from other people,? Kudish said. Health care providers predict that even when the COVID-19 crisis ends, the mental health crisis will continue. They say people will continue to be anxious ? this time about leaving home and being convinced it's safe to be outside.

URL: https://doi.org/10.1002/mhw.32328
Categories:

Year: 2020
Author:
Title: Illinois rolls out COVID-19 MH crisis hotline as cases climb
Journal: Mental Health Weekly
DOI: 10.1002/mhw.32329
Abstract: After another deadly 24 hours in Illinois, Gov. J.B. Pritzker announced a new program to connect scared and depressed Illinois residents to badly needed mental health services, Block Club Chicago reported April 11. In the 24 hours in question, 81 people died from COVID-19 and 1,293 new confirmed cases were reported. Hoping to help those in need of mental and physical health care during the crisis, the state has created programs that will help people from afar. Call4Calm, a free emotional support text line, was created to serve Illinois residents swimming in the stress and uncertainty caused by COVID-19, Pritzker said. To connect with a counselor, people can text TALK? to 552020 or text HABLAR? to the same number for counseling in Spanish. Users will remain anonymous, and the state has partnered with mental health organizations to have counselors respond. Once a resident texts the hotline, they'll get a call from a licensed counselor within 24 hours. The program was announced as the state reached 19,180 confirmed COVID-19 cases, said Dr. Ngozi Ezike, director of the Illinois Department of Public Health.

URL: https://doi.org/10.1002/mhw.32329
Categories:

Year: 2020
Author:
Title: Joint Commission releases COVID-19 resources
Journal: Mental Health Weekly
DOI: 10.1002/mhw.32331
Abstract: The Joint Commission has released specific COVID-19 resources for health care professionals and organizations on the front lines of this pandemic. The site also includes statements to support providers, including the use of face masks from home and the shortage of critical medical equipment. ?As a mission-driven organization, we are driven to help our entire health care community keep their teams and patients safe,? President and CEO of The Joint Commission Mark R. Chassin, M.D., said. ?The situation is changing rapidly, and recommendations are changing with similar speed. We know that you have received a torrent of information. We will continue to update this library with only those resources and guidance that we believe to be particularly useful as we continue to navigate through this pandemic.? COVID-19 resources can be found at www.jointcommission.org/-/media/tjc/documents/resources/patient-safety-topics/infection-prevention-and-hai/covid19/drchassin_032420.pdf.

URL: https://doi.org/10.1002/mhw.32331
Categories:

Year: 2020
Author:
Title: Les actualités de DDS 1er trimestre 2020
Journal: Droit, Déontologie & Soin
DOI: 10.1016/j.ddes.2020.04.020
Abstract: URL: https://doi.org/10.1016/j.ddes.2020.04.020
Categories:
Introducing special cutaneous “sign” tribute to healthcare workers managing new coronavirus disease (Covid –19)

Abstract:
COVID-19 is a highly infectious respiratory infection disease, which leads to dysfunction of respiratory, physical, and psychological of the patients. pulmonary rehabilitation is an important intervention for clinical patients as well as cure patients. With the deeper cognition of COVID-19 and accumulation of clinical experience, we proposed the recommendations for pulmonary rehabilitation of COVID-19 in adults based on the opinions of front-line clinical experts involved in the management of this epidemic and a review of the relevant literature and evidences: (1)for the inpatients with COVID-19, pulmonary rehabilitation would relieve the symptoms of dyspnea, anxiety, and depression; eventually improve physical function and the quality of life; (2)For severe/critical inpatients, the early performance of pulmonary rehabilitation is not suggested. (3)For isolating patients, the pulmonary rehabilitation guidance should be conducted through education video, instruction manual or remote consultation. (4)Assessment and monitor should be performed throughout the entire pulmonary rehabilitation process.(5)Taking proper grading protection following the guideline. These recommendations can serve as a clinical practice guidance and basis for pulmonary rehabilitation of COVID-19.

Abstract:
https://doi.org/10.3760/cma.j.cn112147-20200228-00206
Coronavirus symptoms, research chief quits and Nature’s plan to join Plan S

Nature
DOI: 10.1038/d41586-020-01023-2

Abstract:

URL: https://doi.org/10.1038/d41586-020-01023-2

COVID-19, Australia: Epidemiology Report 11 (Reporting week to 23:59 AEST 12 April 2020)

Commun Dis Intell (2018)
DOI: 10.33321/cdi.2020.44.34

Abstract: Confirmed cases in Australia notified up to 12 April 2020: notifications = 6,394; deaths = 46. The reduction in international travel and domestic movement, social distancing measures and public health action have likely slowed the spread of the disease. Notifications in Australia remain predominantly among people with recent overseas travel, with some locally-acquired cases being detected. Most locally-acquired cases are able to be linked back to a confirmed case, with a small portion unable to be epidemiologically linked. The distribution of overseas-acquired cases to locally acquired cases varies by jurisdiction. Internationally, cases continue to increase. The rates of increase have started to slow in several regions, although it is too soon to tell whether this trend will be sustained. The epidemiology differs from country to country depending not only on the disease, but also on differences in case detection, testing and implemented public health measures.

URL: https://doi.org/10.33321/cdi.2020.44.34

Radiological signs of a new coronavirus infection COVID-19; Лучевые проявления новой коронавирусной инфекции COVID-19

Diagnostic radiology and radiotherapy (E-Journal) / Лучевая диагностика и терапия
DOI: 10.22328/2079-5343-2020-1

Abstract: Purpose. To evaluate the radiological patterns of a new COVID-19 coronavirus infection. Materials and methods. Review of literature sources. Results. COVID-19 causes the acute severe viral pneumonia. Radiological diagnostics of COVID-19 is very important, because CT can be the first study that shows the signs of viral lung lesion, and allows to assess the severity of the lesion and adverse prognostic signs of its further development. The initial CT pattern of COVID-19 is a pattern of infiltration of secondary pulmonary lobules on the type of «frosted glass» (a symptom of «dry leaf») with a subsequent decrease in the volume of lesions at favorable results, or their increase, accession of CT pattern of «cobblestone road» and the appearance in the area of «frosted glass» the alveolar infiltration in unfavorable course of disease. These symptoms are the precursors to the development of respiratory distress syndrome. At a later primary examination, the primary CT symptoms are the pattern of «cobblestone road» and areas of alveolar infiltration, which correlates with an unfavorable further course and outcome. There was noted that viral pneumonia in COVID-19 was characterized by the location of changes in the posterior subpleural and peribronchial areas. All authors confirmed that cavities, nodules, pleural and pericardial effusions, and lymphadenopathy were absent in COVID-19. In the course of observation, quantitative characteristics of the lesions with a score were proposed, the use of which can help in determining the prognosis. Also identified temporary staging of the process and the formation in some of patients the residual changes in the lungs the same as in influenza pneumonia H1N1 (2008â€“2009, 2015â€“2016.) and SARS SARS-CoV-2 (2003) which can start the process of development of progressive pulmonary fibrosis. There is a need for frequent CT studies (every 4 days) to enable timely assessment of rapid dynamics and changes in treatment tactics. The analysis of the results of the examination should be performed by at least 2 radiologists experienced in thoracic radiology, with the involvement of a third independent expert, in case of disagreement. All the authors confirmed the low information content of traditional radiography in assessing viral lung lesions. In some studies, chest radiographs were not performed, only CT as a more sensitive method for detecting early changes, similar to previous outbreaks of coronavirus. However, the role of traditional radiography was recognized as unquestionable when evaluating changes in reanimation department conditions. Conclusions. The accumulation of experience in...
clinical and radiological examination of COVID-19 patients allowed to determine the radiological semiotics of the process, which is important for determining the treatment tactics.

URL: https://doi.org/10.22328/2079-5343-2020-1

Categories:

Year: 2020
Author: Abbasi, Jennifer
Title: The Promise and Peril of Antibody Testing for COVID-19
Journal: JAMA
DOI: 10.1001/jama.2020.6170
Abstract: https://doi.org/10.1001/jama.2020.6170

Year: 2020
Author: Abdalhamid, Baha; Bilder, Christopher R.; McCutchen, Emily L.; Hinrichs, Steven H.; Koepsell, Scott A.; Iwen, Peter C.
Title: Assessment of Specimen Pooling to Conserve SARS CoV-2 Testing Resources
Journal: American Journal of Clinical Pathology
DOI: 10.1093/ajcp/aqaa064
Abstract: https://doi.org/10.1093/ajcp/aqaa064

Year: 9000
Author: AbdelMassih, Antoine Fakhry; Ramzy, David; Nathan, Lauren; Aziz, Silvia; Ashraf, Mirette; Youssef, Nourhan Hatem; Hafez, Nouran; Saeed, Rana; Agha, Hala
Title: Possible molecular and paracrine involvement underlying the pathogenesis of COVID-19 cardiovascular complications
Journal: Cardiovascular Endocrinology & Metabolism
DOI: 10.1097/xce.0000000000000207
Abstract: Coronavirus disease 2019 (COVID-19) has been declared a pandemic on 11 March 2020 by the WHO. Despite being mainly a respiratory virus, cardiac complications have been described. These range from sudden cardiac death to subtle diastolic dysfunction after recovery from COVID-19. The commonest cardiac presentation to date is acute heart failure resulting from biventricular or left ventricular hypokinesis and elevation of cardiac troponins. It has been shown that COVID-19 downregulates angiotensin-converting enzyme-2, which has protective effects on the endothelium and cardiomyocytes. It has also been proven that COVID-19 induces a state of hypercytokinaemia, some cytokines such as interleukin-1 and interleukin-6 have an injurious effect on the myocardium and endothelium, respectively. Such pathogenic mechanisms might play a crucial role in induction of cardiomyocyte injury and impaired myocardial perfusion probably through coronary endothelial dysfunction. The understanding and linking of such mechanisms might help in tailoring drug repurposing for treatment or prophylaxis of COVID-19 cardiovascular complications. Received 6 April 2020 Accepted 14 April 2020
Correspondence to Antoine Fakhry AbdelMassih, MD, Pediatrics’ Department, Pediatric Cardiology unit, Cairo University Children Hospital, Faculty of Medicine, Cairo University, Kasr Al Ainy Street, Cairo 12411, Egypt, E-mail: antoine.abdelmassih@kasralainy.edu.eg © 2020 Wolters Kluwer Health Lippincott Williams Wilkins
URL: https://doi.org/10.1097/xce.0000000000000207
Categories:
Less is more: Intelligent intensive care for SARS-CoV-2 based on the imaging data

COVID-19 Preparedness within the Surgical, Obstetric and Anesthetic Ecosystem in Sub Saharan Africa

Protective measures for COVID-19 for healthcare providers and laboratory personnel

The aftermath of coronavirus disease of 2019: devastation or a new dawn for nephrology?

Harnessing CAR T Cell Insights to Develop Treatments for Hyperinflammatory Responses in COVID-19 patients
infection. We discuss approaches to decrease the morbidity and mortality in patients with of COVID-19.

URL: https://doi.org/10.1158/2159-8290.CD-20-0473
Categories:

Year: 2020
Author: Aggour, Mohamed; White, Phil; Kulcsar, Zsolt; Fiehler, Jens; Brouwer, Patrick
Title: European Society of Minimally Invasive Neurological Therapy (ESMINT) recommendations for optimal interventional neurovascular management in the covid-19 era
Journal: Journal of neurointerventional surgery
DOI: 10.1136/neurintsurg-2020-016137
Abstract: https://doi.org/10.1136/neurintsurg-2020-016137
Categories:

Year: 2020
Author: Aghagoli, Ghazal; Gallo Marin, Benjamin; Soliman, Luke B.; Sellke, Frank W.
Title: Cardiac involvement in COVID-19 patients: Risk factors, predictors, and complications: A review
Journal: Journal of Cardiac Surgery
DOI: 10.1111/jocs.14538
Abstract: Abstract Background Respiratory complications have been well remarked in the novel coronavirus disease (SARS-CoV-2/COVID-19), yet an emerging body of research indicates that cardiac involvement may be implicated in poor outcomes for these patients. Aims This review seeks to gather and distill the existing body of literature that describes the cardiac implications of COVID-19. Materials and Methods The English literature was reviewed for papers dealing with the cardiac effects of COVID-19. Results Notably, COVID-19 patients with pre-existing cardiovascular disease are counted in greater frequency in intensive care unit settings, and ultimately suffer greater rates of mortality. Other studies have noted cardiac presentations for COVID-19, rather than respiratory, such as acute pericarditis and left ventricular dysfunction. In some patients there has been evidence of acute myocardial injury, with correspondingly increased serum troponin I levels. With regard to surgical interventions, there is a dearth of data describing myocardial protection during cardiac surgery for COVID-19 patients. Although some insights have been garnered in the study of cardiovascular diseases for these patients, these insights remain fragmented and have yet to cement clear guidelines for actionable clinical practice. Conclusion While some information is available, further studies are imperative for a more cohesive understanding of the cardiac pathophysiology in COVID-19 patients to promote more informed treatment and, ultimately, better clinical outcomes.
URL: https://doi.org/10.1111/jocs.14538
Categories:

Year: 2020
Author: Ahirwar, Ashok Kumar; Asia, Priyanka; Sakarde, Apurva; Bhardwaj, Shilpa
Title: COVID 19 Outbreak: Potential of Biochemistry Speciality
Journal: Indian Journal of Clinical Biochemistry
DOI: 10.1007/s12291-020-00885-7
Abstract: https://doi.org/10.1007/s12291-020-00885-7
Categories:

Year: 2020
Author: Ahmadi, Mohsen; Sharifi, Abbas; Dorosti, Shadi; Ghoushchi, Saeid Jafarzadeh; Ghanbari, Negar
Title: Investigation of effective climatology parameters on COVID-19 outbreak in Iran
Journal: Science of The Total Environment
DOI: https://doi.org/10.1016/j.scitotenv.2020.138705
Abstract: SARS CoV-2 (COVID-19) Coronavirus cases are confirmed throughout the world and millions of people are being put into quarantine. A better understanding of the effective parameters in infection spreading can bring
about a logical measurement toward COVID-19. The effect of climatic factors on spreading of COVID-19 can play an important role in the new Coronavirus outbreak. In this study, the main parameters, including the number of infected people with COVID-19, population density, intra-provincial movement, and infection days to end of the study period, average temperature, average precipitation, humidity, wind speed, and average solar radiation investigated to understand how can these parameters effects on COVID-19 spreading in Iran? The Partial correlation coefficient (PCC) and Sobol’-Jansen methods are used for analyzing the effect and correlation of variables with the COVID-19 spreading rate. The result of sensitivity analysis shows that the population density, intra-provincial movement have a direct relationship with the infection outbreak. Conversely, areas with low values of wind speed, humidity, and solar radiation exposure to a high rate of infection that support the virus's survival. The provinces such as Tehran, Mazandaran, Alborz, Gilan, and Qom are more susceptible to infection because of high population density, intra-provincial movements and high humidity rate in comparison with Southern provinces.

DOI: 10.3390/IJERPH17082821

Abstract: An outbreak of novel coronavirus disease (COVID-19) in China has influenced every aspect of life. Healthcare professionals, especially dentists, are exposed to a higher risk of getting infected due to close contact with infected patients. The current study was conducted to assess anxiety and fear of getting infected among dentists while working during the current novel coronavirus diseases (COVID-19) outbreak. In addition, dentists' knowledge about various practice modifications to combat COVID-19 has been evaluated. A cross-sectional study was conducted using an online survey from 10th to 17th March 2020. The well-constructed questionnaire was designed and registered at online website (Kwiksurveys) and validated. A total of 669 participants from 30 different countries across the world responded. After scrutiny, completed questionnaires (n = 650) were included in the study. Statistical analysis was performed using SPSS version 25. Chi-Square and Spearman correlation tests were applied to control confounders and assess the relation of dentists' response with respect to gender and educational level. More than two-thirds of the general dental practitioners (78%) from 30 countries questioned were anxious and scared by the devastating effects of COVID-19. A large number of dentists (90%) were aware of recent changes in the treatment protocols. However, execution of amended treatment protocol was recorded as 61%. The majority of the dentists (76%) were working in the hospital setting out of which 74% were from private, and 20% were from government setups. Individually we received a large number of responses from Pakistan and Saudi Arabia, but collectively more than 50% of the responses were from other parts of the world. Despite having a high standard of knowledge and practice, dental practitioners around the globe are in a state of anxiety and fear while working in their respective fields due to the COVID-19 pandemic impact on humanity. A number of dental practices have either modified their services according to the recommended guidelines to emergency treatment only or closed down practices for an uncertain period.

URL: https://doi.org/10.3390/IJERPH17082821

Categories:

Study period, average temperature, average precipitation, humidity, wind speed, and average solar radiation influence the COVID-19 spreading rate. The result of sensitivity analysis shows that the population density, intra-provincial movement have a direct relationship with the infection outbreak. Conversely, areas with low values of wind speed, humidity, and solar radiation exposure to a high rate of infection that support the virus's survival. The provinces such as Tehran, Mazandaran, Alborz, Gilan, and Qom are more susceptible to infection because of high population density, intra-provincial movements and high humidity rate in comparison with Southern provinces.

URL: https://doi.org/10.1016/j.scitotenv.2020.138705

Categories:

Title: First confirmed detection of SARS-CoV-2 in untreated wastewater in Australia: A proof of concept for the wastewater surveillance of COVID-19 in the community

Journal: Science of The Total Environment

DOI: 10.1016/j.scitotenv.2020.138764

Abstract: Infection with SARS-CoV-2, the etiologic agent of the ongoing COVID-19 pandemic, is accompanied by the shedding of the virus in stool. Therefore, the quantification of SARS-CoV-2 in wastewater affords the ability to monitor the prevalence of infections among the population via wastewater-based epidemiology (WBE). In the
current work, SARS-CoV-2 RNA was concentrated from wastewater in a catchment in Australia and viral RNA copies were enumerated using reverse transcriptase quantitative polymerase chain reaction (RT-qPCR) resulting in two positive detections within a six day period from the same wastewater treatment plant (WWTP). The estimated RNA copy numbers observed in the wastewater were then used to estimate the number of infected individuals in the catchment via Monte Carlo simulation. Given the uncertainty and variation in the input parameters, the model estimated a median range of 171 to 1090 infected persons in the catchment, which is in reasonable agreement with clinical observations. This work highlights the viability of WBE for monitoring infectious diseases, such as COVID-19, in communities. The work also draws attention to the need for further methodological and molecular assay validation for enveloped viruses in wastewater.

URL: https://doi.org/10.1016/j.scitotenv.2020.138764

Categories:

Year: 2020
Author: Ai, Siqi; Zhu, Guanghu; Tian, Fei; Li, Huan; Gao, Yuan; Wu, Yinglin; Liu, Qiyong; Lin, Huiliang
Title: Population movement, city closure and spatial transmission of the 2019-nCoV infection in China
Journal: medRxiv
DOI: 10.1101/2020.02.04.20020339

Abstract: The outbreak of pneumonia caused by a novel coronavirus (2019-nCoV) in Wuhan City of China obtained global concern, the population outflow from Wuhan has contributed to spatial expansion in other parts of China. We examined the effects of population outflow from Wuhan on the 2019-nCoV transmission in other provinces and cities of China, as well as the impacts of the city closure in Wuhan. We observed a significantly positive association between population movement and the number of cases. Further analysis revealed that if the city closure policy was implemented two days earlier, 1420 (95% CI: 1059, 1833) cases could be prevented, and if two days later, 1462 (95% CI: 1090, 1886) more cases would be possible. Our findings suggest that population movement might be one important trigger of the 2019-nCoV infection transmission in China, and the policy of city closure is effective to prevent the epidemic.

Competing Interest Statement: The authors have declared no competing interest.

Funding Statement: We appreciated the support by National Key R&D Program of China (Grant No: 2018YFA0606200). The funder had no role in study design, data collection, data analysis, data interpretation, or writing of the report.

Author Declarations: All relevant ethical guidelines have been followed; any necessary IRB and/or ethics committee approvals have been obtained and details of the IRB/oversight body are included in the manuscript. Yes

All necessary patient/participant consent has been obtained and the appropriate institutional forms have been archived. Yes

I understand that all clinical trials and any other prospective interventional studies must be registered with an ICMJE-approved registry, such as ClinicalTrials.gov. I confirm that any such study reported in the manuscript has been registered and the trial registration ID is provided (note: if posting a prospective study registered retrospectively, please provide a statement in the trial ID field explaining why the study was not registered in advance). Yes

I have followed all appropriate research reporting guidelines and uploaded the relevant EQUATOR Network research reporting checklist(s) and other pertinent material as supplementary files, if applicable. Yes

All URLs of the database related to the manuscript are provided as follows: http://www.nhc.gov.cn/http://qianxi.baidu.com

URL: https://doi.org/10.1101/2020.02.04.20020339

Categories:

Year: 2020
Author: Akçay, Müşerref Şule
Title: RADIOLOGICAL APPROACHES TO COVID-19 PNEUMONIA
Journal: Turkish journal of medical sciences
DOI: 10.3906/sag-2004-160

Abstract: COVID-19 pneumonia has high mortality rates. The symptoms are undiagnostic, the results of viral nucleic acid detection method (PCR) can delay, so that chest computerized tomography is often key diagnostic test in patients with possible COVID-19 pneumonia. In this review, we discussed the main radiological findings of this infection.

URL: https://doi.org/10.3906/sag-2004-160

Categories:
Year: 2020
Author: Akima, Satoshi; McLintock, Claire; Hunt, Beverley J.
Title: RE: ISTH interim guidance to recognition and management of coagulopathy in COVID-19
Journal: Journal of thrombosis and haemostasis : JTH
DOI: 10.1111/jth.14853
Abstract: The unrelenting acceleration of COVID-19 infections due to SARS-CoV-2 is unquestionably the greatest medical challenge of our professional careers. The Scientific and Standardisation Committee (SSC) on disseminated intravascular coagulation (DIC) of the International Society on Thrombosis and Haemostasis (ISTH) is to be commended for the rapid publication of guidance for clinicians worldwide to assist in management of the coagulopathy widely reported to be associated with severe COVID-19 infection. However, we would like to offer constructive feedback as to how the SSC's interim guidance1 might be improved.
URL: https://doi.org/10.1111/jth.14853
Categories:

Year: 2020
Author: Akin, Levent; Gözel, Mustafa Gökhan
Title: Understanding Dynamics of Pandemics
Journal: Turkish journal of medical sciences
DOI: 10.3906/sag-2004-133
Abstract: Along the centuries, novel strain of virus such as influenza produces pandemics which increases illness, death and disruption in the countries. Spanish flu in 1918, Asian flu in 1957, Hong Kong flu in 1968 and swine flu in 2009 were known pandemic which had various characteristics in terms of morbidity and mortality. A current pandemic is caused by novel corona virus originated from China. COVID-19 pandemic is very similar to Spanish, Hong Kong, Asian and Swine influenza pandemics in terms of spreading to world by the mobilized people. Burden of pandemic is considered in terms of disease transmissibility and the growth rate of epidemic and duration of pandemic can be calculated by transmissibility characteristic. The case definition, finding out cases and first case cluster, proper treatment, sufficient stockpiles of medicine and population cooperation with the containment strategy should be considered for reduction of burden of pandemic.
URL: https://doi.org/10.3906/sag-2004-133
Categories:

Year: 2020
Author: Al-Abdi, Sameer; Al-Aamri, Maryam
Title: G6PD deficiency in COVID-19 pandemic: “a ghost in the ghost”
Journal: Hematology/Oncology and Stem Cell Therapy
DOI: https://doi.org/10.1016/j.hemonc.2020.04.002
Abstract: 
URL: https://doi.org/10.1016/j.hemonc.2020.04.002
Categories:

Year: 2020
Author: Al-Balas, Mahmoud; Al-Balas, Hasan Ibrahim; Al-Balas, Hamzeh
Title: Surgery during the COVID-19 pandemic: A comprehensive overview and perioperative care
Journal: The American Journal of Surgery
DOI: https://doi.org/10.1016/j.amjsurg.2020.04.018
Abstract: COVID-19 disease is a pandemic disease caused by a single-stranded RNA virus that belongs to the coronavirus family known as 2019-nCoV (SARS-CoV-2). The disease is highly contagious and transmitted mainly by droplets or close contact. As the global incidence of COVID-19 disease is increasing dramatically, health systems worldwide started to suffer in terms of its capability to manage affected people and the ability to provide standard treatment for critically ill patients in a safe environment. As Medical staff has extensive contact with patients, families as well as other health care providers, they are very likely to cause cross-infection. This paper aims to provide a comprehensive overview of COVID-19 disease as well as to highlight essential measures that healthcare providers and surgeons need to take into consideration during their management of the patient during the COVID-19 pandemic.
URL: https://doi.org/10.1016/j.amjsurg.2020.04.018
Categories:
Year: 2020
Author: Algarin, Angel B.; Varas-Rodríguez, Emil; Valdivia, Chelsea; Fennie, Kristopher P.; Larkey, Linda; Hu, Nan; Ibañez, Gladys E.
Title: Symptoms, Stress, and HIV-Related Care Among Older People Living with HIV During the COVID-19 Pandemic, Miami, Florida
Journal: AIDS and Behavior
DOI: 10.1007/s10461-020-02869-3
Abstract:
URL: https://doi.org/10.1007/s10461-020-02869-3
Categories:

Year: 2020
Author: Alger, Heather M.; Williams Iv, Joseph H.; Walchok, Jason G.; Bolles, Michele M.; Fonarow, Gregg C.; Rutan, Christine
Title: The Role of Data Registries in the Time of COVID-19
Journal: Circ Cardiovasc Qual Outcomes
DOI: 10.1161/CIRCOUTCOMES.120.006766
Abstract:
URL: https://doi.org/10.1161/CIRCOUTCOMES.120.006766
Categories:

Year: 2020
Author: Al-Ghofaily, Lourdes; Feinman, Jared W.; Augoustides, John G.
Title: Fellowship Training in Adult Cardiothoracic Anesthesiology – navigating the new educational landscape due to the coronavirus crisis
Journal: Journal of Cardiothoracic and Vascular Anesthesia
DOI: https://doi.org/10.1053/j.jvca.2020.04.019
Abstract:
URL: https://doi.org/10.1053/j.jvca.2020.04.019
Categories:

Year: 2020
Author: Alifano, Marco; Alifano, Pietro; Forgez, Patricia; Iannelli, Antonio
Title: Renin-angiotensin system at the heart of COVID-19 pandemic
Journal: Biochimie
DOI: https://doi.org/10.1016/j.biochi.2020.04.008
Abstract: Significant aspects of COVID-19 pandemic remain obscure. Angiotensin converting enzyme 2 (ACE2), a component of the renin-angiotensin system, whose expression dominates on lung alveolar epithelial cells, is the human cell receptor of SARS-CoV-2, the causative agent of COVID-19. We strongly encourage the concept that thorough considerations of receptor-ligand interactions should be kept at the heart of scientific debate on infection. In this idea, the whole renin-angiotensin system has to be evaluated. We hypothesize that factors related
to ethnicity, environment, behaviors, associated illness, and medications involving this complex system are probably responsible for situations regarded as anomalous from both an epidemiological and a clinical point of view, but, taken together, such factors may explain most of the aspects of current outbreak. We decided to use the analogy of a play and speculate about the possible impact in this tragedy of 1) air pollution via the interference of nitrogen dioxide on ACE2 expression; 2) the dual role of nicotine; 3) the hypothetical involvement of ACE2 polymorphisms, the relationships of which with ethnic factors and susceptibility to cardiovascular disease seems intriguing; 4) the impact on the severity of infection of hypertension and related medications acting on the renin/angiotensin system, and, finally, 5) the possible helpful role of chloroquine, thanks to its capacity of modifying ACE2 affinity to the viral spike protein by altering glycosylation. This hypothesis paper is an urgent call for the development of research programs that aim at questioning whether the putative protagonists of this tragedy are real-life actors in COVID-19.

URL: https://doi.org/10.1016/j.biochi.2020.04.008

Categories:

Year: 2020
Author: Aliste, Julián; Altermatt, Fernando; Atton, Rousmary; Bravo, Daniela; Layera, Sebastián; Miranda, Pablo; Pesce, Ítalo
Title: Recomendaciones para la ejecución de anestesia regional no obstétrica en perioperatorio de pacientes COVID-19
Journal: Rev. chil. anest
DOI: 
Abstract: En diciembre de 2019, surgió una serie de casos de neumonía causada por un nuevo coronavirus, denominado 2019-nCoV o SARS-CoV2. La propagación del virus ha sido extremadamente rápida y la organización mundial de la salud declaró a la enfermedad COVID-19, causada por 2019-nCoV, como una pandemia. En este contexto la Sociedad de Anestesiología de Chile (SACH) ha elaborado recomendaciones generales para el manejo perioperatorio de los pacientes sospechosos y/o portadores de la enfermedad. Sin embargo, dado que durante el levantamiento de evidencia para la confección de dicha guía se objetivó la ausencia de sugerencias específicas para la ejecución de técnicas de anestesia regional fuera del ambiente obstétrico, se solicitó desde el Comité Científico de SACH al Comité de Anestesia Regional de SACH (CARSACH), representante LASRA (LatinAmerican Society of Regional Anesthesia) en Chile, a través de un grupo de expertos, confeccionar recomendaciones locales en esta materia.
URL: https://doi.org/

Categories:

Year: 2020
Author: Allahverdipour, Hamid
Title: Battle against novel coronavirus 2019-nCoV: International commitment to develop worldwide informing campaigns
Journal: Health Promot Perspect
DOI: 10.34172/hpp.2020.15
Abstract: 
URL: https://doi.org/10.34172/hpp.2020.15

Categories:

Year: 2020
Author: Almarzooq, Zaid; Lopes, Mathew; Kochar, Ajar
Title: Virtual Learning during the COVID-19 Pandemic: A Disruptive Technology in Graduate Medical Education
Journal: J Am Coll Cardiol
DOI: 10.1016/j.jacc.2020.04.015
Abstract: 
URL: https://doi.org/10.1016/j.jacc.2020.04.015

Categories:
Abstract: In December 2019, a novel coronavirus called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) caused an outbreak of coronavirus disease 2019 (COVID-19). Severe complications have been reported to occur in 33% of patients with COVID-19 and include acute respiratory distress syndrome, acute renal failure, acute respiratory injury, septic shock, and severe pneumonia. Currently, there is no specific treatment or approved vaccine against COVID-19 and many clinical trials are currently investigating potential medications to treat COVID-19. The immunosuppressed status of some cancer patients (whether caused by the disease itself or the treatment) increases their risk of infection compared with the general population. This short review aims to focus on the impact of COVID-19 on a cancer patient and discuss management options and recommendation in addition to highlighting the currently available clinical guidelines and resources.

URL: https://doi.org/10.1097/COC.0000000000000712

Categories:
Abstract: There are few cases of pregnant women with novel corona virus 2019 (COVID-19) in the literature, most of them with a mild illness course. There is limited evidence about in utero infection and early positive neonatal testing. A 41-year-old G3P2 with a history of previous cesarean deliveries and diabetes mellitus presented with a 4-day history of malaise, low-grade fever, and progressive shortness of breath. A nasopharyngeal swab was positive for COVID-19, COVID-19 serology was negative. The patient developed respiratory failure requiring mechanical ventilation on day 5 of disease onset. The patient underwent a cesarean delivery, and neonatal isolation was implemented immediately after birth, without delayed cord clamping or skin-to-skin contact. The neonatal nasopharyngeal swab, 16 hours after delivery, was positive for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) real-time polymerase chain reaction (RT-PCR), and immunoglobulin (Ig)-M and IgG for SARS-CoV-2 were negative. Maternal IgM and IgG were positive on postpartum day 4 (day 9 after symptom onset).

We report a severe presentation of COVID-19 during pregnancy. To our knowledge, this is the earliest reported positive PCR in the neonate, raising the concern for vertical transmission. We suggest pregnant women should be considered as a high-risk group and minimize exposures for these reasons. KEY POINTS: · We report a severe presentation of COVID-19 in pregnancy requiring invasive ventilatory support. · This is a case of positive RT-PCR in first day of life, suggesting possible vertical transmission. · There were no detectable maternal antibodies for COVID-19 until after delivery.
ve internet ortamında çok ciddi düzeyde bilgi birikimi ortaya çıkmıştır. Bu çalışmanın amacı an itibariyle elde edilen veriler ışığında tüm dünya ülkelerinde enfeksiyon etkileri ve süreci hakkında genel yapı özeti olarak istatistik bilgiler sunmak ve enfeksiyon ölçütlerinin günlük değişimini modellemektir. Elde edilen sonuçlar değerlendirildiğinde, birikimli (kümülatif) pozitif vaka sayısı, birikimli ölüm sayısı ve diğer bazı ölçütlerin ülkelerre göre seyrinin aynı olmadığı, sürecen iyi kontrol eden ülkelerin başında Almanya ve Güney Kore’nin geldiği, Türkiye’ nin sürecinin ilk 10 günlük süreç itibariyle hızlı yayılım gösteren ülkelerle benzediği görüldü. Ayrıca Türkiye için 20 – 29 Mart 2020 arasında ortaya çıkabilecek pozitif vaka sayısı ve birikimli ölüm sayıları tahmin edildiğinde, 20 Mart itibariyle pozitif vaka sayısının sayıının 550 civarında, 4 olan mevcut ölüm sayısının hesaplamalarla birikimli ölüm sayısının ise 11 olacağı öngörülmüştür. ; As of March 19, 2020, the worldwide spread of positive cases and news of death as a result of COVID-19 infection, which covers more than 170 countries, is followed with concern. There has been a lot of information accumulation in social media and internet. The aim of this study is to present statistical information summarizing the general structure about the effects and process of infection in all countries of the world in the light of the data obtained and to model the daily change of infection criteria. When the obtained results are evaluated, the cumulative (cumulative) number of positive cases, cumulative number of deaths and some other criteria are not the same of course depending on the country, the process is one of the most well-control countries, Germany and South Korea came from, Turkey &###039;of the process, the first 10-day period as it was observed that it was similar to the countries with fast spread. In addition to Turkey, 20 to 29 March 2020 the number of positive cases that may arise between and when the cumulative number of deaths is estimated the maximum number of positive cases as of March 20 around 550, while the cumulative death toll of 11 would be ,current measurement 4, is provided.

URL: https://doi.org/10.21673/anadoluklin.707038
Categories:
Year: 2020
Author: Anson, Brandon James; Daczkowski, Courtney Marie; Mesecar, Andrew David
Title: Kinetic control of MERS-CoV 3CLpro is mediated by non-conserved residues distal to the active site
Journal: The FASEB Journal
DOI: 10.1096/fasebj.2020.34.s1.04522
Abstract: Middle-East Respiratory Syndrome (MERS) Coronavirus is a re-emergent zoonotic pathogen with a 30% fatality rate in humans. The MERS positive-sense single-stranded RNA genome is translated into two polyproteins that must be processed by two viral cysteine proteases (3CLpro and PLpro) into 16 non-structural proteins (nsp) before viral replication can occur. Attempts to drug either of these cysteine proteases have proven difficult. MERS 3CLpro functions as dimer and is unique among all of the coronavirus 3CLpro enzymes studied to date because competitive inhibitors activate the wild-type MERS 3CLpro enzyme at low inhibitor concentrations and inhibit at higher concentrations. This mechanism of substrate/inhibitor-induced dimerization seems to be mediated by non-conserved residues in structural regions distal to the catalytic site. We have identified unique residues that are involved in the inhibitor-induced dimerization mechanism and we show that these competitive inhibitors activate and inhibit in a dose-dependent manner. In an attempt to provide a structural basis for this mechanism, we crystallized the apo and inhibitor-bound forms of this enzyme and diffracted them to 1.5 ? 2.2 Å. We also show that residues in distinct structural regions synergize to modulate the intrinsic kinetic parameters of this family of enzymes. These parameters include increased turnover (kcat) and a lower dimer dissociation constant (KD). Additionally, a rapid-equilibrium kinetic mechanism was developed to model the kinetic response of MERS 3CLpro to inhibitors that act via substrate/inhibitor induced activation/inhibition mechanisms. Support or Funding Information This project has been funded in whole or in part with Federal funds from the National Institute of Allergy and Infectious Diseases, National Institutes of Health, Department of Health and Human Services, under Contracts No. HHSN272200700058C, HHSN272201200026C, and HHSN272201700060C. This research used resources of the Advanced Photon Source, a U.S. Department of Energy (DOE) Office of Science User Facility operated for the DOE Office of Science by Argonne National Laboratory under Contract No. DE-AC02-06CH11357. Use of the Lilly Research Laboratories Collaborative Access Team (LRL-CAT) beamline at Sector 31 of the Advanced Photon Source was provided by Eli Lilly Company, which operates the facility.

URL: https://doi.org/10.1096/fasebj.2020.34.s1.04522
Categories:
Recotendación Clínica: "Recomendaciones para el manejo de pacientes con COVID-19 con indicación terapéutica de ventilación mecánica que eventualmente son conectados a máquinas de anestesia"

Abstract: La pandemia de COVID-19 producida por SARS-CoV-2 actualmente en curso anticipa una gran demanda por ventiladores mecánicos (VM), ya que un porcentaje relevante de los contagiados cae rápidamente en insuficiencia respiratoria y requiere de cuidados intensivos. Anticipándose a ese exceso de demanda y considerando que es muy probable que el número actual de ventiladores mecánicos en las unidades de cuidados intensivos (UCI) sean insuficientes, se ha solicitado a la SACH un informe técnico en relación al uso de las máquinas de anestesia como VM.

URL: https://doi.org/

Categories:
**Abstract:** Coronavirus Disease 2019 (COVID-19) is currently a pandemic with a mortality rate of 1-6% in the general population. However, the mortality rate seems to be significantly higher in elderly patients, especially those hospitalized with comorbidities, such as hypertension, diabetes, or coronary artery diseases. Because viral diseases may have atypical presentations in immunosuppressed patients, the course of the disease in the transplant patient population is unknown. Hence, the management of these patients with COVID-19 is an area of interest, and a unique approach is warranted. Here, we report the clinical features and our treatment approach for a kidney transplant patient with a diagnosis of COVID-19. We believe that screening protocols for SARS-CoV-2 should be re-evaluated in patients with solid-organ transplants.

**URL:** [https://doi.org/10.1111/tid.13296](https://doi.org/10.1111/tid.13296)

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**Abstract:** Since the infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) was reported in China during December 2019, the coronavirus disease 2019 (COVID-19) has spread on a global scale, causing the World Health Organization (WHO) to issue a warning. While novel vaccines and drugs that target SARS-CoV-2 are under development, this review provides information on therapeutics which are under clinical trials or are proposed to antagonize SARS-CoV-2. Based on the information gained from the responses to other RNA coronaviruses, including the strains that cause severe acute respiratory syndrome (SARS)-coronaviruses and Middle East respiratory syndrome (MERS), drug repurposing might be a viable strategy. Since several antiviral therapies can inhibit viral replication cycles or relieve symptoms, mechanisms unique to RNA viruses will be important for the clinical development of antivirals against SARS-CoV-2. Given that several currently marketed drugs may be efficient therapeutic agents for severe COVID-19 cases, they may be beneficial for future viral pandemics and other infections caused by RNA viruses when standard treatments are unavailable.

**URL:** [https://doi.org/10.3390/IJMS21082839](https://doi.org/10.3390/IJMS21082839)

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**Abstract:** Tang et al. recently reported that in COVID-19 infections caused by the novel coronavirus (SARS-CoV-2), heparin anticoagulant therapy lowers the mortality rate in patients who present with markedly elevated concentrations of D-dimer 1. In other words, abnormal coagulation may influence the prognosis of COVID-19. This is extremely interesting. The article did not describe to what extent heparin improves the abnormal coagulation and further studies by this group are anticipated. The authors reported...
in that article 1) and a previous article 2) that the abnormal coagulation seen in non-survivors of COVID-19 clearly differs from the abnormal coagulation typically seen in other severe infectious diseases.

URL: https://doi.org/10.1111/jth.14858
Categories:

Year: 2020
Author: Ascierto, Paolo Antonio; Fox, Bernard; Urba, Walter; Anderson, Ana Carrizosa; Atkins, Michael B.; Borden, Ernest C.; Brahmer, Julie; Butterfield, Lisa H.; Cesano, Alessandra; Chen, Daniel; de Grujil, Tanja; Dillman, Robert O.; Drake, Charles G.; Emens, Leisha A.; Gajewski, Thomas F.; Gulley, James L.; Stephen Hodi, F.; Hwu, Patrick; Kaufman, David; Kaufman, Howard; Lotze, Michael; McNeel, Douglas G.; Margolin, Kim; Marincola, Francesco; Mastrangelo, Michael J.; Maus, Marcela V.; Parkinson, David R.; Romero, Pedro J.; Sondel, Paul M.; Spranger, Stefani; Sznol, Mario; Weiner, George J.; Wigginton, Jon M.; Weber, Jeffrey S.
Title: Insights from immuno-oncology: the Society for Immunotherapy of Cancer Statement on access to IL-6-targeting therapies for COVID-19
Journal: J Immunother Cancer
DOI: 10.1136/jitc-2020-000878
Abstract:
URL: https://doi.org/10.1136/jitc-2020-000878
Categories:

Year: 2020
Author: Ashcroft, John
Title: Keep older healthcare workers off the covid-19 front line
Journal: BMJ
DOI: 10.1136/BMJ.M1511
Abstract: Even with appropriate personal protective equipment, coronavirus infections will occur.1 Clearly, the greatest risk factor for serious illness and death is increasing age. Being male ...
URL: https://doi.org/10.1136/BMJ.M1511
Categories:

Year: 2020
Author: Astuti, Indwiani; Ysrafil
Title: Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2): An overview of viral structure and host response
Journal: Diabetes & Metabolic Syndrome: Clinical Research & Reviews
DOI: https://doi.org/10.1016/j.dsx.2020.04.020
Abstract: Background and aim As a result of its rapid spread in various countries around the world, on March 11, 2020, WHO issued an announcement of the change in coronavirus disease 2019 status from epidemic to pandemic disease. The virus that causes this disease is indicated originating from animals traded in a live animal market in Wuhan, China. Severe Acute Respiratory Syndrome Coronavirus 2 can attack lung cells because there are many conserved receptor entries, namely Angiotensin Converting Enzyme-2. The presence of this virus in host cells will initiate various protective responses leading to pneumonia and Acute Respiratory Distress Syndrome. This review aimed to provide an overview related to this virus and examine the body's responses and possible therapies. Method We searched PubMed databases for Severe Acute Respiratory Syndrome Coronavirus-2, Middle East respiratory syndrome-related coronavirus and Severe Acute Respiratory Syndrome Coronavirus. Full texts were retrieved, analyzed and developed into an easy-to-understand review. Results We provide a complete review related to structure, origin, and how the body responds to this virus infection and explain the possibility of an immune system over-reaction or cytokine storm. We also include an explanation of how this virus creates modes of avoidance to evade immune system attacks. We further explain the therapeutic approaches that can be taken in the treatment and prevention of this viral infection. Conclusion In summary, based on the structural and immune-evasion system of coronavirus, we suggest several approaches to treat the disease.
URL: https://doi.org/10.1016/j.dsx.2020.04.020
Categories:
Critical Care during the Coronavirus Crisis – challenges and considerations for the cardiothoracic and vascular anesthesia community

Journal: Journal of Cardiothoracic and Vascular Anesthesia
DOI: https://doi.org/10.1053/j.jvca.2020.04.021
Abstract: https://doi.org/10.1053/j.jvca.2020.04.021

Perioperative Echocardiography during the Coronavirus Crisis – considerations in pediatrics and congenital heart disease

Journal: Journal of Cardiothoracic and Vascular Anesthesia
DOI: https://doi.org/10.1053/j.jvca.2020.04.022
Abstract: https://doi.org/10.1053/j.jvca.2020.04.022

The aim of this review is to learn about MERS (Middle East Respiratory Syndrome) and track its increasing occurrence since its first identification in 2012. The outbreaks of MERS-CoV have a higher fatality rate (34.4%) than the SARS virus (11%) which is also under the Coronavirus family, has become a global threat with 2494 cases and 858 deaths across 27 countries since it was first diagnosed. The virus can be easily transmitted by close contact and cause hospital based outbreaks, spreading from human to human.

COVID-19 vaccination clinical trials should consider multiple doses of BCG

Journal: Pharmazie
DOI: 10.1691/ph.2020.0444
Abstract: https://doi.org/10.1691/ph.2020.0444

CAR T Cell Therapy During the COVID-19 Pandemic

Journal: Biol Blood Marrow Transplant
DOI: 10.1016/j.bbmt.2020.04.008
Abstract: The COVID-19 pandemic has significantly impacted the delivery of cellular therapeutics, including chimeric antigen receptor (CAR) T cells. This impact has extended beyond patient care to include logistics, administration, and distribution of increasingly limited health care resources. Based on the collective experience of the CAR T-cell Consortium investigators, we review and address several questions and concerns regarding cellular therapy administration in the setting of COVID-19 and make general recommendations to address these issues. Specifically we address: 1) necessary resources for safe administration of cell therapies; 2) determinants of cell therapy utilization; 3) selection among patients with B-cell non-Hodgkin lymphomas and 4) B-cell acute lymphocytic leukemia; 5) supportive measures during cell therapy administration; 6) use and prioritization of tocilizumab, and 7) collaborative care with referring physicians. These recommendations were carefully formulated with the understanding that resources allocation is of the utmost importance and the decision to proceed with CAR T cell therapy will require extensive discussion of potential risks and benefits. Though these recommendations are fluid, at this time it is our opinion that the COVID-19 pandemic should not serve as reason to defer CAR T cell therapy for patients truly in need of a potentially curative therapy.

URL: https://doi.org/10.1016/j.bbmt.2020.04.008

Categories:
Cases of COVID-19 have been reported in over 200 countries. Thousands of health workers have been infected and outbreaks have occurred in hospitals, aged care facilities and prisons. World Health Organization (WHO) has issued guidelines for contact and droplet precautions for Healthcare Workers (HCWs) caring for suspected COVID-19 patients, whilst the US Centre for Disease Control (CDC) has recommended airborne precautions. The 1 - 2 m (=3 - 6 ft) rule of spatial separation is central to droplet precautions and assumes large droplets do not travel further than 2 m (=6 ft). We aimed to review the evidence for horizontal distance travelled by droplets and the guidelines issued by the World Health Organization (WHO), US Center for Diseases Control (CDC) and European Centre for Disease Prevention and Control (ECDC) on respiratory protection for COVID-19. We found that the evidence base for current guidelines is sparse, and the available data do not support the 1 - 2 m (=3 - 6 ft) rule of spatial separation. Of ten studies on horizontal droplet distance, eight showed droplets travel more than 2 m (=6 ft), in some cases more than 8 meters (=26 ft). Several studies of SARS-CoV-2 support aerosol transmission and one study documented virus at a distance of 4 meters (=13 ft) from the patient. Moreover, evidence suggests infections cannot neatly be separated into the dichotomy of droplet versus airborne transmission routes. Available studies also show that SARS-CoV-2 can be detected in the air, 3 hours after aerosolisation. The weight of combined evidence supports airborne precautions for the occupational health and safety of health workers treating patients with COVID-19.

URL: https://doi.org/10.1093/infdis/jiaa189

Categories:
and link them to resources that encourage physical and mental well-being. Apps could address cognitive, visual, and hearing impairments. Our objective was to narratively summarize 15 apps that address physical and cognitive limitations and have the potential to improve OAs’ quality of life, especially during social distancing or self-quarantine.

URL: https://doi.org/10.5811/westjem.2020.4.47372

Categories:

Year: 2020
Author: Barnes, Betsy J.; Adrover, Jose M.; Baxter-Stoltzfus, Amelia; Borczuk, Alain; Cools-Lartigue, Jonathan; Crawford, James M.; Daßler-Plenker, Juliane; Guerci, Philippe; Huynh, Caroline; Knight, Jason S.; Loda, Massimo; Looney, Mark R.; McAllister, Florencia; Rayes, Roni; Renaud, Stephane; Rousseau, Simon; Salvatore, Steven; Schwartz, Robert E.; Spicer, Jonathan D.; Yost, Christian C.; Weber, Andrew; Zuo, Yu; Egeblad, Mikala
Title: Targeting potential drivers of COVID-19: Neutrophil extracellular traps
Journal: The Journal of experimental medicine
DOI: 10.1084/jem.20200652

Abstract: Coronavirus disease 2019 (COVID-19) is a novel, viral-induced respiratory disease that in ~10-15% of patients progresses to acute respiratory distress syndrome (ARDS) triggered by a cytokine storm. In this Perspective, autopsy results and literature are presented supporting the hypothesis that a little known yet powerful function of neutrophils—the ability to form neutrophil extracellular traps (NETs)—may contribute to organ damage and mortality in COVID-19. We show lung infiltration of neutrophils in an autopsy specimen from a patient who succumbed to COVID-19. We discuss prior reports linking aberrant NET formation to pulmonary diseases, thrombosis, mucous secretions in the airways, and cytokine production. If our hypothesis is correct, targeting NETs directly and/or indirectly with existing drugs may reduce the clinical severity of COVID-19.

URL: https://doi.org/10.1084/jem.20200652

Categories:

Year: 2020
Author: Barnett, Erin; Comsa, Daria; Zhang, Beibei; Pestill, Tyler; Bradley, Cari; Proctor, Leslie; Mohamoud, Gulaid; Ryan, Michael; Loudon, James; Fenkell, Louis
Title: A rapid transition to voluntary breath hold from device-assisted moderate deep inspiration breath hold for patients receiving breast radiotherapy during the COVID-19 pandemic
Journal: Advances in Radiation Oncology
DOI: https://doi.org/10.1016/j.adro.2020.04.007

Abstract: We read with interest the International Society on Thrombosis and Hemostasis interim guidance on recognition and management of coagulopathy in COVID-19 (1). We applaud this group’s efforts in releasing a timely article on the pandemic impacting all regions of the globe. While we agree that this interim guidance addresses important considerations for monitoring the disease process, we believe that the proposed treatment strategy of prophylactic low molecular weight heparin (LMWH) to treat severe COVID-19 coagulopathy is an unconvincing strategy. Patients that are critically ill with COVID-19 have hallmark signs of disseminated intravascular coagulation (DIC) (2), and as noted in the ISTH interim guidance and our own clinical practice, thrombosis is the overwhelming phenotype with rare bleeding complications. We address this concern with the existing data on the severe hypercoagulable state of COVID-19 victims and advocate for consideration of systemic anticoagulation with unfractionated heparin to prevent life threatening micro- and macrovascular thrombosis to mitigate their associated consequences, up to and including progression of respiratory and organ failure.

URL: https://doi.org/10.1016/j.adro.2020.04.007

Categories:
Summary The objective of this article is to detail the measures taken in public institutions to cope with the COVID-19 epidemic. It details the initial strategy, organizational evolution towards "all-COVID", coordination between the various stakeholders and the strategy for maintaining continuity of care. The Quebec experience is also used as an example. Finally, an exit strategy must be anticipated at this phase of the epidemic. Face to the COVID-19 epidemic, the Fédération Hospitalière de France (French hospital federation) took prompt action as soon as the first cases were reported. The objective of this article is to detail these preparatory steps and their development in public institutions, in France and in Canada.
Abstract: Pre-clinical responses to fast moving infectious disease outbreaks heavily depend on choosing the best isolates for animal models that inform diagnostics, vaccines and treatments. Current approaches are driven by practical considerations (e.g. first available virus isolate) rather than a detailed analysis of the characteristics of the virus strain chosen, which can lead to animal models that are not representative of the circulating or emerging clusters. Here, we suggest a combination of epidemiological, experimental and bioinformatics considerations when choosing virus strains for animal model generation. We discuss the currently chosen SARS-CoV-2 strains for international coronavirus disease (COVID-19) models in the context of their phylogeny as well as in a novel alignment-free bioinformatics approach. Unlike phylogenetic trees, which focus on individual shared mutations, this new approach assesses genome-wide co-developing functionalities and hence offers a more fluid view of the ?cloud of variances? that RNA viruses are prone to accumulate. This joint approach concludes that while the current animal models cover the existing viral strains adequately, there is substantial evolutionary activity that is likely not considered by the current models. Based on insights from the non-discrete alignment-free approach and experimental observations, we suggest isolates for future animal models.
**Abstract:** Coronavirus disease (COVID-19) was firstly reported at the end of 2019. The disease rapidly spread all around the world in a few months and was declared a worldwide pandemic by WHO in March 2020. By April 9, there were 1,436,198 confirmed COVID-19 cases in the world, nearly with 6% mortality rate. This novel infectious disease causes respiratory tract illness that may generally occur as mild upper respiratory tract disease or pneumonia. In older patients and/or patients with underlying conditions, it may result in acute respiratory distress syndrome, multi organ failure and even death. According to the current literature, children account approximately for 1%-5% of diagnosed COVID-19 cases. Generally, COVID-19 seems to be a less severe disease for children than adults. Approximately 90% of pediatric patients are diagnosed as asymptomatic, mild, or moderate disease. However, up to 6.7% of cases may be severe. Severe illness is generally seen in patients smaller than 1 year of age and patients who have underlying diseases. The epidemiological and clinical patterns of COVID-19 and treatment approaches in pediatric patients still remain unclear although many pediatric reports are published. This review aims to summarize the current epidemics, clinical presentations, diagnosis, and treatment of COVID-19 in pediatric patients.

**Abstract:** The COVID-19 crisis could trigger a critical juncture for several institutional arrangements in Canada, potentially leading to notable changes in fiscal federalism. This research note combines insights from historical institutionalism with recent economic and fiscal projections to explore avenues for reform in response to the COVID-19 crisis. Given the magnitude of the crisis, provincial governments may be unable to absorb the fiscal costs on their own. But vast differences in fiscal and economic circumstances across provinces make federal arrangements difficult to design. We argue that intergovernmental power dynamics and the principle of provincial autonomy are particularly important considerations in thinking about fiscal federalism post COVID-19.

**Abstract:** As of early March, the National Health Commission of China indicated that more than 3300 health-workers have been infected (of whom, 22 died). Figures shows that, in Italy, healthcare professionals infections make up 9.0% of Italy’s COVID19 cases, which represents a serious concern because workers who are infected, if identified by a proper test, must stay away from health facilities for at least 14 days, depleting the already exhausted workforce. Major disparities exist across regions in Italy: by the end of the 3rd epidemiological week of March 2020, out of the 176 notified Covid-19 positive patients in Sardinia, 69 (39.2%) were health workers, which is a striking finding when compared with the national average. In the same time-period, the largely hit Lombardy region was recording 3957 affected health workers out of a total 28,750 cases (13.8%).
Year: 2020
Author: Bemtgen, Xavier; Krüger, Kirsten; Supady, Alexander; Dürschmied, Daniel; Schibilsky, David; Bamberg, Fabian; Bode, Christoph; Wengenmayer, Tobias; Staudacher, Dawid L.
Title: First successful treatment of COVID-19 induced refractory cardiogenic plus vasoplegic shock by combination of pVAD and ECMO - a case report
DOI: 10.1097/MAT.0000000000001178
Abstract: The novel coronavirus SARS-CoV-2 is infecting hundreds of thousands of humans around the globe. The coronavirus disease COVID-19 is known to generate mild as well as critical courses. Complications on the intensive care units include acute respiratory distress syndrome, acute cardiac- and kidney injury as well as shock. Here, we present the first case report of a successful treatment of a COVID-19 patient presenting with ARDS plus refractory combined cardiogenic and vasoplegic shock, which could be successfully stabilized after implantation of a percutaneous ventricular assist device (pVAD) plus an extracorporeal membrane oxygenation (ECMO). While such intense treatment might not be feasible in case of a health care disaster as described for the hot spots of the COVID-19 pandemic, it might encourage treatment of younger patients on intensive care units not overcrowded by critically ill patients.
URL: https://doi.org/10.1097/MAT.0000000000001178
Categories:

Year: 2020
Author: bendjeld, karim; Giraud, Raphael
Title: Treating hypoxemic patients with SARS-2 pneumonia: Back to applied physiology
Journal: Anaesthesia Critical Care & Pain Medicine
DOI: https://doi.org/10.1016/j.accpm.2020.04.003
Abstract: 
URL: https://doi.org/10.1016/j.accpm.2020.04.003
Categories:

Year: 2020
Author: Bennett, Christopher
Title: COVID-19: A Resident's Perspective
Journal: AEM Education and Training
DOI: 10.1002/aet2.10457
Abstract: Abstract My shifts all start the same way these last few weeks with the collection of my allocated face shield and N95. The same shifts where it feels like the only patients I treat are those with COVID-19. Faces sometimes not much older than mine. Patients who are tachycardic, hypoxic, and ill. But these interactions are different; physical exams completed under the supervision of a colleague just outside the room, charged to watch my every movement. Vigilance not just for me but for everyone else I could and would come into contact with over the course of my shift. COVID19 lingers on cardboard, steel, plastic, and other surfaces. Even the simplest of acts are dangerous without appropriate precautions.
URL: https://doi.org/10.1002/aet2.10457
Categories:
COVID-19 putting patients at risk of unplanned extubation and airway providers at increased risk of contamination

Abstract: One relevant feature of the Covid-19 disease is the absence of dyspnea, described as 'shortness of breath' or 'an unpleasant urge to breathe'. The lack of dyspnea is observed even in the most severe cases, in which subjects present tachypnea and tachycardia. In the Wuhan cohort, 62.4% of severe cases and 46.3% of those who ended up intubated, ventilated or dead did not present dyspnea[1,2].

Lack of dyspnea in Covid-19 patients; another neurological conundrum?

Abstract: One relevant feature of the Covid-19 disease is the absence of dyspnea, described as 'shortness of breath' or 'an unpleasant urge to breathe'. The lack of dyspnea is observed even in the most severe cases, in which subjects present tachypnea and tachycardia. In the Wuhan cohort, 62.4% of severe cases and 46.3% of those who ended up intubated, ventilated or dead did not present dyspnea[1,2].

Are Surgeons in India prepared for COVID−19?

Abstract: Epidemically increased evidence reveals that the link between the 2019-nCoV and other similar strain of coronaviruses circulating in bats and specifically the Rhinopodous bat sub-species. These sub-species are ample and widely present in Southern China, Middle East Africa and Europe. Recent studies show that more than 500 CoV have been identified in bats in China. The Center for Diseases Control and Prevention and the World Health Organization maintains a website that is updated frequently with new cases of MERS-CoV infection. As per WHO Situation report 16th, 24,554 number of cases confirmed globally out of which 99.22% cases from China. A new coronavirus (2019-nCoV) is causing respiratory syndrome mostly in Hubei Province, China. Corona Virus spread over 24 countries including Japan, India, Korea, and other countries 2019-CoV infection vary from mild, moderate or severe illness; the later includes severe pneumonia, ARDS, sepsis and septic shock. There are two diagnostic
tests for coronavirus infection i.e. molecular test and serology test. In this review article there are the various recent cases of the patients that are suffering from the corona virus, the outcome of these studies is that corona virus infection is an epidemic disease which affects Central Nervous System (CNS).

https://doi.org/10.1007/s13337-020-00582-2

Year: 2020
Author: Biggs, Andrew
Title: Government advice needed on TB testing during Covid-19 outbreak
Journal: The Veterinary record
DOI: 10.1136/vr.m1453
Abstract: 
URL: https://doi.org/10.1136/vr.m1453

Year: 2020
Author: Bikdeli, Behnood; Madhavan, Mahesh V.; Jimenez, David; Chuich, Taylor; Dreyfus, Isaac; Driggin, Elissa; Nigoghossian, Caroline Der; Ageno, Walter; Madjid, Mohammad; Guo, Yuta; Tang, Liang V.; Hu, Yu; Giri, Jay; Cushman, Mary; Quéré, Isabelle; Dimakakos, Evangelos P.; Gibson, C. Michael; Lippi, Giuseppe; Favaloro, Emmanuel J.; Fareed, Jawed; Caprini, Joseph A.; Tafur, Alfonso J.; Burton, John R.; Francesc, Dominic P.; Wang, Elizabeth Y.; Falanga, Anna; McLintock, Claire; Hunt, Beverley J.; Spyropoulos, Alex C.; Barnes, Geoffrey D.; Eikelboom, John W.; Weinberg, Ido; Schulman, Sam; Carrier, Marc; Piazza, Gregory; Beckman, Joshua A.; Steg, P. Gabriel; Stone, Gregg W.; Rosenkranz, Stephan; Goldhaber, Samuel Z.; Parikh, Sahil A.; Monreal, Manuel; Krumholz, Harlan M.; Konstantinides, Stavros V.; Weitz, Jeffrey I.; Lip, Gregory Y. H.
Title: COVID-19 and Thrombotic or Thromboembolic Disease: Implications for Prevention, Antithrombotic Therapy, and Follow-up
Journal: Journal of the American College of Cardiology
DOI: https://doi.org/10.1016/j.jacc.2020.04.031
Abstract: Coronavirus disease 2019 (COVID-19), a viral respiratory illness caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), may predispose patients to thrombotic disease, both in the venous and arterial circulations, due to excessive inflammation, platelet activation, endothelial dysfunction, and stasis. In addition, many patients receiving antithrombotic therapy for thrombotic disease may develop COVID-19, which can have implications for choice, dosing, and laboratory monitoring of antithrombotic therapy. Moreover, during a time with much focus on COVID-19, it is critical to consider how to optimize the available technology to care for patients without COVID-19 who have thrombotic disease. Herein, we review the current understanding of the pathogenesis, epidemiology, management and outcomes of patients with COVID-19 who develop venous or arterial thrombosis, and of those with preexisting thrombotic disease who develop COVID-19, or those who need prevention or care for their thrombotic disease during the COVID-19 pandemic.

https://doi.org/10.1016/j.jacc.2020.04.031

Year: 2020
Author: Black, S. M.; Ali, F. R.
Title: Secure communication conduits during COVID19 lockdown
Journal: Clinical and experimental dermatology
DOI: 10.1111/ced.14244
Abstract: We commend Deepak and colleagues in highlighting the virtues of instant messaging tools such as WhatsApp during the COVID-19 crisis(1). Whilst WhatsApp’s advantages include being highly intuitive, widely used and accessible, there are concerns among clinicians about its use, as well as that of other commercially available communications apps. These include the loss of anonymity to patients, the need to reveal their personal telephone number as well questions over privacy and data security.

https://doi.org/10.1111/ced.14244
Year: 2020
Author: Bodaghi, Bahram
Title: L'ennemi invisible
Journal: Journal Français d'Ophtalmologie
DOI: https://doi.org/10.1016/j.jfo.2020.04.006
Abstract:
URL: https://doi.org/10.1016/j.jfo.2020.04.006
Categories:

Year: 2020
Author: Boggs, Steven D.
Title: Calculate the COVID-19 equation with the people's energy as key variable
Journal: Anesthesia and analgesia
DOI: 10.1213/ANE.0000000000004892
Abstract:
URL: https://doi.org/10.1213/ANE.0000000000004892
Categories:

Year: 2020
Author: Bonalumi, Giorgia; di Mauro, Michele; Garatti, Andrea; Barili, Fabio; Gerosa, Gino; Parolari, Alessandro
Title: The COVID-19 outbreak and its impact on hospitals in Italy: the model of cardiac surgery
Journal: European Journal of Cardio-Thoracic Surgery
DOI: 10.1093/ejcts/ezaa151
Abstract:
URL: https://doi.org/10.1093/ejcts/ezaa151
Categories:

Year: 2020
Author: Bonavita, Simona; Tedeschi, Gioacchino; Atreja, Ashish; Lavorgna, Luigi
Title: Digital triage for people with multiple sclerosis in the age of COVID-19 pandemic
Journal: Neurological Sciences
DOI: 10.1007/s10072-020-04391-9
Abstract: We propose a possible approach for the remote monitoring of infection risk in people with multiple sclerosis, especially those on immunosuppressant drugs, during COVID-19 pandemic. We developed a digital triage tool to be sent to patients to quickly identify people with high risk of COVID-19 infection. This tool will also limit unnecessary accesses to the MS centers reducing the risk of spreading the infection.
URL: https://doi.org/10.1007/s10072-020-04391-9
Categories:

Year: 2020
Author: Botella, Carlos
Title: Covid-19
Journal: Neurocirugía
DOI: https://doi.org/10.1016/j.neucir.2020.04.001
Abstract:
URL: https://doi.org/10.1016/j.neucir.2020.04.001
Categories:

Year: 2020
Author: Bowen, Mark
Title: Covid-19 has changed how we teach students
Journal: The Veterinary record
DOI: 10.1136/vr.m1535
Abstract:
URL: https://doi.org/10.1136/vr.m1535
Categories:
International Expansion of Social Enterprises as a Catalyst for Scaling up Social Impact across Borders

Abstract: Scaling social impact and solutions beyond the local context is argued to embody a key mechanism for social enterprises (SEs) to contribute to the achievement of the sustainable development goals (SDGs) and to generate welfare-enhancing systemic change. In light of this, this article explores the potential of SE international expansion as a catalyst for scaling social impact across borders. From our reading of the literature, we discern three major typologies of cross-border scaling: Control-based, altruism-based, and hybrid. Drawing on a multiple-case study of nine international SEs, we examine why and how SEs deploy these scaling strategies on an international scale; the challenges to maximize social impact across borders associated with each of the scaling strategies, and the resources and actions that SEs can mobilize to manage such challenges associated with international expansion. Contrary to conventional wisdom and mainstream theory depicting SEs as small-sized organizations that suffer from different limitations to expand beyond their traditional national boundaries, our findings illustrate how these organizations can successfully operate on an international scale and simultaneously generate financial, social, and environmental value.

CRISPR-Cas12-based detection of SARS-CoV-2

Abstract: An outbreak of betacoronavirus severe acute respiratory syndrome (SARS)-CoV-2 began in Wuhan, China in December 2019. COVID-19, the disease associated with SARS-CoV-2 infection, rapidly spread to produce a global pandemic. We report development of a rapid (<40 min), easy-to-implement and accurate CRISPR-Cas12-based lateral flow assay for detection of SARS-CoV-2 from respiratory swab RNA extracts. We validated our method using contrived reference samples and clinical samples from patients in the United States, including 36 patients with COVID-19 infection and 42 patients with other viral respiratory infections. Our CRISPR-based DETECTR assay provides a visual and faster alternative to the US Centers for Disease Control and Prevention SARS-CoV-2 real-time RT-PCR assay, with 95% positive predictive agreement and 100% negative predictive agreement.

A Journal in a Plague Year
Year: 2020  
Author: Brown, Cortlyn; Noble, Jeanne; Coralic, Zlatan  
Title: Brief Summary of Potential SARS-CoV-2 Prophylactic and Treatment Drugs in the Emergency Department  
Journal: West J Emerg Med  
DOI: 10.5811/westjem.2020.3.47328  
Abstract: As of March 30th, 2020 there were 161,807 total cases and 2,953 total deaths of SARS-CoV-2 in the United States, with the number of cases expected to rise. Other than supportive care, there are no SARS-CoV-2 specific treatments available for patients discharged from the emergency department (ED) or those admitted to the hospital. In addition, there are no vaccines available to protect our at-risk healthcare workers. The National Institutes of Health is conducting a Phase 1 clinical trial to evaluate for a potential vaccine and the recipients have started to receive the investigational vaccine. We present a brief overview of the potential prophylactic and treatment agents under investigation, some which could be initiated in the ED if proven effective.  
URL: https://doi.org/10.5811/westjem.2020.3.47328

Year: 2020  
Author: Brown, Eric E.; Kumar, Sanjeev; Rajji, Tarek K.; Pollock, Bruce G.; Mulsant, Benoit H.  
Title: Anticipating and Mitigating the Impact of COVID-19 Pandemic on Alzheimer’s Disease and Related Dementias  
Journal: The American Journal of Geriatric Psychiatry  
DOI: https://doi.org/10.1016/j.jagp.2020.04.010  
Abstract: The COVID-19 pandemic is causing global morbidity and mortality, straining health systems, and disrupting society, putting individuals with Alzheimer’s disease and related dementias (ADRD) at risk of significant harm. In this Special Article, we examine the current and expected impact of the pandemic on individuals with ADRD. We discuss and propose mitigation strategies for: the risk of COVID-19 infection and its associated morbidity and mortality for individuals with ADRD; the impact of COVID-19 on the diagnosis and clinical management of ADRD; consequences of societal responses to COVID-19 in different ADRD care settings; the effect of COVID-19 on caregivers and physicians of individuals with ADRD; mental hygiene, trauma, and stigma in the time of COVID-19; and the potential impact of COVID-19 on ADRD research. Amid considerable uncertainty, we may be able to prevent or reduce the harm of the COVID-19 pandemic and its consequences for individuals with ADRD and their caregivers.  
URL: https://doi.org/10.1016/j.jagp.2020.04.010

Year: 2020  
Author: Brownlie, Joe; Sibley, Dick  
Title: What can animal coronaviruses tell us about emerging human coronaviruses?  
Journal: The Veterinary record  
DOI: 10.1136/vr.m1463  
Abstract:  
URL: https://doi.org/10.1136/vr.m1463

Year: 2020  
Author: Buckley, Leo F.; Cheng, Judy W. M.; Desai, Akshay  
Title: Cardiovascular Pharmacology in the Time of COVID-19: A Focus on Angiotensin Converting Enzyme 2  
Journal: J Cardiovasc Pharmacol  
DOI: 10.1097/FJC.0000000000000840  
Abstract: Coronavirus disease-2019 (COVID-19) has emerged as a pandemic affecting millions of adults. Severe acute respiratory syndrome coronavirus-2019 (SARS-CoV-2), the causative virus of COVID-19, infects host cells through angiotensin converting enzyme 2 (ACE2). Pre-clinical models suggest that ACE2 upregulation confers protective effects in acute lung injury. Additionally, renin-angiotensin aldosterone system inhibitors reduce adverse atherosclerotic cardiovascular disease, heart failure and chronic kidney disease outcomes, but may increase ACE2 levels. We review current knowledge of the role of ACE2 in cardiovascular physiology and SARS-CoV-2 virology as well as clinical data to inform the management of patients with or at risk for COVID-19 who require renin-
It seems that Coronaviruses take an important place in the 21st century history. Five of seven human coronavirus was isolated in this century. Unfortunately, last three of them entered our life with a fear of outbreak, pandemic or death. Last human coronavirus which emerged world from Wuhan China, SARS CoV-2 and its clinical expression, Coronavirus disease (COVID-19) recently taken a significant place in our daily practice. Initial reports showed that, its origin was bats. It transmitted human to human by droplet and contact routes, but some doubt about airborne, fecal or intrauterine transmission also should be removed. Its R0 value is 2.3 but it could be as high as 5.7. Its case fatality rate was 6.3, but it was different in different ages and counties, and it could be over 15%. According to early models total 10-12 weeks is required to control an outbreak in the community. While different countries show different daily case numbers, total number of case, case mortality rates or R0, it seems they show a similar epidemic curve. Every day we learn new data about the current outbreak. Since the outbreak is not over yet, every detail should be evaluated carefully and the updates should be followed closely to monitor the epidemiological properties of COVID-19.
whether the patient was a health care worker in the United States; including 9,282 (19%) who were identified as HCP. Among HCP patients with data available, the median age was 42 years (interquartile range [IQR] = 32-54 years), 6,603 (73%) were female, and 1,779 (38%) reported at least one underlying health condition. Among HCP patients with data on health care, household, and community exposures, 780 (55%) reported contact with a COVID-19 patient only in health care settings. Although 4,336 (92%) HCP patients reported having at least one symptom among fever, cough, or shortness of breath, the remaining 8% did not report any of these symptoms. Most HCP with COVID-19 (6,760, 90%) were not hospitalized; however, severe outcomes, including 27 deaths, occurred across all age groups; deaths most frequently occurred in HCP aged ≥65 years. These preliminary findings highlight that whether HCP acquire infection at work or in the community, it is necessary to protect the health and safety of this essential national workforce.

URL: https://doi.org/10.15585/mmwr.mm6915e6
Categories:

Year: 2020
Author: Buscombe, John R.; Notghi, Alp; Croasdale, Jilly; Pandit, Manish; O’Brien, Joseph; Graham, Richard; Redman, Stewart; Vinjamuri, Sobhan
Title: COVID-19: guidance for infection prevention and control in nuclear medicine
Journal: Nucl Med Commun
DOI: 10.1097/MNM.0000000000001206
Abstract: This guidance document is a brief consensus document covering the range and breadth of nuclear medicine practice in the UK, and identifies a few steps individual nuclear medicine practitioners and departments can take in the best interests of their patients. This guidance document should be used to inform local practice and does not replace local Trust policies or any relevant legislation. At all times, the best interests of the patients should be paramount. Please read this guidance in conjunction with previous editorial (COVID-19 Nuclear Medicine Departments, be prepared! by Huang HL, Allie R, Gnanasegaran G, Bomanji. J Nucl Med Commun 2020; 41:297-299). Although some aspects of this guidance are time-sensitive due to the nature of the global emergency, we believe that there is still sufficient information to provide some key guiding principles.

URL: https://doi.org/10.1097/MNM.0000000000001206
Categories:

Year: 2020
Author: Butler, Michael J.; Barrientos, Ruth M.
Title: The impact of nutrition on COVID-19 susceptibility and long-term consequences
Journal: Brain, Behavior, and Immunity
DOI: https://doi.org/10.1016/j.bbi.2020.04.040
Abstract: While all groups are affected by the COVID-19 pandemic, the elderly, underrepresented minorities, and those with underlying medical conditions are at the greatest risk. The high rate of consumption of diets high in saturated fats, sugars, and refined carbohydrates (collectively called Western diet, WD) worldwide, contribute to the prevalence of obesity and type II diabetes, and could place these populations at an increased risk for severe COVID-19 pathology and mortality. WD consumption activates the innate immune system and impairs adaptive immunity, leading to chronic inflammation and impaired host defense against viruses. Furthermore, peripheral inflammation caused by COVID-19 may have long-term consequences in those that recover, leading to chronic medical conditions such as dementia and neurodegenerative disease, likely through neuroinflammatory mechanisms that can be compounded by an unhealthy diet. Thus, now more than ever, wider access to healthy foods should be a top priority and individuals should be mindful of healthy eating habits to reduce susceptibility to and long-term complications from COVID-19.

URL: https://doi.org/10.1016/j.bbi.2020.04.040
Categories:

Year: 2020
Author: Canady, Valerie A.
Title: NAMI partners with Instagram on new Netflix series on MH
Journal: Mental Health Weekly
DOI: 10.1002/mhw.32327
Abstract: Netflix last month announced the launch of a new series on Instagram with a focus on consumers taking care of themselves and their mental health during the COVID-19 global pandemic. In particular, the series
targets the needs of young people and the challenges they may be facing during this health crisis. The National Alliance on Mental Illness (NAMI) has joined in this effort.

URL: https://doi.org/10.1002/mhw.32327

Abstract: The National Alliance on Mental Illness New Hampshire (NAMI-NH) is working to maintain community connectedness in the midst of this pandemic via its education and advocacy programs, now conducted remotely, and its virtual support groups.

URL: https://doi.org/10.1002/mhw.32326

Abstract: Mental health organizations who may be thinking about social distancing and other threats to their nonprofit organizations, and the possible need to shutter services, should think again, according to the CEO of the Mental Health Association Oklahoma (MHA Oklahoma). The new reality presented by COVID-19 could offer nonprofits opportunities to become stronger now, along with the creation of new nonprofit business models.

URL: https://doi.org/10.1002/mhw.32325

Abstract: The COVID-19 crisis has no doubt disrupted the lives of many, and the impact is being felt by mental health providers and front-line staff who have had to get accustomed to different ways of delivering services. Behavioral health care leaders in the field, in interviews with MHW, are reminding providers to take care of themselves emotionally and physically as they care for patients with mental health and substance use needs during this pandemic.

URL: https://doi.org/10.1002/mhw.32324

Abstract: Resumen La pandemia por el COVID-19 nos ha encontrado desprotegidos ante la dificultad para dar una respuesta sanitaria adecuada y rápida. La red de hospitales del sistema sanitario público ha dispuesto la mayoría de los recursos para el tratamiento de los pacientes afectos por la infección. Las cirugías no esenciales (no prioritarias) han sido aplazadas. El reinicio óptimo y proporcionado de estas cirugías no prioritarias puede representar un problema. En el presente artículo se ofrece una perspectiva técnica y no técnica del reinicio de las cirugías no prioritarias desde la óptica de la cirugía de la pared abdominal. Pandemic by the COVID-19 has found us
unprotected to provide an adequate and rapid sanitary response. The hospital network of our public health system has provided most of the resources for the treatment of patients affected by the infection. Non-essential (non-priority) surgeries have been postponed. The optimal and proportionate reestablishment of these non-priority surgeries can be a problem. This article offers a technical and non-technical view of reestablishment non-priority surgeries from the perspective of abdominal wall surgery.

URL: https://doi.org/10.1016/j.ciresp.2020.04.011
Categories:

Year: 2020
Author: Capecchi, Pier Leopoldo; Lazzerini, Pietro Enea; Volterrani, Luca; Mazzei, Maria Antonietta; Rossetti, Barbara; Zanelli, Giacomo; Bennett, David; Bargagli, Elena; Franchi, Federico; Cameli, Matteo; Valente, Serafina; Cantarini, Luca; Frediani, Bruno
Title: Antirheumatic agents in covid-19: is IL-6 the right target?
Journal: Ann Rheum Dis
DOI: 10.1136/annrheumdis-2020-217523
Abstract:
URL: https://doi.org/10.1136/annrheumdis-2020-217523
Categories:

Year: 2020
Author: Carda, Stefano; Invernizzi, Marco; Bavikatte, Ganesh; Bensmail, Djamel; Bianchi, Francesca; Deltombe, Thierry; Draulans, Nathalie; Esquenazi, Alberto; Francisco, Gerard E.; Gross, Raphaël; Jacinto, Luis Jorge; Pérez, Susana Moraleda; O'Dell, Michael W.; Reebye, Rajiv; Verduzco-Gutierrez, Monica; Wissel, Jörg; Molteni, Franco
Title: The role of physical and rehabilitation medicine in the COVID-19 pandemic: the clinician’s view
Journal: Annals of Physical and Rehabilitation Medicine
DOI: https://doi.org/10.1016/j.rehab.2020.04.001
Abstract:
URL: https://doi.org/10.1016/j.rehab.2020.04.001
Categories:

Year: 2020
Author: Cardona Maya, Walter D.; Du Plessis, Stefan S.; Velilla, Paula A.
Title: SARS-CoV-2 and the Testis: similarity to other viruses and routes of infection
Journal: Reproductive BioMedicine Online
DOI: https://doi.org/10.1016/j.rbmo.2020.04.009
Abstract: Since the latest coronavirus outbreak, the number of infected individuals and COVID-19 cases have been increasing exponentially worldwide. Of interest is the evidence that orchitis can develop due coronavirus infection. Therefore, it is not unreasonable to believe that the latest coronavirus, SARS-CoV-2, could be transmitted by semen. Consequently, it is paramount that individuals who could potentially be infected take all possible care to mitigate the likely risk of infection through sexual intercourse.
URL: https://doi.org/10.1016/j.rbmo.2020.04.009
Categories:

Year: 2020
Author: Cardoso, Pedro; Rodrigues-Pinto, Ricardo
Title: Surgical management of bone and soft tissue sarcomas and skeletal metastases during the COVID-19 pandemic
Journal: European Journal of Surgical Oncology
DOI: https://doi.org/10.1016/j.ejso.2020.04.027
Abstract:
URL: https://doi.org/10.1016/j.ejso.2020.04.027
Categories:
Year: 2020
Author: Carter, Bob S.; Chiocca, E. Antonio
Title: Editorial. COVID-19 and academic neurosurgery
Journal: Journal of neurosurgery
DOI: 10.3171/2020.4.JNS201013
Abstract: URL: https://doi.org/10.3171/2020.4.JNS201013
Categories:

Year: 2020
Author: Carvalho, Thiago
Title: COVID-19 Research in Brief: 11 April to 17 April, 2020
Journal: Nat Med
DOI: 10.1038/d41591-020-00011-3
Abstract: URL: https://doi.org/10.1038/d41591-020-00011-3
Categories:

Year: 2020
Author: Carver, Pamela E.; Phillips, Jennan
Title: Novel Coronavirus (COVID-19): What You Need to Know
Journal: Workplace health & safety
DOI: 10.1177/2165079920914947
Abstract: Much remains unknown about COVID-19. Occupational health nurses must use reliable sources to control misinformation and prevent widespread panic.
URL: https://doi.org/10.1177/2165079920914947
Categories:

Year: 2020
Author: Casale, Thomas B.; Wang, Julie; Nowak-Wegrzyn, Anna
Title: Acute At Home Management of Anaphylaxis During The Covid-19 Pandemic
Journal: The Journal of Allergy and Clinical Immunology: In Practice
DOI: https://doi.org/10.1016/j.jaip.2020.04.022
Abstract: URL: https://doi.org/10.1016/j.jaip.2020.04.022
Categories:

Year: 2020
Author: Casillo, Gian Marco; Mansour, Adel Abo; Raucci, Federica; Saviano, Anella; Mascolo, Nicola; Jilani Iqbal, Asif; Maione, Francesco
Title: Could IL-17 represent a new therapeutic target for the treatment and/or management of COVID-19-related respiratory syndrome?: This paper is dedicated to Sofia Maione born during COVID-19 outbreak
Journal: Pharmacol Res
DOI: 10.1016/j.phrs.2020.104791
Abstract: URL: https://doi.org/10.1016/j.phrs.2020.104791
Categories:

Year: 2020
Author: Castro, Rodolfo; Luz, Paula M.; Wakimoto, Mayumi D.; Veloso, Valdilea G.; Grinsztejn, Beatriz; Perazzo, Hugo
Title: COVID-19: a meta-analysis of diagnostic test accuracy of commercial assays registered in Brazil
Journal: The Brazilian Journal of Infectious Diseases
DOI: https://doi.org/10.1016/j.bjid.2020.04.003
Abstract: The accuracy of commercially available tests for COVID-19 in Brazil remains unclear. We aimed to perform a meta-analysis to describe the accuracy of available tests to detect COVID-19 in Brazil. We searched at
the Brazilian Health Regulatory Agency (ANVISA) online platform to describe the pooled sensitivity (Se), specificity (Sp), diagnostic odds ratio (DOR) and summary receiver operating characteristic curves (SROC) for detection of IgM/IgG antibodies and for tests using naso/oropharyngeal swabs in the random-effects models. We identified 16 tests registered, mostly rapid-tests. Pooled diagnostic accuracy measures [95%CI] were: (i) for IgM antibodies Se=82% [76-87]; Sp=97% [96-98]; DOR=168 [92-305] and SROC=0.98 [0.96-0.99]; (ii) for IgG antibodies Se=97% [90-99]; Sp=98% [97-99]; DOR=1994 [385-1034] and SROC=0.99 [0.98-1.00]; and (iii) for detection of SARS-CoV-2 by antigen or molecular assays in naso/oropharyngeal swabs Se=97% [85-99]; Sp=99% [77-100]; DOR=2649 [30-233056] and SROC=0.99 [0.98-1.00]. These tests can be helpful for emergency testing during the COVID-19 pandemic in Brazil. However, it is important to highlight the high rate of false negative results from tests which detect SARS-CoV-2 IgM antibodies in the initial course of the disease and the scarce evidence-based validation results published in Brazil. Future studies addressing the diagnostic performance of tests for COVID-19 in the Brazilian population are urgently needed.

URL:  https://doi.org/10.1016/j.bjid.2020.04.003
Categories:

Year: 2020
Author: Ceriello, Antonio; Stoian, Anca Pantea; Rizzo, Manfredi
Title: COVID-19 and diabetes management: What should be considered?
Journal: Diabetes Research and Clinical Practice
DOI:  https://doi.org/10.1016/j.diabres.2020.108151
Abstract:

URL:  https://doi.org/10.1016/j.diabres.2020.108151
Categories:

Year: 2020
Author: Çetin, Ceren; Kara, Ateş
Title: Global Surveillance, Travel and Trade During a Pandemic
Journal: Turkish journal of medical sciences
DOI: 10.3906/sag-2004-175
Abstract: Pandemics have had very important consequences in human history. Lots of people lost their lives and countries have been intensively effected in terms of socioeconomic problems. Unfortunately, avoidance of pandemics, limiting the spread are still currently not always possible. Maybe the most important factor for this, is the increasing frequency of traveling. Increasing airline traveling rate also increase the rate of spread. Global organizations like World Health Organization and United Nations are trying to play a supreme role over the countries. Pandemics do not have borders therefore efforts should be given globally, definition of pandemic should be established as soon as possible and protective measures should be shared with countries. If these are not done, severe health consequences and serious economic problems are inevitable.

URL:  https://doi.org/10.3906/sag-2004-175
Categories:

Year: 2020
Author: Chabner, Bruce A.
Title: Taking the Longer View of COVID-19
Journal: The oncologist
DOI: 10.1634/theoncologist.2020-0313
Abstract:

URL:  https://doi.org/10.1634/theoncologist.2020-0313
Categories:

Year: 2020
Author: Chacón-Aguilar, Rocio; Osorio-Cámara, Juana María; Sanjurjo-Jimenez, Isabel; González-González, Carolina; López-Carnero, Juan; Agapito, Begoña Pérez-Moneo
Title: COVID 19: SINDROME FEBRIL Y CLÍNICA NEURÓLOGICA EN NEONATO
Journal: Anales de Pediatría
DOI:  https://doi.org/10.1016/j.anpedi.2020.04.012
Abstract:
COVID-19 hits all of the cognitive triggers for how the lay public midjudges risk. Robust findings from the field of risk perception have identified unique characteristics of a risk that allow for greater attribution of frequency and probability than is likely to be aligned to the base-rate statistics of the risk. COVID-19 embodies these features. It is unfamiliar, invisible, dreaded, potentially endemic, involuntary, disproportionately impacts vulnerable populations like the elderly, and has the potential for widespread catastrophe. When risks with such characteristics emerge it is imperative for there to be trust between those in governance and communication and the lay public in order to quell public fears. This is not the environment in which COVID-19 has emerged, potentially resulting in even greater perceptions of risk. While research on the value-based factors, like trust, that contribute to risk perceptions has provided great insights into how the public views and assesses risks, studies of public perceptions of emerging infectious diseases are still limited. What we do know is that emerging and persistent infectious diseases receive significant media attention, especially compared to other disease states that are known (e.g., cardiovascular disease, cancer, Alzheimer's). This was true of H1N1, and has anecdotally so far proven true for COVID-19.
Year: 2020
Title: An urgent call for raising the scientific rigorousness of clinical trials on COVID-19
Journal: Zhonghua Liu Xing Bing Xue Za Zhi
DOI: 10.3760/cma.j.issn.0254-6450.2020.03.004
Abstract: URL: https://doi.org/10.3760/cma.j.issn.0254-6450.2020.03.004
Categories:

Year: 2020
Author: Chen, Huini; Lao, Zizhao; Xu, Jiangtao; Li, Zhaoxin; Long, Haishan; Li, Detang; Lin, Luping; Liu, Xiaohong; Yu, Liangwen; Liu, Weiyong; Li, Geng; Wu, Jianguo
Title: Antiviral activity of lycorine against Zika virus in vivo and in vitro
Journal: Virology
DOI: https://doi.org/10.1016/j.virol.2020.04.009
Abstract: The emergence and re-emergence of Zika virus (ZIKV), is a cause for international concern. These highly pathogenic arboviruses represent a serious health burden in tropical and subtropical areas worldwide. Despite these burdens, antiviral therapies do not exist, and inhibitors of ZIKV are therefore urgently needed. To elucidate the anti-ZIKV effect of lycorine, we used reverse transcription-quantitative real-time PCR (qRT-PCR), immunofluorescence, Western blot, and plaque forming assay to analyse viral RNA (vRNA), viral protein, progeny virus counts, and validated inhibitors in vitro using a variety of cell lines. Additionally, we found that lycorine acts post-infection according to time-of-addition assay, and inhibits RdRp activity. Lycorine protected AG6 mice against ZIKV-induced lethality by decreasing the viral load in the blood. Due to its potency and ability to target ZIKV infection in vivo and in vitro, lycorine might offer promising therapeutic possibilities for combatting ZIKV infections in the future.
URL: https://doi.org/10.1016/j.virol.2020.04.009
Categories:

Year: 2020
Author: Chen, Lian; Li, Qin; Zheng, Danni; Jiang, Hai; Wei, Yuan; Zou, Li; Feng, Ling; Xiong, Guoping; Sun, Guoqiang; Wang, Haibo; Zhao, Yangyu; Qiao, Jie
Title: Clinical Characteristics of Pregnant Women with Covid-19 in Wuhan, China
Journal: New England Journal of Medicine
DOI: 10.1056/NEJMc2009226
Abstract: Background: Although the detection of SARS-CoV-2 viral load in respiratory specimens has been widely used to diagnose coronavirus disease-19 (COVID-19), it is undeniable that serum SARS-CoV-2 nucleic acid (RNAemia) could be detected in a fraction of COVID-19 patients. However, it is not clear whether testing for...
RNAemia is correlated with the occurrence of cytokine storms or with the specific class of patients. METHODS: This study enrolled 48 patients with COVID-19 admitted to the General Hospital of Central Theater Command, PLA, a designated hospital in Wuhan, China. The patients were divided into three groups according to the "Diagnosis and Treatment of New Coronavirus Pneumonia (6th edition)" issued by the National Health Commission of China. The clinical and laboratory data were collected. The serum viral load and IL-6 levels were determined. . RESULTS: Clinical characteristics analysis of 48 cases of COVID-19 showed that RNAemia was diagnosed only in the critically ill group and seemed to reflect the severity of the disease. Furthermore, the level of inflammatory cytokine IL-6 in critically ill patients increased significantly, almost 10 times that in other patients. More importantly, the extremely high IL-6 level was closely correlated with the detection of RNAemia (R = 0.902). CONCLUSIONS: Detectable serum SARS-Cov-2 RNA(RNAemia) in COVID-19 patients was associated with elevated IL-6 concentration and poor prognosis. Because the elevated IL-6 may be part of a larger cytokine storm which could worsen outcome, IL-6 could be a potential therapeutic target for critically ill patients with an excessive inflammatory response.

URL: https://doi.org/10.1093/cid/ciaa449

Categories:
Year: 2020
Author: Chen, Yu; Chen, Bin
Title: The Combined Effect of Indoor Air Quality and Socioeconomic Factors on Health in Northeast China
DOI: 10.3390/APP10082827
Abstract: Research has increasingly demonstrated that complex relationships exist between residential indoor air quality, health and socioeconomic factors. However, few studies have provided a comprehensive understanding of these relationships. The purpose of this paper, therefore, was to use structural equation modeling to identify the combined effect of residential indoor air quality and socioeconomic factors on occupants' health, based on field measurement data in Northeast China. The results showed that socioeconomic status had a direct impact on the occupants' health with the path coefficient of 0.413, whereas the effect from indoor air quality was 0.105. Socioeconomic status posed the direct effect on indoor air quality with path coefficients of 0.381. The weights of PM2.5, CO2, TVOC (Total Volatile Organic Compounds), and formaldehyde concentration to the indoor air quality were 0.813, 0.385, 0.218, and 0.142, respectively. Relative contributions of Income level, education level, and occupation prestige to socioeconomic status were 0.595, 0.551, and 0.508, respectively. Relationships between indoor air quality, socioeconomic factors and health were further confirmed based on multiple group analysis. The study defines and quantifies complex relationships between residential indoor air quality, socioeconomic status and health, which will help improve knowledge of the impacts of the residential indoor environment on health.

URL: https://doi.org/10.3390/APP10082827

Categories:
Year: 2020
Author: Chen, Zhicheng; Zhang, Hongyun; Liu, Xinsheng
Title: Almost Sure Convergence for the Maximum and Minimum of Normal Vector Sequences
Journal: Mathematics 2020, Vol. 8, Page 618
DOI: 10.3390/MATH8040618
Abstract: In this paper, we prove the almost sure convergences for the maximum and minimum of nonstationary and stationary standardized normal vector sequences under some suitable conditions.

URL: https://doi.org/10.3390/MATH8040618

Categories:
Year: 2020
Author: Cheruiyot, Isaac; Henry, Brandon Michael; Lippi, Giuseppe
Title: Is There Evidence of Intra-Uterine Vertical Transmission Potential of COVID-19 Infection in Samples Tested by Quantitative RT-PCR?
Journal: European Journal of Obstetrics & Gynecology and Reproductive Biology
DOI: https://doi.org/10.1016/j.ejogrb.2020.04.034
Abstract:
URL: https://doi.org/10.1016/j.ejogrb.2020.04.034
Categories:
Gaps in India's preparedness for COVID-19 control

Chetterje, Patralekha

The Lancet Infectious Diseases

https://doi.org/10.1016/S1473-3099(20)30300-5

Being a Surgeon in the Pandemic Era

Chia, Clement L. K.

Journal of the American College of Surgeons

https://doi.org/10.1016/j.jamcollsurg.2020.04.010

COVID-19: Protecting Healthcare Workers is a priority

Chirico, Francesco; Nucera, Gabriella; Magnavita, Nicola

Infection Control & Hospital Epidemiology

10.1017/ice.2020.148

In Italy, more infections among healthcare personnel than in China were recorded. As of April 05, 2020 12,252 health workers in Italy have tested positive for COVID-19, making up 10% of Italy's COVID-19 cases; furthermore, 80 medical doctors and 25 nurses have died. Protecting healthcare workers is crucial in order not to amplify the COVID-19 epidemics. Moreover, relocating the public health emergency response from the hospitals to the territory, by integrating the hospital into an overall epidemic response, is a priority for contrasting further COVID-19 waves.

https://doi.org/10.1017/ice.2020.148

A neurosurgery resident's response to COVID-19: anything but routine

Choi, Bryan D.

Journal of neurosurgery

10.3171/2020.4.JNS201028

https://doi.org/10.3171/2020.4.JNS201028

Symptom Screening at Illness Onset of Health Care Personnel With SARS-CoV-2 Infection in King County, Washington

Chow, Eric J.; Schwartz, Noah G.; Tobolowsky, Farrell A.; Zacks, Rachael L. T.; Huntington-Frazier, Melinda; Reddy, Sujan C.; Rao, Agam K.

JAMA

10.1001/jama.2020.6637

https://doi.org/10.1001/jama.2020.6637
Abstract:
Within the regime of professional liability of doctors in training, the limits and the medico-legal aspects of their professional duties are not well-defined. The Italian Court of Cassation established in its sentence no. 26311/2019 that resident doctors do not work at hospitals just to receive their professional training. They are, indeed, licensed physicians and therefore bear full responsibility for the acts performed within the compass of their professional activity. The purpose of this article is to briefly define the possible consequences of this judgment.
En diciembre de 2019, en China surgió un nuevo brote de neumonía la cual fue identificada como SARS-CoV-2 el cual tiene una rápida propagación al ser trasmitido principalmente mediante tos, estornudo o contacto. Presenta diversos síntomas como fiebre, tos seca y mialgia. Puede afectar a cualquier edad siendo principalmente leve y con resolución espontánea, pero en personas mayores y/o con comorbilidades puede presentar un curso severo o mortal. Para su diagnóstico es importante evaluar la presencia de fiebre, realizar una historia epidemiológica, TC de tórax y pruebas de laboratorio como RT-PCR o muestras del tracto respiratorio. Se realizó una revisión sistemática cualitativa realizando una búsqueda en las bases de datos Medline y ClinicalKey, se encontraron 72 artículos, los cuales se leyeron por completo, de ellos 16 cumplieron los criterios de inclusión y exclusión. La gran parte de las acciones odontológicas producen gotas o aerosoles, por esta razón se deben tomar medidas de protección, selección de pacientes y tipos de tratamientos para disminuir la posibilidad de infecciones en el personal de salud y pacientes, evaluar el uso de goma dique y colutorios previos a la atención, evitar instrumental generador de aerosoles, postergar atenciones electivas, tratar solamente emergencias dentales y extremar las medidas de desinfección de las instalaciones utilizando agentes biocidas efectivos contra el coronavirus. La transmisión por fómites y aerosoles está comprobada por lo que debemos extremar precauciones. En situaciones de pandemia hay que considerar entregar un soporte psicológico a los pacientes, especialmente con patologías orales psicosomáticas las que pueden empeorar. La posibilidad de transmisión en el periodo de recuperación no está comprobada ni descartada.
Background Computed tomography (CT) of patients with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) disease depicts the extent of lung involvement in COVID-19 pneumonia. Purpose The aim of the study was to determine the value of quantification of the well-aerated lung obtained at baseline chest CT for determining prognosis in patients with COVID-19 pneumonia. Materials and Methods Patients who underwent chest CT suspected for COVID-19 pneumonia at the emergency department admission between February 17 to March 10, 2020 were retrospectively analyzed. Patients with negative reverse-transcription polymerase chain reaction (RT-PCR) for SARS-CoV-2 in nasal-pharyngeal swabs, negative chest CT, and incomplete clinical data were excluded. CT was analyzed for quantification of well aerated lung visually (%VWL) and by open-source software (%S-WAL and absolute volume, VOL-WAL). Clinical parameters included demographics, comorbidities, symptoms and symptom duration, oxygen saturation and laboratory values. Logistic regression was used to evaluate relationship between clinical parameters and CT metrics versus patient outcome (ICU admission/death vs. no ICU admission/ death). The area under the receiver operating characteristic curve (AUC) was calculated to determine model performance. Results The study included 236 patients (females 59/123, 25%; median age, 68 years). A %V-WAL<73% (OR, 5.4; 95% CI, 2.7-10.8; P<0.001), %S-WAL<71% (OR, 3.8; 95% CI, 1.9-7.5; P<0.001), and VOL-WAL<2.9 L (OR, 2.6; 95% CI, 1.2-5.8; P<0.01) were predictors of ICU admission/death. In comparison with clinical model containing only clinical parameters (AUC, 0.83), all three quantitative models
showed higher diagnostic performance (AUC 0.86 for all models). The models containing %V-WAL<73% and VOL-WAL<2.9L were superior in terms of performance as compared to the models containing only clinical parameters (P=0.04 for both models). Conclusion In patients with confirmed COVID-19 pneumonia, visual or software quantification the extent of CT lung abnormality were predictors of ICU admission or death.

URL: https://doi.org/10.1148/radiol.2020201433

Categories:

Year: 2020
Author: Connors, Jean M.; Levy, Jerrold H.
Title: Thromboinflammation and the hypercoagulability of COVID-19
Journal: Journal of thrombosis and haemostasis : JTH
DOI: 10.1111/jth.14849
Abstract: The pathogenic coronavirus has been wreaking havoc worldwide since January. Infection with SARS-CoV-2 is problematic as no one has prior immunity, and no specific antiviral treatments are available. While many people with COVID-19 develop mild to moderate symptoms, some develop profound seemingly unchecked inflammatory responses leading to acute lung injury and hypoxemic respiratory failure, the most common cause for death.

URL: https://doi.org/10.1111/jth.14849

Categories:

Year: 2020
Author: Corral Gudino, L.
Title: Treatment of the COVID-19 pandemic: Preventing a missed opportunity TT - El tratamiento de la pandemia por COVID 19. Ante la expectativa de evitar una oportunidad perdida
Journal: Revista clinica espanola
DOI: 10.1016/j.rce.2020.04.005
Abstract: The current world is facing a Pandemic due to a New Coronavirus, the so-called, COVID-19 or SARS-CoV-2, a virus that is transmitted by air with a high rate of contagion, lo cual ha obligado a los gobiernos de los diferentes países a tomar medidas que restrinjan la concentración de personas; es por esto, que el gobierno de Colombia, decide suspender las clases en todas las instituciones educativas y sugerir la migración hacia estrategias de aprendizaje virtual. Esto supone un desafío para dichas instituciones además de un reto para los profesores, pues se hace necesario un cambio en las metodologías de enseñanza y apren-dizaje; se vuelve urgente el tema de innovación pedagógica, pues se requiere, en poco tiempo, adaptar las metodologías utilizadas hasta el momento, para migrar al ambiente virtual. Los tiempos de sosobra que vive una sociedad durante una Pandemia, pueden ser positivos para la educación pues deben llevar a los maestros a la reflexión, a la necesidad de formación en competencias pedagógicas y en el dominio del conocimiento pedagógico y tecnológico del contenido. La innovación pedagógica que se tiene que llevar a cabo en los tiempos del Coronavirus podrá derribar muros, tumbar mitos, creencias y lograr generar en los profesores la motivación para realizar el cambio educativo que necesita la generación de jóvenes que estamos formando. Por tanto, el propósito de éste artículo de opinión es generar conciencia acerca de la importancia de los cambios educativos y pedagógicos que exige el mundo de hoy y el del futuro, teniendo en cuenta los avances tecnológicos, las diferencias en intereses, formas de aprender, habilidades de las nuevas generaciones y las consecuencias medioambientales que surgen de un mundo globalizado en el que cada vez serán más complejas las posibilidades de encuentros presenciales multitudinarios.(AU)
for these institutions as well as a challenge for teachers, since a change in teaching and learning methodologies is necessary; The issue of pedagogical innovation becomes urgent, since it is required, in a short time, to adapt the methodologies used so far, to migrate to the virtual environment. The times of survival experienced by a society during a Pandemic can be positive for education because they must lead teachers to reflect, to the need for training in pedagogical competences and in the domain of pedagogical and technological knowledge of content. The pedagogical innovation that has to be carried out in the times of the Coronavirus will be able to tear down walls, knock down myths, beliefs and manage to generate in teachers the motivation to make the educational change that the generation of young people we are training needs. Therefore, the purpose of this article is to raise awareness about the importance of educational and pedagogical changes that the world of today and that of the future demands, taking into account technological advances, differences in interests, ways of learning, learning skills the new generations and the environmental consequences arising from a globalized world in which the possibilities of mass face-to-face encounters will become increasingly complex. (AU)

Objectives

The times of survival experienced by a society during a Pandemic can be positive for education because they must lead teachers to reflect, to the need for training in pedagogical competences and in the domain of pedagogical and technological knowledge of content. The pedagogical innovation that has to be carried out in the times of the Coronavirus will be able to tear down walls, knock down myths, beliefs and manage to generate in teachers the motivation to make the educational change that the generation of young people we are training needs. Therefore, the purpose of this article is to raise awareness about the importance of educational and pedagogical changes that the world of today and that of the future demands, taking into account technological advances, differences in interests, ways of learning, learning skills the new generations and the environmental consequences arising from a globalized world in which the possibilities of mass face-to-face encounters will become increasingly complex. (AU)

URL: https://doi.org/
Categories:
Abstract: Deep emotional traumas in societies overwhelmed by large-scale human disasters, like, global pandemic diseases, natural disasters, man-made tragedies, war conflicts, social crises, etc., can cause massive stress-related disorders. Motivated by the ongoing global coronavirus pandemic, the article provides an overview of scientific evidence regarding adverse impact of diverse human disasters on mental health in afflicted groups and societies. Following this broader context, psychosocial impact of COVID-19 as a specific global human disaster is presented, with an emphasis on disturbing mental health aspects of the ongoing pandemic. Limited resources of mental health services in a number of countries around the world are illustrated, which will be further stretched by the forthcoming increase in demand for mental health services due to the global COVID-19 pandemic. Mental health challenges are particularly important for the Republic of Croatia in the current situation, due to disturbing stress of the 2020 Zagreb earthquake and the high pre-pandemic prevalence of chronic Homeland-War-related posttraumatic stress disorders. Comprehensive approach based on digital psychiatry is proposed to address the lack of access to psychiatric services, which includes artificial intelligence, telepsychiatry and an array of new technologies, like internet-based computer-aided mental health tools and services. These tools and means should be utilized as an important part of the whole package of measures to mitigate negative mental health effects of the global coronavirus pandemic. Our scientific and engineering experiences in the design and development of digital tools and means in mitigation of stress-related disorders and assessment of stress resilience are presented. Croatian initiative on enhancement of interdisciplinary research of psychiatrists, psychologists and computer scientists on the national and EU level is important in addressing pressing mental health concerns related to the ongoing pandemic and similar human disasters.

URL: https://doi.org/10.24869/psyd.2020.25
Categories:
COVID 19 uncertainty

Impact assessment of non-pharmaceutical interventions against coronavirus disease 2019 and influenza in Hong Kong: an observational study

Coronavirus disease (COVID-19) and disseminated intravascular coagulation syndrome; Коронавирусная инфекция (COVID-19) и синдром диссеминированного внутрисосудистого свертывания

COVID-19 is an infectious disease caused by the beta coronavirus SARS-CoV-2, which became widespread worldwide in 2020. In most severe patients, the clinical picture begins with respiratory failure, then progressing to polyorgan failure. The most adverse prognostic sign is the development of coagulopathy. Based on the analysis of clinical data available to date, 71.4% of those who died and 0.6% of those who survived showed signs of explicit disseminated intravascular coagulation syndrome (DIC-syndrome). Monitoring of D-dimer, prothrombin time (PT), platelet and fibrinogen count are important for determining treatment and indications for hospitalization among patients with COVID-19. If these parameters deteriorate, more "aggressive" intensive care
should be performed. Lowmolecular weight heparin (LMWH) should be administered to all patients with diagnosed COVID-19 infection (including non-critical patients) who require hospitalization if these patients have no contraindications for LMWH. COVID-19 – инфекционное заболевание, вызываемое бета- коронавирусом SARS-CoV-2, которое получило распространение по всему миру в 2020 году. У большинства тяжелых пациентов клиническая картина начинается с дыхательной недостаточности, в последующем прогрессирующей вплоть до полиорганной недостаточности. Самым неблагоприятным прогностическим признаком является развитие коагулопатии. На основании анализа доступных на сегодняшний день клинических данных у 71,4% погибших и у 0,6% выживших имелись признаки явного ДВС-синдрома. Мониторинг D-димера, протромбинового времени (ПВ), количества тромбоцитов и фибриногена важен для определения показаний к назначению лечения и госпитализации у пациентов с COVID-19. При ухудшении этих параметров должна проводиться более «агрессивная» реанимационная помощь. Низкомолекулярный гепарин (НМГ) следует назначать всем пациентам с диагностированной инфекцией COVID-19 (включая некритических больных), которым требуется госпитализация, при отсутствии у данных больных противопоказаний к НМГ.

URL: https://doi.org/

Categories:

Year: 2020
Author: D’Amico, Ferdinando; Peyrin-Biroulet, Laurent; Danese, Silvio
Title: Inflammatory bowel diseases and COVID-19: the invisible enemy
Journal: Gastroenterology
DOI: https://doi.org/10.1053/j.gastro.2020.04.032
Abstract: Due to the influence of several factors on the hunting of game meat, we investigated how the seasonality of the environment, the abundance, and the biomass of wild animals, as well as the proximity to these resources, can affect the hunting. The research was developed with the Fulni-ô people in the municipality of Águas Belas, Agreste of Pernambuco, Northeast of Brazil. In order to do this, we applied snowball sampling to select the participants. Data from potentially useful game species were obtained from lists and semi-structured interviews to register their particular kind of uses, capture periods (daytime, night, or both), preferences, and perceived abundance. The hunters who allowed their game meat captured to be weighed and identified were followed for 1 year. Our records pointed to a vast repertoire of potentially hunting animals. However, we did not verify relationships between the abundance, seasonality, and biomass of the animals that were hunted by the Fulni-ô. We observed a total of 209,866 (kg) of game meat hunted in the studied group, belonging to 23 species, distributed in three taxonomic groups, the birds being the most representative group with 59% of total reported. Such consumption by the group is well below in terms of biomass when compared to other ethnic or local groups in other regions of Brazil, or in Caatinga areas, characterizing an activity much more of cultural character than subsistence. Also, the use of game meat among the Fulni-ô seems to be actively directed to the preferred species, suggesting that in the case of an urbanized indigenous community, where other sources of income are available, the demand for game meat is lower when compared to other ethnic groups.

URL: https://doi.org/10.1186/s13002-020-00367-3

Categories:
Abstract: Coronavirus disease 2019 (COVID-19) is a pandemic respiratory disease with serious public health risk, and has taken the world off guard with its rapid spread. As the COVID-19 pandemic intensifies, overwhelming the healthcare system and the medical community, current practice for the management of acute ischemic stroke (AIS) will require modification, and guidelines should be relaxed while maintaining high standard quality of care. The aim of these suggestions is to avoid contributing to the rapid spread of COVID-19 as well as to conserve what are likely to be very limited resources (including personnel, intensive care/hospital beds as well as physicians) while maintain high quality care for patients with AIS. We present our recommendations for the management of acute stroke during the COVID-19 pandemics.

URL: https://doi.org/10.1016/j.jstrokecerebrovasdis.2020.104881
Imbalanced host response to SARS-CoV-2 drives development of COVID-19

Abstract: Viral pandemics, such as the one caused by SARS-CoV-2, pose an imminent threat to humanity. Because of its recent emergence, there is a paucity of information regarding viral behavior and host response following SARS-CoV-2 infection. Here, we offer an indepth analysis of the transcriptional response to SARS-CoV-2 as it compares to other respiratory viruses. Cell and animal models of SARS-CoV-2 infections, in addition to transcriptional and serum profiling of COVID-19 patients, consistently revealed a unique and inappropriate inflammatory response. This response is defined by low levels of Type I and III interferons juxtaposed to elevated chemokines and high expression of IL6. Taken together, we propose that reduced innate antiviral defenses coupled with exuberant inflammatory cytokine production are the defining and driving feature of COVID-19.
Nursing research is coronavirus research

Author: D’Antonio, Patricia; Naylor, Mary; Aiken, Linda
Title: Nursing research is coronavirus research
Journal: Research in Nursing & Health
DOI: 10.1002/nur.22024
Abstract: URL: https://doi.org/10.1002/nur.22024
Categories:

Reply: Introducing special cutaneous “sign” tribute to healthcare workers managing new coronavirus disease (Covid–19)

Author: Darlenski, Razvigor; Tsankov, Nikolai
Title: Reply: Introducing special cutaneous “sign” tribute to healthcare workers managing new coronavirus disease (Covid–19)
Journal: Clinics in Dermatology
DOI: https://doi.org/10.1016/j.clindermatol.2020.04.012
Abstract: URL: https://doi.org/10.1016/j.clindermatol.2020.04.012
Categories:

Ocular manifestation as first sign of Coronavirus Disease 2019 (COVID-19): interest of telemedicine during the pandemic context

Author: Daruich, Alejandra; Martin, Daniel; Bremond-Gignac, Dominique
Title: Ocular manifestation as first sign of Coronavirus Disease 2019 (COVID-19): interest of telemedicine during the pandemic context
Journal: Journal Français d'Ophtalmologie
DOI: https://doi.org/10.1016/j.jfo.2020.04.002
Abstract: Résumé Nous rapportons le cas d’un homme de 27 ans qui a consulté par télémédecine lors de la pandémie de Coronavirus Disease 2019 (COVID-19), pour une sensation de corps étranger et une rougeur à l’œil gauche. L’examen a révélé un œdème palpébral unilatéral et une hyperémie conjonctivale diffuse modérée. Quelques heures plus tard, le patient a présenté des céphalées intenses, de la fièvre, de la toux et une dyspnée sévère, et une PCR nasopharyngée est revenue positive au SARS-CoV-2, posant le diagnostic de COVID-19. Ce cas démontre la possibilité d’une conjonctivite inaugurale lors de l’infection COVID-19. Il illustre l’intérêt de la télémédecine en ophtalmologie lors de la pandémie, une hyperémie conjonctivale modérée pouvant être le premier signe d’une détresse respiratoire sévère. We report here the case of a 27-year-old man who consulted by telemedicine during the Coronavirus Disease 2019 (COVID-19) pandemic, due to foreign body sensation and left eye redness. Examination revealed unilateral eyelid edema and moderate conjunctival hyperemia. A few hours later the patient experienced intense headache and developed fever, cough and severe dyspnea. A nasopharyngeal swab proved positive for SARS-CoV-2. This case demonstrates that conjunctivitis can be the inaugural manifestation of the COVID-19 infection. It illustrates the interest of telemedicine in ophthalmology during the COVID-19 pandemic, since moderate conjunctival hyperemia can be the first sign of a severe respiratory distress.
URL: https://doi.org/10.1016/j.jfo.2020.04.002
Categories:

Recommendations for Performing Bronchoscopy in Times of the COVID-19 Pandemic

Title: Recommendations for Performing Bronchoscopy in Times of the COVID-19 Pandemic
Journal: Pneumologie (Stuttgart, Germany)
DOI: 10.1055/a-1154-1814
Abstract: COVID-19, caused by coronavirus SARS-CoV-2 is a new and ongoing infectious disease affecting healthcare systems worldwide. Healthcare worker are at high risk for COVID-19 and many have been infected or even died in countries severely affected by COVID-19 like China or Italy. Bronchoscopy causes cough and aerosol production and has to be considered a significant risk for the staff to get infected. Particular recommendations should guide to prevent spreading COVID-19 and to protect healthcare worker when performing a bronchoscopy. COVID-19, ausgelost durch Coronavirus SARS-CoV-2, ist eine neue, sich pandemisch ausbreitenden Infektionserkrankung, welche aktuell weltweit zu einer erheblichen Belastung der Gesundheitssysteme geführt hat.
URL: https://doi.org/10.1055/a-1154-1814

URL: https://doi.org/10.1055/a-1154-1814

Categories:

Year: 2020
Author: Day, Michael
Title: Covid-19: European officials warn that exiting lockdown will be “very long” and will require cooperation
Journal: BMJ
DOI: 10.1136/BMJ.M1549
Abstract: European Union officials have unveiled their “roadmap” to phase out the ongoing coronavirus containment measures. But they warned of a “very long” exit from a crisis that has been a devastating double whammy to the continent’s health and economic wellbeing. The European Commission president, Ursula von der Leyen, warned that a failure by countries to work together on their exit strategies could lead to a dangerous second wave of covid-19. “If shops are open on one side of the border, we don’t want people moving from one member state to the next to use the shopping opportunity,” she said, urging authorities in EU member states not to erase the progress made from the ...

URL: https://doi.org/10.1136/BMJ.M1549

Categories:

Year: 2020
Author: de Andrade Vieira, Marcelo; Araujo, Raphael L. C.
Title: Management of Gynaecological oncology diseases during COVID-19 global pandemic
Journal: European Journal of Surgical Oncology
DOI: https://doi.org/10.1016/j.ejso.2020.04.022
Abstract: Management of Gynaecological oncology diseases during COVID-19 global pandemic
URL: https://doi.org/10.1016/j.ejso.2020.04.022

Categories:

Year: 2020
Author: de Carvalho, Luis Felipe das Chagas E. Silva; Nogueira, Marcelo Saito
Title: Optical techniques for fast screening - towards prevention of the coronavirus COVID-19 outbreak
Journal: Photodiagnosis Photodyn Ther
DOI: 10.1016/j.pdpdt.2020.101765
Abstract: Optical techniques for fast screening - towards prevention of the coronavirus COVID-19 outbreak
URL: https://doi.org/10.1016/j.pdpdt.2020.101765

Categories:

Year: 2020
Author: de Medrano, V. Abril Lopez; de Lucas, E. Merino; Salavert Lleti, M.
Title: Whether to make decisions “on the fly” regarding treatment for SARS-CoV-2 infection TT - Tomar o no tomar decisiones en caliente respecto al tratamiento de la infeccion por SARS-CoV-2
Journal: Revista clinica espanola
DOI: 10.1016/j.rce.2020.04.004
Abstract: Whether to make decisions “on the fly” regarding treatment for SARS-CoV-2 infection TT - Tomar o no tomar decisiones en caliente respecto al tratamiento de la infeccion por SARS-CoV-2
URL: https://doi.org/10.1016/j.rce.2020.04.004

Categories:
Abstract: The effect of COVID-19 on Canadian food security is examined from two different perspectives. COVID-19 creates a unique "income shock" that is expected to increase the prevalence of household food insecurity. This food insecurity can be measured by utilizing the Canadian Community Health Survey (CCHS). More fundamentally, COVID-19 heightens household concern about the capacity of the Canadian food system to ensure food availability. Despite surges in demand and supply chain disruptions, we currently do not observe broad, rapid appreciation in food prices. This suggests that there is an adequate supply of food for the near term. There is less certainty over intermediate and longer time periods because so many factors are in flux, particularly the rate of increases in sicknesses and deaths across the country and globally. Data on these health factors and elements of the food supply chain are needed to predict beyond a short time frame. In this regard, we discuss three ongoing considerations – ease of capital flows, international exchange, and maintaining transportation – that will help ensure food availability in the longer run.

URL: https://doi.org/10.1111/cjag.12227

Categories:
physical integrity protection in the workplace (5.5 ± 0.1; mean ± SD), and support from public health authorities (5.01 ± 0.12; mean ± SD). Healthcare workers in Latin America had limited access to essential PPE and support from healthcare authorities during the COVID-19 pandemic.

URL: https://doi.org/10.3390/IJERPH17082798
Categories:

Year: 2020
Author: Della Gatta, Anna Nunzia; Rizzo, Roberta; Pilu, Gianluigi; Simonazzi, Giuliana
Title: COVID19 during pregnancy: a systematic review of reported cases
Journal: American Journal of Obstetrics and Gynecology
DOI: https://doi.org/10.1016/j.ajog.2020.04.013
Abstract: Objective to conduct a systematic review of the outcomes reported for pregnant patients with COVID19. Data sources we searched electronically Pubmed, Cinahl, Scopus using combination of keywords “Coronavirus and/or pregnancy”; “COVID and/or pregnancy”; “COVID disease and/or pregnancy”; “COVID pneumonia and/or pregnancy. There were no restriction of languages in order to collect as much cases as possible. Study eligibility criteria all pregnant women, with a COVID19 diagnosed with acid nucleic test, with reported data about pregnancy and, in case of delivery, reported outcomes. Study appraisal and synthesis methods all the studies included have been evaluated according the tool for evaluating the methodological quality of case reports and case series described by Murad et al. Results 6 studies including 51 women were eligible for the systematic review. Three pregnancies were ongoing at the time of the report; of the remaining 48, 46 were delivered with a cesarean section and 2 vaginally; there was 1 stillbirth and 1 neonatal death. Conclusions although vertical transmission of SARS-CoV2 has been excluded thus far and the outcome for mothers and fetuses has been generally good, the high rate of preterm cesarean delivery is a reason for concern. These interventions were typically elective, and it is reasonable to question whether they were warranted or not. COVID-19 associated with respiratory insufficiency in late pregnancies certainly creates a complex clinical scenario.

URL: https://doi.org/10.1016/j.ajog.2020.04.013
Categories:

Year: 2020
Author: Demirbilek, Yasemin; Pehlivantürk, Gülen; Özgüler, Zeynep Özge; Alp Meşe, Emine
Title: COVID-19 outbreak control, example of the ministry of health of Turkey
Journal: Turkish journal of medical sciences
DOI: 10.3906/sag-2004-187
Abstract: Our first COVID-19 case in Turkey was a 44-year-old male who referred to the hospital on March 9, 2020. The first related death occurred on March 17, 2020. Preparedness for the pandemic has been ongoing before the first case was detected. The National Pandemic Plan was published in 2006. The Pandemic Influenza National Preparedness Plan was available after being updated in light of experiences gained during the 2009 Influenza A pandemic. Accordingly, Pandemic Coordination Boards and Operation Centers have been established on the national and provincial levels. This was an adaptable plan to the Novel Coronavirus Disease (COVID-19). We formed teams to work on a 24/7 basis and established a Scientific Committee at the Public Health Emergency Operation Center within the General Directorate of Public Health. ?COVID-19 Risk Assessment?, ?COVID-19 Guideline? and ?Case Report Form?, regulations of personal protective equipment along with need-based guidelines, treatment algorithms, brochures and related documents have been released. For the case-based follow-up, Public Health Management System (HSYS) is being used. PCR and rapid diagnostic kits are being used to analyze the samples at the central Microbiology Reference Laboratory and the authorized laboratories in several provinces. Various preventive measures were implemented including flight restrictions to certain countries, gradually expanded to suspending all flights and prohibiting the entry of foreign nationals, 14-day isolation and symptom monitoring for those that came from countries under risk. Persons with chronic diseases have been granted an administrative leave, offline education at schools and activities of public rest and entertainment areas were temporarily suspended. Measures have been implemented for penitentiary institutions, dormitories, nursing homes, public transport and intercity buses and weekend curfews are implemented. In accordance with the pandemic plan, actions have been carried out with a multi-sectoral approach, and preventive measures have been implemented to cover the society as a whole.

URL: https://doi.org/10.3906/sag-2004-187
Categories:
Serological survey of SARS-CoV-2 for experimental, domestic, companion and wild animals excludes intermediate hosts of 35 different species of animals

Abstract: The pandemic SARS-CoV-2 has been reported in 123 countries with more than 5000 patients died from it. However, the original and intermediate hosts of the virus remain unknown. In this study, 1914 serum samples from 35 animal species were used for detection SARS-CoV-2 specific antibodies using double antigen sandwich ELISA after validating its specificity and sensitivity. The results showed that no SARS-CoV-2 specific antibodies were detected in above samples which excluded the possibility of 35 animal species as intermediate host for SARS-CoV-2. More importantly, companion animals including pet dogs (including one dog the SARS-CoV-2 patient kept and two dogs which had close contact with it) and cats, street dogs and cats also showed serological negative to SARS-CoV-2, which relieved the public concerns for the pets as SARS-CoV-2 carriers.

URL: https://doi.org/10.1111/tbed.13577

The prevention and management of the coronavirus disease 2019 (COVID-19) outbreak in radiology departments in epidemic areas

Abstract: This review based on the actual results of epidemic prevention management in radiology departments in epidemic areas, and using designated hospital management methods, to summarize the radiology protection system. With the cooperation of the whole hospital and radiology department, a number of effective evaluation methods have been carried out to ensure the optimization of clinical protection. These practical methods provide a basis for the further promotion of management strategies and reduction of nosocomial infection. To our knowledge, the establishment of standardized protection and clear process has opened up a new idea of epidemic prevention management, which can effectively provide timely, efficient, and accurate support for clinical research, and promote the transformation from clinical research type to scientific research management type.

URL: https://doi.org/10.1007/s11604-020-00974-w
**Masks and Coronavirus Disease 2019 (COVID-19)**

**Desai, Angel N.; Aronoff, David M.**

**JAMA**

**10.1001/jama.2020.6437**

**https://doi.org/10.1001/jama.2020.6437**

**VIRAL TRANSPORTATION IN COVID-19 PANDEMIC: INACTIVATED VIRUS TRANSPORTATION SHOULD BE IMPLEMENTED FOR SAFE TRANSPORTATION AND HANDLING AT DIAGNOSTICS LABORATORIES**

**Dewar, Rajan; Baunoch, David; Wojno, Kirk; Parkash, Vinita; Khosravi-Far, Roya**

**Arch Pathol Lab Med**

**10.5858/arpa.2020-0175-LE**

**https://doi.org/10.5858/arpa.2020-0175-LE**

**Securing the graft during pandemic: are we ready for cryopreservation for all?**

**Dholaria, Bhagirathbhai; Malki, Monzr M. Al; Artz, Andrew; Savani, Bipin N.**

**Biology of Blood and Marrow Transplantation**

**https://doi.org/10.1016/j.bbmt.2020.04.009**

**Should SARS-CoV-2 influence immunosuppressive therapy for autoimmune blistering diseases?**

**Di Altobrandi, Ambra; Patrizi, Annalisa; Bardazzi, Federico**

**Journal of the European Academy of Dermatology and Venereology : JEADV**

**10.1111/jdv.16491**

**https://doi.org/10.1111/jdv.16491**

**Recommendations of the Spanish Society of Otolaryngology and Head and Neck Surgery for performing tracheotomies in patients infected by the coronavirus, Covid-19**

**Díaz de Cerio Canduela, P.; Ferrandis Perepérez, E.; Parente Arias, P.; López Álvarez, F.; Sistiaga Suarez, J. A.**

**Acta Otorrinolaringologica Espanola**

**10.1016/j.otorri.2020.03.001**

**https://doi.org/10.1016/j.otorri.2020.03.001**
Earth Day: 50 Years of Continuity and Change in Environmentalism

In April 1970, the first Earth Day engaged millions of people in thousands of events around the US. Those events reflected the emergence of a new form of environmentalism. Many of the themes present 50 years ago persist, but in the US environmental issues have become more politically polarized, and it is unclear whether such value conflicts will persist in the future.

Development of a telehealth geriatric assessment model in response to the COVID-19 pandemic

Purpose To evaluate lung abnormalities on thin-section computed tomographic (CT) scans in patients with COVID-19 and correlate findings to duration of symptoms. Methods In total, 348 CT scans in 112 patients were classified according to the time after the onset of the initial symptoms, namely stage-1 (0-4 days); stage-2 (5-9 days); stage-3 (10-14 days); stage-4 (15-21 days); stage-5 (22-28 days); and stage-6 (>28 days). Each lung lobe was evaluated for extent affected by ground-glass opacities (GGO), crazy-paving pattern and consolidation, in five categories of percentual severity. Summation of scores from all five lung lobes provided the total CT score (maximal CT score, 25). Results The predominant patterns of lung abnormalities were GGOs, crazy-paving pattern, consolidation and linear opacities. The frequency of crazy-paving pattern, consolidation and linear opacities peaked at stage-3 (62.7%), stage-4 (75.0%) and stage-5 (83.1%), respectively, and decreased thereafter. Total CT scores increased from stage-1 to stage-2 (2.8 ± 3.1, vs. 6.5 ± 4.6, respectively, P < 0.01), and thereafter remained high. The lower lobes were more inclined to be involved with higher CT scores except for stage-1. At stage-6 98.1% of CT scans still showed abnormalities (CT score 7.5 ± 4.1). Conclusion Thin-section CT could provide semi-quantitative analysis of pulmonary damage severity. This disease changed rapidly at the early stage, then tended to be stable and lasted for a long time.

Association between population migration and epidemic control of Coronavirus disease 2019

Purpose To evaluate lung abnormalities on thin-section computed tomographic (CT) scans in patients with COVID-19 and correlate findings to duration of symptoms. Methods In total, 348 CT scans in 112 patients were classified according to the time after the onset of the initial symptoms, namely stage-1 (0-4 days); stage-2 (5-9 days); stage-3 (10-14 days); stage-4 (15-21 days); stage-5 (22-28 days); and stage-6 (>28 days). Each lung lobe was evaluated for extent affected by ground-glass opacities (GGO), crazy-paving pattern and consolidation, in five categories of percentual severity. Summation of scores from all five lung lobes provided the total CT score (maximal CT score, 25). Results The predominant patterns of lung abnormalities were GGOs, crazy-paving pattern, consolidation and linear opacities. The frequency of crazy-paving pattern, consolidation and linear opacities peaked at stage-3 (62.7%), stage-4 (75.0%) and stage-5 (83.1%), respectively, and decreased thereafter. Total CT scores increased from stage-1 to stage-2 (2.8 ± 3.1, vs. 6.5 ± 4.6, respectively, P < 0.01), and thereafter remained high. The lower lobes were more inclined to be involved with higher CT scores except for stage-1. At stage-6 98.1% of CT scans still showed abnormalities (CT score 7.5 ± 4.1). Conclusion Thin-section CT could provide semi-quantitative analysis of pulmonary damage severity. This disease changed rapidly at the early stage, then tended to be stable and lasted for a long time.

Objective With the current SARS-CoV2 outbreak, countless tests need to be performed on potential symptomatic individuals, contacts and travellers. The gold standard is a quantitative polymerase chain reaction (qPCR)–based system taking several hours to confirm positivity. For effective public health containment measures, this time span is too long. We therefore evaluated a rapid test in a high-prevalence community setting. Study design Thirty-nine randomly selected individuals at a COVID-19 screening centre were simultaneously tested via qPCR and a rapid test. Ten previously diagnosed individuals with known SARS-CoV-2 infection were also analysed. Methods The evaluated rapid test is an IgG/IgM–based test for SARS-CoV-2 with a time to result of 20 min. Two drops of blood are needed for the test performance. Results Of 49 individuals, 22 tested positive by repeated qPCR. In contrast, the rapid test detected only eight of those positive correctly (sensitivity: 36.4%). Of the 27 qPCR-negative individuals, 24 were detected correctly (specificity: 88.9%). Conclusion Given the low sensitivity, we recommend not to rely on an antibody-based rapid test for public health measures such as community screenings.

Year: 2020
Author: Domínguez-Gil, Beatriz; Coll, Elisabeth; Ferrer-Fàbrega, Joana; Briceño, Javier; Ríos, Antonio
Title: DRAMÁTICO IMPACTO DE LA EPIDEMIA DE COVID-19 SOBRE LA ACTIVIDAD DE DONACIÓN Y TRASPLANTE EN ESPAÑA
Journal: Cirugía Española
DOI: https://doi.org/10.1016/j.ciresp.2020.04.012
Abstract: https://doi.org/10.1016/j.ciresp.2020.04.012
Categories:
Year: 2020
Author: Dommergues, M. A.
Title: Rattrapage vaccinal en pratique: des documents utiles
Journal: Perfectionnement en Pédiatrie
DOI: https://doi.org/10.1016/j.perped.2020.04.004
Abstract: 
URL: https://doi.org/10.1016/j.perped.2020.04.004
Categories:

Year: 2020
Author: Donà, Daniele; Minotti, Chiara; Costenaro, Paola; Da Dalt, Liviana; Giaquinto, Carlo
Title: FECAL-ORAL TRANSMISSION OF SARS-COV-2 IN CHILDREN: IS IT TIME TO CHANGE OUR APPROACH?
Journal: The Pediatric infectious disease journal
DOI: 10.1097/INF.0000000000002704
Abstract: Starting from 2 pediatric cases of COVID-19, with confirmation at nasopharyngeal and rectal swabs, we considered the lesson learnt from previous Coronavirus epidemics and reviewed evidence on the current outbreak. Surveillance with rectal swabs might be extended to infants and children, for the implications for household contacts and isolation timing.
URL: https://doi.org/10.1097/INF.0000000000002704
Categories:

Year: 2020
Author: Dotters-Katz, Sarah K.; Hughes, Brenna L.
Title: Considerations for Obstetric Care during the COVID-19 Pandemic
Journal: American journal of perinatology
DOI: 10.1055/s-0040-1710051
Abstract: The novel coronavirus disease 2019 (COVID-19) is a growing pandemic that is impacting daily life across the globe. Though disease is often mild, in high-risk populations, severe disease often leads to intubation, intensive care admission (ICU) admission, and in many cases death. The implications for pregnancy remain largely unknown. Early data suggest that COVID-19 may not pose increased risk in the pregnant population. Vertical transmission has not been confirmed. Because no treatment, no vaccine and no herd immunity exist, social distancing is the best mechanism available to protect patients and health care workers from infection. This review will discuss what is known about the virus as it relates to pregnancy and then consider management considerations based on these data.
KEY POINTS: · COVID-19 severity in pregnancy is unclear. · Social distancing is the best protective mechanism. · No clear evidence of vertical transmission exists. · Mother/baby separation avoids transmission.
URL: https://doi.org/10.1055/s-0040-1710051
Categories:

Year: 2020
Author: Dou, Peipei; Zhang, Shuai; Wang, Chen; Cai, Lulu; Liu, Zhongxiao; Xu, Qinghong; Li, Xing; Meng, Yankai; Rong, Yutao; Li, Shaodong; Hu, Chunfeng; Xu, Kai
Title: Serial CT Features in Discharged COVID-19 Patients with Positive RT-PCR Re-test
Journal: European Journal of Radiology
DOI: https://doi.org/10.1016/j.ejrad.2020.109010
Abstract: 
URL: https://doi.org/10.1016/j.ejrad.2020.109010
Categories:

Year: 2020
Author: Dowd, Jennifer Beam; Andriano, Liliana; Brazel, David M.; Rotondi, Valentina; Block, Per; Ding, Xuejie; Liu, Yan; Mills, Melinda C.
Title: Demographic science aids in understanding the spread and fatality rates of COVID-19
Journal: Proc Natl Acad Sci U S A
DOI: 10.1073/pnas.2004911117
Abstract: Governments around the world must rapidly mobilize and make difficult policy decisions to mitigate the coronavirus disease 2019 (COVID-19) pandemic. Because deaths have been concentrated at older ages, we
highlight the important role of demography, particularly, how the age structure of a population may help explain differences in fatality rates across countries and how transmission unfolds. We examine the role of age structure in deaths thus far in Italy and South Korea and illustrate how the pandemic could unfold in populations with similar population sizes but different age structures, showing a dramatically higher burden of mortality in countries with older versus younger populations. This powerful interaction of demography and current age-specific mortality for COVID-19 suggests that social distancing and other policies to slow transmission should consider the age composition of local and national contexts as well as intergenerational interactions. We also call for countries to provide case and fatality data disaggregated by age and sex to improve real-time targeted forecasting of hospitalization and critical care needs.

URL: https://doi.org/10.1073/pnas.2004911117
Categories:

Year: 2020
Author: Duan, Shuyin; Zhang, Meihua; Sun, Yaqiong; Fang, Zhenya; Wang, Hefeng; Li, Shuxian; Peng, Yanze; Li, Juan; Li, Junxia; Tian, Jiaqi; Yin, Haoyu; Yao, Sanqiao; Zhang, Lin
Title: Mechanism of PM2.5-induced human bronchial epithelial cell toxicity in central China
Journal: Journal of Hazardous Materials
DOI: https://doi.org/10.1016/j.jhazmat.2020.122747
Abstract: Exposure to PM2.5 has been linked to respiratory disorders, yet knowledge of the molecular mechanism is limited. Here, PM2.5 was monitored and collected in central China, and its cytotoxicity mechanism on human bronchial epithelial cells (BEAS-2B) was investigated. With the average concentration of 109 ± 69 μg/m3, PM2.5 was rich in heavy metals and organic pollutants. After exposure to PM2.5, the viability of BEAS-2B cells decreased, where 510 dysregulated genes were predicted to induce necroptosis via inhibiting ATP synthesis through the oxidative phosphorylation signaling pathway. Cellular experiments demonstrated that the content of ATP was downregulated, while the expression of RIP3, a necroptosis indicator, was upregulated. Besides, four enzymes in charge of ATP synthesis were downregulated, including ATP5F, NDUF, COX7A, and UQCR, while two genes of RELA and CAPN1 responsible for necroptosis were upregulated. Furthermore, N-acetylcysteine was applied as an enhancer for ATP synthesis, which reversed the downregulation of ATP5F, NDUF, and COX7A, and consequently alleviated the elevation of RELA, CAPN1, and RIP3. In conclusion, PM2.5 exposure downregulates ATP5F, NDUF, COX7A, and UQCR, and that inhibits ATP synthesis via the oxidative phosphorylation signaling pathway, which subsequently upregulates RELA and CAPN1 and ultimately leads to necroptosis of BEAS-2B cells.

URL: https://doi.org/10.1016/j.jhazmat.2020.122747
Categories:
Meningoencephalitis without Respiratory Failure in a Young Female Patient with COVID-19 Infection in Downtown Los Angeles, Early April 2020

Brain, Behavior, and Immunity

https://doi.org/10.1016/j.bbi.2020.04.024

Necrotizing pneumonia induced by Panton-Valentine leukocidin-secreting Staphylococcus aureus is a rare but life-threatening infection that has been described in patients after they had influenza. We report a fatal case of this superinfection in a young adult who had coronavirus disease.

Emerg Infect Dis

10.3201/eid2608.201413

Recently emerged human-to-human transmission of COVID-19, a novel lethal strain (Chan et al., 2020) of coronavirus, caused a global pandemic burden, affecting hundreds of thousands of individuals, having life-threatening outcomes, not only in medically compromised persons but also in perfectly healthy young individuals with immunocompetent system. Apparently, this specific coronavirus must possess special abilities to spread and compromise the immune mechanisms in humans. Unfortunately, there are limited evidence-based data available, as, which is understandable clinicians and scientists must focus on life-saving aspects (Prompetchara et al., 2020).

At the same time, the question arises, whether this strain possesses unique abilities to penetrate via oropharyngeal epithelial barriers and, which is even more intriguing, why infection of SARS-CoV-2 triggers such abnormal 'cytokine storm' and immunosuppression? For unknown reasons, SARS-CoV-2 does not seem to be effectively defeated by human first line protective mechanisms, neither biomolecular, nor cellular, as number of death cases in middle aged, healthy persons were reported, regardless their immune status (Mehta et al., 2020).

Oral diseases

10.1111/odi.13359
Abstract: Objectives To assess the association of public interest in coronavirus infections with the actual number of infected cases for selected countries across the globe. Methods We performed a Google TrendsTM search for “Coronavirus” and compared Relative Search Volumes (RSV) indices to the number of reported COVID-19 cases by the European Center for Disease Control (ECDC) using time-lag correlation analysis. Results Worldwide public interest in Coronavirus reached its first peak end of January when numbers of newly infected patients started to increase exponentially in China. The worldwide Google TrendsTM index reached its peak on the 12th of March 2020 at a time when numbers of infected patients started to increase in Europe and COVID-19 was declared a pandemic. At this time the general interest in China but also the Republic of Korea has already been significantly decreased as compared to end of January. Correlations between RSV indices and number of new COVID-19 cases were observed across all investigated countries with highest correlations observed with a time lag of -11.5 days, i.e. highest interest in coronavirus observed 11.5 days before the peak of newly infected cases. This pattern was very consistent across European countries but also holds true for the US. In Brazil and Australia, highest correlations were observed with a time lag of -7 days. In Egypt the highest correlation is given with a time lag of 0, potentially indicating that in this country, numbers of newly infected patients will increase exponentially within the course of April. Conclusions Public interest indicated by RSV indices can help to monitor the progression of an outbreak such as the current COVID-19 pandemic. Public interest is on average highest 11.5 days before the peak of newly infected cases.

Abstract: In the past decade we have seen two major Ebola virus outbreaks in Africa, the Zika virus in Brazil and the Americas and the current pandemic of coronavirus disease (COVID-19), caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). There is a strong sense of déjà vu because there are still no effective treatments. In the COVID-19 pandemic, despite being a new virus, there are already drugs suggested as active in in vitro assays that are being repurposed in clinical trials. Promising SARS-CoV-2 viral targets and computational approaches are described and discussed. Here, we propose, based on open antiviral drug discovery approaches for
previous outbreaks, that there could still be gaps in our approach to drug discovery.

URL: https://doi.org/10.1016/j.drudis.2020.03.019

Categories:

Year: 2020
Author: El Boussadani, B.; Benajiba, C.; Aajal, A.; Ait Brik, A.; Ammour, O.; El Hangouch, J.; Oussama, O.; Oussama, B.; Tahiri, N.; Raissuni, Z.
DOI: 10.1016/j.ancard.2020.04.001
Abstract: Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infects host cells with angiotensin receptors, leading to pneumonia linked to COVID-19. The virus has a double impact on the cardiovascular system, the infection will be more intense if the host has cardiovascular co-morbidities and the virus can cause life-threatening cardiovascular lesions. Therapies associated with COVID-19 may have adverse cardiovascular effects. Therefore, special attention should be given to cardiovascular protection during COVID-19 infection.

URL: https://doi.org/10.1016/j.ancard.2020.04.001
Categories:

Year: 2020
Author: El-Aziz, Tarek Mohamed Abd; Stockand, James D.
Title: Recent progress and challenges in drug development against COVID-19 coronavirus (SARS-CoV-2) - an update on the status
Journal: Infection, Genetics and Evolution
DOI: https://doi.org/10.1016/j.meegid.2020.104327
Abstract: Coronaviruses are a large group of viruses known to cause illnesses that vary between the common cold and more severe diseases to include severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS). A novel coronavirus was identified in December 2019 in Wuhan city, Hubei province, China. This virus represents a new strain that has not been previously identified in humans. The virus is now known as the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and the resulting disease is called coronavirus disease 2019 (COVID-19). The World Health Organization (WHO) declared the novel coronavirus outbreak a global pandemic in March 2020. Despite rigorous global containment and quarantine efforts, the incidence of COVID-19 continues to rise, with more than 1,948,617 laboratory-confirmed cases and over 121,846 deaths worldwide. Currently, no specific medication is recommended to treat COVID-19 patients. However, governments and pharmaceutical companies are struggling to quickly find an effective drug to defeat the coronavirus. In the current review, we summarize the existing state of knowledge about COVID-19, available medications, and treatment options. Favilavir is an antiviral drug that is approved in Japan for common influenza treatment and is now approved to treat symptoms of COVID-19 in China. Moreover, Chloroquine and hydroxychloroquine, drugs used to treat malaria and arthritis, respectively, were recommended by the National Health Commission of the People's Republic of China for treatment of COVID-19. Presently, chloroquine and hydroxychloroquine are under investigation by the US Food and Drug Administration (FDA) as a treatment for COVID-19. The first COVID-19 vaccine is not expected to be ready for clinical trials before the end of the year.

URL: https://doi.org/10.1016/j.meegid.2020.104327
Categories:

Year: 2020
Author: Elens, Laure; Langman, Loralie J.; Hesselink, Dennis A.; Bergan, Stein; Moes, Dirk Jan A. R.; Molinaro, Mariadelfina; Venkataramanan, Raman; Lemaître, Florian
Title: Pharmacologic treatment of transplant recipients infected with SARS-CoV-2: considerations regarding therapeutic drug monitoring and drug-drug interactions
Journal: Ther Drug Monit
DOI: 10.1097/FTD.0000000000000761
Abstract: BACKGROUND: COVID-19 is a novel infectious disease caused by the severe acute respiratory distress (SARS)-corona virus-2 (SARS-CoV-2). Several therapeutic options are currently emerging but none with universal
Solid organ transplant recipients are perceived to be at increased risk of severe COVID-19 because of their immunosuppressed conditions due to chronic use of immunosuppressive drugs. It is therefore likely that solid organ transplant recipients will be treated with these experimental antivirals. METHODS: This article is not intended to provide a systematic literature review on investigational treatments tested against COVID-19; rather, the authors aim to provide recommendations for therapeutic drug monitoring of immunosuppressive drugs in transplant recipients infected with SARS-CoV-2 based on a review of existing data in the literature. RESULTS: Management of drug-drug interactions between investigational anti-SARS-CoV-2 drugs and immunosuppressants is a complex task for the clinician. Adequate immunosuppression is necessary to prevent graft rejection while, if critically ill, the patient may benefit from pharmacotherapeutic interventions directed at limiting SARS-CoV-2 viral replication. Maintaining immunosuppressive drug concentrations within the desired therapeutic range requires a highly individualized approach that is complicated by the pandemic context and lack of hindsight. CONCLUSIONS: With the present manuscript, the authors inform the clinician about the potential interactions of experimental COVID-19 treatments with immunosuppressive drugs used in transplantation. Recommendations regarding therapeutic drug monitoring and dose adjustments in the context of COVID-19 are provided.

URL: https://doi.org/10.1097/FTD.0000000000000761
Categories:
While it remains much too early to determine precisely how alcohol use might affect risk for or progression of COVID-19, any efforts to connect the dots from past alcohol research would suggest it wise for nondrinkers and low-risk drinkers to maintain that status during this public health crisis. It’s already known that disaster can result in increased alcohol consumption based on the work of Deborah Hasin, Ph.D., after 9/11 (see Alcohol and isolation: Experts comment on drinking behavior during COVID-19, ADAW March 30; https://onlinelibrary.wiley.com/doi/10.1002/adaw.32670).

Care for patients during COVID-19 poses challenges that require the protection of staff with recommendations that health care workers wear at minimum, an N95 mask or equivalent while performing an aerosol-generating procedure with a face shield. The United States faces shortages of personal protective equipment, and surgeons who use loupes and headlights have difficulty using these in conjunction with face shields. Most arthroplasty surgeons use surgical helmet systems, but in the current pandemic, many hospitals have delayed elective arthroplasty surgeries and the helmet systems are going unused. As a result, the authors have begun retrofitting these arthroplasty helmets to serve as personal protective equipment (PPE). The purpose of this paper is to outline the conception, design, donning technique, and safety testing of these arthroplasty helmets being re-purposed as PPE.
Acute pulmonary embolism is an uncharacteristic presentation in patients with COVID-19. Here we describe the case of a young woman presenting with severe pulmonary embolism, without any associated symptoms of infections. A clot in a patent foramen ovale was noted. Despite emergency surgical embolectomy, her clinical conditions continued to deteriorate. She was put on extracorporeal life support and tested positive for COVID-19. She died of multiorgan failure on day 10. COVID-19 may have a thrombogenic effect and it may need to be considered in cases of pulmonary embolism and in absence of any obvious risk factor.
The role of the future physician in the NHS is of interest to current doctors, patients, policymakers and the wider public. Amid the COVID-19 pandemic, it has never been more clear that the healthcare needs of the population, and the technical and scientific advances with which to solve them, are rapidly evolving and the medical workforce must adapt to these changes to deliver personalised healthcare. This article considers the current challenges that need to be addressed to deliver a future physician-led healthcare service that works for its patients. Key themes are expanded upon, including the changing healthcare workforce, digital and technological innovation, service delivery, complex conditions and changing patient demographics. The impact and challenges of the ongoing COVID-19 pandemic on these factors are highlighted. Avenues for development are suggested, both in postgraduate medical training and the health service as a whole. These changes will be required to deliver the physicians of the future, imbued with the skills and attributes they will need to provide a high standard of care in the mid-21st century.

URL: https://doi.org/10.7861/clinmed.2020-0030
Categories:

COVID-19 in solid organ transplant recipients: a single-center case series from Spain

The clinical characteristics, management and outcome of coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) after solid organ transplantation (SOT) remain unknown. We report our preliminary experience with 18 SOT (kidney [44.4%], liver [33.3%] and heart [22.2%]) recipients diagnosed with COVID-19 by March 23, 2020 at a tertiary-care center at Madrid. Median age at diagnosis was 71.0 +/- 12.8 years, and the median interval since transplantation was 9.3 years. Fever (83.3%) and radiographic abnormalities in form of unilateral or bilateral/multifocal consolidations (72.2%) were the most common presentations. Lopinavir/ritonavir (usually associated with hydroxychloroquine [HCQ]) was used in 50.0% of patients, and had to be prematurely discontinued in two of them. Other antiviral regimens included HCQ monotherapy (27.8%) and interferon-beta (16.7%). As of April 4, the case fatality rate was 27.8% (5/18). After a median follow-up of 18 days from symptom onset, 30.8% (4/13) of survivors developed progressive respiratory failure, 7.7% (1/13) showed stable clinical condition or improvement, and 61.5% (8/13) had been discharged home. C reactive protein levels at various points were significantly higher among recipients that experienced unfavorable outcome. In conclusion, this frontline report suggests that SARS-CoV-2 infection has a severe course in SOT recipients.

URL: https://doi.org/10.1111/ajt.15929
Categories:

The Financial Impact of COVID-19 on Our Practice

The role of the future physician: building on shifting sands

The role of the future physician in the NHS is of interest to current doctors, patients, policymakers and the wider public. Amid the COVID-19 pandemic, it has never been more clear that the healthcare needs of the population, and the technical and scientific advances with which to solve them, are rapidly evolving and the medical workforce must adapt to these changes to deliver personalised healthcare. This article considers the current challenges that need to be addressed to deliver a future physician-led healthcare service that works for its patients. Key themes are expanded upon, including the changing healthcare workforce, digital and technological innovation, service delivery, complex conditions and changing patient demographics. The impact and challenges of the ongoing COVID-19 pandemic on these factors are highlighted. Avenues for development are suggested, both in postgraduate medical training and the health service as a whole. These changes will be required to deliver the physicians of the future, imbued with the skills and attributes they will need to provide a high standard of care in the mid-21st century.

URL: https://doi.org/10.7861/clinmed.2020-0030
Categories:
Year: 2020
Author: Ferrante, Lucas; Fearnside, Philip M.
Title: Protect Indigenous peoples from COVID-19
Journal: Science (New York, N.Y.)
DOI: 10.1126/science.abc0073
Abstract: URL: https://doi.org/10.1126/science.abc0073
Categories:

Year: 2020
Author: Ferrari, Davide; Motta, Andrea; Strollo, Marta; Banfi, Giuseppe; Locatelli, Massimo
Title: Routine blood tests as a potential diagnostic tool for COVID-19
Journal: Clinical chemistry and laboratory medicine
DOI: 10.1515/cclm-2020-0398
Abstract: Objectives The outbreak of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) to date, the epidemic has gradually spread to 209 countries worldwide with more than 1.5 million infected people and 100,000 deaths. Amplification of viral RNA by rRT-PCR serves as the gold standard for confirmation of infection, yet it needs a long turnaround time (3-4 h to generate results) and shows false-negative rates as large as 15%-20%. In addition, the need of certified laboratories, expensive equipment and trained personnel led many countries to limit the rRT-PCR tests only to individuals with pronounced respiratory syndrome symptoms. Thus, there is a need for alternative, less expensive and more accessible tests. Methods We analyzed the plasma levels of white blood cells (WBCs), platelets, C-reactive protein (CRP), aspartate aminotransferase (AST), alanine aminotransferase (ALT), γ-glutamyl transpeptidase (GGT), alkaline phosphatase and lactate dehydrogenase (LDH) of 207 patients who, after being admitted to the emergency room of the San Raffaele Hospital (Milan, Italy) with COVID-19 symptoms, were rRT-PCR tested. Of them, 105 tested positive, whereas 102 tested negative. Results Statistically significant differences were observed for WBC, CRP, AST, ALT and LDH. Empirical thresholds for AST and LDH allowed the identification of 70% of either COVID-19-positive or -negative patients on the basis of routine blood test results. Conclusions Combining appropriate cutoffs for certain hematological parameters could help in identifying false-positive/negative rRT-PCR tests. Blood test analysis might be used as an alternative to rRT-PCR for identifying COVID-19-positive patients in those countries which suffer from a large shortage of rRT-PCR reagents and/or specialized laboratory.
URL: https://doi.org/10.1515/cclm-2020-0398
Categories:

Year: 2020
Author: Ferreira, Marion; Blin, Timothee; Collercandy, Nived; Szychowiak, Piotr; Dequin, Pierre-François; Jouan, Youenn; Guillon, Antoine
Title: Critically ill SARS-CoV-2-infected patients are not stratified as sepsis by the qSOFA
Journal: Annals of Intensive Care
DOI: 10.1186/s13613-020-00664-w
Abstract: URL: https://doi.org/10.1186/s13613-020-00664-w
Categories:

Year: 2020
Author: Fiala, M. J.
Title: Ultrasound in COVID-19: a timeline of ultrasound findings in relation to CT
Journal: Clinical Radiology
DOI: https://doi.org/10.1016/j.crad.2020.04.003
Abstract: URL: https://doi.org/10.1016/j.crad.2020.04.003
Categories:
Viruses can infect all cell-based organisms, from bacteria to humans, animals, and plants. They are responsible for numerous cases of hospitalization, many deaths, and widespread crop destruction, which all result in an enormous medical, economical, and biological burden. Each of the currently used decontamination methods have important drawbacks. Cold plasma has entered this field as a novel, efficient, and clean solution for virus inactivation. Here, we present the recent developments in this promising field of cold-plasma-mediated virus inactivation, and describe the applications and mechanisms of the inactivation. This is a particularly relevant subject as viral pandemics, such as the COVID-19 pandemic, expose the need for alternative viral inactivation methods to replace, complement or upgrade existing ones.

The concerns of the highly contagious and morbid nature of Coronavirus Disease-2019 (COVID-19) have prompted healthcare workers to implement strict droplet and contact isolation precautions. Unfortunately, some patients who may be or presumptively or confirmed as infected with COVID-19 may also require emergent surgical procedures. As such, given the high-risk for exposure of many healthcare workers involved the complex requirements for appropriate isolation must be adhered to. We present our experience with a 77-year-old who required emergency cardiac surgery for a presumed acute aortic syndrome in the setting of a presumed, and eventually confirmed, COVID-19 infection. We outline the necessary steps to maintain strict isolation precautions to limit potential exposure to the surgical Team. We hereby provide our algorithm for emergent surgical procedures in critically-ill patients with presumptive or confirmed infection with COVID-19. The insights from this case report can potentially be templated to other facilities in order to uphold high standards of infection prevention and patient safety in surgery during the current COVID-19 pandemic.
The pandemic of coronavirus disease 2019 (COVID-19) has several implications relevant to neuroanesthesiologists, including neurologic manifestations of the disease, impact of anesthesia provision for specific neurosurgical procedures and electroconvulsive therapy, and healthcare provider wellness. The Society for Neuroscience in Anesthesiology and Critical Care appointed a task force to provide timely, consensus-based expert guidance for neuroanesthesiologists during the COVID-19 pandemic. The aim of this document is to provide a focused overview of COVID-19 disease relevant to neuroanesthesia practice. This consensus statement provides information on the neurological manifestations of COVID-19, advice for neuroanesthesia clinical practice during emergent neurosurgery, interventional radiology (excluding endovascular treatment of acute ischemic stroke), transnasal neurosurgery, awake craniotomy and electroconvulsive therapy, as well as information about healthcare provider wellness. Institutions and healthcare providers are encouraged to adapt these recommendations to best suit local needs, considering existing practice standards and resource availability to ensure safety of patients and providers.
Year: 2020
Author: Freeman, Esther E.; McMahon, Devon E.; Fitzgerald, Matthew E.; Fox, Lindy P.; Rosenbach, Misha; Takeshita, Junko; French, Lars E.; Thiers, Bruce H.; Hruza, George J.
Title: The AAD COVID-19 Registry: Crowdsourcing Dermatology in the Age of COVID-19
Journal: Journal of the American Academy of Dermatology
DOI: https://doi.org/10.1016/j.jaad.2020.04.045
Abstract: https://doi.org/10.1016/j.jaad.2020.04.045
Categories:

Year: 2020
Author: Fung, Adrian T.; Yang, Xinyi; Mack, Heather G.
Title: Keeping an eye on COVID-19: Ophthalmic care and triage for general practitioners
Journal: Australian journal of general practice
DOI: 10.31128/AJGP-COVID-10
Abstract: The ability of general practitioners to triage ophthalmic conditions appropriately is critical in our fight against COVID-19.
URL: https://doi.org/10.31128/AJGP-COVID-10
Categories:

Year: 2020
Author: G., Di Renzo; A.D., Makatsariya; V.I., Tsibizova; F., Capanna; B., Rasero; E.V., Komlichenko; T.M., Pervunina; J.K., Khizroeva; V.O., Bitsadze; A.S., Shkoda
Title: Obstetric and perinatal care units functioning during the COVID-19 pandemic; О принципах работы перинатального стационара в условиях пандемии коронавируса
Journal: Annals of the Russian academy of medical sciences / Вестник Российской академии медицинских наук
DOI: 
Abstract: The rapid spread of COVID-19 and the large number of cases put a significant burden on the health systems of any developed country. Specialists in natural disasters and military medicine should be involved in the provision of medical care and observance of anti-epidemic measures. In some countries, including Italy, they were involved only after the situation was dramatically worsening with many clinical units and hospitals overloaded by infected patients. To curb the spread of COVID-19, most countries declared a state of emergency, and unprecedented measures have been taken to strengthen quarantine in suspected or positive symptomatic subjects. Nevertheless, the crisis associated with the unexpectedly global scale and tragedy of the pandemic and the inconsistency of actions of both society and individuals and specialized medical services, lead to insufficient effectiveness of the measures taken in a number of regions. In the present day, it is vital for every person to change its mindset – relying on personal responsibility to comply with all recommendations of quarantine and anti-epidemic measures, and to reorganize departments and resources of medical institutions at all levels in order to withstand the spread of infection and at the same time provide all those in need with the necessary and appropriate medical care. Particular attention should be paid to the obstetric care service, given that even in normal times, the obstetric hospital is an area of increased responsibility for the life and health of mother and child and future mankind. Fulfillment of existing orders, instructions of national and regional committees, international and national protocols and clinical protocols should undoubtedly lead to a positive result, but this requires additional training of medical personnel at all levels. The purpose of this review is to propose quick key strategies for reassessing the maternity and neonatal wards/hospitals based on the experience of health systems and organizations which faced the spread of this new coronavirus; this advice may be applied along with binding tight instructions in obstetric hospitals in order to proactively respond to a likely wave of growth in COVID-19.
URL: 
Categories:
в том числе в Италии, они были задействованы после того, как многие клинические подразделения и националы были перегружены. Для обеспечения сохранения COVID-19 большинство стран через чрезвычайное положение, были приняты меры по усилению карантинных мероприятий. Тем не менее кризис, связанный с неожиданно глобальной и трагически пандемией, неожиданно привел к недостаточной эффективности проводимых мероприятий в редких регионах. Обязательно уделять больше внимания роддомам и учтывая, что и в покойное время акушерские националы являются зоной повышенной ответственности за жизнь и здоровье матери и ребенка. Использование действующих приказов, указаний национальных и региональных комитетов, международных/национальных и клинических протоколов, несмотря на положительные результаты, требует дополнительного обучения и тренировки медицинского персонала всех уровней. Обзор — предложить ключевые стратегии, основанные на опыте регионов, ранее оказывающихся на распространением нового коронавируса, которые могут быть быстро применены в обязательных к выполнению действующих приказах и распоряжениях в акушерских отделениях, чтобы превентивно отреагировать на вероятную волну развития COVID-19.

URL: https://doi.org/10.1016/j.ajem.2020.04.044

Categories: Year: 2020
Author: Gan, Connie C. R.; Yu-Chi, Tseng; Lee, Kuan-I.
Title: Acrylic window as physical barrier for Personal Protective Equipment (PPE) conservation
Journal: The American Journal of Emergency Medicine
DOI: https://doi.org/10.1016/j.ajem.2020.04.044
Abstract: URL: https://doi.org/10.1016/j.ajem.2020.04.044
Categories: Year: 2020
Author: Gao, Junling; Zheng, Pinpin; Jia, Yingnan; Chen, Hao; Mao, Yimeng; Chen, Suhong; Wang, Yi; Fu, Hua; Dai, Junming
Title: Mental health problems and social media exposure during COVID-19 outbreak
Journal: PLoS One
DOI: 10.1371/journal.pone.0231924
Abstract: Huge citizens expose to social media during a novel coronavirus disease (COVID-19) outbreak in Wuhan, China. We assess the prevalence of mental health problems and examine their association with social media exposure. A cross-sectional study among Chinese citizens aged >/=18 years old was conducted during Jan 31 to Feb 2, 2020. Online survey was used to do rapid assessment. Total of 4872 participants from 31 provinces and autonomous regions were involved in the current study. Besides demographics and social media exposure (SME),
depression was assessed by The Chinese version of WHO-Five Well-Being Index (WHO-5) and anxiety was assessed by Chinese version of generalized anxiety disorder scale (GAD-7). multivariable logistic regressions were used to identify associations between social media exposure with mental health problems after controlling for covariates. The prevalence of depression, anxiety and combination of depression and anxiety (CDA) was 48.3% (95%CI: 46.9%-49.7%), 22.6% (95%CI: 21.4%-23.8%) and 19.4% (95%CI: 18.3%-20.6%) during COVID-19 outbreak in Wuhan, China. More than 80% (95%CI:80.9%-83.1%) of participants reported frequently exposed to social media. After controlling for covariates, frequently SME was positively associated with high odds of anxiety (OR = 1.72, 95%CI: 1.31-2.26) and CDA (OR = 1.91, 95%CI: 1.52-2.41) compared with less SME. Our findings show there are high prevalence of mental health problems, which positively associated with frequently SME during the COVID-19 outbreak. These findings implicated the government need pay more attention to mental health problems, especially depression and anxiety among general population and combating with "infodemic" while combating during public health emergency.

URL:    https://doi.org/10.1371/journal.pone.0231924
Categories:

Year:    2020
Author:  Gao, Yunhe; Xi, Hongqing; Chen, Lin
Title:   Emergency Surgery in Suspected COVID-19 Patients with Acute Abdomen: Case Series and Perspectives
Journal: Ann Surg
DOI:     10.1097/SLA.0000000000003961
Abstract:     
URL:    https://doi.org/10.1097/SLA.0000000000003961
Categories:

Year:    2020
Author:  Garg, Satish K.; Rodbard, David; Hirsch, Irl B.; Forlenza, Gregory P.
Title:   Managing New-Onset Type 1 Diabetes During the COVID-19 Pandemic: Challenges and Opportunities
Journal: Diabetes Technology & Therapeutics
DOI:     10.1089/dia.2020.0161
Abstract:     Background: The current COVID-19 pandemic provides an incentive to expand considerably the use of telemedicine for high-risk patients with diabetes, and especially for the management of type 1 diab...
URL:    https://doi.org/10.1089/dia.2020.0161
Categories:

Year:    2020
Author:  Gautam, Sneha; Hens, Luc
Title:   SARS-CoV-2 pandemic in India: what might we expect?
Journal: Environment, Development and Sustainability
DOI:     10.1007/s10668-020-00739-5
Abstract:     
URL:    https://doi.org/10.1007/s10668-020-00739-5
Categories:

Year:    2020
Author:  Geng, Yong-Jian; Wei, Zhi-Yao; Qian, Hai-Yan; Huang, Ji; Lodato, Robert; Castriotta, Richard J.
Title:   Pathophysiological Characteristics and Therapeutic Approaches for Pulmonary Injury and Cardiovascular Complications of Coronavirus Disease 2019
Journal: Cardiovascular Pathology
DOI:     https://doi.org/10.1016/j.carpath.2020.107228
Abstract:     The pandemic of coronavirus disease 2019 (COVID-19) has emerged as a major health crisis, with the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) having infected over a million people around the world within a few months of its identification as a human pathogen. Initially, SARS-CoV-2 infects cells in the respiratory system and causes inflammation and cell death. Subsequently, the virus spreads out and damages other vital organs and tissues, triggering a complicated spectrum of pathophysiological changes and symptoms, including cardiovascular complications. Acting as the receptor for SARS-CoV entering mammalian cells, angiotensin converting enzyme-2 (ACE2) plays a pivotal role in the regulation of cardiovascular cell function. Diverse clinical
manifestations and laboratory abnormalities occur in patients with cardiovascular injury in COVID-19, characterizing the development of this complication, as well as providing clues to diagnosis and treatment. This review provides a summary of the rapidly appearing laboratory and clinical evidence for the pathophysiology and therapeutic approaches to COVID-19 pulmonary and cardiovascular complications.

**URL:** https://doi.org/10.1016/j.carpath.2020.107228

**Categories:**

**Year:** 2020  
**Author:** Gewin, Virginia  
**Title:** On the front lines of the coronavirus-vaccine battle  
**Journal:** Nature  
**DOI:** 10.1038/d41586-020-01116-y  
**Abstract:**

**URL:** https://doi.org/10.1038/d41586-020-01116-y

**Categories:**

**Year:** 2020  
**Author:** Gheisari, Mehdi; Araghi, Farnaz; Moravvej, Hamideh; Tabary, Mohammadreza; Dadkhahfar, Sahar  
**Title:** Skin Reactions to Non-glove Personal Protective Equipment: An Emerging Issue in the COVID-19 Pandemic  
**Journal:** Journal of the European Academy of Dermatology and Venereology : JEADV  
**DOI:** 10.1111/jdv.16492  
**Abstract:** Protecting healthcare workers (HCWs) is crucial during Corona Virus Disease 2019 pandemic and requires wearing personal protective equipment (PPE) [1]. While most of the studies have focused on the skin reactions caused by gloves, other PPE such as gowns, respirator masks, face shields and goggles are also worn by HCWs for long hours during the current epidemic and skin irritations caused by these equipment may cause discouragement of health workers from using them [2]. In this letter we have focused on the reaction caused by non-glove PPE.

**URL:** https://doi.org/10.1111/jdv.16492

**Categories:**

**Year:** 2020  
**Author:** Ghogawala, Zoher; Kurpad, Shekar; Falavigna, Asdrubal; Groff, Michael W.; Sciubba, Daniel M.; Wu, Jau-Ching; Park, Paul; Berven, Sigurd; Hoh, Daniel J.; Bisson, Erica F.; Steinmetz, Michael P.; Wang, Marjorie C.; Chou, Dean; Sansur, Charles A.; Smith, Justin S.; Tumialán, Luis M.  
**Title:** Editorial. COVID-19 and spinal surgery  
**Journal:** Journal of neurosurgery. Spine  
**DOI:** 10.3171/2020.4.SPINE20468  
**Abstract:**

**URL:** https://doi.org/10.3171/2020.4.SPINE20468

**Categories:**

**Year:** 2020  
**Author:** Ghosal, Samit; Sinha, Binayak; Majumder, Milan; Misra, Anoop  
**Title:** Estimation of effects of nationwide lockdown for containing coronavirus infection on worsening of glycosylated haemoglobin and increase in diabetes-related complications: A simulation model using multivariate regression analysis  
**Journal:** Diabetes Metab Syndr  
**DOI:** 10.1016/j.dsx.2020.03.014  
**Abstract:** INTRODUCTION: and aims: To prevent the spread of coronavirus disease (COVID19) total lockdown is in place in India from March 24, 2020 for 21 days. In this study, we aim to assess the impact of the duration of the lockdown on glycaemic control and diabetes-related complications. MATERIALS AND METHODS: A systematic search was conducted using Cochrane library. A simulation model was created using glycemic data from previous disasters (taken as similar in impact to current lockdown) taking baseline HBA1c and diabetes-related complications data from India-specific database. A multivariate regression analysis was conducted to analyse the relationship between the duration of lockdown and glycaemic targets & diabetes-related complications. RESULTS:
The predictive model was extremely robust (R2 = 0.99) and predicted outcomes for period of lockdown up to 90 days. The predicted increment in HBA1c from baseline at the end of 30 days and 45 days lockdown was projected as 2.26% & 3.68% respectively. Similarly, the annual predicted percentage increase in complication rates at the end of 30-day lockdown was 2.8% for non-proliferative diabetic retinopathy, 2.9% for proliferative diabetic retinopathy, 1.5% for retinal photocoagulation, 9.3% for microalbuminuria, 14.2% for proteinuria, 2.9% for peripheral neuropathy, 10.5% for lower extremity amputation, 0.9% for myocardial infarction, 0.5% for stroke and 0.5% for infections. CONCLUSION: The duration of lockdown is directly proportional to the worsening of glycaemic control and diabetes-related complications. Such increase in diabetes-related complications will put additional load on overburdened healthcare system, and also increase COVID19 infections in patients with such uncontrolled glycemia.
Year: 2020
Author: Goh, Yonggeng; Chua, Wynne; Lee, Joseph K. T.; Leng Ang, Bertrand Wei; Liang, Chong Ri; Tan, Choon Ann; Choong, Denise Ai Wen; Hoon, Hui Xiang; Ong, Michael Kah Leong; Quek, Swee Tian
Title: Operational Strategies to Prevent Coronavirus Disease 2019 (COVID-19) Spread in Radiology: Experience From a Singapore Radiology Department After Severe Acute Respiratory Syndrome
Journal: J Am Coll Radiol
DOI: 10.1016/j.jacr.2020.03.027
Abstract: As coronavirus disease 2019 (COVID-19) infection spreads globally, the demand for chest imaging will inevitably rise with an accompanying increase in risk of disease transmission to frontline radiology staff. Radiology departments should implement strict infection control measures and robust operational plans to minimize disease transmission and mitigate potential impact of possible staff infection. In this article, the authors share several operational guidelines and strategies implemented in our practice to reduce spread of COVID-19 and maintain clinical and educational needs of a teaching hospital.
URL: https://doi.org/10.1016/j.jacr.2020.03.027
Categories:

Year: 2020
Author: González Romero, D.; Ocampo Pérez, J.; González Bautista, L.; Santana-Cabrera, L.
Title: Pronóstico perinatal y de la paciente embarazada con infección por COVID-19
Journal: Revista Clínica Española
DOI: https://doi.org/10.1016/j.rce.2020.04.006
Abstract: URL: https://doi.org/10.1016/j.rce.2020.04.006
Categories:

Year: 2020
Title: A preliminary observation: male pattern hair loss among hospitalized COVID-19 patients in Spain - A potential clue to the role of androgens in COVID-19 severity
Journal: J Cosmet Dermatol
DOI: 10.1111/jocd.13443
Abstract: A preliminary observation of high frequency of male pattern hair loss among admitted COVID-19 patients, and suggest that androgen expression might be a clue to COVID-19 severity.
URL: https://doi.org/10.1111/jocd.13443
Categories:

Year: 2020
Author: Gorodeski, Eiran Z.; Goyal, Parag; Cox, Zachary L.; Thibodeau, Jennifer T.; Reay, Rebecca; Rasmusson, Kismet; Rogers, Joseph G.; Starling, Randall C.
Title: Virtual Visits for Care of Patients with Heart Failure in the Era of COVID-19: A Statement from the Heart Failure Society of America
Journal: Journal of Cardiac Failure
DOI: https://doi.org/10.1016/j.cardfail.2020.04.008
Abstract: URL: https://doi.org/10.1016/j.cardfail.2020.04.008
Categories:

Year: 2020
Author: Goullé, Jean-Pierre; Guerbet, Michel
Title: L’usage récréatif du cannabis: des effets aux méfaits Données épidémiologiques*
Journal: Bulletin de l'Académie Nationale de Médecine
DOI: https://doi.org/10.1016/j.banm.2020.04.001
Abstract: RÉSUMÉ À l’heure où l’usage médical de la plante « cannabis dit thérapeutique » est pratiquement acté dans notre pays, l’ouverture à son usage récréatif constitue la suite logique, à l’image de la chronologie toujours suivie dans tous les pays. En effet, ceux qui ont légalisé la drogue - le végétal - ont auparavant approuvé son emploi
en thérapeutique, étape de « justification » qui semble incontournable. Il nous a donc paru opportun de rappeler les effets et les méfaits de la drogue dans le cadre de son usage récréatif. Les enquêtes en population générale réalisées en France depuis 25 ans par Santé publique France et l’Observatoire français des drogues et toxicomanies, permettent de suivre l’évolution de la consommation de substances psychoactives. Une attention toute particulière est portée aux usages de cannabis qui, dans un contexte de large diffusion depuis un quart de siècle n’ont cessé de progresser parmi les jeunes générations, mais également parmi les adultes plus âgés. La France est le pays européen dont la prévalence de consommation de cannabis est la plus élevée chez les jeunes et les adultes. En 25 ans, sa diffusion n’a cessé de s’étendre et le taux d’expérimentation a été pratiquement multiplié par 4. Estimé à 12,7 % en 1992, il atteint 44,8 % en 2017. De surcroît, en 2017, ce sont 25 % des usagers dans l’année de 18 à 64 ans qui présentent un risque élevé d’usage problématique ou de dépendance. Ce chiffre est inquiétant car il est en progression constante, il affecte 3 % des 18-64 ans, soit un peu plus d’un million de personnes.

SUMMARY As the medical use of so called “therapeutic cannabis” is in the process of being approved in France, the opening to its recreational use is the next logical step, as it has been always the chronology followed in all countries. Indeed, those who have legalized the drug have previously approved its therapeutic use. This 'justifying a project phase' stage seems unavoidable. Therefore, it is appropriate to recall the effects and misdeeds of the drug during its recreational use. The general population surveys carried out in France for 25 years by public health France and the French Observatory of Drugs and Drug Addiction, have followed the evolution of psychoactive substances consumption. Particular attention was focused on cannabis use, which, in a context of wide dissemination for a quarter of a century, rose steadily higher among younger generations, but also among older adults. France is the European country with the highest prevalence of cannabis use among young people and adults. Last 25 years, its diffusion has continued to expand, and the experimentation rate multiplied by near 4. Estimated at 12.7% in 1992, it reached 44.8% in 2017. Moreover, 25% of users in the year aged from 18 to 64 years old were at high risk of problematic use or dependence in 2017. This figure is worrying because it is constantly increasing; it affects 3% of 18-64-year-old, just over a million people.
leadership and careful continuous communication will help us minimize anxiety and frustration during this difficult time.

URL: https://doi.org/10.2214/AJR.20.23302

Categories:
In response to the estimated potential impact of COVID-19 on New York City hospitals, our institution prepared for an influx of critically ill patients. Multiple areas of surge planning progressed simultaneously focused on infection control, clinical operational challenges, intensive care unit surge capacity, staffing, ethics and maintenance of staff wellness. Protocols developed focused on clinical decisions around intubation, the use of high-flow oxygen, infectious disease consultation and cardiac arrest. Mechanisms to increase bed capacity as well as increase efficiency in intensive care units by outsourcing procedures were implemented. Novel uses of technology to minimize staff exposure to COVID-19, as well as to facilitate family engagement and end of life discussions were encouraged. Education and communication remained key in attempting to standardize care, stay apprized on emerging data as well as to review seminal literature on respiratory failure. Challenges were encountered, and overcome through interdisciplinary collaboration and iterative surge planning as intensive care unit admissions rose. Support was provided for both clinical and nonclinical staff affected by the profound impact COVID-19 had on our city. We describe in granular detail, the procedures and processes developed during a one month period while surge planning was ongoing and the need for intensive care unit capacity rose exponentially. The approaches described provide a potential roadmap for centers that must rapidly adapt to the tremendous challenge introduced by this and potential future pandemics. This article is open access and distributed under the terms of the Creative Commons Attribution Non-Commercial No Derivatives License 4.0 (http://creativecommons.org/licenses/by-nc-nd/4.0/).
Women and children first: the need for ringfencing during the COVID-19 pandemic

PET imaging of COVID-19: the target and the number

COVID-19: How can a department of general surgery survive in a pandemic?

Management of rheumatic diseases in the time of covid-19 pandemic: perspectives of rheumatology practitioners from India

Letter to the Editor in Response to article: “Clinical considerations for patients with diabetes in times of COVID-19 epidemic (Gupta et al.)

A novel clinical set up for examining healthy dermatology outpatients in time of Covid-19
OBJECTIVE: To report two patients infected with severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) who acutely presented with Miller Fisher syndrome and polyneuritis cranialis, respectively.

METHODS: Patient data were obtained from medical records from the University Hospital "Príncipe de Asturias", Alcalá de Henares, Madrid, Spain and from the University Hospital "12 de Octubre", Madrid, Spain. RESULTS: The first patient was a 50-year-old man who presented with anosmia, ageusia, right internuclear ophthalmoparesis, right fascicular oculomotor palsy, ataxia, areflexia, albuminocytologic dissociation and positive testing for GD1b-IgG antibodies. Five days before, he had developed a cough, malaise, headache, low back pain, and a fever. The second patient was a 39-year-old man who presented with ageusia, bilateral abducens palsy, areflexia and albuminocytologic dissociation. Three days before, he had developed diarrhea, a low-grade fever, and a poor general condition. The oropharyngeal swab test for coronavirus disease 2019 (COVID-19) by qualitative real-time reverse-transcriptase-polymerase-chain-reaction assay was positive in both patients and negative in the cerebrospinal fluid. The first patient was treated with intravenous immunoglobulin and the second, with acetaminophen. Two weeks later, both patients made a complete neurological recovery, except for residual anosmia and ageusia in the first case. CONCLUSIONS: Our two cases highlight the rare occurrence of Miller Fisher syndrome and polyneuritis cranialis during the COVID-2 pandemic. Neurological manifestations may occur because of an aberrant immune response to COVID-19. The full clinical spectrum of neurological symptoms in patients with COVID-19 remains to be characterized.
INTRODUCTION: The COVID-19 pandemic is bringing healthcare systems worldwide to the brink of collapse. One reason for this is the rapidly increasing number of new infections. On the other hand, the high sickness rates of doctors and nurses, particularly in ENT medicine, are aggravating the situation. Telemedicine can be a useful tool to reduce the number of physician-patient contacts. This could break infection chains and minimize the risk of infection for physicians. METHODS: To prepare the review, a selective literature search was conducted at www.pubmed.com using the relevant English technical terms for telemedicine and ENT. In addition, research was conducted at www.news.google.com on current developments of the COVID-19 pandemic with the search terms "telemedicine" and "COVID-19." RESULTS: Telemedicine can be helpful in direct contact with patients as well as in the conciliar support of general practitioners. The available studies show that, on average, more than 50% of medical consultations could be carried out telemedically. Both physicians and patients rate the use of telemedicine positively. Neither image quality nor the handling of the technology are relevant obstacles to a reliable diagnosis. Patients indicated that the telemedical consultation did not last longer than a traditional consultation. Patients also highlighted the faster and better availability of medical care through telemedicine. CONCLUSION: Telemedicine can make a decisive contribution to coping with the current COVID-19 pandemic. Furthermore, the establishment of telemedicine can help us to become better prepared for future pandemics.
OBJECTIVES: Coronavirus disease 2019 (COVID-19) most commonly presents with respiratory symptoms, including cough, shortness of breath, and sore throat. However, digestive symptoms also occur in patients with COVID-19 and are often described in outpatients with less severe disease. In this study, we sought to describe the clinical characteristics of COVID-19 patients with digestive symptoms and mild disease severity.

METHODS: We identified COVID-19 patients with mild disease and one or more digestive symptoms (diarrhea, nausea, and vomiting), with or without respiratory symptoms, and compared them with a group presenting solely with respiratory symptoms. We followed up patients clinically until they tested negative for COVID-19 on at least 2 sequential respiratory tract specimens collected >/=24 hours apart. We then compared the clinical features between those with digestive symptoms and those with respiratory symptoms. RESULTS: There were 206 patients with low severity COVID-19, including 48 presenting with a digestive symptom alone, 69 with both digestive and respiratory symptoms, and 89 with respiratory symptoms alone. Between the 2 groups with digestive symptoms, 67 presented with diarrhea, of whom 19.4% experienced diarrhea as the first symptom in their illness course. The diarrhea lasted from 1 to 14 days, with an average duration of 5.4 +/- 3.1 days and a frequency of 4.3 +/- 2.2 bowel movements per day. Concurrent fever was found in 62.4% of patients with a digestive symptom. Patients with digestive symptoms presented for care later than those with respiratory symptoms (16.0 +/- 7.7 vs 11.6 +/- 5.1 days, P < 0.001). Nevertheless, patients with digestive symptoms had a longer duration between symptom onset and viral clearance (P < 0.001) and were more likely to be fecal virus positive (73.3% vs 14.3%, P = 0.033) than those with respiratory symptoms. DISCUSSION: We describe a unique subgroup of COVID-19 patients with mild disease severity marked by the presence of digestive symptoms. These patients are more likely to test positive for viral RNA in stool, to have a longer delay before viral clearance, and to experience delayed diagnosis compared with patients with only respiratory symptoms.
River Delta, and the Chengdu-Chongqing urban agglomeration. There is a synchronization between frequent daily discussions on Weibo and the trend of the COVID-19 outbreak in the real world. Public response is very sensitive to the epidemic and significant social events, especially in urban agglomerations with convenient transportation and a large population. The timely dissemination and updating of epidemic-related information and the popularization of such information by the government can contribute to stabilizing public sentiments. However, the surge of public demand and the hysteresis of social support demonstrated that the allocation of medical resources was under enormous pressure in the early stage of the epidemic. It is suggested that the government should strengthen the response in terms of public opinion and epidemic prevention and exert control in key epidemic areas, urban agglomerations, and transboundary areas at the province level. In controlling the crisis, accurate response countermeasures should be formulated following public help demands. The findings can help government and emergency agencies to better understand the public opinion and sentiments towards COVID-19, to accelerate emergency responses, and to support post-disaster management.

URL: https://doi.org/10.3390/IJERPH17082788
Categories:

Year: 2020
Author: Han, Yixin; Li, Ximeng; Zhang, Xiaoyu; Gao, Yuan; Qi, Ruijuan; Cai, Runlan; Qi, Yun
Title: Isodeoxyelephantopin, a sesquiterpene lactone from Elephantopus scaber Linn., inhibits pro-inflammatory mediators’ production through both NF-κB and AP-1 pathways in LPS-activated macrophages
Journal: International Immunopharmacology
DOI: https://doi.org/10.1016/j.intimp.2020.106528
Abstract: Isodeoxyelephantopin (IDET) has been identified as an anti-tumor natural constituent whose anti-tumor activity and mechanism have been widely investigated. Since the occurrence and development of cancer usually accompany with inflammation, and tumor signaling shares many components with inflammation signaling, the agents with anti-tumor activity are likely to possess anti-inflammation potential. Thus, the current study aims to demonstrate the anti-inflammatory activity along with the underlying mechanism of IDET in lipopolysaccharide (LPS)-primed macrophages. By using Griess method and ELISA, we found that in both bone marrow derived macrophages and alveolar macrophage cell line, IDET, at relatively low concentrations (0.75, 1.5 and 3 μM), could inhibit LPS-induced expression of various pro-inflammatory mediators including nitric oxide (NO) generated by inducible nitric oxide synthase (iNOS), interleukin (IL)-6, monocyte chemotactic protein-1 (MCP-1) and IL-1β. Meanwhile, in activated MH-S cells, the inhibitory action of IDET on mRNA expression levels of these cytokines was also detected using qPCR. Mechanistically, the effects of IDET on two key inflammatory signalings, nuclear factor-kB (NF-κB) and activator protein-1 (AP-1) pathways, were determined in LPS-activated MH-S cells were assessed by reporter gene along with western blot assays. On the one hand, IDET suppressed NF-κB signaling via down-regulating phosphorylation and degradation of inhibitor of NF-κB (IκB)-α and the subsequent p65 nuclear translocation. On the other hand, IDET dampened AP-1 signaling through attenuating phosphorylation of both c-jun N-terminal kinase (JNK) and extracellular signal regulated kinase (ERK). Our study indicates that IDET might be a promising constituent from the anti-inflammatory herb Elephantopus scaber Linn. in mitigating inflammatory conditions, especially respiratory inflammation.
URL: https://doi.org/10.1016/j.intimp.2020.106528
Categories:

Year: 2020
Author: Hargreaves, James; Davey, Calum
Title: Three lessons for the COVID-19 response from pandemic HIV
Journal: Lancet HIV
DOI: 10.1016/S2352-3018(20)30110-7
Abstract: URL: https://doi.org/10.1016/S2352-3018(20)30110-7
Categories:
The outbreak of novel coronavirus (SARS-CoV-2) which causes the respiratory illness COVID-19 has led to unprecedented efforts at containment due to its rapid community spread, associated mortality, and lack of immunization and treatment. We herein detail a case of a young patient who suffered life-threatening disease and multi-organ failure. His clinical course involved rapid and profound respiratory decompensation such that he required support with veno-venous extracorporeal membrane oxygenation (VV-ECMO). He also demonstrated hyperinflammation (C-reactive protein peak 444.6 mg/L) with severe cytokine elevation (Interleukin-6 peak > 3,000 pg/mL). Through treatment targeting hyperinflammation he recovered from critical COVID-19 respiratory failure and required only 160 hours of VV-ECMO support. He is currently extubated without an oxygen requirement, showing signs of renal recovery on intermittent hemodialysis, and his repeat SARS-CoV-2 test is negative 21 days after his first positive test. We present the first successful case of VV-ECMO support to recovery of COVID-19 respiratory failure in North America.
Canine coronavirus is widespread among dog population, and sometimes causes even fatal cases. Here, to characterize the prevalence and evolution of current circulating canine coronavirus (CCoV) strains in China, we collected 213 fecal samples from diarrheic pet dogs between 2018 and 2019. Of the 213 samples, we found 51 (23.94%) were positive for CCoV. Co-infection with canine parvovirus (CPV), canine astrovirus (CaAstV), canine kobuvirus (CaKV), Torque teno canis virus (TTCaV) were ubiquitous existed. Mixed infection of different CCoV subtypes exists extensively. Considering the limited sequences data in recent years, we sequenced 7 nearly complete genomes and 10 complete spike gene. Phylogenetic analysis of spike gene revealed a new subtype CCoV-II Variant and CCoV-IIa was the most prevalent subtype currently circulating. Moreover, we identified strain B906_ZJ_2019 shared 93.24% nucleotide identifies with previous strain A76, and both of them clustered with CCoV-II Variant, which were not well clustered with the known subtypes. Recombination analysis of B906_ZJ_2019 indicated that strain B906_ZJ_2019 may a recombinant variant between CCoV-I and CCoV-II, which is consistent with strain A76. Furthermore, amino acid variations widely existed among current CCoV-IIa strains circulating in China and the classic CCoV-IIa strains, in spite of the unknown functions. In a word, we report a useful information as to the etiology and evolution of canine coronavirus in China based on the available sequences, which is urgent for the devise of future effective disease prevention and control strategies.

URL: https://doi.org/10.1016/j.micpath.2020.104209

Categories:

Year: 2020
Author: He, Katherine; Stolarski, Allan; Whang, Edward; Kristo, Gentian
Title: Addressing General Surgery residents’ concerns in the early phase of the COVID-19 pandemic
Journal: Journal of Surgical Education
DOI: https://doi.org/10.1016/j.jsurg.2020.04.003
Abstract: The COVID-19 outbreak is a global public health crisis which has affected healthcare practice across professions. In the context of this pandemic, there is a need to highlight the roles and responsibilities of pharmacists. Community pharmacists are the most accessible healthcare professionals to the general public and have a lot to offer amid the COVID-19 response. This have led to significant changes in the health systems of many countries. This article seeks to highlight additional roles and activities relating to the public health response that can be undertaken by community pharmacists that could help to reduce pressure on general practice and other areas of the health service.
URL: https://doi.org/10.1016/j.jsurg.2020.04.003

Categories:

Year: 2020
Author: Hedima, Erick Wesley; Adeyemi, Michael Samuel; Ikunaiye, Nasiru Yakubu
Title: Community Pharmacists: On the frontline of health service against COVID-19 in LMICs
Journal: Research in Social and Administrative Pharmacy
DOI: https://doi.org/10.1016/j.sapharm.2020.04.013
Abstract: The COVID-19 outbreak is a global public health crisis which has affected healthcare practice across professions. In the context of this pandemic, there is a need to highlight the roles and responsibilities of pharmacists. Community pharmacists are the most accessible healthcare professionals to the general public and have a lot to offer amid the COVID-19 response. This have led to significant changes in the health systems of many countries. This article seeks to highlight additional roles and activities relating to the public health response that can be undertaken by community pharmacists that could help to reduce pressure on general practice and other areas of the health service.
URL: https://doi.org/10.1016/j.sapharm.2020.04.013

Categories:
Year: 2020
Author: Henry, Brandon Michael; de Oliveira, Maria Helena Santos; Benoit, Justin; Lippi, Giuseppe
Title: Gastrointestinal symptoms associated with severity of coronavirus disease 2019 (COVID-19): a pooled analysis
Journal: Internal and Emergency Medicine
DOI: 10.1007/s11739-020-02329-9
Abstract: URL: https://doi.org/10.1007/s11739-020-02329-9
Categories:

Year: 2020
Author: Herberg, Jeremias; Haas, Tobias; Oppold, Daniel; Schneidemesser, Dirk von
Title: A Collaborative Transformation beyond Coal and Cars? Co-Creation and Corporatism in the German Energy and Mobility Transitions
Journal: Sustainability 2020, Vol. 12, Page 3278
DOI: 10.3390/SU12083278
Abstract: In this article, we critically discuss the role of collaboration in Germany’s path towards a post-carbon economy. We consider civic movements and novel forms of collaboration as a potentially transformative challenger to the predominant approach of corporatist collaboration in the mobility and energy sectors. However, while trade unions and employer organizations provide a permanent and active arena for policy-oriented collaboration, civil society groups cannot rely on an equivalently institutionalized corridor to secure policy impact and public resonance. In that sense, conventional forms of collaboration tend to hinder the transformation towards a post-carbon economy. Collaboration in the German corporatist setting is thus, from a sustainability perspective, simultaneously a problem and a solution. We argue for more institutionalized corridors between civil society and state institutions. Co-creation, as we would like to call this methodical approach to collaborating, can be anchored within the environmental and industrial policy arenas.
URL: https://doi.org/10.3390/SU12083278
Categories:

Year: 2020
Author: Hernandez, A.; Papadakos, P. J.; Torres, A.; Gonzalez, D. A.; Vives, M.; Ferrando, C.; Baeza, J.
Title: Two known therapies could be useful as adjuvant therapy in critical patients infected by COVID-19
Journal: Rev Esp Anestesiol Reanim
DOI: 10.1016/j.redar.2020.03.004
Abstract: Pneumonia caused by coronavirus, which originated in Wuhan, China, in late 2019, has been spread around the world already becoming a pandemic. Unfortunately, there is not yet a specific vaccine or effective antiviral drug for treating COVID-19. Many of these patients deteriorate rapidly and require intubation and are mechanically ventilated, which is causing the collapse of the health system in many countries due to lack of ventilators and intensive care beds. In this document we review two simple adjuvant therapies to administer, without side effects, and low cost that could be useful for the treatment of acute severe coronavirus infection associated with acute respiratory syndrome (SARS-CoV-2). VitaminC, a potent antioxidant, has emerged as a relevant therapy due to its potential benefits when administered intravenous. The potential effect of vitaminC in reducing inflammation in the lungs could play a key role in lung injury caused by coronavirus infection. Another potential effective therapy is ozone: it has been extensively studied and used for many years and its effectiveness has been demonstrated so far in multiples studies. Nevertheless, our goal is not to make an exhaustive review of these therapies but spread the beneficial effects themselves. Obviously clinical trials are necessaries, but due to the potential benefit of these two therapies we highly recommended to add to the therapeutic arsenal.
URL: https://doi.org/10.1016/j.redar.2020.03.004
Categories:
Year: 2020
Author: Hightow-Weidman, Lisa; Muessig, Kate; Claude, Kristina; Roberts, Jessica; Zlotorzynska, Maria; Sanchez, Travis
Title: Maximizing Digital Interventions for Youth in the Midst of Covid-19: Lessons from the Adolescent Trials Network for HIV Interventions
Journal: AIDS and Behavior
DOI: 10.1007/s10461-020-02870-w
URL: https://doi.org/10.1007/s10461-020-02870-w
Categories:

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Year: 2020
Author: Hiramatsu, Mariko; Nishio, Naoki; Ozaki, Masayuki; Shindo, Yuichiro; Suzuki, Katsunao; Yamamoto, Takanori; Fujimoto, Yasushi; Sone, Michihiko
Title: Anesthetic and surgical management of tracheostomy in a patient with COVID-19
Journal: Auris Nasus Larynx
Abstract: Anesthetic and surgical management of tracheostomy in a patient with COVID-19
URL: https://doi.org/10.1016/j.anl.2020.04.002
Categories:

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Year: 2020
Author: Hirotsu, Yosuke; Maejima, Makoto; Nakajima, Masumi; Mochizuki, Hitoshi; Omata, Masao
Title: Environmental cleaning is effective for the eradication of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in contaminated hospital rooms: A patient from the Diamond Princess cruise ship
Journal: Infection Control & Hospital Epidemiology
DOI: 10.1017/ice.2020.144
Abstract: Environmental cleaning is effective for the eradication of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in contaminated hospital rooms: A patient from the Diamond Princess cruise ship
URL: https://doi.org/10.1017/ice.2020.144
Categories:
What do urologists need to know: Diagnosis, treatment, and follow-up during COVID-19 pandemic

Coronavirus disease 2019 (COVID-19) is an infectious disease which is caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). It has had unprecedented effect on healthcare systems globally with severe impact on every specialist service within the hospital including urology. While it affects the respiratory system causing symptoms ranging from fever, cough, dyspnea, diarrhea, nausea, myalgia and fatigue, it eventually causes pneumonia and respiratory distress needing oxygenation and ventilation. Laboratory diagnosis is required to confirm the diagnosis of COVID-19. Radiological changes are seen on chest XR or CT scan of patients. The surge in patients affected by the disease has led to extreme pressures on healthcare systems by the overwhelming number of critically unwell patients. This scenario has presented challenges to maintain other emergency and essential services. Reallocation of staff, wards and equipment has resulted in cancellations of many surgical procedures, requiring urologists to select only the most essential or critical procedures. The outpatient face-to-face clinics are also cancelled or changed to telephone or video consultations. In some hospitals, urologists are required to work outside of their usual scope of practice helping their respiratory and intensive care unit (ICU) colleagues. The pandemic is disrupting training and education opportunities for junior medical staff. In this review we provide guidance on the diagnosis and management of COVID-19, the influence it has on urological practice and consider the long-term implications that may be of consequence for years to come.

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Pollen likely seasonal factor in inhibiting flu-like epidemics. A Dutch study into the inverse relation between pollen counts, hay fever and flu-like incidence 2016–2019

There is uncertainty if current models for the Covid-19 pandemic should already take into account seasonality. That is because current environmental factors do not provide a powerful explanation of such seasonality, especially given climate differences between countries with moderate climates. It is hypothesized that one major factor is overlooked: pollen count. Pollen are documented to invoke strong immune responses and might create an environmental factor that makes it more difficult for flu-like viruses to survive outside a host. This Dutch study confirms that there is a (highly) significant inverse correlation between pollen count and weekly changes in medical flu consults, and that there is a highly significant inverse correlation between hay fever incidence, as measured by prescribed medication revenues, and weekly flu consults. This supports the idea that pollen are a direct or indirect factor in the seasonality of flu-like epidemics. If seasonality will be observed during the covid-19 spread as well, it is not unlikely that pollen play a role.

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The Potential Role of Th17 Immune Responses in Coronavirus Immunopathology and Vaccine-induced Immune Enhancement

Increasing evidence points to host Th17 inflammatory responses as contributing to the severe lung pathology and mortality of lower respiratory tract infections from coronaviruses. This includes host inflammatory and cytokine responses to COVID-19 caused by the SARS-2 coronavirus (SARS CoV2). From studies conducted in laboratory animals, there are additional concerns about immune enhancement and the role of potential host immunopathology resulting from experimental human COVID-19 vaccines. Here we summarize evidence suggesting there may be partial overlap between the underlying immunopathologic processes linked to both coronavirus infection and vaccination, and a role for Th17 in immune enhancement and eosinophilic pulmonary immunopathology. Such findings help explain the link between viral-vectored coronavirus vaccines and immune
enhancement and its reduction through alum adjuvants. Additional research may also clarify links between COVID-19 pulmonary immunopathology and heart disease.

URL: https://doi.org/10.1016/j.micinf.2020.04.005
Categories:

Year: 2020
Author: Hourston, George J. M.
Title: The Impact Of Despecialisation And Redeployment On Surgical Training In The Midst Of The COVID-19 Pandemic
Journal: Int J Surg
DOI: 10.1016/j.ijsu.2020.03.082
Abstract:
URL: https://doi.org/10.1016/j.ijsu.2020.03.082
Categories:

Year: 2020
Author: Hsieh, Tsung-Yen; Dedhia, Raj D.; Chiao, Whitney; Dresner, Harley; Barta, Ruth J.; Lyford-Pike, Sofia; Hamlar, David; Stephan, Scott J.; Schubert, Warren; Hilger, Peter A.
Title: A Guide to Facial Trauma Triage and Precautions in the COVID-19 Pandemic
Journal: Facial plastic surgery & aesthetic medicine
DOI: 10.1089/fpsam.2020.0185
Abstract: COVID-19 is an emerging viral illness that has rapidly transmitted throughout the world. Its impact on society and the health care system has compelled hospitals to quickly adapt and innovate as new information about the disease is uncovered. During this pandemic, essential medical and surgical services must be carried out while minimizing the risk of disease transmission to health care workers. There is an elevated risk of COVID-19 viral transmission to health care workers during surgical procedures of the head and neck due to potential aerosolization of viral particles from the oral cavity/nasooropharynx mucosa. Thus, patients with facial fractures pose unique challenges to the variety of injuries and special considerations, including triaging injuries and protective measures against infection. The proximity to the oral cavity/nasooropharyngeal mucosa, and potential for aerosolization of secretions containing viral particles during surgical procedures make most patients undergoing operative interventions for facial fractures high risk for COVID-19 transmission. Our proposed algorithm aims to balance patient care with patient/medical personnel protection as well as judicious health care utilization. It stratifies facial trauma procedures by urgency and assigns a recommended level of personal protective equipment, extreme or enhanced, incorporating current best practices and existing data on viral transmission. As this pandemic continues to evolve and more information is obtained, the protocol can be further refined and individualized to each institution.
URL: https://doi.org/10.1089/fpsam.2020.0185
Categories:

Year: 2020
Author: Hu, Qiongjie; Guan, Hanxiong; Sun, Ziyu; Huang, Lu; Chen, Chong; Ai, Tao; Pan, Yueying; Xia, Liming
Title: Early CT features and temporal lung changes in COVID-19 pneumonia in Wuhan, China
Journal: European Journal of Radiology
DOI: https://doi.org/10.1016/j.ejrad.2020.109017
Abstract: Purpose To analyse the high-resolution computed tomography (HRCT) early imaging features and the changing trend of coronavirus disease 2019 (COVID-19) pneumonia. Materials and Methods Forty-six patients with COVID-19 pneumonia who had an isolated lesion on the first positive CT were enrolled in this study. The following parameters were recorded for each lesion: sites, sizes, location (peripheral or central), attenuation (ground-glass opacity or consolidation), and other abnormalities (supply pulmonary artery dilation, air bronchogram, interstitial thickening, etc.). The follow-up CT images were compared with the previous CT scans, and the development of the lesions was evaluated. Results The lesions tended to be peripheral and subpleural. All the lesions exhibited ground-glass opacity with or without consolidation. A higher proportion of supply pulmonary artery dilation (89.13% [41/46]) and air bronchogram (69.57% [32/46]) were found. Other findings included thickening of the intralobular interstitium and a halo sign of ground glass around a solid nodule. Cavitation, calcification or lymphadelpathy
were not observed. The reticular patterns were noted from the 14 days after symptoms onset in 7 of 20 patients (45%). At 22-31 days, the lesions were completely absorbed only in 2 of 7 patients (28.57%). Conclusion The typical early CT features of COVID-19 pneumonia are ground-glass opacity, and located peripheral or subpleural location, and with supply pulmonary artery dilation. Reticulation was evident after the 2nd week and persisted in half of patients evaluated in 4 weeks after the onset. Long-term follow-up is required to determine whether the reticulation represents irreversible fibrosis.

URL: https://doi.org/10.1016/j.ejrad.2020.109017
Categories:

Year: 2020
Author: Hu, Yilin; Shen, Lisha; Yao, Yake; Xu, Zheming; Zhou, Jianying; Zhou, Hua
Title: A report of three COVID-19 cases with prolonged viral RNA detection in anal swabs
Journal: Clin Microbiol Infect
DOI: 10.1016/j.cmi.2020.04.010
Abstract: URL: https://doi.org/10.1016/j.cmi.2020.04.010
Categories:
Letter to the Editor in Response to article: “Clinical considerations for patients with diabetes in times of COVID-19 epidemic (Gupta et al.)

Abstract:

NHS staff may not have enough protective gowns this weekend because of a severe shortage in supplies, the health secretary has admitted. Matt Hancock told MPs on the health select committee on 17 April that recent changes to UK clinical guidance on personal protective equipment (PPE) had increased demand for all such equipment at a time when there was a serious shortage. When asked by the select committee chair, Jeremy Hunt, whether there would be enough gowns to see NHS staff through this weekend, Hancock said, “The challenge of getting protective equipment out to everybody who needs it is an incredibly difficult one. We are ...”

Abstract:

As clinicians and support personnel struggle with their responsibilities to treat during the current COVID-19 pandemic, several ethical issues have emerged. Will healthcare workers and support staff fulfill their duty to treat in the face of high risks? Will institutional and government leaders at all levels do the right things to help alleviate healthcare workers risks and fears? Will physicians be willing to make hard, resource-allocation decisions if they cannot first husband or improvise alternatives? With our healthcare facilities and governments unprepared for this inevitable disaster, front-line doctors, advanced providers, nurses, EMS, and support personnel struggle with acute shortages of equipment—both to treat patients and protect themselves. With their personal and possibly their family’s lives and health at risk, they must weigh the option of continuing to work or retreat to safety.
This decision, made daily, is based on professional and personal values, how they perceive existing risks—including available protective measures, and their perception of the level and transparency of information they receive. Often, while clinicians get this information, support personnel do not, leading to absenteeism and deteriorating healthcare services. Leadership can use good risk communication (complete, widely transmitted, and transparent) to align healthcare workers’ risk perceptions with reality. They also can address the common problems healthcare workers must overcome to continue working (ie, risk mitigation techniques). Physicians, if they cannot sufficiently husband or improvise lifesaving resources, will have to face difficult triage decisions. Ideally, they will use a predetermined plan, probably based on the principles of Utilitarianism (maximizing the greatest good) and derived from professional and community input. Unfortunately, none of these plans is optimal.

URL:    https://doi.org/10.5811/westjem.2020.4.47549
Categories:

Year:    2020
Author:    Iserson, Kenneth V.
Title:    Alternative Care Sites: An Option in Disasters
Journal:    West J Emerg Med
DOI:    10.5811/westjem.2020.4.47552
Abstract: During the current COVID-19 pandemic, the limited surge capacity of the healthcare system is being quickly overwhelmed. Similar scenarios play out when an institution’s systems fail, or when local or regional disasters occur. In these situations, it becomes necessary to use one or more alternative care sites (ACS). Situated in a variety of non-healthcare structures, ACS may be used for ambulatory, acute, subacute, or chronic care. Developing alternative care facilities is the disaster-planning step that moves communities from talking to doing. This commitment pays real dividends if a disaster of any magnitude strikes. This paper discusses the basic criteria for selecting, establishing and ultimately closing an ACS, difficulties of administration, staffing, security, and providing basic supplies and equipment.

URL:    https://doi.org/10.5811/westjem.2020.4.47552
Categories:

Year:    2020
Author:    Iserson, Kenneth V.
Title:    Augmenting the Disaster Healthcare Workforce
Journal:    West J Emerg Med
DOI:    10.5811/westjem.2020.4.47553
Abstract: In disasters such as the COVID-19 pandemic, we need to use all available resources to bolster our healthcare workforce. Many factors go into this process, including selecting the groups of professionals we will need, streamlining their licensing and credentialing processes, identifying appropriate roles for them, and supporting their health and well-being. The questions we must answer are these: How many staff will we need? How do we provide them with emergency licenses and credentials to practice? What interstate licensing compacts and registration systems exist to facilitate the process? What caveats are there to using retired healthcare professionals and healthcare students? How can we best avoid attrition among and increase the numbers of international medical graduates? Which non-clinical volunteers can we use and in what capacities? The answers to these questions will change as the crisis develops, although the earlier we address them, the smoother will be the process of using augmentees for the healthcare system.

URL:    https://doi.org/10.5811/westjem.2020.4.47553
Categories:

Year:    2020
Author:    Ivers, Louise C.; Walton, David A.
Title:    Novel Coronavirus Disease (COVID-19): Global Health Equity in Pandemic Response
Journal:    The American journal of tropical medicine and hygiene
DOI:    10.4269/ajtmh.20-0260

URL:    https://doi.org/10.4269/ajtmh.20-0260
Categories:
COVID-19 Transmission in Dental Practice: Brief Review of Preventive Measures in Italy

Abstract: The outbreak and diffusion of SARS-CoV-2, responsible for the coronavirus disease (COVID-19), has caused an emergency in the health system worldwide. After a first development in Wuhan, China, the virus spread in other countries, with Italy registering the second highest number of cases in Europe on the 7th of April 2020 (135,586 in total). The World Health Organization declared the pandemic diffusion of COVID-19, and restrictive measures to limit contagion have been taken in several countries. The virus has a predominantly respiratory transmission through aerosol and droplets. The importance of infection control is therefore crucial in limiting the effects of virus diffusion. We aim to discuss the risks related to dental practice and current recommendations for dental practitioners. A literature search was performed to retrieve articles on the management of COVID-19 diffusion in dental practice. The documented clinical experience, the measures of professional prevention, and the actual Italian situation were reported and described. Four articles were retrieved from the literature search. Among the eligible articles, 3 reported measures to contrast COVID-19 diffusion. The infection management protocols suggested were reviewed. Finally, recommendations based on the Italian experience in terms of patient triage, patients' entrance into the practice, dental treatment, and after-treatment management are reported and discussed. COVID-19 is a major emergency worldwide, which should not be underestimated. Due to the rapidly evolving situation, further assessment of the implications of COVID-19 outbreak in dental practice is needed.

URL: https://doi.org/10.1177/0022034520920580

Categories:
Year: 2020
Author: Jaimes, Javier A.; André, Nicole M.; Chappie, Joshua S.; Millet, Jean K.; Whittaker, Gary R.
Title: Phylogenetic Analysis and Structural Modeling of SARS-CoV-2 Spike Protein Reveals an Evolutionary Distinct and Proteolytically-Sensitive Activation Loop
Journal: Journal of Molecular Biology
DOI: https://doi.org/10.1016/j.jmb.2020.04.009
Abstract: The 2019 novel coronavirus (2019-nCoV/SARS-CoV-2) originally arose as part of a major outbreak of respiratory disease centered on Hubei province China. It is now a global pandemic and is a major public health concern. Taxonomically SARS-CoV-2 was shown to be a Betacoronavirus (lineage B) closely related to SARS-CoV and SARS-related bat coronaviruses, and it has been reported to share a common receptor with SARS-CoV (ACE-2). Subsequently betacoronaviruses from pangolins were identified as close relatives to SARS-CoV-2. Here, we perform structural modeling of the SARS-CoV-2 spike glycoprotein. Our data provide support for the similar receptor utilization between SARS-CoV-2 and SARS-CoV, despite a relatively low amino acid similarity in the receptor binding module. Compared to SARS-CoV and all other coronaviruses in Betacoronavirus lineage B, we identify an extended structural loop containing basic amino acids at the interface of the receptor binding (S1) and fusion (S2) domains. We suggest this loop confers fusion activation and entry properties more in line with betacoronaviruses in lineage A and C, and be a key component in the evolution of SARS-CoV-2 with this structural loop affecting virus stability and transmission.
URL: https://doi.org/10.1016/j.jmb.2020.04.009
Categories:

Year: 2020
Author: Jakhar, D.; Kaur, I.; Kaul, S.
Title: Screen mirroring, screen casting and screen sharing during COVID-19: What a dermatologist should know
Journal: Clinical and experimental dermatology
DOI: 10.1111/ced.14247
Abstract: In times of COVID-19, social distancing is an important parameter to contain the spread of novel coronavirus. More than ever, it is important to understand the utility of technology in maintaining connectivity. The wireless connectivity of the devices used in daily routine life (mobile phones, tablets and computers) has changed the way we connect and interact with each other. The same is true in medical field as well. The technological advancement in these devices has brought clinicians closer in ways that has reduced the need for face-to-face meetings. All this has been made possible through streaming of data.
URL: https://doi.org/10.1111/ced.14247
Categories:

Year: 2020
Author: Jakovljevic, Miro
Title: COVID-19 Crisis as a Collective Hero’s Journey to Better Public and Global Mental Health
Journal: Psychiatr Danub
DOI: 10.24869/psyd.2020.3
Abstract: The Coronavirus disease 2019 (COVID-19) pandemic emerged in Wuhan, China and has spread all over the world and has caused huge threats to health and lives. It has affected different frontiers of lives and induced many psychiatric individual and collective problems such as panic, anxiety, depression, post-traumatic stress disorders, suspiciousness, infodemia, cacophony, xenophobia, racisms, etc. The COVID-19 outbreak has induced public and global mental health crisis as well as a huge psycho-social experiment. Psychiatry and other mental health sciences can play very useful role in supporting the well-being of COVID-19 patients and their families,
healthcare personnel and the society. For successful fighting with present and future pandemics we have to learn more about psychiatric and psychological aspects of COVID-19 from the perspectives of public and global mental health.

URL: https://doi.org/10.24869/psyd.2020.6
Categories:

Year: 2020
Author: Jamieson, Denise J.; Steinberg, James P.; Martinello, Richard A.; Perl, Trish M.; Rasmussen, Sonja A.
Title: Obstetricians on the Coronavirus Disease 2019 (COVID-19) Front Lines and the Confusing World of Personal Protective Equipment
Journal: Obstetrics and gynecology
DOI: 10.1097/AOG.0000000000003919
Abstract: As health care systems struggle to maintain adequate supplies of personal protective equipment, there is confusion and anxiety among obstetricians and others about how to best protect themselves, their coworkers, and their patients. Although use of personal protective equipment is a critical strategy to protect health care personnel from coronavirus disease 2019 (COVID-19), other strategies also need to be implemented on labor and delivery units to reduce the risk of health care-associated transmission, including screening of all pregnant women who present for care (case identification), placing a mask on and rapidly isolating ill pregnant women, and minimizing the number of personnel who enter the room of an ill patient (physical distancing). Although the mechanism of transmission of COVID-19 is not known with certainty, current evidence suggests that COVID-19 is transmitted primarily through respiratory droplets. Therefore, strict adherence to hand hygiene and consistent use of recommended personal protective equipment are cornerstones for reducing transmission. In addition, it is critical that health care professionals receive training on and practice correct donning (putting on) and doffing (removing) of personal protective equipment and avoid touching their faces as well as their facial protection to minimize self-contamination.

URL: https://doi.org/10.1097/AOG.0000000000003919
Categories:

Year: 2020
Author: Jamilloux, Yvan; Lega, Jean-Christophe
Title: La médecine interne dans la pandémie à SARS-CoV-2
Journal: La Revue de Médecine Interne
DOI: https://doi.org/10.1016/j.revmed.2020.04.003
Abstract: Recently, Giacomelli et al. reported that about one third (20/59, 33.9%) of the SARS-CoV-2-positive hospitalized patients had an olfactory or taste disorder. SARS-CoV-2 can be transmitted in the asymptomatic or paucisymptomatic stages, and therefore, olfactory and taste disorders can be significant signs for its early detection to control transmission. We found that olfactory and taste disorders can be the first and only signs of SARS-CoV-2 pneumonia.

URL: https://doi.org/10.1016/j.revmed.2020.04.003
Categories:

Year: 2020
Author: Jang, Youngeun; Son, Hyo-Ju; Lee, Seungjae; Lee, Eun Jung; Kim, Tae Hyong; Park, Se Yoon
Title: Olfactory and taste disorder: the first and only sign in a patient with SARS-CoV-2 pneumonia
Journal: Infection Control & Hospital Epidemiology
DOI: 10.1017/ice.2020.151
Abstract: Common clinical manifestations included fever, cough, fatigue, dyspnea, and myalgia or arthralgia. Recently, Giacomelli et al. reported that about one third (20/59, 33.9%) of the SARS-CoV-2-positive hospitalized patients had an olfactory or taste disorder. SARS-CoV-2 can be transmitted in the asymptomatic or paucisymptomatic stages, and therefore, olfactory and taste disorders can be significant signs for its early detection to control transmission. We found that olfactory and taste disorders can be the first and only signs of SARS-CoV-2 pneumonia.

URL: https://doi.org/10.1017/ice.2020.151
Categories:
Electronic cigarette and vaping should be discouraged during the new coronavirus SARS-CoV-2 pandemic

Coronavirus disease 2019 (COVID-19), caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), emerged from China in December 2019. The outbreak further exploded in Europe and America in mid-March 2020 to become a global health emergency. We reviewed recent published articles and on-line open messages on SARS-CoV-2-positive infants and children younger than 20 years of age. Symptoms are usually less severe in children than in adults. Twelve critically or mortally ill children were found in the published or news reports before April 6, 2020. Vertical transmission from the mother to her fetus or neonate has not been proven definitively. However, six early-onset (<7 days) and 3 late-onset neonatal SARS-CoV-2 infections were found in the literature. We also summarized the presentations and contact information of 24 SARS-CoV-2-positive children announced by the Taiwan Centers for Disease Control. Early identification and isolation, adequate management, prevention, and vaccine development are the keys to controlling the disease spread. Clinical physicians should be alert to asymptomatic children with COVID-19. Multi-directional investigations are crucial in the global fight against COVID-19.

Since mid-December 2019, a new coronavirus pneumonia (NCP) has emerged in China. It was reported that Wuhan Mental Health Center in China was affected from the very beginning of the outbreak. Coincidentally, another large-scale nosocomial infection occurred at the psychiatric ward of the Daenam Hospital in South Korea. It is important for the policymakers to pay full attention on this aspect worldwide and corresponding prevention recommendations should be provided.
Abstract

Objectives Drug repositioning, that is, the use of a drug in an indication other than the one for which it was initially marketed, is a growing trend. Its origins lie mainly in the attrition experienced in recent years in the field of new drug discovery. Key findings Despite some regulatory and economic challenges, drug repositioning offers many advantages, and a number of recent successes have confirmed both its public health benefits and its commercial value. The first examples of successful drug repositioning mainly came about through serendipity like acetylsalicylic acid, thalidomide, sildenafil or dimethylfumarate. Conclusion The history of great-repositioned drugs has given some solutions to various pathologies. Serendipity is not yet useful to find repositioning drugs. Drug repositioning is of growing interest. Nowadays, a more rational approach to the identification of drug candidates for repositioning is possible, especially using data mining.

URL: https://doi.org/10.1111/jphp.13273

Categories:
The role of Nuclear Medicine for COVID-19 - Time to act now

The paper presents data on the coronavirus disease COVID-2019 caused by the SARS-CoV-2 coronavirus, which was temporarily named 2019-nCoV (2019 novel coronavirus) until 11 February 2020. An outbreak of pneumonia of unknown etiology in Wuhan (Hubei province of China) which was first described in an official publication of the Chinese Office of the World Health Organization on December 31, 2019, attracted attention of both dedicated experts and the entire international community. On January 30, 2019 it was recognised as a public health emergency of international concern. The first cases were reported on December 12, 2019 in China, and on January 31, 2020 Russia reported its first two cases of the infection in two Chinese citizens staying in Russia. The causative agent is the new SARS-CoV-2 coronavirus. It had not been detected before, and was first identified by Chinese researchers on January 7, 2020 under the temporary name 2019-nCoV. The aim of the study was to summarise information about coronavirus disease COVID-2019 beginning from the onset of the epidemic until early March 2020. The paper provides general information about coronaviruses, developments of the COVID-2019 epidemic caused by the SARS-CoV-2 coronavirus, and gives an assessment of the global epidemiological situation. It cites the recommendations of national regulatory authorities and the World Health Organization on the treatment of various forms of coronavirus infection and septic shock caused by SARS-CoV-2, including target values of systemic hemodynamics, a list of recommended medicines, methods of their use, and limitations of pharmacotherapy.
The role of the Head and Neck cancer-specific Patient Concerns Inventory (PCI-HN) in telephone consultations during the COVID-19 pandemic

British Journal of Oral and Maxillofacial Surgery
DOI: https://doi.org/10.1016/j.bjoms.2020.04.010

Abstract:
URL: https://doi.org/10.1016/j.bjoms.2020.04.010

Categories:
Year: 2020
Author: Karimi, Mohammad Ali; Radpour, Alireza; Sedaghat, Abdolrasul; Gity, Masoumeh; Hekmatnia, Ali; Taheri, Morteza Sanei; Tarzamani, Mohammad Kazem; Ahmadi, Mehran Arab
Title: Proposed imaging guidelines for pregnant women suspected of having COVID-19
Journal: Academic Radiology
DOI: https://doi.org/10.1016/j.acra.2020.04.018
Abstract:
URL: https://doi.org/10.1016/j.acra.2020.04.018
Categories:

Year: 2020
Author: Katirji, Linda; Smith, Liza; Pelletier-Bui, Alexis; Hillman, Emily; Zhang, Xiao Chi; Pasirstein, Michael; Olaf, Mark; Shaw, Jazmyn; Franzen, Douglas; Ren, Ronnie
Title: Addressing Challenges in Obtaining Emergency Medicine Away Rotations and Standardized Letters of Evaluation Due to COVID-19 Pandemic
Journal: West J Emerg Med
DOI: 10.5811/westjem.2020.3.47444
Abstract:
URL: https://doi.org/10.5811/westjem.2020.3.47444
Categories:

Year: 2020
Author: Kavsak, Peter A.; de Wit, Kerstin; Worster, Andrew
Title: Clinical chemistry tests for patients with COVID-19 - important caveats for interpretation
Journal: Clinical chemistry and laboratory medicine
DOI: 10.1515/cclm-2020-0436
Abstract:
URL: https://doi.org/10.1515/cclm-2020-0436
Categories:

Year: 2020
Author: Kemp, V.; Laconi, A.; Cacciolo, G.; Berends, A. J.; Breit, T. M.; Verheije, M. H.
Title: miRNA repertoire and host immune factor regulation upon avian coronavirus infection in eggs
Journal: Archives of virology
DOI: 10.1007/s00705-020-04527-4
Abstract: Avian infectious bronchitis virus (IBV) is a coronavirus with great economic impact on the poultry industry, causing an acute and highly contagious disease in chickens that primarily affects the respiratory and reproductive systems. The cellular regulation of IBV pathogenesis and the host immune responses involved remain to be fully elucidated. MicroRNAs (miRNAs) have emerged as a class of crucial regulators of numerous cellular processes, including responses to viral infections. Here, we employed a high-throughput sequencing approach to analyze the miRNA composition of the spleen and the lungs of chicken embryos upon IBV infection. Compared to healthy chicken embryos, 13 and six miRNAs were upregulated in the spleen and the lungs, respectively, all predicted to influence viral transcription, cytokine production, and lymphocyte functioning. Subsequent downregulation of NFATC3, NFAT5, SPPL3, and TGFB2 genes in particular was observed only in the spleen, demonstrating the biological functionality of the miRNAs in this lymphoid organ. This is the first study that describes the modulation of miRNAs and the related host immune factors by IBV in chicken embryos. Our data provide novel insight into complex virus-host interactions and specifically highlight components that could affect the host's immune response to IBV infection.
URL: https://doi.org/10.1007/s00705-020-04527-4
Categories:
Abstract: The COVID-19 pandemic is putting unprecedented pressures on healthcare systems globally. Early insights have been made possible by rapid sharing of data from China and Italy. In the UK, we have rapidly mobilised inflammatory bowel disease (IBD) centres in order that preparations can be made to protect our patients and the clinical services they rely on. This is a novel coronavirus; much is unknown as to how it will affect people with IBD. We also lack information about the impact of different immunosuppressive medications. To address this uncertainty, the British Society of Gastroenterology (BSG) COVID-19 IBD Working Group has used the best available data and expert opinion to generate a risk grid that groups patients into highest, moderate and lowest risk categories. This grid allows patients to be instructed to follow the UK government's advice for shielding, stringent and standard advice regarding social distancing, respectively. Further considerations are given to service provision, medical and surgical therapy, endoscopy, imaging and clinical trials.

URL: https://doi.org/10.1136/gutjnl-2020-321244

Categories:
A new severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) associated with human to human transmission and extreme human sickness has been as of late announced from the city of Wuhan in China. Our objectives were to mutation analysis between recently reported genomes at various times and locations and to characterize the genomic structure of SARS-CoV-2 using bioinformatics programs. Information on the variation of viruses is of considerable medical and biological impacts on the prevention, diagnosis, and therapy of infectious diseases. To understand the genomic structure and variations of the SARS-CoV-2. The study analyzed 95 SARS-CoV-2 complete genome sequences available in GenBank, National MicrobiologyData Center (NMDC) and NGDC Genome Warehouse from December-2019 until 05 of April-2020. The genomic signature analysis demonstrates that a strong association between the time of sample collection, location of sample and accumulation of genetic diversity. We found 116 mutations, the three most common mutations were 8782C>T in ORF1ab gene, 28144T>C in ORF8 gene and 29095C>T in the N gene. The mutations might affect the severity and spread of the SARS-CoV-2. The finding heavily supports an intense requirement for additional prompt, inclusive investigations that combine genomic detail, epidemiological information and graph records of the clinical features of patients with COVID-19.
Abstract: In this study, we developed a flat plate-type wet electrostatic precipitator that generates stable corona discharge compared to wire-type discharge electrodes. Particle removal efficiencies were compared among differing shapes of the discharge electrode, including varying horizontal and vertical distances between spiked edges, and varying the height of the discharge pin support. When the horizontal distance between spiked edges was increased to 36 mm, the vertical distance between spiked edges increased to 54 mm, and when the height of the discharge pin support was increased to 76 mm, the removal efficiency of PM$_{10}$ was maintained at approximately 60.0%. Furthermore, the removal efficiency of particles over 5 μm was about 80% or greater. When the flow rate was 4 m$s^{-1}$, the gap between collection plates was 60 mm, and -14 kV was applied to the discharge electrode. The particle removal efficiency of the flat plate-type electrostatic precipitator was maintained...
when the horizontal and vertical distances between spiked edges and the height of the discharge pin support were below threshold levels. Those variables may be important factors for designing the shape of the discharge electrode. Therefore, when designing electrostatic precipitators with multiple channels, the discharge electrode weight and processing costs must be considered when determining the optimal horizontal and vertical distances between spiked edges and the height of discharge pin support.

URL: https://doi.org/10.4209/aaqr.2019.12.0648

Categories:

Year: 2020
Author: Kim, Kyung Hyun; Choi, Eun Hwa; Kim, Seung-Ki
Title: Editorial. COVID-19 outbreak and its countermeasures in the Republic of Korea
Journal: Journal of neurosurgery
DOI: 10.3171/2020.4.JNS201062
Abstract:
URL: https://doi.org/10.3171/2020.4.JNS201062

Categories:

Year: 2020
Author: Kim, Kyung Mi; Han, Su Ha; Yoo, So Yeon; Yoo, Jin Hong
Title: Potential Hazards of Concern in the Walk-Through Screening System for the Corona Virus Disease 2019 from the Perspective of Infection Preventionists
Journal: Journal of Korean medical science
DOI: 10.3346/jkms.2020.35.e156
Abstract:
URL: https://doi.org/10.3346/jkms.2020.35.e156

Categories:

Year: 2020
Author: Kim, Sang Il; Lee, Ji Yong
Title: Walk-Through Screening Center for COVID-19: an Accessible and Efficient Screening System in a Pandemic Situation
Journal: Journal of Korean medical science
DOI: 10.3346/jkms.2020.35.e154
Abstract: With the ongoing novel coronavirus disease 2019 (COVID-19) pandemic, the number of individuals that need to be tested for COVID-19 has been rapidly increasing. A walk-through (WT) screening center using negative pressure booths that is inspired by the biosafety cabinet has been designed and implemented in Korea for easy screening of COVID-19 and for safe and efficient consultation for patients with fever or respiratory symptoms. Here, we present the overall concept, advantages, and limitations of the COVID-19 WT screening center. The WT center increases patient access to the screening clinics and adequately protects healthcare personnel while reducing the consumption of personal protective equipment. It can also increase the number of people tested by 9-10 fold. However, there is a risk of cross-infection at each stage of screening treatment, including the booths, and adverse reactions with disinfection of the booths. These limitations can be overcome using mobile technology and increasing the number of booths to reduce congestion inside the center, reducing booth volume for sufficient and rapid ventilation, and using an effective, harmless, and certified environmental disinfectant. A WT center can be implemented in other institutions and countries and modified depending on local needs to cope with the COVID-19 pandemic.
URL: https://doi.org/10.3346/jkms.2020.35.e154

Categories:

Year: 2020
Author: Kim, Shin Woo; Lee, Kyeong Soo; Kim, Keonyeop; Lee, Jung Jeung; Kim, Jong Yeon
Title: A Brief Telephone Severity Scoring System and Therapeutic Living Centers Solved Acute Hospital-Bed Shortage during the COVID-19 Outbreak in Daegu, Korea
Journal: Journal of Korean medical science
DOI: 10.3346/jkms.2020.35.e152
Abstract: With the epidemic of coronavirus disease 2019 (COVID-19) caused by severe acute respiratory
syndrome coronavirus-2, the number of infected patients was rapidly increasing in Daegu, Korea. With a maximum of 741 new patients per day in the city as of February 29, 2020, hospital-bed shortage was a great challenge to the local healthcare system. We developed and applied a remote brief severity scoring system, administered by telephone for assigning priority for hospitalization and arranging for facility isolation (“therapeutic living centers”) for the patients starting on February 29, 2020. Fifteen centers were operated for the 3,033 admissions to the COVID-19 therapeutic living centers. Only 81 cases (2.67%) were transferred to hospitals after facility isolation. We think that this brief severity scoring system for COVID-19 worked safely to solve the hospital-bed shortage.

Telephone scoring of the severity of disease and therapeutic living centers could be very useful in overcoming the shortage of hospital-beds that occurs during outbreaks of infectious diseases.

URL: https://doi.org/10.3346/jkms.2020.35.e152
Categories:

Year: 2020
Author: Kim, Youn Jeong; Jeong, Yeon Jeong; Kim, Si Hyun; Kim, Yeo Ju; Lee, Shin Young; Kim, Tae Yeong; Choi, Mi Sun; Ahn, Joong Hyun
Title: Preparedness for COVID-19 infection prevention in Korea: Single-center experience
Journal: J Hosp Infect
DOI: 10.1016/j.jhin.2020.04.018
Abstract: https://doi.org/10.1016/j.jhin.2020.04.018
Categories:

Year: 2020
Author: Kim, Youngchang; Jedrzejczak, Robert; Maltseva, Natalia I.; Wilamowski, Mateusz; Endres, Michael; Godzik, Adam; Michalska, Karolina; Joachimiak, Andrzej
Title: Crystal structure of Nsp15 endoribonuclease NendoU from SARS-CoV-2
Journal: Protein science : a publication of the Protein Society
DOI: 10.1002/pro.3873
Abstract: Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) is rapidly spreading around the world. There is no existing vaccine or proven drug to prevent infections and stop virus proliferation. Although this virus is similar to human and animal SARS- and MERS-CoVs, the detailed information about SARS-CoV-2 proteins structures and functions is urgently needed to rapidly develop effective vaccines, antibodies and antivirals. We applied high-throughput protein production and structure determination pipeline at the Center for Structural Genomics of Infectious Diseases to produce SARS-CoV-2 proteins and structures. Here we report two high-resolution crystal structures of endoribonuclease Nsp15/NendoU. We compare these structures with previously reported homologs from SARS and MERS coronaviruses. This article is protected by copyright. All rights reserved.
URL: https://doi.org/10.1002/pro.3873
Categories:

Year: 2020
Author: King, Jaime S.
Title: Covid-19 and the Need for Health Care Reform
Journal: New England Journal of Medicine
DOI: 10.1056/NEJMp2000821
Abstract: https://doi.org/10.1056/NEJMp2000821
Categories:

Year: 2020
Author: Kivela, Paul
Title: Paradigm Shift for COVID-19 Response: Identifying High-risk Individuals and Treating Inflammation
Journal: West J Emerg Med
DOI: 10.5811/westjem.2020.3.47520
Abstract: https://doi.org/10.5811/westjem.2020.3.47520
Categories:
Australia keeps a lid on covid-19 – for now

New Scientist

https://doi.org/10.1016/S0262-4079(20)30745-4

Features of anosmia in COVID-19

Médecine et Maladies Infectieuses

https://doi.org/10.1016/j.medmal.2020.04.006

Recommendations for intensive care therapy of patients with COVID-19

Atemwegs- und Lungenkrankheiten

https://doi.org/10.5414/ATX02525

German recommendations for critically ill patients with COVID-19 TT - Empfehlungen zur intensivmedizinischen Therapie von Patienten mit COVID-19

Medizinische Klinik, Intensivmedizin und Notfallmedizin

https://doi.org/10.1007/s00063-020-00689-w
treatment available—the main goal of supportive therapy is to ascertain adequate oxygenation. Early intubation and repeated prone positioning are key elements in treating hypoxemic COVID-19 patients. Strict adherence to basic infection control measures (including hand hygiene) and use of personal protection equipment (PPE) are essential in the care of patients. Procedures that lead to formation of aerosols should be avoided where possible and carried out with utmost precaution.
URL: https://doi.org/10.1007/s00063-020-00689-w
Categories:

Year: 2020
Author: Knopf, Alison
Title: ASAM on buprenorphine inductions by telephone
Journal: Alcoholism & Drug Abuse Weekly
DOI: 10.1002/adaw.32694
Abstract: The American Society of Addiction Medicine (ASAM) is providing some assistance in how to conduct telephone inductions of buprenorphine, in which new patients talk to a doctor on the phone and get a prescription for the Schedule III opioid use disorder (OUD) medication.
URL: https://doi.org/10.1002/adaw.32694
Categories:

Year: 2020
Author: Knopf, Alison
Title: Corrections
Journal: Alcoholism & Drug Abuse Weekly
DOI: 10.1002/adaw.32695
Abstract: In the article “NAATP on telemedicine and a ‘disease of isolation’” in last week’s issue (ADAW, April 13, https://onlinelibrary.wiley.com/doi/full/10.1002/adaw.32689), quotations should have been attributed to Annie Peters, Ph.D., director of research and education at the National Association of Addiction Treatment Providers. For our lead story in last week’s issue (“Sign-on letter requests more flexibility in methadone treatment during COVID-19,” ADAW, April 13, https://onlinelibrary.wiley.com/doi/full/10.1002/adaw.32685), authorship of the policy letter should have been attributed solely to the Urban Survivors Union (USU), listed as one of the three lead organizations. The National Alliance for Medication Assisted Recovery was a signatory along with about 140 others and should be replaced by the USU. We regret any confusion. Publication cover image Volume32, Issue16 20 April 2020 Pages 6-6
URL: https://doi.org/10.1002/adaw.32695
Categories:

Year: 2020
Author: Knopf, Alison
Title: Levenson, former rehab CEO, on his conversion to harm reduction
Journal: Alcoholism & Drug Abuse Weekly
DOI: 10.1002/adaw.32692
Abstract: Many people familiar with the addiction treatment field over the past few decades might be surprised to hear that Ben Levenson, the founder of 12-Step-based Origins Behavioral Healthcare in 2009, is no longer a believer in abstinence-based treatment for everyone.
URL: https://doi.org/10.1002/adaw.32692
Categories:

Year: 2020
Author: Koçak Tufan, Zeliha; Kayaaslan, Bircan
Title: Crushing the curve, the role of national and international institutions and policy makers in COVID-19 pandemic
Journal: Turkish journal of medical sciences
DOI: 10.3906/sag-2004-167
Abstract: Nobody can be fully prepared to a pandemic. Of course there are signs of it, the scientists can predict, alarming speeches can be made. But there are always alarmist people around, maybe that is why sometimes even the most serious warnings may be not considered by the authorities on time. The first patients may be lost without
a proper diagnosis. When everybody realizes that there may be a big problem in the horizon, sometimes it is too late. That is why it is very important to monitor contagious diseases and follow the warnings and releases of national and international disease control centers and other related organizations. China celebrated Lunar New Year with more than 40 thousand families on the 18 of January 2020. Nobody seems to be expecting this emerging new viral pneumonia outbreak appeared in Wuhan, in the last days of 2019, will break the chains and turn out to be a pandemic! But maybe this time it was not too late. There were four important pandemics within the last century: Spanish Flu, Hong Kong Flu, Asian Flu and Swine Flu. Each left different story behind. Millions of people had infected, hundreds, thousands of people died. This time, the Modern World had different tools to limit the SARS CoV2 outbreak. The national and international institutions of our globe were all communicating and taking precautions in a very fast manner than ever. However, this time, unexpectedly, the SARS-CoV-2 contagion was also faster. Beside the international organizations like WHO, UNESCO and UNICEF, the roles of local authorities, health ministries, disease control centers, health protection agencies, research centers and universities are all very important in different operational levels to control and survive from the pandemic. This paper will review the immediate response of different national and international institutions and authorities to COVID-19 pandemic.

URL:  https://doi.org/10.3906/sag-2004-167

Categories:

Year:  2020
Author:  Koff, Wayne C.; Williams, Michelle A.
Title:  Covid-19 and Immunity in Aging Populations — A New Research Agenda
Journal:  New England Journal of Medicine
DOI:  10.1056/NEJMp2006761
Abstract:  While counting cases of disease appears straightforward, there are issues to consider when enumerating disease counts during an epidemic. For example, for Coronavirus Disease-2019 (COVID-19), how is a case defined? Hubei province in China changed its case definition twice in a fortnight from laboratory-confirmed cases to clinically-confirmed cases without laboratory tests, and back to laboratory-confirmed cases. This caused confusion in the reported number of cases. If a confirmed case requires laboratory testing, what is the population who are laboratory-tested? Due to limited laboratory testing capacity in the early phase of an emerging epidemic, only “suspected cases” are laboratory-tested in most countries. This will result in underdiagnosis of confirmed cases and also raises the question: how is a “suspect case” defined? With the passage of time and increased capability to perform laboratory tests, more people can be screened and the number of confirmed cases will increase. What are the technical considerations of laboratory testing? This includes specimen collection (variable collection methods), samples collected (upper or lower respiratory tract biospecimens), time of collection in relation to course of disease, different laboratory test methods and kits (not all of which may be standardised or approved by authorities such as the Food and Drug Administration). Are approved laboratory facilities and trained manpower available, and how are test results interpreted and false-negatives excluded? These issues will affect the accuracy of disease counts, which in turn will have implications on how we mount an appropriate response to the outbreak.
URL:  https://doi.org/

Categories:
The biologically active form of vitamin D3, 1α,25-dihydroxyvitamin D3 (1,25(OH)2D3), modulates innate and adaptive immunity via genes regulated by the transcription factor vitamin D receptor (VDR). In order to identify the key vitamin D target genes involved in these processes, transcriptome-wide datasets were compared, which were obtained from a human monocytic cell line (THP-1) and peripheral blood mononuclear cells (PBMCs) treated in vitro by 1,25(OH)2D3, filtered using different approaches, as well as from PBMCs of individuals supplemented with a vitamin D3 bolus. The led to the genes ACVRL1, CAMP, CD14, CD93, CEBPB, FN1, MAPK13, NINJ1, LILRB4, LRRC25, SEMA6B, SRGN, THBD, THEMIS2 and TREM1. Public epigenome- and transcriptome-wide data from THP-1 cells were used to characterize these genes based on the level of their VDR-driven enhancers as well as the level of the dynamics of their mRNA production. Both types of datasets allowed the categorization of the vitamin D target genes into three groups according to their role in (i) acute response to infection, (ii) infection in general and (iii) autoimmunity. In conclusion, 15 genes were identified as major mediators of the action of vitamin D in innate and adaptive immunity and their individual functions are explained based on different gene regulatory scenarios.

https://doi.org/10.3390/NU12041140

COVID-19: Time for precision epidemiology

Koks, Sulev; Williams, Robert W.; Quinn, John; Farzaneh, Farzin; Conran, Nicola; Tsai, Shaw-Jeng; Awandare, Gordon; Goodman, Steven R.

Experimental biology and medicine (Maywood, N.J.)

10.1177/1535370220919349

Coronavirus (COVID-19) infection-induced chilblains: a case report with histopathological findings


JAAD Case Reports


Design, synthesis, and biological evaluation of novel C5-modified pyrimidine ribofuranonucleosides as potential antitumor or/and antiviral agents

Kollatos, N.; Oona; Hanel, Andrea; Carlberg, Carsten

Key Vitamin D Target Genes with Functions in the Immune System

Nutrients 2020, Vol. 12, Page 1140

10.3390/NU12041140


https://doi.org/10.2174/157340641566190225112950


https://doi.org/10.1177/1535370220919349

https://doi.org/10.3390/NU12041140

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leukemia (L1210) and human lymphocyte (CEM) tumor cell lines was displayed by the protected 3’-deoxy derivatives 12b, 12c, 12d, and the 3’-deoxy-3’-methyl 18a, 18b, 18c. The antiviral evaluation revealed appreciable activity against Coxsackie virus B4, Respiratory syncytial virus, Yellow Fever Virus and Human Coronavirus (229E) for the 3’-deoxy compounds 12b, 14, and the 3’-deoxy-3’-methyl 18a, 18c, 18d, accompanied by low cytotoxicity. Conclusion: This report describes the total and facile synthesis of modified furanononucleosides of uracil, with alterations on both the sugar and the heterocyclic portions. Compounds 12b, 14 and 18a,c,d showed noticeable antiviral activity against a series of RNA viruses and merit further biological and structural optimization investigations.

URL: https://doi.org/10.2174/1573406415666190225112950
Categories:

Year: 2020
Author: Kollias, Anastasios; Kyriakoulis, Konstantinos G.; Dimakakos, Evangelos; Poulakou, Garyphallia; Stergiou, George S.; Syrigos, Konstantinos
Title: Thromboembolic risk and anticoagulant therapy in COVID-19 patients: Emerging evidence and call for action
Journal: British journal of haematology
DOI: 10.1111/bjh.16727
Abstract: Emerging evidence shows that severe coronavirus disease 2019 (COVID-19) can be complicated with coagulopathy namely disseminated intravascular coagulation, which has a rather pro-thrombotic character with high risk of venous thromboembolism. The incidence of venous thromboembolism among COVID-19 patients in Intensive Care Unit appears to be somewhat higher compared to that reported in other studies including such patients with other disease conditions. D-dimer might help in early recognition of these high-risk patients and also predict outcome. Preliminary data show that in patients with severe COVID-19, anticoagulant therapy appears to be associated with lower mortality in the subpopulation meeting sepsis-induced coagulopathy criteria or with markedly elevated d-dimer. Recent recommendations suggest that all hospitalized COVID-19 patients should receive thromboprophylaxis, or full therapeutic-intensity anticoagulation if such an indication is present.

URL: https://doi.org/10.1111/bjh.16727
Categories:

Year: 2020
Author: Kooraki, Soheil; Hosseiny, Melina; Gholamrezanezhad, Ali
Title: Radiologic Findings of Coronavirus Disease (COVID-19): Clinical Correlation Is Recommended
Journal: AJR Am J Roentgenol
DOI: 10.2214/AJR.20.23211
Abstract: https://doi.org/10.2214/AJR.20.23211
Categories:

Year: 2020
Author: Kost, Gerald J.
Title: Geospatial Hotspots Need Point-of-Care Strategies to Stop Highly Infectious Outbreaks: Ebola and Coronavirus
Journal: Arch Pathol Lab Med
DOI: 10.5858/arpa.2020-0172-RA
Abstract: Context. Point-of-care testing (POCT), diagnostic testing at or near the site of patient care, is inherently spatial, that is, performed at points of need, and also intrinsically temporal, because it produces fast actionable results. Outbreaks generate geospatial “hotspots.” POCT strategies help control hotspots, detect spread, and speed treatment of highly infectious diseases. Objectives. To stop outbreaks, accelerate detection, facilitate emergency response for epidemics, mobilize public health practitioners, enhance community resilience, and improve crisis standards of care. Data Sources. PubMed, WWW, newsprint, others were searched until COVID-19 was declared a pandemic, the US, a national emergency, and Europe, the epicenter. Coverage comprised interviews in Asia, email to/from Wuhan, papers, articles, chapters, documents, maps, flowcharts, schematics, and geospatial-associated concepts. EndNote X9.1 (Clarivate Analytics) consolidated literature as abstracts, ULRs, and PDFs, recovering 136 hotspot articles. More than 500 geospatial science articles were assessed for relevance to point-of-care testing. Conclusions POCT can interrupt spirals of dysfunction and delay by enhancing disease detection, decision making,
contagion containment, and safe spacing, thereby softening outbreak surges and diminishing risk before human, economic, and cultural losses mount. Point-of-care tests results identify where infected individuals spread COVID-19, when delays cause death, and how to deploy resources. Results in national cloud databases help optimize outbreak control, mitigation, emergency response, and community resilience. The COVID-19 pandemic demonstrates unequivocally that governments must support POCT and multidisciplinary healthcare personnel must learn its principles, then adopt POC geospatial strategies, so that onsite diagnostic testing can ramp up to meet needs in times of crisis.

URL: https://doi.org/10.5858/arpa.2020-0172-RA

Categories:

Year: 2020
Author: Krajewska, Joanna; Krajewski, Wojciech; Zub, Krzysztof; Zatoński, Tomasz
Title: COVID-19 in otolaryngologist practice: a review of current knowledge
Journal: European Archives of Oto-Rhino-Laryngology
DOI: 10.1007/s00405-020-05968-y
Abstract: Otorhinolaryngological manifestations are common symptoms of COVID-19. This study provides a brief and precise review of the current knowledge regarding COVID-19, including disease transmission, clinical characteristics, diagnosis, and potential treatment. The article focused on COVID-19-related information useful in otolaryngologist practice. The Medline and Web of Science databases were searched without a time limit using terms "COVID-19", "SARS-CoV-2" in conjunction with "otorhinolaryngological manifestation", "ENT", and "olfaction". The most common otolaryngological dysfunctions of COVID-19 were cough, sore throat, and dyspnea. Rhinorrhea, nasal congestion and dizziness were also present. COVID-19 could manifest as an isolated sudden hyposmia/anosmia. Upper respiratory tract (URT) symptoms were commonly observed in younger patients and usually appeared initially. They could be present even before the molecular confirmation of SARS-CoV-2. Otolaryngologists are of great risk of becoming infected with SARS-CoV-2 as they cope with URT. ENT surgeons could be easily infected by SARS-CoV-2 during performing surgery in COVID-19 patients. Ear, nose and throat (ENT) symptoms may precede the development of severe COVID-19. During COVID-19 pandemic, patients with cough, sore throat, dyspnea, hyposmia/anosmia and a history of travel to the region with confirmed COVID-19 patients, should be considered as potential COVID-19 cases. An otolaryngologist should wear FFP3/N95 mask, glasses, disposable and fluid resistant gloves and gown while examining such individuals. Not urgent ENT surgeries should be postponed. Additional studies analyzing why some patients develop ENT symptoms during COVID-19 and others do not are needed. Further research is needed to determine the mechanism leading to anosmia.

URL: https://doi.org/10.1007/s00405-020-05968-y

Categories:
Year: 2020
Author: Kulcsar, Marco Aurelio; Montenegro, Fabio L.; Arap, Sergio S.; Tavares, Marcos Roberto; Kowalski, Luiz Paulo
Title: High Risk of COVID-19 Infection for Head and Neck Surgeons
Journal: Int Arch Otorhinolaryngol
DOI: 10.1055/s-0040-1709725
Categories:

Year: 2020
Author: Kupferschmidt, Kai
Title: The lockdowns worked—but what comes next?
Journal: Science
DOI: 10.1126/science.368.6488.218
Abstract: After the novel coronavirus made its way around the world, one country after another adopted harsh measures to stop SARS-CoV-2 from spreading and overwhelming hospitals. They have hit the pause button on their economies and their citizens’ lives, stopping sports events, religious services, and other social gatherings. School closures in 188 countries affect more than 1.5 billion students. Borders are closed and businesses shuttered. While some countries are still seeing daily case numbers increase, others—first in Asia but increasingly in Europe—have managed to bend the curve, slowing transmission of COVID-19. But what is the exit strategy? “We’ve managed to get to the life raft,” says epidemiologist Marc Lipsitch of the Harvard T.H. Chan School of Public Health (HSPH). “But I’m really unclear how we will get to the shore.”
URL: https://doi.org/10.1126/science.368.6488.218
Categories:

Year: 2020
Author: Kuziemski, Maciej; Misuraca, Gianluca
Title: AI governance in the public sector: Three tales from the frontiers of automated decision-making in democratic settings
Journal: Telecommunications Policy
DOI: https://doi.org/10.1016/j.telpol.2020.101976
Abstract: The rush to understand new socio-economic contexts created by the wide adoption of AI is justified by its far-ranging consequences, spanning almost every walk of life. Yet, the public sector’s predicament is a tragic double bind: its obligations to protect citizens from potential algorithmic harms are at odds with the temptation to increase its own efficiency - or in other words - to govern algorithms, while governing by algorithms. Whether such dual role is even possible, has been a matter of debate, the challenge stemming from algorithms' intrinsic properties, that make them distinct from other digital solutions, long embraced by the governments, create externalities that rule-based programming lacks. As the pressures to deploy automated decision making systems in the public sector become prevalent, this paper aims to examine how the use of AI in the public sector in relation to existing data governance regimes and national regulatory practices can be intensifying existing power asymmetries. To this end, investigating the legal and policy instruments associated with the use of AI for strengthening the immigration process control system in Canada; “optimising” the employment services” in Poland, and personalising the digital service experience in Finland, the paper advocates for the need of a common framework to evaluate the potential impact of the use of AI in the public sector. In this regard, it discusses the specific effects of automated decision support systems on public services and the growing expectations for governments to play a more prevalent role in the digital society and to ensure that the potential of technology is harnessed, while negative effects are controlled and possibly avoided. This is of particular importance in light of the current COVID-19 emergency crisis where AI and the underpinning regulatory framework of data ecosystems, have become crucial policy issues as more and more innovations are based on large scale data collections from digital devices, and the real-time accessibility of information and services, contact and relationships between institutions and citizens could strengthen – or undermine - trust in governance systems and democracy.
URL: https://doi.org/10.1016/j.telpol.2020.101976
Categories:
Why we should not stop giving aspirin to pregnant women during the COVID-19 pandemic

With the current outbreak and spread of the coronavirus disease 2019 (COVID-19) worldwide many questions arise. There have been issued precautions regarding the use of anti-inflammatory medications, including aspirin. To our knowledge, there is insufficient data to suggest an increased risk between prophylactic use of low-dose aspirin and progression of COVID-19 infection in pregnant women at risk of placental complications. This article is protected by copyright. All rights reserved.

Community Responses during Early Phase of COVID-19 Epidemic, Hong Kong

During the early phase of the coronavirus disease epidemic in Hong Kong, 1,715 survey respondents reported high levels of perceived risk, mild anxiety, and adoption of personal-hygiene, travel-avoidance, and social-distancing measures. Widely adopted individual precautionary measures, coupled with early government actions, might slow transmission early in the outbreak.

COVID-19 Clinical Trials: A Primer for the Cardiovascular and Cardio-Oncology Communities

The COVID-19 pandemic has resulted in a proliferation of clinical trials that are designed to slow the spread of SARS-CoV-2, the virus that causes COVID-19. The overwhelming majority of cardiovascular and cancer patients are at increased risk for SARS-CoV-2 infection; accordingly, the cardiovascular and cardio-oncology communities are playing a major role in caring for COVID-19 patients. Many of the therapeutic agents that are being used to treat patients with COVID-19 are repurposed treatments for influenza, drugs that were not effective in Ebola patients, or treatments for malaria that were developed decades ago, and are unlikely to be familiar to the cardiovascular and cardio-oncology communities. Here we have provided a foundation for cardiovascular and cardio-oncology physicians who are on the frontline providing care to COVID-19 patients, so that they can better understand the emerging cardiovascular epidemiology of COVID-19, as well as the biological rationale for the clinical trials that are ongoing for the treatment of COVID-19 patients.

Fast Screening Systems for COVID-19

The COVID-19 pandemic has resulted in a proliferation of clinical trials that are designed to slow the spread of SARS-CoV-2, the virus that causes COVID-19. The overwhelming majority of cardiovascular and cancer patients are at increased risk for SARS-CoV-2 infection; accordingly, the cardiovascular and cardio-oncology communities are playing a major role in caring for COVID-19 patients. Many of the therapeutic agents that are being used to treat patients with COVID-19 are repurposed treatments for influenza, drugs that were not effective in Ebola patients, or treatments for malaria that were developed decades ago, and are unlikely to be familiar to the cardiovascular and cardio-oncology communities. Here we have provided a foundation for cardiovascular and cardio-oncology physicians who are on the frontline providing care to COVID-19 patients, so that they can better understand the emerging cardiovascular epidemiology of COVID-19, as well as the biological rationale for the clinical trials that are ongoing for the treatment of COVID-19 patients.
Year: 2020
Author: Lagana, Stephen M.; De Michele, Simona; Lee, Michael J.; Emond, Jean C.; Griesemer, Adam D.; Tulin-Silver, Sheryl A.; Verna, Elizabeth C.; Martinez, Mercedes; Lefkowitch, Jay H.
Title: COVID-19 Associated Hepatitis Complicating Recent Living Donor Liver Transplantation
Journal: Archives of pathology & laboratory medicine
DOI: 10.5858/arpa.2020-0186-SA
Abstract: We present a case of COVID-19 hepatitis in a living donor liver allograft recipient whose donor subsequently tested positive for COVID-19. The patient is a female infant with biliary atresia (failed Kasai procedure). She recovered well, with improving liver function tests for 4 days. On post-operative day (POD) 4 the patient developed respiratory distress and fever. COVID-19 testing (polymerase chain reaction) was positive. Liver function tests increased approximately 5-fold. Liver biopsy showed moderate acute hepatitis with prominent clusters of apoptotic hepatocytes and associated cellular debris. Lobular lymphohistiocytic inflammation was noted. Typical portal features of mild to moderate acute cellular rejection were also noted.

URL: https://doi.org/10.5858/arpa.2020-0186-SA
Categories:

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Year: 2020
Author: Laghi, Andrea; Grassi, Roberto
Title: Italian Radiology's response to the COVID-19 outbreak
Journal: Journal of the American College of Radiology
DOI: https://doi.org/10.1016/j.jacr.2020.04.012
Abstract: Cytokines are important mediators of the inflammatory response, and during infection with SARS-CoV-2 it has been suggested that there is a cytokine storm syndrome. In this study, a meta-analysis was performed to investigate whether the IL-6/IFN-gamma ratio can help predict clinical severity in patients with COVID-19. This article is protected by copyright. All rights reserved.

URL: https://doi.org/10.1016/j.jacr.2020.04.012
Categories:

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Year: 2020
Author: Lagunas-Rangel, Francisco Alejandro; Chavez-Valencia, Venice
Title: High IL-6/IFN-gamma ratio could be associated with severe disease in COVID-19 patients
Journal: Journal of medical virology
DOI: 10.1002/jmv.25900
Abstract: Cytokines are important mediators of the inflammatory response, and during infection with SARS-CoV-2 it has been suggested that there is a cytokine storm syndrome. In this study, a meta-analysis was performed to investigate whether the IL-6/IFN-gamma ratio can help predict clinical severity in patients with COVID-19. This article is protected by copyright. All rights reserved.

URL: https://doi.org/10.1002/jmv.25900
Categories:

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Year: 2020
Author: Laing, Timothy
Title: The economic impact of the Coronavirus 2019 (Covid-2019): Implications for the mining industry
Journal: Extr Ind Soc
DOI: 10.1016/j.exis.2020.04.003
Abstract: The Coronavirus 2019 (Covid-19) global pandemic has not only caused infections and deaths, but it has also wreaked havoc with the global economy on a scale not seen since at least the Great Depression. Covid-19 has the potential to destroy individual livelihoods, businesses, industries and entire economies. The mining sector is not immune to these impacts, and the crisis has the potential to have severe consequences in the short, medium and long-term for the industry. Understanding these impacts, and analysing their significance for the industry, and the role it plays in wider economic development is a crucial task for academic research.

URL: https://doi.org/10.1016/j.exis.2020.04.003
Categories:
The emergence of SARS-CoV-2 has led to the current global coronavirus pandemic and more than one million infections since December 2019. The exact origin of SARS-CoV-2 remains elusive, but the presence of a distinct motif in the S1/S2 junction region suggests possible acquisition of cleavage site(s) in the spike protein that promoted cross-species transmission. Through plaque purification of Vero-E6 cultured SARS-CoV-2, we found a series of variants which contain 15-30-bp deletions (Del-mut) or point mutations respectively at the S1/S2 junction. Examination of the original clinical specimen from which the isolate was derived, and 26 additional SARS-CoV-2 positive clinical specimens, failed to detect this variant. Infection of hamsters shows that one of the variants (Del-mut-1) which carries deletion of 10 amino acids (30 bp) does not cause the body weight loss or more severe pathological changes in the lungs that is associated with wild type virus infection. We suggest that the unique cleavage motif promoting SARS-CoV-2 infection in humans may be under strong selective pressure, given that replication in permissive Vero-E6 cells leads to the loss of this adaptive function. It would be important to screen the prevalence of these variants in asymptomatic infected cases. The potential of the Del-mut variant as an attenuated vaccine or laboratory tool should be evaluated.
The Coronavirus disease 2019 (COVID-19) pandemic has significantly impacted and devastated the world. As the infection spreads, the projected mortality and economic devastation are unprecedented. In particular, racial and ethnic minorities may be at a particular disadvantage as many already assume the status of a marginalized group. Black Americans have a long-standing history of disadvantage and are in a vulnerable position to experience the impact of this crisis and the myth of Black immunity to COVID-19 is detrimental to promoting and maintaining preventative measures. We are the first to present the earliest available data in the peer-reviewed literature on the racial and ethnic distribution of COVID-19-confirmed cases and fatalities in the state of Connecticut. We also seek to explode the myth of Black immunity to the virus. Finally, we call for a National Commission on COVID-19 Racial and Ethnic Health Disparities to further explore and respond to the unique challenges that the crisis presents for Black and Brown communities.

URL: https://doi.org/10.1007/s40615-020-00756-0

Categories:
COVID-19 and ENT Pediatric otorhinolaryngology during the COVID-19 pandemic. Guidelines of the French Association of Pediatric Otorhinolaryngology (AFOP) and French Society of Otorhinolaryngology (SFORL)

**Abstract:**
Objective: joint guidelines of the French Pediatric Otolaryngology Society (AFOP) and of the French Society of otorhinolaryngology – Head and neck Surgery (SFORL) on the management of paediatric otorhinolaryngology patients in the context of the COVID-19 pandemic. Methods: A nation-wide workgroup drew guidelines based on clinical experience, national and local recommendations and scientific literature. Proposals may have to be updated on a day-to-day basis. Results: In children, incidence of symptomatic COVID-19 (1-5%) is low and of good prognosis. The indications for nasal flexible endoscopy should be drastically limited. If undertaken, full Personal Protective Equipment (PPE) including FFP2 masks are required, as well as use of a sheath. Saline nose wash done by caregivers other than parents at home should require PPE. Unless foreign body tracheobronchial aspiration is clinically obvious, CT-scan should be performed to confirm indication of endoscopy. Surgical indications should be limited to emergencies and to cases that cannot be delayed beyond 2 months (especially endonasal, endopharyngeal laryngo-tracheobronchial procedures). Postponement should ideally be a group decision and recorded as such in the medical file. Surgical techniques should be adapted to limit the risk of viral dissemination in the air, avoiding the use of drills, microdebriders, monopolar cautery or lasers. Continuous suction should be placed near the operating field. In case of confirmed Covid-19 cases, or suspected cases (or in some centres systematically), PPE with FFP2 mask should be worn by all staff members present in the operating room.

**URL:** https://doi.org/10.1016/j.anorl.2020.04.010
COVID-19 Screening Center: How to Balance between the Speed and Safety?

Author: Lee, Jacob
Title: COVID-19 Screening Center: How to Balance between the Speed and Safety?
Journal: Journal of Korean medical science
DOI: 10.3346/jkms.2020.35.e157
Abstract: https://doi.org/10.3346/jkms.2020.35.e157
Categories:

Mental health effects of school closures during COVID-19

Author: Lee, Joyce
Title: Mental health effects of school closures during COVID-19
Journal: Lancet Child Adolesc Health
DOI: 10.1016/S2352-4642(20)30109-7
Abstract: https://doi.org/10.1016/S2352-4642(20)30109-7
Categories:

COVID-19 - where do we go from here?

Author: Lee, Pei Hua; Vasoo, Shawn
Title: COVID-19 - where do we go from here?
Journal: Singapore medical journal
DOI: 10.11622/smedj.2020060
Abstract: https://doi.org/10.11622/smedj.2020060
Categories:

Coronavirus anxiety scale: A brief mental health screener for COVID-19 related anxiety

Author: Lee, Sherman A.
Title: Coronavirus anxiety scale: A brief mental health screener for COVID-19 related anxiety
Journal: Death Stud
DOI: 10.1080/07481187.2020.1748481
Abstract: Mental health concerns of people impacted by the coronavirus pandemic have not been adequately addressed. The objective of this study was to develop and evaluate the properties of the Coronavirus Anxiety Scale (CAS), which is a brief mental health screener to identify probable cases of dysfunctional anxiety associated with the COVID-19 crisis. This 5-item scale, which was based on 775 adults with anxiety over the coronavirus, demonstrated solid reliability and validity. Elevated CAS scores were found to be associated with coronavirus diagnosis, impairment, alcohol/drug coping, negative religious coping, extreme hopelessness, suicidal ideation, as well as attitudes toward President Trump and Chinese products. The CAS discriminates well between persons with and without dysfunctional anxiety using an optimized cut score of >/= 9 (90% sensitivity and 85% specificity). These results support the CAS as an efficient and valid tool for clinical research and practice.
URL: https://doi.org/10.1080/07481187.2020.1748481
Categories:

Can post-exposure prophylaxis for COVID-19 be considered as one of outbreak response strategies in long-term care hospitals?

Author: Lee, Sun Hee; Son, Hyunjin; Peck, Kyong Ran
Title: Can post-exposure prophylaxis for COVID-19 be considered as one of outbreak response strategies in long-term care hospitals?
Journal: International Journal of Antimicrobial Agents
DOI: https://doi.org/10.1016/j.ijantimicag.2020.105988
Abstract: ABSTRACT With ongoing global outbreak of coronavirus disease 2019 (COVID-19), management of exposure events is a concern. Long-term care hospitals (LTCHs) are especially vulnerable to cluster outbreaks, since it is difficult to find facilities and healthcare personnel for their separate isolation care in a large outbreak situation. Although several drugs have been proposed as treatment regimens, there are no data on the effectiveness and safety of post-exposure prophylaxis (PEP) for COVID-19. After a large COVID-19 exposure event in a LTCH in Korea, PEP using hydroxychloroquine (HCQ) was conducted to 211 persons including 189 patients and 22 careworkers,
whose baseline polymerase chain reaction (PCR) tests for COVID-19 were negative. PEP was completed in 184 (97.4%) patients and 21 (95.5%) careworkers without serious adverse events. At the end of 14 days of quarantine, follow-up PCR tests were all negative. Based on our experience, further clinical studies would be conducted for COVID-19 PEP.

URL: https://doi.org/10.1016/j.ijantimicag.2020.105988
Categories:

Year: 2020
Author: Lee, Tau Hong; Lin, Ray Junhao; Lin, Raymond T. P.; Barkham, Timothy; Rao, Pooja; Leo, Yee-Sin; Ly, David Chien; Young, Barnaby
Title: Testing for SARS-CoV-2: Can We Stop at Two?
Journal: Clinical Infectious Diseases
DOI: 10.1093/cid/ciaa459
Abstract: The COVID-19 epidemic requires accurate identification and isolation of confirmed cases for effective control. This report describes the effectiveness of our testing strategy and highlights the importance of repeat testing in suspect cases in our cohort.
URL: https://doi.org/10.1093/cid/ciaa459
Categories:

URL: https://doi.org/10.1093/cid/ciaa459
Categories:
Abstract: The rapid evolution of the novel coronavirus pneumonia (COVID-19) from Wuhan, Hebei, China to a global pandemic has caused significant impact to healthcare systems worldwide and disruption to daily lives. Every country has been putting in numerous measures and efforts to control the disease spread and manage all the patients that need treatment. By mid-April, the number of confirmed cases have reached 1.9 million and over 123,000 deaths are reported. However, it has yet to be seen when the pandemic could be under control and treatment becomes effective.

URL: https://doi.org/10.1111/voxs.12558

Abstract: Summary Since the outbreak of coronavirus disease 2019 (COVID-19), clinicians have tried every effort to understand the disease, and a brief portrait of its clinical features have been identified. In clinical practice, we noticed that many severe or critically ill COVID-19 patients developed typical clinical manifestations of shock, including cold extremities and weak peripheral pulses, even in the absence of overt hypotension. Understanding the mechanism of viral sepsis in COVID-19 is warranted for exploring better clinical care for these patients. With evidence collected from autopsy studies on COVID-19 and basic science research on severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and SARS-CoV, we have put forward several hypotheses about SARS-CoV-2 pathogenesis after multiple rounds of discussion among basic science researchers, pathologists, and clinicians working on COVID-19. We hypothesise that a process called viral sepsis is crucial to the disease mechanism of COVID-19. Although these ideas might be proven imperfect or even wrong later, we believe they can provide inputs and guide directions for basic research at this moment.

URL: https://doi.org/10.1016/S0140-6736(20)30920-X

Abstract: High-flow nasal cannula for COVID-19 patients: low risk of bio-aerosol dispersion

URL: https://doi.org/10.1183/13993003.00892-2020
The impact of 2019 novel coronavirus on heart injury: A systemic review and Meta-analysis

Progress in Cardiovascular Diseases

Background Evidence about COVID-19 on cardiac injury is inconsistent. Objectives We aimed to summarize available data on severity differences in acute cardiac injury and acute cardiac injury with mortality during the COVID-19 outbreak. Methods We performed a systematic literature search across Pubmed, Embase and pre-print from December 1, 2019 to March 27, 2020, to identify all observational studies that reported cardiac specific biomarkers (troponin, creatine kinase–MB fraction, myoglobin, or NT-proBNP) during COVID-19 infection. We extracted data on patient demographics, infection severity, comorbidity history, and biomarkers during COVID-19 infection. Where possible, data were pooled for meta-analysis with standard (SMD) or weighted (WMD) mean difference and corresponding 95% confidence intervals (CI). Results We included 4189 confirmed COVID-19 infected patients from 28 studies. More severe COVID-19 infection is associated with higher mean troponin (SMD 0.53, 95% CI 0.30 to 0.75, p < 0.001), with a similar trend for creatine kinase–MB, myoglobin, and NT-proBNP. Acute cardiac injury was more frequent in those with severe, compared to milder, disease (risk ratio 5.99, 3.04 to 11.80; p < 0.001). Meta regression suggested that cardiac injury biomarker differences of severity are related to history of hypertension (p = 0.030). Also COVID19-related cardiac injury is associated with higher mortality (summary risk ratio 3.85, 2.13 to 6.96; p < 0.001). hsTnI and NT-proBNP levels increased during the course of hospitalization only in non-survivors. Conclusion The severity of COVID-19 is associated with acute cardiac injury, and acute cardiac injury is associated with death. Cardiac injury biomarkers mainly increase in non-survivors. This highlights the need to effectively monitor heart health to prevent myocarditis in patients infected with COVID-19.

Therapeutic strategies for critically ill patients with COVID-19

Annals of Intensive Care

Since the 2019 novel coronavirus disease (COVID-19) outbreak originated from Wuhan, Hubei Province, China, at the end of 2019, it has become a clinical threat to the general population worldwide. Among people infected with the novel coronavirus (2019-nCoV), the intensive management of the critically ill patients in intensive care unit (ICU) needs substantial medical resource. In the present article, we have summarized the promising drugs, adjunctive agents, respiratory supportive strategies, as well as circulation management, multiple organ function monitoring and appropriate nutritional strategies for the treatment of COVID-19 in the ICU based on the previous experience of treating other viral infections and influenza. These treatments are referable before the vaccine and specific drugs are available for COVID-19.
Abstract: Background A novel coronavirus severe acute respiratory syndrome corona virus 2 (SARS-CoV-2) caused pneumonia, Coronavirus Disease 2019 (COVID-19), outbreak in Wuhan, China in December 2019, and spread all over the world. Patients with COVID-19 showed huge differences in the hospital stays, progression and prognosis. As reported, the comorbidities may play an important role in COVID-19. Here, we aim to address the role of cardiovascular disease (CVD) in the progression and prognosis of COVID-19. Methods 83 confirmed COVID-19 patients were divided into the CVD (n=42) and non-CVD (n=41) group according to their medical history. Medical records information including demographic data, medical history, clinical characteristics, laboratory examinations, chest computed tomography (CT) as well as treatment measures were collected, analyzed and compared between two groups. Results COVID-19 patients with CVD showed: (1) more severe pathological changes in the lung, (2) elevated injury-related enzymes including α-hydroxybutyrate dehydrogenase (HDBH), lactate dehydrogenase (LDH), γ-glutamyltransferase (GGT), creatine kinase (CK) and alanine aminotransferase (ALT), (3) significantly increased uncontrolled inflammation related markers, such as c-reactive protein (CRP), interleukin (IL)-6, serum ferritin, erythrocyte sedimentation rate (ESR) and serum amyloid A (SAA), (4) serious hypercoagulable status reflected by increased D-dimer and serum fibrinogen (FIB), and (5) higher mortality, compared to COVID-19 patients without CVD. Conclusions Our data indicated that CVD is a strong risk factor for a rapid progression and bad prognosis of COVID-19. More intensive medical care should be applied to patients with CVD to prevent rapid
deterioration of the disease.

URL: https://doi.org/10.1016/j.numecd.2020.04.013

Categories:

Year: 2020
Author: Li, Wei; Zhang, Bo; Lu, Jianhua; Liu, Shihua; Chang, Zhiqiang; Cao, Peng; Liu, Xinhua; Zhang, Peng; Ling, Yan; Tao, Kaixiong; Chen, Jianying
Title: The characteristics of household transmission of COVID-19
Journal: Clinical Infectious Diseases
DOI: 10.1093/cid/ciaa450
Abstract:
URL: https://doi.org/10.1093/cid/ciaa450
Categories:

Year: 2020
Title: [The keypoints in treatment of the critical coronavirus disease 2019 patient(2)]
Journal: Zhonghua Jie He He Hu Xi Za Zhi
DOI: 10.3760/cma.j.cn112147-20200224-00159
Abstract: The treatment of critically ill patients with coronavirus disease 2019(COVID-19) faces compelling challenges. In this issue, we'd like to share our first-line treatment experience in treating COVID-19. Hemodynamics need be closely monitored and different types of shock should be distinguished. Vasoconstrictor drugs should be used rationally and alerting of complications is of the same importance. The risk of venous thromboembolism (VTE) needs to be assessed, and effective prevention should be carried out for high-risk patients. It is necessary to consider the possibility of pulmonary thromboembolism (PTE) in patients with sudden onset of oxygenation deterioration, respiratory distress, reduced blood pressure. However, comprehensive analysis of disease state should be taken into the interpretation of abnormally elevated D-Dimer. Nutritional support is the basis of treatment. It's important to establish individual therapy regimens and to evaluate, monitor and adjust dynamically. Under the current epidemic situation, convalescent plasma can only be used empirically, indications need to be strictly screened, the blood transfusion process should be closely monitored and the curative effect should be dynamically evaluated.
URL: https://doi.org/10.3760/cma.j.cn112147-20200224-00159
Categories:

Year: 2020
Author: Li, Xiangdong
Title: Can cats become infected with Covid-19?
Journal: The Veterinary record
DOI: 10.1136/vr.m1455
Abstract:
URL: https://doi.org/10.1136/vr.m1455
Categories:

Year: 2020
Author: Li, Xixing; Cui, Weina
Title: Letter to the Editor: Who was the first doctor to report the Covid-19 outbreak in Wuhan, China?
Journal: Journal of nuclear medicine : official publication, Society of Nuclear Medicine
DOI: 10.2967/jnumed.120.247262
Abstract:
URL: https://doi.org/10.2967/jnumed.120.247262
Categories:
Year: 2020
Author: Li, Yanwei; Zhou, Wei; Yang, Li; You, Ran
Title: Physiological and pathological regulation of ACE2, the SARS-CoV-2 receptor
Journal: Pharmacol Res
DOI: 10.1016/j.phrs.2020.104833
Abstract: The renin-angiotensin system (RAS) is crucial for the physiology and pathology of all the organs. Angiotensin-converting enzyme 2 (ACE2) maintains the homeostasis of RAS as a negative regulator. Recently, ACE2 was identified as the receptor of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the coronavirus that is causing the pandemic of Coronavirus disease 2019 (COVID-19). Since SARS-CoV-2 must bind with ACE2 before entering the host cells in humans, the distribution and expression of ACE2 may be critical for the target organ of the SARS-CoV-2 infection. Moreover, accumulating evidence has demonstrated the implication of ACE2 in the pathological progression in tissue injury and several chronic diseases, ACE2 may also be essential in the progression and clinical outcomes of COVID-19. Therefore, we summarized the expression and activity of ACE2 in various physiological and pathological conditions, and discussed its potential implication in the susceptibility of SARS-CoV-2 infection and the progression and prognosis of COVID-19 patients in the current review.
URL: https://doi.org/10.1016/j.phrs.2020.104833
Categories:

Year: 2020
Author: Li, Yuanchao; Wang, Hongliang; Jiao, Jundong
Title: The application of strong matrix management and PDCA cycle in the management of severe COVID-19 patients
Journal: Critical Care
DOI: 10.1186/s13054-020-02871-0
Abstract: The ongoing COVID-19 crisis has hit Singapore hard. As of February 25, 2020, Singapore had the 4th highest number of confirmed COVID-19 infections outside of China, only trailing behind South Korea, Italy, and Japan. This has had reverberating effects on Singapore's health care system, and has, consequently, also affected medical education all the way from the undergraduate to the postgraduate level. While efforts are underway to contain disease spread and transmission, the authors believe that this is an opportune time to examine and reflect on the impact that medical crises like COVID-19 can have on medical training and education and to evaluate “business continuity plans” to ensure quality medical education even in the face of constant disruptions from pandemic outbreaks. Medical training is as important a mandate as patient care and service. The authors believe that even in trying times like this, rich and precious lessons can be sought and taught, which will immensely benefit medical students and residents—the health care leaders of tomorrow. In this Perspective, the authors discuss the various ways in which the COVID-19 crisis has affected medical instruction in Singapore and explore pertinent practical and creative solutions for the continuity of medical training in these trying times, drawing on their previous experience with the Severe Acute Respiratory Syndrome (SARS) outbreak in 2003 as well as the current ongoing COVID-19 crisis. The authors have informed the journal that they agree that both Shirley Beng Suat Ooi and Wilson Wang completed the intellectual and other work typical of the senior author. Funding/Support: None reported. Other disclosures: None reported. Ethical approval: Reported as not applicable. Correspondence should be addressed to Zhen Chang Liang, Department of Orthopaedic Surgery, NUHS Tower Block, Level 11, 1E Kent Ridge Road, Singapore 119228; email: zhen_chang_liang@nuhs.edu.sg. © 2020 by the Association of American Medical Colleges
URL: https://doi.org/10.1186/s13054-020-02871-0
Categories:
INTRODUCTION: Epidemics and pandemics from zoonotic respiratory viruses, such as the 2019 novel coronavirus, can lead to significant global intensive care burden as patients progress to acute respiratory distress syndrome (ARDS). A subset of these patients develops refractory hypoxaemia despite maximal conventional mechanical ventilation and require extracorporeal membrane oxygenation (ECMO). This review focuses on considerations for ventilatory strategies, infection control and patient selection related to ECMO for ARDS in a pandemic. We also summarize the experiences with ECMO in previous respiratory pandemics. METHODS: A review of pertinent studies was conducted via a search using MEDLINE, EMBASE and Google Scholar. References of articles were also examined to identify other relevant publications. RESULTS: Since the H1N1 Influenza pandemic in 2009, the use of ECMO for ARDS continues to grow despite limitations in evidence for survival benefit. There is emerging evidence to suggest that lung protective ventilation for ARDS can be further optimized while receiving ECMO so as to minimize ventilator-induced lung injury and subsequent contributions to multi-organ failure. Efforts to improve outcomes should also encompass appropriate infection control measures to reduce co-infections and prevent nosocomial transmission of novel respiratory viruses. Patient selection for ECMO in a pandemic can be challenging. We discuss important ethical considerations and predictive scoring systems that may assist clinical decision-making to optimize resource allocation. CONCLUSION: The role of ECMO in managing ARDS during respiratory pandemics continues to grow. This is supported by efforts to redefine optimal ventilatory strategies, reinforce infection control measures and enhance patient selection.
**Reply to "CT Is Not a Screening Tool for Coronavirus Disease (COVID-19) Pneumonia"**

**Author:** Lin, Yueli; Zhao, Wei; Liu, Jun

**Title:** AJR. American journal of roentgenology

**DOI:** 10.2214/AJR.20.23288

**Abstract:**

**URL:** https://doi.org/10.2214/AJR.20.23288

**Categories:**

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**Assessment of immune response to SARS-CoV-2 with fully automated MAGLUMI 2019-nCoV IgG and IgM chemiluminescence immunoassays**

**Author:** Lippi, Giuseppe; Salvagno, Gian Luca; Pegoraro, Manuela; Militello, Valentina; Caloi, Cecilia; Peretti, Angelo; Gaino, Stefania; Bassi, Antonella; Bovo, Chiara; Lo Cascio, Giuliana

**Title:** Clinical chemistry and laboratory medicine

**DOI:** 10.1515/cclm-2020-0473

**Abstract:**

**URL:** https://doi.org/10.1515/cclm-2020-0473

**Categories:**

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**Weathering the cytokine storm in susceptible patients with severe SARS-CoV-2 infection**

**Author:** Lipworth, Brian; Chan, Rory; Lipworth, Samuel; RuiWen Kuo, Chris

**Title:** The Journal of Allergy and Clinical Immunology: In Practice

**DOI:** https://doi.org/10.1016/j.jaip.2020.04.014

**Abstract:**

**URL:** https://doi.org/10.1016/j.jaip.2020.04.014

**Categories:**

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**EUS-guided gallbladder drainage during a pandemic crisis - How the COVID-19 outbreak could impact interventional endoscopy**

**Author:** Lisotti, Dr Andrea; Fusaroli, Prof Pietro

**Title:** Digestive and Liver Disease

**DOI:** https://doi.org/10.1016/j.dld.2020.03.022

**Abstract:**

**URL:** https://doi.org/10.1016/j.dld.2020.03.022

**Categories:**

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**Surge capacity of intensive care units in case of acute increase in demand caused by COVID-19 in Australia**

**Author:** Litton, Edward; Bucci, Tamara; Chavan, Shaila; Ho, Yvonne Y.; Holley, Anthony; Howard, Greta; Huckson, Sue; Kwong, Philomena; Millar, Johnny; Nguyen, Nhi; Secombe, Paul; Ziegenfuss, Marc; Pilcher, David

**Title:** Medical Journal of Australia

**DOI:** 10.5694/mja2.50596

**Abstract:**

**Categories:**

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would require additional staffing of as many as 4092 senior doctors (245% increase over baseline) and 42,720 registered ICU nurses (269% increase over baseline). An additional 188 ventilators are available in veterinary facilities, including 179 human model ventilators. Conclusions The directors of Australian ICUs report that intensive care bed capacity could be near tripled in response to the expected increase in demand caused by COVID-19. But maximal surge in bed numbers could be hampered by a shortfall in invasive ventilators and would also require a large increase in clinician and nursing staff numbers.

URL: https://doi.org/10.5694/mja2.50596

Categories: Year: 2020
Author: Liu, Chun; Wu, Changhui; Zheng, Xiangde; Zeng, Fanwei; Liu, Jinping; Wang, Pingxi; Zeng, Fanxin; Yuan, Lin; Zhu, Fangcheng; Gan, Xueimei; Huang, Yucheng
Title: Clinical features and multidisciplinary treatment outcome of COVID-19 pneumonia: A report of three cases
Journal: Journal of the Formosan Medical Association
DOI: https://doi.org/10.1016/j.jfma.2020.04.008
Abstract: The novel coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has caused a pandemic threatening global public health. In the current paper, we describe our successful treatment of three COVID-19 pneumonia patients cases including severe cases and cases with mortality risk factors. One 32-year-old male COVID-19 patient was diagnosed with severe COVID-19 pneumonia and moderate ARDS. The second COVID-19 pneumonia patient had a history of diabetes and chronic bronchitis. The third case of COVID-19 pneumonia was an 82-year-old female patient. All three cases had severe COVID pneumonia and therefore were aggressively managed with a multidisciplinary and personalized therapeutic approach that included nutritional support, antiviral pharmacotherapy, active control of comorbidities, prevention of complication development and psychological intervention. Our experience highlights the importance of the use of a multidisciplinary therapeutic approach that tailors to the specific condition of the patient in achieving a favorable clinical outcome.

URL: https://doi.org/10.1016/j.jfma.2020.04.008

Categories: Year: 2020
Author: Liu, Haiyue; Manzoor, Aqsa; Wang, Cangyu; Zhang, Lei; Manzoor, Zaira
Title: The COVID-19 Outbreak and Affected Countries Stock Markets Response
DOI: 10.3390/IJERPH17082800
Abstract: This paper evaluates the short-term impact of the coronavirus outbreak on 21 leading stock market indices in major affected countries including Japan, Korea, Singapore, the USA, Germany, Italy, and the UK etc. The consequences of infectious disease are considerable and have been directly affecting stock markets worldwide. Using an event study method, our results indicate that the stock markets in major affected countries and areas fell quickly after the virus outbreak. Countries in Asia experienced more negative abnormal returns as compared to other countries. Further panel fixed effect regressions also support the adverse effect of COVID-19 confirmed cases on stock indices abnormal returns through an effective channel by adding up investors' pessimistic sentiment on future returns and fears of uncertainties.

URL: https://doi.org/10.3390/IJERPH17082800

Categories: Year: 2020
Author: Liu, Jing; Li, Sumeng; Liu, Jia; Liang, Boyun; Wang, Xiaobei; Wang, Hua; Li, Wei; Tong, Qiaoxia; Yi, Jianhua; Zhao, Lei; Xiong, Lijuan; Guo, Chunxia; Tian, Jin; Luo, Jinzhuo; Yao, Jinghong; Pang, Ran; Shen, Hui; Peng, Cheng; Liu, Ting; Zhang, Qian; Wu, Jun; Xu, Ling; Lu, Sihong; Wang, Baoju; Weng, Zhihong; Han, Chunrong; Zhu, Huabing; Zhou, Ruxia; Zhou, Helong; Chen, Xiliu; Ye, Pian; Zhu, Bin; Wang, Lu; Zhou, Wenqing; He, Shengsong; He, Yongwen; Jie, Shenhua; Wei, Ping; Zhang, Jiannao; Lu, Yingping; Wang, Weixian; Zhang, Li; Li, Ling; Zhou, Fengqin; Wang, Jun; Dittmer, Ulf; Lu, Mengji; Hu, Yu; Yang, Dongliang; Zheng, Xin
Title: Longitudinal characteristics of lymphocyte responses and cytokine profiles in the peripheral blood of SARS-CoV-2 infected patients
Journal: EBioMedicine
Abstract: Background The dynamic changes of lymphocyte subsets and cytokines profiles of patients with novel coronavirus disease (COVID-19) and their correlation with the disease severity remain unclear. Methods Peripheral blood samples were longitudinally collected from 40 confirmed COVID-19 patients and examined for lymphocyte subsets by flow cytometry and cytokine profiles by specific immunoassays. Findings Of the 40 COVID-19 patients enrolled, 13 severe cases showed significant and sustained decreases in lymphocyte counts [0.6 (0.6-0.8)] but increases in neutrophil counts [4.7 (3.6-5.8)] than 27 mild cases [1.1 (0.8-1.4); 2.0 (1.5-2.9)]. Further analysis demonstrated significant decreases in the counts of T cells, especially CD8+ T cells, as well as increases in IL-6, IL-10, IL-2 and IFN-γ levels in the peripheral blood in the severe cases compared to those in the mild cases. T cell counts and cytokine levels in severe COVID-19 patients who survived the disease gradually recovered at later time points to levels that were comparable to those of the mild cases. Moreover, the neutrophil-to-lymphocyte ratio (NLR) (AUC=0.93) and neutrophil-to-CD8+ T cell ratio (N8R) (AUC=0.94) were identified as powerful prognostic factors affecting the prognosis for severe COVID-19. Interpretation The degree of lymphopenia and a proinflammatory cytokine storm is higher in severe COVID-19 patients than in mild cases, and is associated with the disease severity. N8R and NLR may serve as a useful prognostic factor for early identification of severe COVID-19 cases. Funding The National Natural Science Foundation of China, the National Science and Technology Major Project, the Health Commission of Hubei Province, Huazhong University of Science and Technology, and the Medical Faculty of the University Hospital Essen, Germany.
CONCLUSIONS: Topic modeling of news articles can produce useful information about the significance of mass media for early health communication. Comparing the number of articles each day and the outbreak development, we note that mass media news reports in China lag behind the development of COVID-19. The major themes accounted for around half the content and tended to focus on the larger society than on individuals. The COVID-19 crisis has become a global issue, and society has also become concerned about donation and support as well as mental health. We recommend that future work should address the mass media's actual impact on readers during the COVID-19 crisis through sentiment analysis of news data.

URL: https://doi.org/10.2196/19118
Categories:
What are the Underlying Transmission Patterns of COVID-19 Outbreak? – An Age-specific Social Contact Characterization

Title: Correlation Between Relative Nasopharyngeal Virus RNA Load and Lymphocyte Count Disease Severity in Patients with COVID-19

Abstract: The aim of this study was to analyze the correlation between dynamic changes in the nasopharyngeal viral load of patients infected with the new coronavirus causing pneumonia and lymphocyte count disease severity. Cases newly diagnosed with COVID-19 at the First Affiliated Hospital of Nanchang University from January 2020 to February 2020 were analyzed retrospectively. Quantitative real-time polymerase chain reaction was used to determine severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) from throat swab sample DeltaCT values; lymphocyte and lymphocyte subset counts, coagulation system factor levels, myocardial injury indexes, and laboratory biochemical indicators were compared between the mild group and the severe group. The correlation...
between the relative load of nasopharyngeal SARS-CoV-2 RNA and severe disease symptoms was analyzed. Of the 76 patients, 49 were male and 27 were female. The lymphocyte, CD4(+) T lymphocyte, and CD8(+) T lymphocyte counts all differed significantly between the two groups (p < 0.001), as did differences in interleukin (IL)-2R, IL-6, and IL-8 levels (p = 0.022, 0.026, and 0.012, respectively). Moreover, there were significant differences in prothrombin time, D-dimer, and fibrinogen levels between the mild group and the severe group (p = 0.029, 0.006, and <0.001, respectively), and in lactate dehydrogenase and troponin (p < 0.001 and p = 0.007, respectively). SARS-CoV-2 RNA load and lymphocyte count, CD4(+) T lymphocyte count, and CD8(+) T lymphocyte count were linearly negatively correlated (p < 0.001). SARS-CoV-2 RNA load was positively correlated with IL-2R, prothrombin time, lactate dehydrogenase, and hypersensitive troponin T (p = 0.002, p = 0.009, and p < 0.001, respectively). In addition, the time that it took for the nucleic acid test to turn negative was significantly shorter for patients in the mild group than for those in the severe group (Z = -6.713, p < 0.001). In conclusion, relative SARS-CoV-2 RNA load in the nasopharynx is closely related to COVID-19 severity. If the relative RNA load was higher, the lymphocyte count was lower, organ damage was greater, and the time it took for the nucleic acid test to turn negative was longer.

URL: https://doi.org/10.1089/vim.2020.0062

Categories:
Year: 2020
Author: Liu, Yong; Cao, Lin; Li, Xiaojin; Jia, Yingdong; Xia, Hongtao
Title: Awareness of mental health problems in patients with coronavirus disease 19 (COVID-19): a lesson from an adult man attempting suicide
Journal: Asian Journal of Psychiatry
DOI: https://doi.org/10.1016/j.ajp.2020.102106
Abstract: https://doi.org/10.1016/j.ajp.2020.102106

Categories:
Year: 2020
Author: Lo, Yu Tung; Yang Teo, Neville Wei; Ang, Beng Ti
Title: Editorial. Endonasal neurosurgery during the COVID-19 pandemic: the Singapore perspective
Journal: Journal of neurosurgery
DOI: 10.3171/2020.4.JNS201036
Abstract: https://doi.org/10.3171/2020.4.JNS201036

Categories:
Year: 2020
Author: Loeb, Alexander E.; Rao, Sandesh S.; Ficke, James R.; Morris, Carol D.; Riley, Lee H., 3rd; Levin, Adam S.
Title: Departmental Experience and Lessons Learned With Accelerated Introduction of Telemedicine During the COVID-19 Crisis
Journal: J Am Acad Orthop Surg
DOI: 10.5435/JAAOS-D-20-00380
Abstract: Despite the use of digital technology in healthcare, telemedicine has not been readily adopted. During the COVID-19 pandemic, healthcare systems have begun crisis management planning. To appropriately allocate resources and prevent virus exposure while maintaining effective patient care, our orthopaedic surgery department rapidly introduced a robust telemedicine program during a 5-day period. Implementation requires attention to patient triage, technological resources, credentialing, education of providers and patients, scheduling, and regulatory considerations. This article provides practical instruction based on our experience for physicians who wish to implement telemedicine during the COVID-19 pandemic. Between telemedicine encounters and necessary in-person visits, providers may be able to achieve 50% of their typical clinic volume within 2 weeks. When handling the massive disruption to the routine patient care workflow, it is critical to understand the key factors associated with an accelerated introduction of telemedicine for the safe and effective continuation of orthopaedic care during this pandemic. LEVEL OF EVIDENCE:: V.
URL: https://doi.org/10.5435/JAAOS-D-20-00380
Categories:
We report on the role of fluorine 18-fluorodeoxyglucose (F-FDG) positron emission tomography (PET) scan examinations to contribute in the diagnosis of COVID-19 respiratory syndrome even in the case of asymptomatic left ventricular assist device (LVAD) recipients. Thus, warm caution and thoughtful approaches for timely detection should be taken for our delicate LVAD population especially if patients are currently living in a high density COVID-19 infected area and the potential intention for LVAD treatment is bridge to transplantation.

http://doi.org/10.1097/MAT.0000000000001176

Adapting to a novel disruptive threat: Nuclear Cardiology Service in the time of the Coronavirus (COVID-19) Outbreak 2020 (SARS REBOOT)

http://doi.org/10.1007/s12350-020-02117-0

Cardiovascular complications in COVID-19


Strength, Weakness, Opportunity, Threat (SWOT) Analysis of the Adaptations to Anatomical Education in the United Kingdom and Republic of Ireland in Response to the COVID-19 Pandemic

http://doi.org/10.1002/ase.1967
study sought to identify the approaches taken in the United Kingdom and Republic of Ireland to deliver anatomical education through online means. Data were collected from 14 different universities in the United Kingdom and Republic of Ireland and compared adopting a thematic analysis approach. Once themes were generated, they were collectively brought together using a strength, weakness, opportunity, threat (SWOT) analysis. Key themes included the opportunity to develop new online resources and the chance to engage in new academic collaborations. Academics frequently mentioned the challenge that time constrains could place on the quality and effectiveness of these resources; especially as in many cases the aim of these resources is to compensate for a lack of exposure to cadaveric exposure. Comparisons of the actions taken by multiple higher education institutions reveals the ways that academics have tried to balance this demand. Discussions will facilitate decisions being made by higher education institutions regarding adapting the curriculum and assessment methods in anatomy.

URL: https://doi.org/10.1002/ase.1967
Categories:

Year: 2011
Author: Longtin, Yves; Sax, Hugo; Allegranzi, Benedetta; Schneider, Franck; Pittet, Didier
Title: Hand hygiene
Journal: New England Journal of Medicine
DOI: 10.1056/NEJMvcm0903599
Abstract: Hand hygiene is a procedure that should be mastered by all health care workers. Hand hygiene is not optional - it is mandatory. It must be used conscientiously to decrease the occurrence of infections associated with health care and to increase patient safety. Proper use of hand hygiene is a sign of competency, professionalism, and respect. Copyright © 2011 Massachusetts Medical Society.

URL: https://doi.org/10.1056/NEJMvcm0903599
Categories:

Year: 2020
Author: Lopes, Marcio Ajudarte; Santos-Silva, Alan Roger; Vargas, Pablo Agustin; Kowalski, Luiz Paulo
Title: Virtual assistance in oral medicine for prioritizing oral cancer diagnosis during the COVID-19 pandemic
Journal: Oral Surgery, Oral Medicine, Oral Pathology and Oral Radiology
DOI: https://doi.org/10.1016/j.oooo.2020.04.009
Abstract: URL: https://doi.org/10.1016/j.oooo.2020.04.009
Categories:

Year: 2020
Author: Lorusso, Alessio; Calistri, Paolo; Mercante, Maria Teresa; Monaco, Federica; Portanti, Ottavio; Marcacci, Maurilia; Cammà, Cesare; Rinaldi, Antonio; Mangone, Iolanda; Di Pasquale, Adriano; Iommarini, Marino; Mattucci, Maria; Fazi, Paolo; Tarquini, Pierluigi; Mariani, Rinalda; Grimaldi, Alessandro; Morelli, Daniela; Migliorati, Giacomo; Savini, Giovanni; Borrello, Silvio; D'Alterio, Nicola
Title: A “One-Health” approach for diagnosis and molecular characterization of SARS-CoV-2 in Italy
Journal: One Health
DOI: https://doi.org/10.1016/j.cheonhlth.2020.100135
Abstract: The current pandemic is caused by a novel coronavirus (CoV) called SARS-CoV-2 (species Severe acute respiratory syndrome-related coronavirus, subgenus Sarbecovirus, genus Betacoronavirus, family Coronaviridae). In Italy, up to the 2nd of April 2020, overall 139,422 confirmed cases and 17,669 deaths have been notified, while 26,491 people have recovered. Besides the overloading of hospitals, another issue to face was the capacity to perform thousands of tests per day. In this perspective, to support the National Health Care System and to minimize the impact of this rapidly spreading virus, the Italian Ministry of Health involved the Istituti Zooprofilattici Sperimentali (IZSs), Veterinary Public Health Institutes, in the diagnosis of SARS-CoV-2 by testing human samples. IZSAM, is currently testing more than 600 samples per day and WGS from positive samples. Sequence analysis of these samples suggested that outbreaks in Abruzzo region may be related to outbreaks of northern Italy and northern Europe, these latter as for the presence of mutations in the N protein. CoVs, and related diseases, are well known to veterinarians since decades. The experience that veterinarians operating within the Public health system gained in the control and characterization of previous health issues of livestock and poultry including avian flu, bluetongue, foot and mouth disease, responsible for huge economic losses, is certainly of great help to minimize the impact of this global crisis.
Abstract: Recently, the cholera outbreak in Haiti demonstrated just how unprepared the country is to rapidly isolate an outbreak of this magnitude, and its vulnerability to the COVID-19 pandemic. This communication briefly examines the health system in Haiti and its vulnerability toward the COVID-19 outbreak.

URL: https://doi.org/10.1007/s10900-020-00825-9

Categories:

Year: 2020
Author: Love, Harrison L.; Gunderman, Richard B.
Title: Pandemic: Radiologists' Ethical and Professional Responsibilities
Journal: Journal of the American College of Radiology
DOI: https://doi.org/10.1016/j.jacr.2020.04.009
Abstract: Doctors on the front line in the Chinese province where the coronavirus outbreak started tell Donna Lu about their experiences treating covid-19
URL: https://doi.org/10.1016/j.jacr.2020.04.009

Categories:

Year: 2020
Author: Lu, Donna
Title: How Hubei fought the virus
Journal: New Scientist
DOI: https://doi.org/10.1016/S0262-4079(20)30744-2
Abstract: Doctors on the front line in the Chinese province where the coronavirus outbreak started tell Donna Lu about their experiences treating covid-19
URL: https://doi.org/10.1016/S0262-4079(20)30744-2

Categories:

Year: 2020
Author: Lu, Lu; Xiong, Weixi; Liu, Dan; Liu, Jing; Yang, Dan; Li, Nian; Mu, Jie; Guo, Jian; Li, Weimin; Wang, Gang; Gao, Hui; Zhang, Yingying; Lin, Mintao; Chen, Lei; Shen, Sisi; Zhang, Hesheng; Sander, Josemir W.; Luo, Jianfei; Chen, Shengli; Zhou, Dong
Title: New-onset acute symptomatic seizure and risk factors in Corona Virus Disease 2019: A Retrospective Multicenter Study
Journal: Epilepsia
DOI: 10.1111/epi.16524
Abstract: Our aim was to clarify the incidence and risk of acute symptomatic seizures in people with coronavirus disease 2019 (COVID-19). This multicenter retrospective study enrolled people with COVID-19 from 18 January to 18 February 2020 at 42 government-designated hospitals in Hubei province, the epicenter of the epidemic in China; Sichuan province; and Chongqing municipality. Data were collected from medical records by 11 neurologists using a standard case report form. A total of 304 people were enrolled, of whom 108 had a severe condition. None in this cohort had a known history of epilepsy. Neither acute symptomatic seizures or status epilepticus were observed. Two people had seizure-like symptoms during hospitalization due to acute stress reaction and hypocalcemia. Eighty-four (27%) had brain insults or metabolic imbalances during the disease course known to increase the risk of seizures. There was no evidence suggesting an additional risk of acute symptomatic seizures in people with COVID-19. Neither the virus or potential risk factors for seizures seem to be significant risks for the occurrence of acute symptomatic seizures in COVID-19.
A Novel Reverse Transcription Loop-Mediated Isothermal Amplification Method for Rapid Detection of SARS-CoV-2

Abstract: COVID-19 has become a major global public health burden, currently causing a rapidly growing number of infections and significant morbidity and mortality around the world. Early detection with fast and sensitive assays and timely intervention are crucial for interrupting the spread of the COVID-19 virus (SARS-CoV-2). Using a mismatch-tolerant amplification technique, we developed a simple, rapid, sensitive and visual reverse transcription loop-mediated isothermal amplification (RT-LAMP) assay for SARS-CoV-2 detection based on its N gene. The assay has a high specificity and sensitivity, and its results can be monitored using a real-time PCR machine or visualized via colorimetric change from red to yellow. The limit of detection (LOD) of the assay is 118.6 copies of SARS-CoV-2 RNA per 25 μL reaction. The reaction can be completed within 30 min for real-time fluorescence monitoring, or 40 min for visual detection when the template input is more than 200 copies per 25 μL reaction. To evaluate the viability of the assay, a comparison between the RT-LAMP and a commercial RT-qPCR assay was made using 56 clinical samples. The SARS-CoV-2 RT-LAMP assay showed perfect agreement in detection with the RT-qPCR assay. The newly-developed SARS-CoV-2 RT-LAMP assay is a simple and rapid method for COVID-19 surveillance.

A Clinical Study of Noninvasive Assessment of Lung Lesions in Patients with Coronavirus Disease-19 (COVID-19) by Bedside Ultrasound

Abstract: PURPOSE: This study was conducted to explore the clinical value of noninvasive assessment of bedside ultrasound in the diagnosis of lung lesions of Coronavirus Disease-19. METHODS: In this retrospective study, 30 patients with Coronavirus Disease-19 admitted to our hospital from January 18 to February 5, 2020, were selected as the research subjects. All cases were examined by lung ultrasound and CT. Lung lesions were reviewed by blinded observers, with imaging scores being used to analyze the ultrasound findings of lung lesions in patients with Coronavirus Disease-19 and with chest CT being used as the reference standard. The clinical value of ultrasound in the noninvasive assessment of lung lesions was evaluated. RESULTS: Lung ultrasound signs in patients with Coronavirus Disease-19 were mainly manifested as interstitial pulmonary edema (90.0%, 27/30) and pulmonary consolidations (20.0%, 6/30). The lung lesions were mainly distributed in the subpleural and peripheral pulmonary zones. The lower lobe and the dorsal region had a greater tendency to be involved. There was moderate agreement (Kappa = 0.529) between the noninvasive assessment of bedside ultrasound for lung lesions in patients with Coronavirus Disease-19 and CT. The ultrasound scores to evaluate mild, moderate and severe lung lesions exhibited sensitivity of 68.8% (11/16), 77.8% (7/9), 100.0% (2/2), specificity of 85.7% (12/14), 76.2% (16/21), 92.9% (26/28), and diagnostic accuracy of 76.7% (23/30), 76.7% (23/30), 93.3% (28/30), respectively. The follow-up dynamic ultrasound examination showed that the condition of all patients worsened gradually, with the ultrasound scores of lung lesions increasing to varying degrees. CONCLUSION: Though the diagnostic efficacy of bedside ultrasound is relatively low for mild to moderate patients, it is high for severe patients. Bedside ultrasound has important clinical significance for noninvasive assessment and dynamic observation of lung lesions in patients with Coronavirus Disease-19, which is worth further consideration. ZIEL: Diese Studie wurde durchgeführt, um den
DECLARACIÓN DE CONSENSO EN MEDICINA CRÍTICA PARA LA ATENCIÓN MULTIDISCIPLINARIA DEL PACIENTE CON SOSPECHA O CONFIRMACIÓN DIAGNÓSTICA DE COVID-19

Resumen El comportamiento de la infección por SARS-CoV-2 obligó a la Organización Mundial de la Salud a emitir una convocatoria global de activación de mecanismos de emergencia para atender la crisis de salud pública latente. Las Unidades de Cuidados Intensivos son uno de los principales recursos de los sistemas sanitarios dada la tasa de neumonías complicadas que presentan los pacientes infectados. En respuesta a los distintos lineamientos y diferentes niveles de evidencia de la información disponible, la Asociación Colombiana de Medicina crítica y Cuidados Intensivos (AMCI), convocó un equipo multidisciplinario de expertos en medicina crítica para establecer una declaratoria de consenso de buena práctica clínica para la atención de pacientes con COVID-19. Su objetivo es facilitar y estandarizar la toma de decisiones en los aspectos más relevantes desde la organización administrativa de las áreas de atención hasta el abordaje clínico del paciente, teniendo en cuenta la seguridad del personal sanitario, la infraestructura y recursos con los que cuenta el país para responder a la emergencia. Este documento está sujeto a la evolución del conocimiento y a los resultados de investigaciones en curso.

Protein Interaction with Dendrimer Monolayers: Energy and Surface Topology

Protein interaction with polymers layers is a keystone in designing bio-nano devices. Polyamidoamines (PAMAMs) are well-known polymers. Zero aromatic core dendrimers (ZAC) are molecules with no proven toxic effect in cultured cells. When coating nanodevices with enzymatic systems, active sites are disturbed by an interaction with the biosystem surface. Computational methods were used in order to simulate, characterize, and quantify protein–polymer interaction. Protein corona, i.e., surface proteins disposed on a viral membrane or nanodevice outer surface, are crucial in interactions with a potential pharmacological target or receptor. Corona symmetry has been observed in the Middle East respiratory syndrome-related coronavirus (MERS-CoV), severe acute respiratory syndrome coronavirus (SARS-CoV), and severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). As a protein alpha 1 antitrypsin’s a crystallographic structure was chosen. Protein–mono–dendrimer layer systems were generated using in silico methods in order to simulate their interaction. Interactions were quantified using topological and quantum mechanical strategies. Results showed that PAMAM and ZAC interact differently with alpha 1 antitrypsin. Energy and topological surfaces of protein vary accordingly with the dendrimer monolayer. Topological surfaces have a higher sensibility in describing the interactions.
When I first started this editorial in early March, I was writing from my usual coffee shop location, and the media was starting to focus on COVID-19. The incidence of the virus was increasing across the world, and the word "pandemic"—although debated passionately at the time—was beginning to gain traction. All signs pointed to a disruption; however, the scale of that change has exceeded what most of us could have imagined in early March. Now, millions of Americans and people around the world are in self-isolation, quarantine, or lockdown. There have been roughly 1.4 million cases of COVID-19 and more than 83,000 deaths worldwide at the time of this writing (Johns Hopkins University and Medicine, 2020). Like most, with the exception of essential personnel, I am at home wondering what is going to happen next and trying to find any positive outcome to this crisis.

Objectives

To assess the clinical severity of COVID-19 pneumonia using qualitative and/or quantitative chest CT indicators and identify the CT characteristics of critical cases. Materials and Methods

Fifty-one patients with COVID-19 pneumonia including ordinary cases (group A, n=12), severe cases (group B, n=15) and critical cases (group C, n=24) were retrospectively enrolled. The qualitative and quantitative indicators from chest CT were recorded and compared using Fisher's exact test, one-way ANOVA, Kruskal-Wallis H test and receiver operating characteristic analysis. Results

Depending on the severity of the disease, the number of involved lung segments and lobes, the frequencies of consolidation, crazy-paving pattern and air bronchogram increased in more severe cases. Qualitative indicators including total severity score for the whole lung and total score for crazy-paving and consolidation could distinguish groups B and C from A (69% sensitivity, 83% specificity and 73% accuracy) but were similar between group B and group C. Combined qualitative and quantitative indicators could distinguish these three groups with high sensitivity (B+C vs. A, 90%; C vs. B, 92%), specificity (100%, 87%) and accuracy (92%, 90%). Critical cases had higher total severity score (>10) and higher total score for crazy-paving and consolidation (>4) than ordinary cases, and had higher mean lung density (>779HU) and full width at half maximum (>128HU) but lower relative volume of normal lung density (≤50%) than ordinary/severe cases. In our critical cases, eight patients with relative volume of normal lung density smaller than 40% received mechanical ventilation for supportive treatment, and two of them had died. Conclusion

A rapid, accurate severity assessment of COVID-19 pneumonia based on chest CT would be feasible and could provide help for making management decisions, especially for the critical cases. Received for publication March 18, 2020; and accepted for publication, after revision, April 10, 2020. Peijie Lyu and Xing Liu contributed equally to the article. Corresponding author: Jianbo Gao, Department of Radiology; The First Affiliated Hospital of Zhengzhou University; No.1, East Jianshe Road, Zhengzhou, Henan Province, China. Postal number 450052. Phone number: +86-0371-66913114-6809, Fax number: +86-0371-66970906, E-mail address: gjbfsk@126.com This article is made available via the PMC Open Access Subset for unrestricted re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for the duration of the COVID-19 pandemic or until permissions are revoked in writing. Upon expiration of these permissions, PMC is granted a perpetual license to make this article available via PMC and Europe PMC, consistent with existing copyright protections. Copyright © 2020 Wolters Kluwer Health, Inc. All rights reserved.
Year: 2020
Author: Macchiagodena, Marina; Pagliai, Marco; Procacci, Piero
Title: Identification of Potential Binders of the Main Protease 3CLpro of the COVID-19 via Structure-Based Ligand Design and Molecular Modeling
Journal: Chemical Physics Letters
DOI: https://doi.org/10.1016/j.cplett.2020.137489
Abstract: We have applied a computational strategy, using a combination of virtual screening, docking and molecular dynamics techniques, aimed at identifying possible lead compounds for the non-covalent inhibition of the main protease 3CLpro of the SARS-CoV2 Coronavirus. Based on the X-ray structure (PDB code: 6LU7), ligands were generated using a multimodal structure-based design and then docked to the monomer in the active state. Docking calculations show that ligand-binding is strikingly similar in SARS-CoV and SARS-CoV2 main proteases. The most potent docked ligands are found to share a common binding pattern with aromatic moieties connected by rotatable bonds in a pseudo-linear arrangement.
URL: https://doi.org/10.1016/j.cplett.2020.137489
Categories:

Year: 2020
Author: Machuca-Martinez, Fiderman; Amado, Rubén Camargo; Gutierrez, Oscar
Title: Coronaviruses: A patent dataset report for research and development (R&D) analysis
Journal: Data in Brief
DOI: https://doi.org/10.1016/j.dib.2020.105551
Abstract: This work shows a patent database for Coronaviruses that provides an overview of the patenting activity and trends in focused antiviral therapy with the use of triazole based compounds, glycoprotein, and protease inhibitors as possible treatment. The patent data was obtained from Orbit Intelligence Software using a patent family structure to get a big database that could be used for built patent landscape report (PLR), market analysis, technical and competitive intelligence, and monitoring and survey of a new ideas for the treatment of coronavirus diseases. The raw data is reported in four databases, which were classified according to different items: legal status (alive, dead), 1st application year (after 2015, 2011-2015, 2006-2010, 2001-2005), and Top 5 International Patents Classifications (IPC). The main players, the investment trend, markets, geographical distribution, technology overview, technologies distribution, and patent citation are showed by this analysed data report.
URL: https://doi.org/10.1016/j.dib.2020.105551
Categories:

Year: 2020
Author: Mahase, Elisabeth
Title: Covid-19: Cancer Research urges mass testing to enable care to continue during pandemic
Journal: BMJ
DOI: 10.1136/BMJ.M1561
Abstract: Cancer Research UK has called for widespread covid-19 testing to ensure that patients and staff can use new “covid-free” centres and hospitals, currently being developed by the NHS, and to prevent unnecessary deaths. The covid-19 pandemic has led to thousands of people with cancer in the UK having their treatment stopped or delayed, as services are reconfigured to deal with infections. More than 3500 UK patients with newly diagnosed cancer are usually treated with surgery, chemotherapy, or radiotherapy each week, and more than 15 000 should have started treatment ...
URL: https://doi.org/10.1136/BMJ.M1561
Categories:

Year: 2020
Author: Mahase, Elisabeth
Title: Covid-19: First coronavirus was described in The BMJ in 1965
Journal: BMJ
DOI: 10.1136/BMJ.M1547
Abstract: The first description of human coronavirus—a family of viruses that now includes SARS-CoV-2, the cause of the current covid-19 pandemic—was published in The BMJ in 1965. The research, led by virologist David Tyrrell at the Common Cold Unit in Wiltshire, England, involved studying nasal washings from volunteers.1 The
researchers found that they could grow several viruses associated with the common cold, but not all of them. One such sample, referred to as B814, turned out to be what we now know as a coronavirus. Using the original B814 nasal swab from a “boy ...
Antibody tests suggest that coronavirus infections vastly exceed official counts

A map of SARS-CoV-2 and host cell interactions

Mobilizing the research ecosystem for scientific advances towards positive impact in the context of the COVID-19 Pandemic

Athletes as community; athletes in community: covid-19, sporting mega-events and athlete health protection
Year: 2020
Author: Marasca, C.; Ruggiero, A.; Fontanella, G.; Ferrillo, M.; Fabbrocini, G.; Villani, A.
Title: Telemedicine and support groups in order to improve the adherence to treatment and health related quality of life in patients affected by inflammatory skin conditions during COVID-19 emergency
Journal: Clinical and experimental dermatology
DOI: 10.1111/ced.14245
Abstract: We have read with great interest the article by Deepak et al. which reported the measures applied during the COVID-19 emergency in order to answer to the request of consultations. Particularly they described the growing importance that telemedicine is having during this emergency, focusing on the use of mobile technology (particularly the use of WhatsApp) as a method to communicate via text messages, voice messages, photos and videos, which is rapidly expanding within the field of telemedicine.
URL: https://doi.org/10.1111/ced.14245
Categories:

Year: 2020
Author: Marcinko, Darko; Jakovljevic, Miro; Jaksic, Nenad; Bjedov, Sarah; Mindoljevic Drakulic, Aleksandra
Title: The Importance of Psychodynamic Approach during COVID-19 Pandemic
Journal: Psychiatr Danub
DOI: 10.24869/psyd.2020.15
Abstract: The coronavirus (COVID-19) outbreak was labeled a global pandemic by the WHO in March of 2020. Understanding how crisis influence an individual's reactions to stressful events (and vice versa) is important in order to create meaningful and effective interventions. Our literature search have revealed lack of the papers related to psychodynamic approach to recent crisis. Psychodynamic places a large emphasis on defense mechanisms and unconscious mind, where upsetting feelings, urges, and thoughts that are too painful for us to directly look at are housed. Even though these painful feelings and thoughts are outside of our awareness, they still influence our behavior in many ways. Optimal application of psychodynamic approach offers the frame for acceptance of psychological stress in a more positive way and benefits psychological growth. We believe that including psychodynamic approach in the national public and mental health emergency system will empower Croatia and the world during (and after) COVID-19 pandemic crisis.
URL: https://doi.org/10.24869/psyd.2020.15
Categories:

Year: 2020
Author: Marinosci, Annalisa; Landis, Basile N.; Calmy, Alexandra
Title: Possible link between anosmia and COVID-19: sniffing out the truth
Journal: European Archives of Oto-Rhino-Laryngology
DOI: 10.1007/s00405-020-05966-0
Abstract: URL: https://doi.org/10.1007/s00405-020-05966-0
Categories:

Year: 2020
Author: Marone, Enrico M.; Rinaldi, Luigi F.
Title: Upsurge of deep venous thrombosis in patients affected by COVID-19: preliminary data and possible explanations
Journal: Journal of Vascular Surgery: Venous and Lymphatic Disorders
DOI: https://doi.org/10.1016/j.jvsv.2020.04.004
Abstract: URL: https://doi.org/10.1016/j.jvsv.2020.04.004
Categories:
Síndrome de Guillain-Barré fatal tras infección por virus SARS-CoV2

Abstract:

PAK1 (RAC/CDC42-activated kinase 1) is the major “pathogenic” kinase whose abnormal activation causes a wide variety of diseases/disorders including cancers, inflammation, malaria and pandemic viral infection including influenza, HIV and COVID-19. Since Louis Pasteur who developed a vaccine against rabies in 1885, in general a series of “specific” vaccines have been used for treatment of viral infection, mainly because antibiotics in general are ineffective for treatment of viral infection. However, it takes 12–18 months till the effective vaccine becomes available. Until then ventilator (O2 supplier) would be the most common tool for saving the life of COVID-19 patients. Thus, as alternative potentially more direct “broad-spectrum” COVID-19 therapeutics, several natural and synthetic PAK1-blockers such as propolis, melatonin, ciclesonide, hydroxychloroquine (HQ), ivermectin, and ketorolac, which are readily available in the market, are introduced here.
Introduction There is growing evidence that SARS-CoV-2 can gain access to the central nervous system (CNS). We revise the literature on coronavirus infection of the CNS associated with neurological diseases. Development Neurological symptoms were rarely reported in the SARS-CoV and MERS-CoV epidemics, although isolated cases were described. There are also reports of cases of neurological symptoms associated with CoV-OC43 and CoV-229E infection. The presence of neurological lesions, especially demyelinating lesions in the mouse hepatitis virus model, may explain the mechanisms by which coronaviruses enter the CNS, particularly those related with the immune response. This may explain the presence of coronavirus in patients with multiple sclerosis. We review the specific characteristics of SARS-CoV-2 and address the question of whether the high number of cases may be associated with greater CNS involvement. Conclusion Although neurological symptoms are not frequent in coronavirus epidemics, the high number of patients with SARS-CoV-2 infection may explain the presence of the virus in the CNS and increase the likelihood of early- or delayed-onset neurological symptoms. Follow-up of patients affected by the SARS-CoV-2 epidemic should include careful assessment of the CNS. Resumen Introducción Diversas evidencias sugieren que el SARS-CoV-2 puede penetrar en el sistema nervioso central (SNC). Los autores revisan los datos de la literatura sobre los hallazgos de coronavirus en el SNC asociado a enfermedades neurológicas. Desarrollo En las distintas epidemias con SARS-CoV y MERS-CoV la presencia de cuadros neurológicos es baja, pero se describen cuadros aislados de pacientes. También existen casos asociados a OC43-CoV y 229E-CoV. La existencia de lesiones neurológicas, especialmente desmielinizantes en el modelo MHV-CoV pueden explicar mecanismos de penetración de los CoV en el SNC y especialmente aquellos relacionados con la respuesta inmune, que puede justificar la existencia de CoV en pacientes con esclerosis múltiple. Los autores revisan aspectos diferenciales de SARS-CoV-2 y se plantean si debido al alto número de infectados, el virus puede afectar de forma mayor al SNC. Conclusión Aunque la presencia de síntomas neurológicos en las epidemias de CoV es baja, la mayor frecuencia de infectados por SARS-CoV-2 podría justificar el paso del virus y la posibilidad de clínica neurológica precoz o tardía con mayor incidencia. El seguimiento de los pacientes de la epidemia debe atender con cuidado a la evaluación del SNC.

URL: https://doi.org/10.1016/j.nrl.2020.04.006

Abstract: Should we expect neurological symptoms in the SARS-CoV-2 epidemic?
Results: Despite a low level of consensus between participants, there was strong (85%) and moderate consensus (70%) about certain subjects, mainly the increase in precautions to be taken, the use of telemedicine and teleconsultations, the reduction of care provided in in-person consultations to avoid the presence of large numbers of people in waiting rooms, the development of remote training solutions, and the changes in monitoring visits during clinical trials. There was consensus that there would be no changes to the indication of complementary testing or neurological examination. Conclusion: The key informant survey identified the foreseeable changes in neurological care after the pandemic.

URL: https://doi.org/10.1016/j.nrl.2020.04.006

Categories:

Year: 2020
Author: Mattioli, Anna Vittoria; Ballerini Puviani, Matteo
Title: Lifestyle at Time of COVID-19: How Could Quarantine Affect Cardiovascular Risk
Journal: American Journal of Lifestyle Medicine
DOI: 10.1177/1559827620918808
Abstract: COVID-19 is causing a global pandemic with a high number of deaths and infected people. To contain the diffusion of COVID-19 virus, governments have enforced restrictions on outdoor activities or even collective quarantine on the population. Quarantine carries some long-term effects on cardiovascular disease, mainly related to unhealthy lifestyle and anxiety.

URL: https://doi.org/10.1177/1559827620918808

Categories:

Year: 2020
Author: Mauffrey, Cyril; Trompeter, Alex
Title: Lead the way or leave the way: leading a Department of Orthopedics through the COVID-19 pandemic
Journal: European Journal of Orthopaedic Surgery & Traumatology
DOI: 10.1007/s00590-020-02670-x
Abstract: There is no doubt about the importance of diagnostic testing in an emergency; specifically, which range of tests is available, where and when they are dispensed, and who might be tested using laboratory-developed tests, or other diagnostic tests including experimental tests. This includes testing for the SARS-CoV-2 virus that causes the COVID-19 disease. Testing is essential to flatten the curve of the number of confirmed positive cases of the disease, in addition to handwashing, isolation, and social distancing, among other essential measures. Is one diagnostic test enough to obtain the correct decision about a confirmed positive outcome?

URL: https://doi.org/10.1007/s00590-020-02670-x

Categories:

Year: 2020
Author: Mavioglu, Hayrettin L.; Unal, Ertekin U.
Title: Cardiovascular surgery in the COVID-19 pandemic
Journal: Journal of Cardiac Surgery
DOI: 10.1111/jocs.14559

Categories:

Year: 2020
Author: McAleer, Michael
Title: Is One Diagnostic Test for COVID-19 Enough?
DOI: 10.3390/JRFM13040077
Abstract: There is no doubt about the importance of diagnostic testing in an emergency; specifically, which range of tests is available, where and when they are dispensed, and who might be tested using laboratory-developed tests, or other diagnostic tests including experimental tests. This includes testing for the SARS-CoV-2 virus that causes the COVID-19 disease. Testing is essential to flatten the curve of the number of confirmed positive cases of the disease, in addition to handwashing, isolation, and social distancing, among other essential measures. Is one diagnostic test enough to obtain the correct decision about a confirmed positive outcome?

URL: https://doi.org/10.3390/JRFM13040077
Categories:
Year: 2020
Author: McCauley, D. J.
Title: Research and Funding in the Time of COVID-19
Journal: CSA News
DOI: 10.1002/csan.20139
Abstract: URL: https://doi.org/10.1002/csan.20139
Categories:

Year: 2020
Author: McDermott, Carmen V.; Alicic, Radica Z.; Harden, Niels; Cox, Emily J.; Scanlan, James M.
Title: Put a lid on it: Are faecal bio-aerosols a route of transmission for SARS-CoV-2?
Journal: Journal of Hospital Infection
DOI: https://doi.org/10.1016/j.jhin.2020.04.024
Abstract: URL: https://doi.org/10.1016/j.jhin.2020.04.024
Categories:

Year: 2020
Author: McDowell, Lachlan; Goode, Susan; Sundaresan, Puma
Title: Adapting to a global pandemic through live virtual delivery of a cancer collaborative trial group conference: the TROG 2020 experience
Journal: Journal of medical imaging and radiation oncology
DOI: 10.1111/1754-9485.13047
Abstract: INTRODUCTION: The global COVID-19 pandemic forced the cancellation of the TROG 2020 face to face Annual Scientific Meeting (ASM). It was instead delivered as a live virtual meeting with six days of planning. Here we report the participants' experience of this live virtual meeting. METHOD: Participants were invited to complete custom developed, pre and post meeting surveys to assess their expectations of and satisfaction with the live virtual format. Speakers and moderators were also invited to complete a custom developed satisfaction survey. The working parties of TROG (head neck/skin, genitourinary, breast and lung) were also sampled. RESULTS: In total, 188/273 (69%) registered participants logged in to the live virtual meeting. The online engagement for each of the oral sessions ranged from 53-66%. There were 102 and 57 responders to the online pre and post meeting surveys, respectively. The majority of pre meeting responders indicated a significant level of employer support to attend the virtual meeting. Post meeting satisfaction exceeded pre meeting expectations ('very much' and 'quite a bit'; 86% v 54%; p<0.0001). The majority indicated they would be 'quite a bit' or 'very much' interested in future live virtual meetings. CONCLUSION: The TROG 2020 ASM was conducted as a live virtual meeting. Participant satisfaction and future interest in a live virtual meeting was high, indicating this is a viable platform for other CCTG's faced with the decision to deliver virtual content at times of global public health threats.
URL: https://doi.org/10.1111/1754-9485.13047
Categories:

Year: 2020
Author: McFadden, SarahAnn M.; Malik, Amyn A.; Aguolu, Obianuju G.; Willebrand, Kathryn S.; Omer, Saad B.
Title: Perceptions of the adult US population regarding the novel coronavirus outbreak
Journal: PLOS ONE
DOI: 10.1371/journal.pone.0231808
Abstract: The Coronavirus Disease 2019 (COVID-19) outbreak is spreading globally. Although COVID-19 has now been declared a pandemic and risk for infection in the United States (US) is currently high, at the time of survey administration the risk of infection in the US was low. It is important to understand the public perception of risk and trust in sources of information to better inform public health messaging. In this study, we surveyed the adult US population to understand their risk perceptions about the COVID-19 outbreak. We used an online platform to survey 718 adults in the US in early February 2020 using a questionnaire that we developed. Our sample was fairly similar to the general adult US population in terms of age, gender, race, ethnicity and education. We found that 69% of the respondents wanted the scientific/public health leadership (either the CDC Director or NIH Director) to lead the US response to COVID-19 outbreak as compared to 14% who wanted the political leadership (either the president or Congress) to lead the response. Risk perception was low (median score of 5 out of 10) with the
respondents trusting health professionals and health officials for information on COVID-19. The majority of respondents were in favor of strict infection prevention policies to control the outbreak. Given our results, the public health/scientific leadership should be at the forefront of the COVID-19 response to promote trust.

URL: https://doi.org/10.1371/journal.pone.0231808
Categories:

Year: 2020
Author: McGinnis, Gwendolyn J.; Ning, Matthew S.; Nitsch, Paige L.; O’Reilly, Michael; McAleer, Mary Frances; Koong, Albert C.; Chang, Joe Y.
Title: Rapid Detection of Asymptomatic COVID-19 by CT Image-Guidance for Stereotactic Ablative Radiotherapy
Journal: Journal of Thoracic Oncology
DOI: https://doi.org/10.1016/j.jtho.2020.04.007
Abstract:
URL: https://doi.org/10.1016/j.jtho.2020.04.007
Categories:

Year: 2020
Author: McGrath, B. A.; Wallace, S.; Goswamy, J.
Title: Laryngeal oedema associated with COVID-19 complicating airway management
Journal: Anaesthesia
DOI: 10.1111/anae.15092
Abstract: We would like to highlight the apparent potential of the SARS-CoV-2 virus in causing airway oedema and laryngitis; particularly of relevance when managing the airways of critically ill patients suffering from COVID-19. This is relevant to colleagues intubating and extubating the tracheas of critically ill patients and also to colleagues from ENT who may be asked to provide opinions on airway oedema around the time of tracheal extubation. In our tertiary UK hospital, staff have intubated the tracheas of more than 30 patients to date and we have experienced one failed intubation due to airway oedema and two (of eight) patients have developed stridor following trachea extubation. Both stridulous patients required tracheal re-intubation; one was successfully extubated 48 h later, and one required subsequent tracheostomy. A further patient with suspected laryngeal oedema underwent a period of review and then proceeded to tracheostomy without an extubation trial.
URL: https://doi.org/10.1111/anae.15092
Categories:

Year: 2020
Author: McInnes, Iain B.
Title: COVID-19 and rheumatology: first steps towards a different future?
Journal: Annals of the rheumatic diseases
DOI: 10.1136/annrheumdis-2020-217494
Abstract:
URL: https://doi.org/10.1136/annrheumdis-2020-217494
Categories:

Year: 2020
Author: McKee, Martin
Title: A European roadmap out of the covid-19 pandemic
Journal: BMJ
DOI: 10.1136/BMJ.M1556
Abstract: Coordination between countries is crucial Europe has been hit especially hard by the covid-19 pandemic, with Italy, Spain, and France occupying the top three positions in the global league table of deaths.1 All EU countries have imposed measures to contain the spread of the virus, although these vary considerably. Now, as some countries see death rates falling, they are looking at how to get back to something resembling normality, and the European Commission has published a roadmap to guide them.2 Reassuringly, the roadmap places epidemiology in the driving seat. The roadmap has three key elements. First, no country should consider lifting restrictions until it is certain that the disease is under control. This will pose a challenge for some, as it presupposes
that national authorities have accurate and timely information on cases and deaths. As the United Kingdom’s experience shows, this can be difficult. The importance of this information cannot be overstated. Measures taken must be judged against their ability to keep the reproduction number, or R, below 1. In other words, each infected person should not infect more than one other. Second, countries should ensure that they have sufficient health ...
On rounds in a 20-bed intensive care unit (ICU) one recent day, physician Joshua Denson assessed two patients with seizures, many with respiratory failure and others whose kidneys were on a dangerous downhill slide. Days earlier, his rounds had been interrupted as his team tried, and failed, to resuscitate a young woman whose heart had stopped. All shared one thing, says Denson, a pulmonary and critical care physician at the Tulane University School of Medicine. “They are all COVID positive.” As the number of confirmed cases of COVID-19 surges past 2.2 million globally and deaths surpass 150,000, clinicians and pathologists are struggling to understand the damage wrought by the coronavirus as it tears through the body. They are realizing that although the lungs are ground zero, its reach can extend to many organs including the heart and blood vessels, kidneys, gut, and brain.
Abstract: The purpose of this study was to distinguish the imaging features of COVID-19 from those of other chest infectious diseases and evaluate the diagnostic value of chest CT for suspected COVID-19 patients. Methods Adult patients suspected of COVID-19 aged $\geq 18$ years who underwent chest CT scans and reverse-transcription polymerase chain reaction (RT-PCR) tests within 14 days of symptom onset were enrolled. The enrolled patients were confirmed and grouped according to the results of the RT-PCR tests. The basic demographics, single chest CT features, and combined chest CT features were analyzed for the confirmed and nonconfirmed groups. Results A total of 130 patients were enrolled, with 54 testing positive and 76 testing negative. The typical CT imaging features of the positive group were ground glass opacities (GGOs), the crazy-paving pattern and air bronchogram. The lesions were mostly distributed bilaterally and close to the lower lungs or the pleura. When features were combined, GGOs with bilateral pulmonary distribution and GGOs with pleural distribution were more common among the positive patients, found in 31 (57.4%) and 30 patients (55.6%), respectively. The combinations were almost all statistically significant ($P < .05$), except for the combination of GGOs with consolidation. Most combinations presented relatively low sensitivity but extremely high specificity. The average specificity of these combinations was approximately 90%. Conclusions The combinations with GGOs could be useful in the identification and differential diagnosis of COVID-19, alerting clinicians to isolate patients for prompt treatment and repeat RT-PCR tests until the end of incubation.
Categories:

Year: 2020
Author: Mills, John P.; Kaye, Keith S.; Mody, Lona
Title: COVID-19 in older adults: clinical, psychosocial, and public health considerations
Journal: JCI insight
DOI: 10.1172/jci.insight.139292
Abstract: Complications of COVID-19 have been particularly severe among older adults, who are the focus of this article. Public policy goals should prioritize pandemic preparedness in nursing homes, as well as civic and local government-based support programs for community-dwelling older adults, to ensure that risk of infection is mitigated while promoting wellness during a period of stress and uncertainty.
URL: https://doi.org/10.1172/jci.insight.139292

Categories:

Year: 2020
Author: Mindoljevic Drakulic, Aleksandra; Radman, Vivijana
Title: Crisis Psychodrama in the Era of COVID-19
Journal: Psychiatr Danub
DOI: 10.24869/psyd.2020.22
Abstract: This work gives an overview of the methods of scenic expression which can be used to help cope with the crisis caused by the global threat of the coronavirus pandemic. The virus is new, the vaccine has not been developed yet and there are no unified prevention and post-prevention policies. In the following lines some modified elements of psychodrama interventions are presented including the ways of preventing the retraumatization of the patient (protagonist). This can be achieved by conscious reliving of the trauma and by activating new, transformative roles to guide the protagonist on his way to recovery.
URL: https://doi.org/10.24869/psyd.2020.22

Categories:

Year: 2020
Author: Ministerio de, salud
Title: Lineamientos técnicos para el manejo de pacientes con enfermedades crónicas no transmisibles y personas adultas mayores durante estado de emergencia por enfermedad COVID-19 en la red de hospitales
Journal: 
DOI:
Abstract: Establecer las actividades a realizar por el personal de salud para la atención de personas con enfermedades crónicas no transmisibles y personas adultas mayores en la red de hospitales en el marco de la emergencia nacional por enfermedad COVID-19. Específicos: 1. Definir la ruta de atención de las enfermedades crónicas no transmisibles y personas adultas mayores en los hospitales. 2. Identificar oportunamente las alteraciones hemodinámicas, cardio-metabólicas y otras de riesgo de las enfermedades crónicas no transmisibles de base, para prevenir o tratar las complicaciones de las mismas, en el contexto de la respuesta nacional ante la pandemia por la enfermedad COVID-19. 3. Garantizar la atención de personas con cáncer en la consulta externa oncológica y Centro Nacional de Radioterapia, para prevenir recaídas y complicaciones, en el contexto de la respuesta nacional ante la pandemia por la enfermedad COVID-19. 4. Garantizar la atención de personas con enfermedad renal crónica en los centros de terapia dialítica, para prevenir complicaciones en el contexto de la respuesta nacional ante la pandemia por la enfermedad COVID-19. III. Ámbito de aplicación Quedan sujetos al cumplimiento de los presente lineamientos técnicos, todo el personal de los hospitales del Sistema Nacional Integrado de Salud, en adelante SNIS, encargados de la atención directa a personas con enfermedades crónicas no transmisibles y personas adultas mayores.
URL: https://doi.org/
Categories:
Abstract: En El Salvador, la tuberculosis (TB) continúa siendo un problema de salud pública, cada año son diagnosticados entre 3,000 a 3,500 personas de las cuales, mas del 40% están al interior del sistema penitenciario y el 16% (500 casos) en el Instituto Salvadoreño del Seguro Social y el 39% en la red de establecimientos del MINSAL. Del total de los casos del 2020 el 56% se diagnosticó a través de pruebas moleculares (gene Xpert), el 46% con baciloscopias y menos del 2% por cultivo. A través de la red de laboratorio a nivel nacional, existen 215 laboratorios que realizan baciloscopias, 24 que realizan cultivo BAAR y 11 que realizan pruebas moleculares. Desde el año 1997 El Salvador implementó la estrategia de Tratamiento Acortado Estrictamente Supervisado (TAES), la cual es aplicada en toda la red de los servicios de salud: Seguridad Social, Centros Penales, Bienestar Magisterial, Hospitales Privados; ser costo efectivo puesto que evita la hospitalización, llegando a alcanzar tasas de éxito en el tratamiento arriba de 93%, superando la meta mundial del 90% recomendada por la OMS. A partir del 12 de marzo del 2020, El Salvador declaró emergencia nacional para hacerle frente a la pandemia del COVID-19, siendo una enfermedad respiratoria al igual que la tuberculosis, las intervenciones realizadas en el control de infecciones y medidas de aislamiento contribuyen al control de ambas enfermedades. El Programa Nacional de Tuberculosis (PNTYER) ha realizado durante el mes de marzo 2,876 pruebas a través del método del Gene Xpert MTB/Rif para detectar M. tuberculosis, de las cuales han resultado 151 personas positivas a la enfermedad, de las cuales 89 (59%) corresponde a personas privadas de libertad. De las 151 personas detectadas con tuberculosis, 96 corresponden al periodo del 12 al 31 de marzo, durante el periodo de cuarentena actual. Hasta el momento no hay evidencia referente a la coexistencia del binomio TB y COVID-19. Debido a la expansión del COVID-19 en la Región, El Salvador implementó los centros de contención de personas con sospecha de COVID 19, para evitar su propagación. Durante este periodo de emergencia se debe garantizar el acceso a una atención integral centrada en el paciente con signos y síntomas respiratorios, sin olvidar una de las principales actividades del Programa, la detección precoz y tratamiento oportuno de la TB, con medidas y enfoque pluripatológico (un Sintomático Respiratorio podría tener TB, COVID-19, otra coinfección u otra comorbilidad) para lo cual los servicios de salud deben dar respuesta inmediata tanto con el abordaje diagnostico (con realización de baciloscopias, cultivos, Gene Xpert) como el control de infecciones, manejo y referencia del paciente, haciendo hincapié en la bioseguridad del personal en la toma, manejo y envío de muestras.

URL: https://doi.org/

Categories:
constantemente según la información que la OMS/OPS y la evidencia científica, genere durante la pandemia. On December 31, 2019, the WHO reported an outbreak of pneumonia cases of unknown etiology in Wuhan, Hubei Province, China. The causative agent was identified as a new coronavirus, which is infecting thousands of people around the world. Given this situation, the government of El Salvador, considering the high risk for the population, decreed on January 23, 2020, a Health Emergency for the probable arrival of suspected cases of 2019-nCoV, through Ministerial Agreement 301 of that date, published in Official Gazette No. 15, volume 426, which is applicable nationwide. Among the strategies implemented by the sanitary emergency, the country has intensified the epidemiological surveillance that is carried out in the 10 International Sanitary Offices (OSI), at authorized air, land and maritime entry points, for the detection of probable suspicious cases that may enter through these channels. Furthermore, epidemiological surveillance has been intensified in all SNIS facilities. In addition, national health personnel have been trained in processes of detection, diagnosis, treatment and timely follow-up, for suspected cases, as well as isolates and quarantines for their cases and contacts, as well as other prevention and control measures to reduce morbidity and mortality in the Salvadoran population. This document constitutes the second edition of the Technical Guidelines for the clinical care of people with COVID-19 disease, which include antecedents, epidemiology, case definitions, diagnosis and clinical management, as well as biosecurity measures for both patients, family and health personnel during your care. This document will be constantly updated according to the information that WHO / PAHO and the scientific evidence generated during the pandemic.

https://doi.org/

Categories:

Year: 2020
Author: Ministerio de, Salud
Title: Lineamientos técnicos para el manejo y disposición final de cadáveres de casos covid-19 SE
Journal:
DOI:
Abstract: Las directrices para el manejo y disposición final de cadáveres por COVID2019, requieren de medidas de bioseguridad y precaución estándar encaminadas para este fin y lograr la prevención de esta infección en el personal responsable del manejo y disposición final de cadáveres. Los presentes lineamientos técnicos contienen las actividades que el personal de salud debe cumplir para el manejo y disposición final de cadáveres en los diferentes escenarios, domiciliar, hospitalario y durante el traslado en busca de atención. Asimismo se establecen las indicaciones para la inhumación ante el fallecimiento por caso confirmado o sospecho de COVID-19. Todo lo anterior con el objetivo de proteger la salud de la población en general fortaleciendo la prevención y evitando la transmisibilidad. The guidelines for the management and final disposal of corpses by COVID-2019, require biosecurity measures and standard precaution aimed at this purpose and to achieve the prevention of this infection in the personnel responsible for the management and final disposal of corpses. These technical guidelines contain the activities that health personnel must comply with for the handling and final disposal of corpses in the different scenarios, domiciliary, hospital and during the transfer in search of care. Likewise, the indications for burial upon death are established due to a confirmed or suspected case of COVID-19. All of the above with the aim of protecting the health of the general population by strengthening prevention and avoiding transmissibility.

https://doi.org/

Categories:

Year: 2020
Author: Ministerio de, Salud
Title: Lineamientos técnicos para el manejo de personas en cuarentena en centros de contención, segunda edición
Journal:
DOI:
Abstract: Ante la Emergencia por el COVID-19, en el país se establece desde el 15 de marzo del corriente año y con el objeto de prevenir la diseminación de dicha enfermedad, la estrategia de "Cuarentena preventiva por 30 días" a todos los viajeros que ingresen al país, procedentes de países que ya tienen casos y por ende circulación del virus SARS CoV2, por lo que se hace necesario establecer las directrices a seguir en los centros de contención y en los hospitales que atiendan a personas con sospecha o confirmados con COVID-19, que se convierten en los lugares donde se atenderá a la población antes mencionada. In the face of the Emergency due to COVID-19, the country has established, since March 15 of this year, and in order to prevent the spread of said disease, the strategy of "Preventive Quarantine for 30 days" to all travelers entering to the country,
from countries that already have cases and therefore circulation of the SARS CoV2 virus, so it is necessary to establish the guidelines to be followed in the containment centers and in the hospitals that care for people with suspicion or confirmed with COVID-19, which become the places where the aforementioned population will be served.

Abstract: El Sistema Nacional de Farmacovigilancia está conformado por todas las instituciones del Sistema Nacional Integrado de Salud (SNIS), así como también por los profesionales de salud y las personas naturales o jurídicas responsables del registro sanitario, fabricación, importación, distribución y comercialización de medicamentos; quienes son los responsables de detectar y notificar los eventos al CNFV, a través del Sistema de Notificación en línea de Farmacovigilancia (SIFAVES). El 31 de diciembre del 2019, la OMS notifica un brote de casos de neumonías, de etiología desconocida, en Wuhan, provincia de Hubel, China; ante tal situación el Gobierno de El Salvador, el 23 de enero de 2020, decreto Emergencia Sanitaria por la probable llegada de casos sospechosos de 2019-nCoV y se inicia con los preparativos para la atención de casos sospechosos y confirmados, de lo que posteriormente se denominó como agente causal el COVID-19. Al momento no existe en el mundo ningún tratamiento eficaz y seguro para curar la enfermedad COVID-19, ni existe ninguna vacuna para prevenirla. Ante la necesidad apremiante de brindar una alternativa terapéutica esperanzadora para los pacientes infectados y evitar la mortalidad por dicha enfermedad, en el mes de marzo del 2020, el Ministerio de Salud dicta los &quot;Lineamientos técnicos para la atención clínica de personas con enfermedad COVID-19&quot; segunda edición, con la participación de profesionales expertos, interdisciplinarios e interinstitucionales; en la cual evaluaron y establecieron el uso off-label de medicamentos para limitar la progresión clínica de la enfermedad y disminuir la carga viral; de las personas con enfermedad COVID-19, considerando los resultados prometedores de estudios existentes y las experiencias en el manejo clínico de pacientes en otros países que actualmente atraviesan una crisis, en la atención de pacientes, por la pandemia de COVID-19. Este hecho marca la necesidad consecuente, de diseñar una farmacovigilancia intrahospitalaria especial, para ser implementada en todos los hospitales que utilicen el esquema de medicamentos off-label, establecido en los &quot;Lineamientos técnicos para la atención clínica de personas con enfermedad COVID-19&quot;: El presente documento describe los aspectos técnicos y logísticos necesarios a tener en cuenta para implementar la farmacovigilancia especial intrahospitalaria, sobre el uso de medicamentos off-label autorizados, según el &quot;plan de acciones reguladoras para la implementación de opciones 8 terapéuticas y diagnósticas en situaciones de riesgo sanitario en El Salvador&quot; para el manejo clínico de pacientes con enfermedad COVID-19; también, es una herramienta de apoyo para los profesionales de la salud que estarán en la primera línea de atención hospitalaria para la detección, identificación o sospecha de posibles reacciones adversas, interacciones medicamentosas u otros riesgos asociados al uso de estos, así mismo para la prevención de errores de medicación en el manejo de los pacientes y la notificación oportuna de dichos eventos. The National Pharmacovigilance System is made up of all the institutions of the National Integrated Health System (SNIS), as well as health professionals and natural or legal persons responsible for sanitary registration, manufacture, import, distribution and marketing of medicines; who are responsible for detecting and reporting events to the CNFV, through the Online Pharmacovigilance Notification System (SIFAVES). On December 31, 2019, the WHO reports an outbreak of pneumonia cases of unknown etiology in Wuhan, Hubel province, China; in such a situation, the Government of El Salvador, on January 23, 2020, issued a Health Emergency decree for the probable arrival of suspected cases of 2019-nCoV and began with preparations for the care of suspected and confirmed cases, which was subsequently denounced as causal agent COVID-19. Currently, there is no effective and safe treatment in the world to cure COVID-19 disease, nor is there a vaccine to prevent it. Given the pressing need to provide a hopeful therapeutic alternative for infected patients and avoid mortality from said disease, in March 2020, the Ministry of Health issued the &quot;Technical Guidelines for the clinical care of people with COVID-19 disease&quot; second edition, with the participation of expert, interdisciplinary and inter-institutional professionals; in which they evaluated and established the off-label use of &quot;medications to limit the clinical progression of the disease and decrease the viral load&quot; of people with COVID-19 disease, considering the promising results of existing studies and
experiences in management Clinician of patients in other countries currently experiencing a crisis, in patient care, due to the COVID-19 pandemic. This fact marks the consequent need to design a special in-hospital pharmacovigilance, to be implemented in all hospitals that use the off-label medication scheme, established in the Technical Guidelines for the clinical care of people with COVID-19 disease. This document describes the technical and logistical aspects necessary to take into account to implement special in-hospital pharmacovigilance, on the use of authorized off-label drugs, according to the plan of regulatory actions for the implementation of therapeutic and diagnostic options in situations of health risk in El Salvador; for management clinic of patients with COVID-19 disease; also, it is a support tool for health professionals who will be in the first line of hospital care for the detection, identification or suspicion of possible adverse reactions, drug interactions or other risks associated with their use, as well as for prevention of medication errors in patient management and timely notification of such events.

URL: https://doi.org/

Categories:

Year: 2020
Author: Mintz, Yoav; Arezzo, Alberto; Boni, Luigi; Chand, Manish; Brodie, Ronit; Fingerhut, Abe
Title: A Low Cost, Safe and Effective Method for Smoke Evacuation in Laparoscopic Surgery for Suspected Coronavirus Patients
Journal: Ann Surg
DOI: 10.1097/SLA.0000000000003965
Abstract:
URL: https://doi.org/10.1097/SLA.0000000000003965

Categories:

Year: 2020
Author: Mirza, Aleem K.
Title: Perspectives on vascular surgical practice change due to COVID-19 at a non-academic tertiary care center
Journal: Journal of Vascular Surgery
DOI: https://doi.org/10.1016/j.jvs.2020.04.016
Abstract:
URL: https://doi.org/10.1016/j.jvs.2020.04.016

Categories:

Year: 2020
Author: Misra, D.; Agarwal, V.
Title: To Act........or to wait for the evidence: Ethics in the time of covid-19!
Journal: Indian Journal of Rheumatology
DOI: 10.4103/injr.injr_53_20
Abstract:
URL: https://doi.org/10.4103/injr.injr_53_20

Categories:

Year: 2020
Author: Moein, Shima T.; Hashemian, Seyed M. R.; Mansourafshar, Babak; Khorram-Tousi, Ali; Tabarsi, Payam; Doty, Richard L.
Title: Smell dysfunction: a biomarker for COVID-19
Journal: International forum of allergy & rhinology
DOI: 10.1002/alar.22587
Abstract: BACKGROUND: SARS-CoV-2, the virus that causes COVID-19 disease, is responsible for the largest pandemic since the 1918 H1N1 influenza outbreak. The symptoms presently recognized by the World Health Organization are cough, fever, tiredness, and difficulty breathing. Patient-reported smell and taste loss has been associated with COVID-19 infection, yet no empirical olfactory testing on a cohort of COVID-19 patients has been performed. METHODS: The University of Pennsylvania Smell Identification Test (UPSIT), a well-validated 40-odorant test, was administered to 60 confirmed COVID-19 inpatients and 60 age- and sex-matched controls to assess the magnitude and frequency of their olfactory dysfunction. A mixed effects analysis of variance determined whether
meaningful differences in test scores existed between the two groups and if the test scores were differentially influenced by sex. RESULTS: Fifty-nine (98%) of the 60 patients exhibited some smell dysfunction [mean (95% CI) UPSIT score: 20.98 (19.47,22.48); controls: 34.10 (33.31,34.88); p<0.0001]. Thirty-five of the 60 patients (58%) were either anosmic (15/60; 25%) or severely microsmic (20/60; 33%); 16 exhibited moderate microsmia (16/60; 27%), 8 mild microsmia (8/60; 13%), and one normosmia (1/60; 2%). Deficits were evident for all 40 UPSIT odors. No meaningful relationships between the test scores and sex, disease severity, or comorbidities were found. CONCLUSIONS: Quantitative smell testing demonstrates that decreased smell function, but not always anosmia, is a major marker for SARS-CoV-2 infection and suggests the possibility that smell testing may help, in some cases, to identify COVID-19 patients in need of early treatment or quarantine. This article is protected by copyright. All rights reserved.

URL: https://doi.org/10.1002/alr.22587
Abstract: This study is aimed to assess the anxiety level of Iranian general population during COVID-19 outbreak. The online questionnaire surveyed 10,754 individuals from the general population of 31 provinces of Iran who completed the questionnaire on social networks from March 1 to March 9, 2020. The inferential statistics suggests that the level of anxiety was higher among women (95% CI [0.1, 81.36], p < 0.001), people who more followed corona-related news (p < 0.001) and the age group of 21-40 years (p < 0.001). Ultimately, the level of anxiety was significantly higher among people who had at least one family member, relative, or friend who contracted COVID-19 disease (95% CI [1.2, 35.03], p < 0.001). The health care system should adopt a package of psychosocial interventions to reduce the anxiety of high risk groups.

URL: https://doi.org/10.1016/j.ajp.2020.102076
Abstract: Novel coronaviruses (CoVs) are zoonotic pathogens, but the first human-to-human transmission has been reported. CoVs have the best known genome of all RNA viruses, and mutations in the genome have now been found. A pneumonia of unknown cause detected in Wuhan, China, was first reported to the WHO Country Office in China on 31 December 2019. This study aims to report early findings related to COVID-19 and provide methods to prevent and treat it.

URL: https://doi.org/10.1007/s10389-020-01258-3
Abstract: Wastes generated in healthcare facilities have been discussed and the World Health Organization has proposed a guideline for controlling the spread of the virus that causes Coronavirus Disease 2019 (COVID-19). However, waste management outside the generating facility should be discussed in more detail, taking into account factors such as virus resistance, differences in waste management systems and the climatic conditions in each affected region. Patients infected by human coronavirus being treated at home are generating infected waste possibly discarded as domestic waste, which can pose risks to workers and the environment, depending on the conditions of transport and disposal. In particular, the spread of the coronavirus may be increased by inadequate waste management, highlighting poor handling conditions associated with inappropriate use of personal protective
equipment and other unfavourable conditions presented mainly in developing countries.

URL: https://doi.org/10.1177/0734242X20918312

Categories:

Year: 2020
Author: Monjur, Mohammad R.; Hassan, Md Zakiul
Title: Early phases of COVID-19 management in a low-income country: Case of Bangladesh
Journal: Infection Control & Hospital Epidemiology
DOI: 10.1017/ice.2020.147
Abstract: From the first reported case of COVID-19 in Bangladesh on March 8 until March 28, 1068 samples were tested by the Institute of Epidemiology, Disease Control and Research (IEDCR) located in Dhaka. IEDCR was the sole institute in Bangladesh with testing facilities for COVID19 until March 26 when a second facility was given testing rights. Centralised testing in these under-resourced public institutions has been unable to effectively respond to the wave of suspected COVID-19 patients. Even at this initial stage with limited confirmed cases, engaged telephone hotlines and inadequate timely testing on symptomatic patients raise concern of Bangladesh’s preparedness. With a population of 161 million and a total of 1,169 ICU beds, this strategy could potentially devastate Bangladesh’s health system with multiple outbreaks as it is missing the opportunity to proactively limit community transmission from primary cases.

URL: https://doi.org/10.1017/ice.2020.147

Categories:

Year: 2020
Author: Monteleone, Pedro Aa; Nakano, Mayra; Lazar, Victor; Gomes, Alecandra P.; de, Hamilton Martin; Bonetti, Tatiana Cs
Title: A review of initial data on pregnancy during the COVID-19 outbreak: implications for assisted reproductive treatments
Journal: JBRA assisted reproduction
DOI: 10.5935/1518-0557.20200030
Abstract: The current outbreak of the novel 2019 coronavirus disease (COVID-19) started in China in December 2019 and has since spread to several other countries. On March 25, 2020, a total of 375,498 cases had been confirmed globally with 2,201 cases in Brazil, showing the urgency of reacting to this international public health emergency. While in most cases, mild symptoms are observed, in some cases the infection leads to serious pulmonary disease. As a result, the possible consequences of the COVID-19 outbreak for pregnant women and its potential effects on the management of assisted reproductive treatments, demand attention. In this review, we summarize the latest research progress related to COVID-19 epidemiology and the reported data of pregnant women, and discuss the current evidence of COVID-19 infections during pregnancy and its potential consequences for assisted reproductive treatments. Reported data suggest that symptoms in pregnant women are similar to those in other people, and that there is no evidence for higher maternal or fetal risks. However, considering the initial data and lack of comprehensive knowledge on the pathogenesis of SARS-CoV-2 during pregnancy, human reproduction societies have recommended postponing the embryo transfers and do not initiate new treatment cycles. New evidence must be considered carefully in order to adjust these recommendations accordingly at any time and to guide assisted reproductive treatments.

URL: https://doi.org/10.5935/1518-0557.20200030

Categories:

Year: 2020
Author: Montoya-Barthelemy, Andre; Lee, Charles D.; Cundiff, Dave; Smith, Eric
Title: COVID-19 and the Correctional Environment: The American Prison as a Focal Point for Public Health
Journal: American Journal of Preventive Medicine
DOI: https://doi.org/10.1016/j.amepre.2020.04.001
Abstract: https://doi.org/10.1016/j.amepre.2020.04.001
URL: https://doi.org/10.1016/j.amepre.2020.04.001
Categories:
Year: 2020
Author: Moore, By John B.; June, Carl H.
Title: Cytokine release syndrome in severe COVID-19
Journal: Science (New York, N.Y.)
DOI: 10.1126/science.abb8925
Abstract: Lessons from arthritis and cell therapy in cancer patients point to therapy for severe disease.
URL: https://doi.org/10.1126/science.abb8925
Categories:

Year: 2020
Author: Moore, Kristine A.; Ostrowsky, Julia T.; Mehr, Angela J.; Osterholm, Michael T.; Committee, The Ceirs Pandemic Planning
Title: Influenza response planning for the centers of excellence for influenza research and surveillance: Science preparedness for enhancing global health security
Journal: Influenza and Other Respiratory Viruses
DOI: 10.1111/irv.12742
Abstract: Abstract Background The Centers of Excellence for Influenza Research and Surveillance (CEIRS) network, funded by the US National Institutes of Health, has been operational since 2007 and is tasked with conducting research to improve understanding of influenza viruses. Recently, CEIRS developed an Influenza Response Plan (IRP) to improve science preparedness for the network. Methods Development of the IRP involved a collaborative process between project staff, CEIRS center directors or their designees, and NIAID CEIRS leadership (referred to as the Pandemic Planning Advisory Committee [PPAC]). Project staff identified and summarized the response capabilities of each center and then worked with the PPAC to identify and rank research priorities for an emergency response using a modified Delphi method. Results Key elements of the response plan include tables of response capabilities for each CEIRS center, a framework that outlines and ranks research priorities for CEIRS during an emergency situation, and an operational strategy for executing the research priorities. Conclusions The CEIRS IRP highlights the importance of enhancing science preparedness in advance of an influenza pandemic or other influenza-related zoonotic incident to ensure that research can be carried out expeditiously and effectively in emergency situations and to improve global health security.
URL: https://doi.org/10.1111/irv.12742
Categories:

Year: 2020
Author: Moore, Stephen; Gardiner, Elaine
Title: Point of Care and Intensive Care Lung Ultrasound: A Reference Guide for Practitioners During COVID-19
Journal: Radiography
DOI: https://doi.org/10.1016/j.radi.2020.04.005
Abstract: Objectives Current events with the recent COVID-19 outbreak are necessitating steep learning curves for the NHS workforce. Ultrasound, although not used in the diagnosis of COVID-19 may be utilised by practitioners at the point of care (POC) or on the intensive care units (ITUs) where rapid assessment of the lung condition may be required. The aim of this article was to review current literature surrounding the use of lung ultrasound in relation to COVID-19 and provide Sonographers with a quick and digestible reference guide for lung pathologies. Key Findings Ultrasound is being used in Italy and China to help review lung condition during the COVID-19 outbreak however not strictly as a diagnostic tool as Computed Tomography (CT) of the chest and chest radiographs are currently gold standard. Ultrasound is highly sensitive in the detection of multiple lung pathologies which can be demonstrated in conjunction with COVID-19 however to date there are no specific, nor pathognomonic findings which relate to COVID-19 on ultrasound. Conclusion Lung ultrasound is highly sensitive and can quickly and accurately review lung condition creating potential to assess for changes or resolution over
time, especially in the ITU and POC setting. However it should not be used as a diagnostic tool for COVID-19 due to low specificity in relation to the virus. Implications for practice The adoption of lung ultrasound to monitor lung condition during the COVID-19 outbreak may reduce the need for serial exposure to ionising radiation on the wards and in turn reduce the number of radiographers required to attend infected wards and bays, protecting both patients and the workforce.

URL: https://doi.org/10.1016/j.radi.2020.04.005

Categories:

Year: 2020
Author: Moran, Angelica; Beavis, Kathleen G.; Matushek, Scott M.; Ciaglia, Carol; Francois, Nina; Tesic, Vera; Love, Nedra
Title: The Detection of SARS-CoV-2 using the Cepheid Xpert Xpress SARS-CoV-2 and Roche cobas SARS-CoV-2 Assays
Journal: Journal of clinical microbiology
DOI: 10.1128/JCM.00772-20
Abstract: SARS-CoV-2, a novel coronavirus responsible for a December 2019 outbreak in Wuhan, China, causes a syndrome characterized by fever, cough, and dyspnea progressing to acute respiratory distress syndrome (1)...
URL: https://doi.org/10.1128/JCM.00772-20

Categories:

Year: 2020
Author: Morey-Olivé, Miriam; Espiau, María; Mercadal-Hally, Maria; Lera-Carballo, Esther; García-Patos, Vicenç
Title: MANIFESTACIONES CUTÁNEAS EN CONTEXTO DEL BROTE ACTUAL DE ENFERMEDAD POR CORONAVIRUS 2019
Journal: Anales de Pediatría
DOI: https://doi.org/10.1016/j.anpedi.2020.04.013
Abstract: ...Coronavirus 2019
URL: https://doi.org/10.1016/j.anpedi.2020.04.013

Categories:

Year: 2020
Author: Mourey, Loic; Falandry, Claire; de Decker, Laure; Boulahssass, Rabia; Carola, Elisabeth; Bengrine Lefevre, Leila; Cudennec, Tristan; Brain, Etienne; Paillaud, Elena; Soubeyran, Pierre
Title: Taking care of older patients with cancer in the context of COVID-19 pandemic
Journal: Lancet Oncol
DOI: 10.1016/S1470-2045(20)30229-1
Abstract: ...
URL: https://doi.org/10.1016/S1470-2045(20)30229-1

Categories:

Year: 2020
Author: Mugheddu, Cristina; Dell'Antonia, Massimo; Sanna, Silvia; Agosta, Daniele; Atzori, Laura; Rongioletti, Franco
Title: Successful Guselkumab treatment in a psoriatic patient affected with Cornelia de Lange Syndrome, and prosecution during the COVID-19 pandemic
Journal: Dermatologic Therapy
DOI: 10.1111/dth.13433
Abstract: ABSTRACT Psychomotor delay and intellectual disability are potential limitations in psoriasis management, due to low compliance, and strict dependence from care givers intervention. We report our successful experience with a 58-year-old woman, who was genetically affected by Cornelia De Lange syndrome, which causes intellectual disability and psychomotor disorders. The patient had been already treated with topical and traditional therapies, without any clinical benefits. Eventually she adhered to guselkumab treatment. The compliance was excellent, significant improvements were observed after only 3 months of treatment, without adverse effects. During follow-up, the COVID-19 pandemic address concern on the possible increased risk of infection due to immunosuppression. In agreement with current Italian recommendations, risk and benefits profile was discussed with the patient's legal tutor and the decision to continue the treatment was taken. Psoriasis...
complete clarification was maintained during the most difficult period of the Italian outbreak, allowing the patient to remain safely at home. This article is protected by copyright. All rights reserved.

URL: https://doi.org/10.1111/dth.13433
Categories:

Year: 2020
Author: Mukhtar, Psychol Sonia
Title: Mental Wellbeing of Nursing Staff during the COVID-19 Outbreak: A Cultural Perspective
Journal: Journal of Emergency Nursing
DOI: https://doi.org/10.1016/j.jen.2020.04.003
Abstract: https://doi.org/10.1016/j.jen.2020.04.003
Categories:

Year: 2020
Author: Mungroo, Mohammad Ridwane; Khan, Naveed Ahmed; Siddiqui, Ruqaiyyah
Title: Novel Coronavirus: Current Understanding of Clinical Features, Diagnosis, Pathogenesis, and Treatment Options
Journal: Pathogens 2020, Vol. 9, Page 297
DOI: 10.3390/PATHOGENS9040297
Abstract: Since December 2019, coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has resulted in devastating consequences worldwide and infected more than 350,000 individuals and killed more than 16,000 people. SARS-CoV-2 is the seventh member of the coronavirus family to affect humans. Symptoms of COVID-19 include fever (88%), cough (68%), vomiting (5%) and diarrhoea (3.7%), and transmission of SARS-CoV-2 is thought to occur from human to human via respiratory secretions released by the infected individuals when coughing and sneezing. COVID-19 can be detected through computed tomography scans and confirmed through molecular diagnostics tools such as polymerase chain reaction. Currently, there are no effective treatments against SARS-CoV-2, hence antiviral drugs have been used to reduce the development of respiratory complications by reducing viral load. The purpose of this review is to provide a comprehensive update on the pathogenesis, clinical aspects, diagnosis, challenges and treatment of SARS-CoV-2 infections.
URL: https://doi.org/10.3390/PATHOGENS9040297
Categories:

Year: 2020
Author: Murray, Eleanor; Tomaszewski, Maciej; Guzik, Tomasz J.
Title: Binding of SARS-CoV-2 and angiotensin-converting enzyme 2: clinical implications
Journal: Cardiovascular Research
DOI: 10.1093/cvr/cvaa096
Abstract: https://doi.org/10.1093/cvr/cvaa096
Categories:

Year: 2020
Author: Murray, O. M.; Bisset, J. M.; Gilligan, P. J.; Hannan, M. M.; Murray, J. G.
Title: Respirators and surgical facemasks for COVID-19: implications for MRI
Journal: Clinical Radiology
DOI: 10.1016/j.crad.2020.03.029
Abstract: https://doi.org/10.1016/j.crad.2020.03.029
Categories:
Abstract: Healthcare workers run the risk of contracting COVID-19 during the course of their work if required precautions and usage of appropriate personal protective equipment is not adhered to. In the transfusion testing laboratory, indirect exposure to COVID-19 may result from environmental contamination that may occur through surface contact or be airborne. Handling of potentially contaminated surfaces such as sample tubes and sample packaging, and subsequent self-inoculation through the mucous membranes of mouth, nose and eyes may occur. Information on the risk of indirect contact transmission of COVID-19 from such surfaces is limited. When risk assessments are conducted in the laboratory, assumptions often need to be based on studies derived from other coronaviruses and respiratory viruses such as HCoV-229E, SARS-CoV, MERS-CoV and Influenza. The other mode of potential indirect transmission is through aerosols generated from certain laboratory processes. The risk of inhaling aerosolized blood containing COVID-19 viral RNA is unresolved. Laboratories need to perform risk assessment of their activities before appropriate decisions can be made with regards to COVID-19 exposure risk reduction or elimination.

URL: https://doi.org/10.1111/voxs.12559

Abstract: The COVID-19 affects vulnerable groups disproportionately in a society where inequities are longstanding issue. Weak health system, especially the shortage and maldistribution of capable health workforce will be the main challenge in lower income countries to fight against the COVID-19. Applying the lesson learned and success from the Ebola outbreak in West Africa is important. International collaboration with already well functioned local mechanisms, such as the Network of Managers of Health Workforce in Francophone Africa is the key to provide prompt support. This approach contributes not only to the short-term COVID-19 control but also long-term strengthening of the sustainable and resilient health system in the lower income countries.

URL: https://doi.org/10.35772/ghm.2020.01028

Abstract: The COVID-19 affects vulnerable groups disproportionately in a society where inequities are longstanding issue. Weak health system, especially the shortage and maldistribution of capable health workforce will be the main challenge in lower income countries to fight against the COVID-19. Applying the lesson learned and success from the Ebola outbreak in West Africa is important. International collaboration with already well functioned local mechanisms, such as the Network of Managers of Health Workforce in Francophone Africa is the key to provide prompt support. This approach contributes not only to the short-term COVID-19 control but also long-term strengthening of the sustainable and resilient health system in the lower income countries.

URL: https://doi.org/10.35772/ghm.2020.01028

Abstract: Introduction An ongoing outbreak of a novel coronavirus disease (coronavirus disease 2019, COVID-19) has become a global threat. While clinical reports from China to date demonstrate that the majority of cases remain relatively mild and recover with supportive care, it is also crucial to be well prepared for severe cases
warranting intensive care. Initiating appropriate infection control measures may not always be achievable in primary care or in acute-care settings. Case A 45-year-old man was admitted to the intensive care unit due to severe pneumonia, later confirmed as COVID-19. His initial evaluation in the resuscitation room and treatments in the intensive care unit was performed under droplet and contact precaution with additional airborne protection using the N95 respirator mask. He was successfully treated in the intensive care unit with mechanical ventilation and extracorporeal membrane oxygenation for respiratory support; and antiretroviral treatment with lopinavir/ritonavir. His total intensive care unit stay was 15 days and was discharged on hospital day 24.

Conclusions Strict infection control precautions are not always an easy task, especially under urgent care in an intensive care unit. However, severe cases of COVID-19 pneumonia, or another novel infectious disease, could present at any moment and would be a continuing challenge to pursue appropriate measures. We need to be well prepared to secure healthcare workers from exposure to infectious diseases and nosocomial spread, as well as to provide necessary intensive care.

URL: https://doi.org/10.1016/j.jiac.2020.03.018

Categories:

Year: 2020
Author: Nath, Karl A.
Title: The COVID-19 Pandemic and Mayo Clinic Proceedings
Journal: Mayo Clinic Proceedings
DOI: https://doi.org/10.1016/j.mayocp.2020.04.009
Abstract: Researchers everywhere must continue to press their lawmakers to act now and challenge US President Donald Trump’s undermining of the global health agency. Amid the biggest global health crisis in a century, it is dangerous to hurt the one intergovernmental agency most able to guide the world out of it. But that is precisely what happened this week.

URL: https://doi.org/10.1016/j.mayocp.2020.04.009

Categories:

Year: 2020
Author: Negro, Francesco
Title: Is antibody-dependent enhancement playing a role in COVID-19 pathogenesis?
Journal: Swiss Med Wkly
DOI: 10.4414/smw.2020.20249
Abstract: American oncologists are rushing to prioritise the patients at greatest risk, institute new protections, and learn from their collective experiences, Bryn Nelson reports A patient in Washington, newly diagnosed with breast cancer, fought to get her lumpectomy surgery rescheduled after it was cancelled indefinitely.1 A stuffy nose required another patient in Massachusetts with a recurrent brain tumour to undergo multiple layers of screening before he could receive his immunotherapy infusion.2 A patient with bladder cancer in North Carolina couldn’t get
immunotherapy at all because of a lack of surgical masks and gloves. Then he was denied a surgical alternative because he needed a covid-19 test first. Since he hadn't been admitted to a hospital with serious covid-19 symptoms, he didn't meet the testing criteria. Covid-19 has wreaked havoc on cancer care throughout the US as medical centres scramble to cancel or rearrange surgeries or treatments, tackle a continuing shortage of tests and supplies, and devise new safety protocols to protect a highly susceptible patient group. “Cancer patients are the poster child for that vulnerable, high risk population,” Gary Lyman, senior lead for healthcare quality and policy in the Hutchinson Institute for Cancer Outcomes ...
coronaviruses, suggesting it could enable cross-protective T-cell based immunity. Finally, we report global distributions of HLA types with potential epidemiological ramifications in the setting of the current pandemic.

IMPORTANCE Individual genetic variation may help to explain different immune responses to a virus across a population. In particular, understanding how variation in HLA may affect the course of COVID-19 could help identify individuals at higher risk from the disease. HLA typing can be fast and inexpensive. Pairing HLA typing with COVID-19 testing where feasible could improve assessment of viral severity in the population. Following the development of a vaccine against SARS-CoV-2, the virus that causes COVID-19, individuals with high-risk HLA types could be prioritized for vaccination.

URL: https://doi.org/10.1128/JVI.00510-20

Categories:
Economic Recovery Following the COVID-19 Pandemic: Resuming Elective Orthopaedic Surgery and Total Joint Arthroplasty

Abstract:

Resuming elective orthopedic surgery and total joint arthroplasty is essential for the recovery of economies. The authors discuss the considerations and strategies for safely resuming these procedures during the COVID-19 pandemic.

DOI: https://doi.org/10.1016/j.arth.2020.04.038

Practical diagnosis and treatment of suspected venous thromboembolism during COVID-19 Pandemic

Abstract:

A markedly increased demand for vascular ultrasound laboratory and other imaging studies in COVID-19 positive patients has occurred, due to most with markedly elevated D-dimer, and a presumed prothrombotic state in many of the very ill patients. This article summarizes a broad institutional consensus focusing on evaluation and recommended empirical therapy for COVID-19 positive patients. We recommend following the algorithms with the idea that as more data becomes available that this may well change.

DOI: https://doi.org/10.1016/j.jvsv.2020.04.009

Organisation d’un service de radiothérapie pendant l’épidémie de COVID-19 : expérience du centre hospitalier de Mulhouse

Abstract:

Résumé L’épidémie de COVID-19 continue de croître de manière exponentielle dans notre pays. Si la majorité des formes sont bénignes, les patients atteints de cancer sont à risque de voir se développer une forme grave de la maladie. Les services de radiothérapie sont un lieu à potentiel de contamination en raison du nombre de patients traités et de personnels présent. Leur organisation pendant la période épidémique vise à assurer la continuité des soins tout en limitant le risque de décès dû à une contamination par le SARS-CoV-2 (virus responsable de la COVID-19). Dans le service de radiothérapie du groupe hospitalier de la région de Mulhouse et Sud-Alsace, cette organisation s’articule en cinq points : la protection des personnels médicaux et paramédicaux, la protection des patients en cours de traitement, la détection des patients suspects d’être atteints de COVID-19 et leur prise en charge, la réorganisation du circuit patient et les mesures concernant l’organisation du système qualité du service. Nos pistes de réflexion, débutées dès le début de l’épidémie dans notre département, nous permettent de préserver au maximum l’accès aux soins radiothérapiques en anticipant le risque de diffusion du virus. Grâce à des réunions bihebdomadaires, nous continuons à nous adapter à l’évolution épidémique dans notre service, en tenant compte de nos moyens matériels. La possibilité de réaliser des tests de diagnostic chez tous les patients suspects nous permettrait également d’affiner nos procédures. Summary The COVID-19 outbreak grows exponentially in our country. Despite most of patients develops benign symptoms, cancer patients are at risk of a severe form of the disease. Radiotherapy centres are a potential contamination place due to the number of patients treated and staff present. Their organization during the outbreak period aims to ensure continuity of care while limiting the risk of death from COVID-19. In the radiotherapy department of Mulhouse hospital (France), we...
pointed five points out: protection of medical and paramedical staff, protection of patients undergoing treatment, detection of patients suspected of being infected by SARS-CoV-2 and their management, reorganization of the patient circuit and measures regarding the quality management. This reflection, which began at the beginning of the outbreak in our city, allows us to preserve the access to radiotherapy treatments by anticipating the risk of spreading the virus. Through biweekly meetings, we continue to adapt to the epidemic in our department, considering our material resources. The ability to perform diagnostic tests in all suspect patients would also allow us to refine our procedures.

URL: https://doi.org/10.1016/j.canrad.2020.04.002
Categories:

Year: 2020
Author: Oksanen, Atte; Kaakinen, Markus; Latikka, Rita; Savolainen, lina; Savela, Nina; Koivula, Aki
Title: Regulation and trust: COVID-19 mortality in 25 European countries
Journal: JMIR public health and surveillance
DOI: 10.2196/19218

Abstract: BACKGROUND: The outbreak of COVID-19 has dramatically changed societies in 2020. Since the end of February, Europe has been hit particularly hard by COVID-19, but there are major country differences in both the spread of the virus and measures taken to stop the virus. Social psychological factors such as institutional trust could be important in understanding the development of the epidemic. OBJECTIVE: The aim of our study was to examine country-variation in COVID-19 mortality in Europe by analyzing 1) social risk factors explaining the spread of the disease, 2) restrictions and control measures and 3) institutional trust. METHODS: The present study was based on a background analysis of European Social Survey data on 25 European countries (N = 47,802). Multilevel mixed effects linear regression models focused on 84 days of the COVID-19 epidemic (January 22 - April 14, 2020) and modelled the daily COVID-19 mortality. Analysis focused on the impact of social relations, restrictions and institutional trust within each country. RESULTS: The spread of the COVID-19 epidemic has been fast everywhere, but our findings reveal significant differences between countries in COVID-19 mortality. Perceived sociability predicted higher COVID-19 mortality. Major differences between the 25 countries were found in reaction times to the crisis. Late reaction to the crisis predicted later mortality figures. Institutional trust was associated with lower COVID-19 mortality. Increase in mortality was more rapid in countries that reacted late during the 21-day follow-up. CONCLUSIONS: The analyses demonstrated the importance of societal and social psychological factors in the spread of the COVID-19 epidemic. By considering multiple perspectives, our study showed that country differences in Europe are major and this will have an impact on how countries will cope with the ongoing crisis in the following months. Our results indicate the importance of timely restrictions and cooperation with people.

URL: https://doi.org/10.2196/19218
Categories:

Year: 2020
Author: Omori, Ryosuke; Mizumoto, Kenji; Chowell, Gerardo
Title: Changes in testing rates could mask the novel coronavirus disease (COVID-19) growth rate
Journal: International Journal of Infectious Diseases
DOI: https://doi.org/10.1016/j.ijid.2020.04.021

Abstract: Since the novel coronavirus disease (COVID-19) emerged in December 2019 in China, it has rapidly propagated to around the world, leading to one of the most significant pandemic events of recent history. Deriving reliable estimates of the COVID-19 epidemic growth rate is quite important to guide the timing and intensity of intervention strategies. Indeed, many studies have quantified the epidemic growth rate using time-series of reported cases during the early phase of the outbreak to estimate the basic reproduction number, R0. Using daily time series of COVID-19 incidence, we illustrate how epidemic curves of reported cases may not always reflect the true epidemic growth rate due to changes in testing rates, which could be influenced by limited diagnostic testing capacity during the early epidemic phase.

URL: https://doi.org/10.1016/j.ijid.2020.04.021
Categories:
INTRODUCTION: As of April 5, 2020, the World Health Organization reported over one million confirmed cases and more than 62,000 confirmed coronavirus (COVID-19) deaths affecting 204 countries/regions. The lack of COVID-19 testing capacity threatens the ability of both the United States (US) and low middle income countries (LMIC) to respond to this growing threat. The purpose of this study was to assess the effectiveness through participant self-assessment of a rapid response team (RRT) mobile laboratory curriculum METHODS: We conducted a pre and post survey for the purpose of a process improvement assessment in Angola, involving 32 individuals. The survey was performed before and after a 14-day training workshop held in Luanda, Angola, in December 2019. A paired t-test was used to identify any significant change on six 7-point Likert scale questions with alpha< 0.05 (95% confidence interval). RESULTS: All six of the questions - 1) "I feel confident managing a real laboratory sample test for Ebola or other highly contagious sample;" 2) "I feel safe working in the lab environment during a real scenario;" 3) "I feel as if I can appropriately manage a potentially highly contagious laboratory sample;" 4)"I feel that I can interpret a positive or negative sample during a suspected contagious outbreak;" 5) "I understand basic Biobubble/mobile laboratory concepts and procedures;" and 6) "I understand polymerase chain reaction (PCR) principles" - showed statistical significant change pre and post training. Additionally, the final two
questions - "I can more effectively perform my role/position because of the training I received during this course;" and "This training was valuable" - received high scores on the Likert scale. CONCLUSION: This Angolan RRT mobile laboratory training curriculum provides the nation of Angola with the confidence to rapidly respond and test at the national level a highly infectious contagion in the region and perform on-scene diagnostics. This mobile RRT laboratory provides a mobile and rapid diagnostic resource when epidemic/pandemic resource allocation may need to be prioritized based on confirmed disease prevalence.

URL: https://doi.org/10.5811/westjem.2020.4.47385

Categories:

Year: 2020
Author: Paakkari, Leena; Okan, Orkan
Title: COVID-19: health literacy is an underestimated problem
Journal: Lancet Public Health
DOI: 10.1016/S2468-2667(20)30086-4
Abstract:

URL: https://doi.org/10.1016/S2468-2667(20)30086-4

Categories:

Year: 2020
Author: Pacifico, A.; Ardigò, M.; Frascione, P.; Damiani, G.; Morrone, A.
Title: Phototherapeutic approach to dermatological patients during the 2019 Coronavirus pandemic: Real-life Data from the Italian Red Zone
Journal: The British journal of dermatology
DOI: 10.1111/bjd.19145
Abstract:

Since the novel Coronavirus 2019, also known as COVID-19 or SARS CoV-2, crossed the Chinese borders and became pandemic, Italy has rapidly become the country with the highest number of patient deaths as well as confirmed and/or hospitalized patients, after China [1-2]. On March 12(th) Italy was declared a red-zone and special protocols were enacted to limit the spread of the virus. Although COVID-19 does not have epidermotropism, cutaneous manifestations in Covid-19 positive patients have been reported [3] and departments of dermatology are considered at high risk [4] and were ordered to admit only patients needing urgent treatments or undergoing chronic immunosuppressive therapy in order to minimize nosocomial virus spread.

URL: https://doi.org/10.1111/bjd.19145

Categories:

Year: 2020
Author: Padoan, Andrea; Cosma, Chiara; Sciacovelli, Laura; Faggian, Diego; Plebani, Mario
Title: Analytical performances of a chemiluminescence immunoassay for SARS-CoV-2 IgM/IgG and antibody kinetics
Journal: Clinical chemistry and laboratory medicine
DOI: 10.1515/cclm-2020-0443
Abstract:

Background Coronavirus disease 2019, abbreviated to COVID-19, represents an emerging health threat worldwide as, after initial reports in China, it has continued to spread rapidly. The clinical spectrum of the disease varies from mild to severe acute respiratory distress syndrome (ARDS). Moreover, many patients can be asymptomatic, thus increasing the uncertainty of the diagnostic work-up. Laboratory tests play a pivotal role in the diagnosis and management of COVID-19, the current gold standard being real-time reverse transcription polymerase chain reaction (RT-PCR) on respiratory tract specimens. However, the diagnostic accuracy of rtRT-PCR depends on many pre-analytical and analytical variables. The measurement of specific COVID-19 antibodies (both IgG and IgM) should serve as an additional, non-invasive tool for disease detection and management. Methods The imprecision of the MAGLUMI™ 2000 Plus 2019-nCov IgM and IgG assays (Snibe, Shenzhen, China) was assessed by adopting the Clinical and Laboratory Standards Institute (CLSI) EP15-A3 protocol. Linearity of dilution and recovery was evaluated by means of mixes of high-level pools and low-level pools of serum samples. Immunoglobulin time kinetics were evaluated using a series of serum samples, repeatedly collected from COVID-19-positive patients at different times, from <5 days up to 26-30 days. Results Findings at the analytical validation of the assay carried out according to the CLSI EP15-A3 guideline demonstrated that imprecision and repeatability were acceptable (repeatability was <4% and <6% for IgM and IgG, respectively, whilst intermediate imprecision was <6%). In addition, results of dilution and recovery studies were satisfactory. The kinetics of COVID-19 antibodies confirmed
previously reported findings, showing a rapid increase of both IgM and IgG after 6-7 days from the symptom onset. IgG had 100% sensitivity on day 12, whilst 88% was the higher positive rate achieved for IgM after the same time interval. Conclusions The findings of this study demonstrate the validity of the MAGLUMI 2000 Plus CLIA assay for the measurement of specific IgM and IgG in sera of COVID-19 patients, and for obtaining valuable data on the kinetics of both (IgM and IgG) COVID-19 antibodies. These data represent a pre-requisite for the appropriate utilization of specific antibodies for the diagnosis and management of COVID-19 patients.

URL: https://doi.org/10.1515/cclm-2020-0443
Categories:

Year: 2020
Author: Paliogiannis, Panagiotis; Zinellu, Angelo
Title: Bilirubin levels in patients with mild and severe Covid-19: a pooled analysis
Journal: Liver international : official journal of the International Association for the Study of the Liver
DOI: 10.1111/liv.14477

Abstract: The letter comments on a recent commentary published in Liver International entitled "COVID-19 and liver disease" by Sun et al., and describes a pooled analysis of data on bilirubin levels in patients with and without severe Covid-19. This is the first pooled analysis of data on bilirubin in Covid-19 patients. The results evidence that bilirubin levels are significantly associated with the severity of the disease.

URL: https://doi.org/10.1111/liv.14477
Categories:

Year: 2020
Author: Pan, Feng; Xiao, Xingyuan; Guo, Jingtao; Song, Yarong; Li, Honggang; Patel, Darshan P.; Spivak, Adam M.; Alukal P, Joseph; Zhang, Xiaoping; Xiong, Chengliang; Li, Philip S.; Hotaling, James M.
Title: No evidence of SARS-CoV-2 in semen of males recovering from COVID-19
Journal: Fertility and Sterility
DOI: https://doi.org/10.1016/j.fertnstert.2020.04.024

Abstract: Objective To describe detection of SARS-CoV-2 in seminal fluid of patients recovering from COVID-19 and describe the expression profile of ACE2 and TMPRSS2 within the testicle. Design observational, cross-sectional study Setting Tertiary referral center Patients Thirty-four adult Chinese males diagnosed with COVID-19 through confirmatory quantitative reverse transcriptase-polymerase chain reaction (qRT-PCR) from pharyngeal swab samples Intervention None Main Outcome Measures Identification of SARS-CoV-2 on qRT-PCR of single ejaculated semen samples. Semen quality was not assessed. Expression patterns of ACE2 and TMPRSS2 in the human testis are explored through previously published single-cell transcriptome datasets. Results Six patients (19%) demonstrated scrotal discomfort concerning for viral orchitis around the time of COVID-19 confirmation. SARS-CoV-2 was not detected in semen after a median of 31 days (IQR: 29-36 days) from COVID-19 diagnosis. Single-cell transcriptome analysis demonstrates sparse expression of ACE2 and TMPRSS2, with almost no overlapping gene expression. Conclusions SARS-CoV-2 was not detected in the semen of patients recovering from COVID-19 one month after COVID-19 diagnosis. ACE2-mediated viral entry of SARS-CoV-2 into target host cells is unlikely to occur within the human testicle based on ACE2 and TMPRSS2 expression. The long-term effects of SARS-CoV-2 on male reproductive function remain unknown.

URL: https://doi.org/10.1016/j.fertnstert.2020.04.024
Categories:

Year: 2020
Author: Panciani, Pier Paolo; Saraceno, Giorgio; Zanin, Luca; Renisi, Giulia; Signorini, Liana; Fontanella, Marco Maria
Title: Letter: COVID-19 Infection Affects Surgical Outcome of Chronic Subdural Hematoma
Journal: Neurosurgery
DOI: 10.1093/neuros/nyaa140
Abstract:

URL: https://doi.org/10.1093/neuros/nyaa140
Categories:
BACKGROUND: The severe inflammatory state secondary to Covid-19 leads to a severe derangement of hemostasis that has been recently described as a state of disseminated intravascular coagulation (DIC) and consumption coagulopathy, defined as decreased platelet count, increased fibrin(ogen) degradation products such as D-dimer as well as low fibrinogen. AIMS: Whole blood from 24 patients admitted at the intensive care unit because of Covid-19 was collected and evaluated with thromboelastography by the TEG point-of-care device on a single occasion and six underwent repeated measurements on two consecutive days for a total of 30 observations. Plasma was evaluated for the other parameters of hemostasis. RESULTS: TEG parameters are consistent with a state of hypercoagulability as shown by decreased R and K values, and increased values of K angle and MA. Platelet count was normal or increased, prothrombin time and activated partial thromboplastin time were near(normal). Fibrinogen was increased and D-dimer was dramatically increased. C-reactive protein was increased. Factor VIII and von Willebrand factor (n=11) were increased. Antithrombin (n=11) was marginally decreased and protein C (n=11) was increased. CONCLUSION: The results of this cohort of patients with Covid-19 are not consistent with acute DIC, rather they support hypercoagulability together with a severe inflammatory state. These findings may explain the events of venous thromboembolism observed in some of these patients and support antithrombotic prophylaxis/treatment. Clinical trials are urgently needed to establish the type of drug, dosage and optimal duration of prophylaxis.
El COVID-19 también Afecta el Sistema Nervioso por una de sus Compuestas: El Órgano Vascular de la Lámina Terminal y el Nervio Olfatorio. Alerta Neurológica, Prueba de Disosmia o Anosmia Puede Ayudar a Un Diagnóstico Rápido

Abstract: Se presenta una breve revisión de órgano vascular de la lámina terminal (organum vasculosum laminae terminalis) y el nervio olfatorio, el primero un elemento neuroanatómico hipotalámico relacionado con la producción de hormona antidiurética y su asociación como una vía potencial de invasión del COVID-19 al sistema nervioso central, afectando la regulación fisiológica de liberación de hormonas relacionadas con la homeostasis del sodio. También se vincula el neurotropismo de este virus al asociarse con el nervio olfatorio, una evaginación del cerebro en la que se altera su funcionalidad por generación de disosmia entre otras características neurosemiológicas. Se plantea la necesidad de advertir a los profesionales de la salud en general y a los neurólogos en especial, sobre las potenciales alteraciones neurológicas relacionadas con esta pandemia antes y después del contagio de este virus e implementar una prueba olfatoria rápida con ácido acético, incluso antes de otras valoraciones como hipertérmia, tos y cefalalgia.

URL: https://doi.org/
Year: 2020
Author: Pather, Nalini; Blyth, Phil; Chapman, Jamie A.; Dayal, Manisha R.; Flack, Natasha A. M. S.; Fogg, Quentin A.; Green, Rodney A.; Hulme, Anneliese K.; Johnson, Ian P.; Meyer, Amanda J.; Morley, John W.; Shortland, Peter J.; Štrkalj, Goran; Štrkalj, Mirjana; Valter, Kristzina; Webb, Alexandra L.; Woodley, Stephanie J.; Lazarus, Michelle D.
Title: Forced Disruption of Anatomy Education in Australia and New Zealand: An Acute Response to the Covid-19 Pandemic
Journal: Anatomical Sciences Education
DOI: 10.1002/ase.1968
Abstract: ABSTRACT Australian and New Zealand universities commenced a new academic year in February/March 2020 largely with ?business as usual'. The subsequent COVID-19 pandemic imposed unexpected disruptions to anatomical educational practice. Rapid change occurred due to government-imposed physical distancing regulations from March 2020 that increasingly restricted anatomy laboratory teaching practices. Anatomy educators in both these countries were mobilized to adjust their teaching approaches. This study on anatomy education disruption at pandemic onset within Australia and New Zealand adopts a social constructivist lens. The research question was ?What are the perceived disruptions and changes made to anatomy education in Australia and New Zealand during the initial period of the Covid-19 pandemic, as reflected on by anatomy educators?'. Thematic analysis to elucidate "the what and why" of anatomy education was applied to these reflections. Eighteen anatomy academics from ten institutions participated in this exercise. The analysis revealed loss of integrated 'hands-on' experiences, and impacts on workload, traditional roles, students, pedagogy and anatomists' personal educational philosophies. The key opportunities recognized for anatomy education included: enabling synchronous teaching across remote sites, expanding offerings into the remote learning space, and embracing new pedagogies. In managing anatomy education's transition in response to the pandemic, six critical elements were identified: community care, clear communications, clarified expectations, constructive alignment, community of practice, ability to compromise and adapt and continuity planning. There is no doubt that anatomy education has stepped into a yet unknown future in the island countries of Australia and New Zealand.
URL: https://doi.org/10.1002/ase.1968
Categories:
Abstract:
With over 1,800,000 cases and 110,000 deaths globally, COVID-19 is one of worst infectious disease outbreaks in history. The objective of this paper is to critically review the available evidence regarding the lessons learned from the Chinese experience regarding COVID-19 prevention and management. The steps that have led to a near disappearance of new cases in China included rapid sequencing of the virus to establish testing kits which allowed tracking of infected persons in and out of Wuhan. In addition, aggressive quarantine measures included the complete isolation of Wuhan and then later Hebei and the rest of the country, as well as closure of all schools and non-essential businesses. Other measures included the rapid construction of two new hospitals and the establishment of Fangcang shelter hospitals. In the absence of a vaccine, the management of COVID-19 included antivirals, high flow oxygen, mechanical ventilation, corticosteroids, hydroxychloroquine, tocilizumab, interferons, intravenous immunoglobulin and convalescent plasma infusions. These measures appeared to provide only moderate success. While some measures have been supported by weak descriptive data, their effectiveness is still unclear pending well-controlled clinical trials. In the end, it was the enforcement of drastic quarantine measures that stopped SARS-CoV-2 from spreading. The earlier the implementation, the less likely resources will be depleted. The most critical factors in stopping a pandemic are early recognition of infected individuals, carriers and contacts, and early implementation of quarantine measures with an organized, proactive and unified strategy at a national level. Delays result in significantly higher death tolls.

URL: https://doi.org/10.1016/j.cjca.2020.04.010
Categories:
Year: 2020
Author: Perini, Guilherme Fleury; Fischer, Thais; Gaiolla, Rafael Dezen; Rocha, Talita Bueno; Bellesso, Marcelo; Teixeira, Larissa Lane Cardoso; Delamain, Marcia Torresan; Scheliga, Adriana Alves de Souza; Ribeiro, Glaciano Nogueira; Neto, Jorge Vaz; Baiocchi, Otávio Cesar Carvalho Guimaraes; Abdo, André Neder Ramires; Arrais-Rodrigues, Celso; Fogliatto, Laura M.; Bigni, Ricardo de Sá; Schaffel, Rony; Biasoli, Irene; Pereira, Juliana; Nablan, Samir Kanaan; Souza, Cármino Antônio de; Chiattone, Carlos Sérgio
Title: How to manage lymphoid malignancies during novel 2019 coronavirus (CoVid-19) outbreak: a Brazilian task force recommendation
Journal: Hematology, Transfusion and Cell Therapy
DOI: https://doi.org/10.1016/j.htct.2020.04.002
Abstract: The novel Coronavirus (CoVid-19) outbreak is now consider a world pandemic, affecting more than 300,000 people worldwide. Cancer patients are in risk for severe disease, including a higher risk of intensive care unit (ICU) admission, need for invasive ventilation or death. Management of patients with lymphoid malignancies can be challenging during the outbreak, due to need of multiple hospital visits and admissions, immunosuppression and need for chemotherapy, radiotherapy and stem cell transplantation. In this article, we will focus on the practical management of patients with lymphoid malignancies during the COVID-19 pandemic, focusing on minimizing the risk for patients.
URL: https://doi.org/10.1016/j.htct.2020.04.002

Year: 2020
Author: Perkins, Sara; Cohen, Jeffrey M.; Nelson, Caroline A.; Bunick, Christopher G.
Title: Teledermatology in the Era of COVID-19: Experience of an Academic Department of Dermatology
Journal: Journal of the American Academy of Dermatology
DOI: https://doi.org/10.1016/j.jaad.2020.04.048
Abstract: The outbreak of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection has posed the world at a pandemic risk. Coronavirus-19 disease (COVID-19) is an infectious disease caused by SARS-CoV-2, which causes pneumonia, requires intensive care unit hospitalization in about 10% of cases and can lead to a fatal outcome. Several efforts are currently made to find a treatment for COVID-19 patients. So far, several anti-viral and immunosuppressive or immunomodulating drugs have demonstrated some efficacy on COVID-19 both in vitro and in animal models as well as in cases series. In COVID-19 patients a pro-inflammatory status with high levels of interleukin (IL)-1β, IL-1 receptor (R)α and tumor necrosis factor (TNF)-α has been demonstrated. Moreover, high levels of IL-6 and TNF-α have been observed in patients requiring intensive-care-unit hospitalization. This provided rationale for the use of anti-rheumatic drugs as potential treatments for this severe viral infection. Other agents, such as hydroxychloroquine and chloroquine might have a direct anti-viral effect. The anti-viral aspect of immunosuppressants towards a variety of viruses has been known since long time and it is herein discussed in the view of searching for a potential treatment for SARS-CoV-2 infection.
URL: https://doi.org/10.1016/j.jaad.2020.04.048

Year: 2020
Author: Perricone, Carlo; Triggianese, Paola; Bartoloni, Elena; Cafaro, Giacomo; Bonifacio, Angelo F.; Bursi, Roberto; Perricone, Roberto; Gerli, Roberto
Title: The anti-viral facet of anti-rheumatic drugs: Lessons from COVID-19
Journal: Journal of Autoimmunity
DOI: https://doi.org/10.1016/j.jaut.2020.102468
Abstract: The outbreak of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection has posed the world at a pandemic risk. Coronavirus-19 disease (COVID-19) is an infectious disease caused by SARS-CoV-2, which causes pneumonia, requires intensive care unit hospitalization in about 10% of cases and can lead to a fatal outcome. Several efforts are currently made to find a treatment for COVID-19 patients. So far, several anti-viral and immunosuppressive or immunomodulating drugs have demonstrated some efficacy on COVID-19 both in vitro and in animal models as well as in cases series. In COVID-19 patients a pro-inflammatory status with high levels of interleukin (IL)-1β, IL-1 receptor (R)α and tumor necrosis factor (TNF)-α has been demonstrated. Moreover, high levels of IL-6 and TNF-α have been observed in patients requiring intensive-care-unit hospitalization. This provided rationale for the use of anti-rheumatic drugs as potential treatments for this severe viral infection. Other agents, such as hydroxychloroquine and chloroquine might have a direct anti-viral effect. The anti-viral aspect of immunosuppressants towards a variety of viruses has been known since long time and it is herein discussed in the view of searching for a potential treatment for SARS-CoV-2 infection.
URL: https://doi.org/10.1016/j.jaut.2020.102468
Year: 2020
Author: Peters, Michael A.
Title: Love and social distancing in the time of Covid-19: The philosophy and literature of pandemics
Journal: Educational Philosophy and Theory
DOI: 10.1080/00131857.2020.1750091
Abstract:
URL: https://doi.org/10.1080/00131857.2020.1750091
Categories:

Year: 2020
Author: Petersen, Eskild; McCloskey, Brian; Hui, David S.; Kock, Richard; Ntoumi, Francine; Memish, Ziad A.; Kapata, Nathan; Azhar, Esam I.; Pollack, Marjorie; Madoff, Larry C.; Hamer, Davidson H.; Nachega, Jean B.; Pshenichnaya, N.; Zumla, Alimuddin
Title: COVID-19 travel restrictions and the International Health Regulations – call for an open debate on easing of travel restrictions
Journal: International Journal of Infectious Diseases
DOI: https://doi.org/10.1016/j.ijid.2020.04.029
Abstract:
URL: https://doi.org/10.1016/j.ijid.2020.04.029
Categories:

Year: 2020
Author: Peyrin-Biroulet, Carina; D’Amico, Ferdinando; Peyrin-Biroulet, Laurent
Title: Will COVID-19 infection be less severe in ulcerative colitis than in Crohn’s patients due to a lower rate of smokers?
Journal: Journal of Crohn’s and Colitis
DOI: 10.1093/ecco-jcc/jjaa077
Abstract:
URL: https://doi.org/10.1093/ecco-jcc/jjaa077
Categories:

Year: 2020
Author: Pfaar, O.; der Dgaki, V.; Worm, M.
Title: Statements about COVID-19
Journal: Allergologie
DOI: 10.5414/ALX02143
Abstract:
URL: https://doi.org/10.5414/ALX02143
Categories:

Year: 2020
Author: Piccioni, Federico; Gregorio, Guido Di; Rosboch, Giulio Luca; Massullo, Domenico
Title: Sometimes less is worse: an advise against non-intubated video-assisted thoracoscopy during COVID-19 pandemia
Journal: Journal of Cardiothoracic and Vascular Anesthesia
DOI: https://doi.org/10.1053/j.jvca.2020.04.023
Abstract:
URL: https://doi.org/10.1053/j.jvca.2020.04.023
Categories:
Abstract:
Sustainable development has been a controversial global topic, and as a complex concept in recent years, it plays a key role in creating a favorable future for societies. Meanwhile, there are several problems in the process of implementing this approach, like epidemic diseases. Hence, in this study, the impact of climate and urban factors on confirmed cases of COVID-19 (a new type of coronavirus) with the trend and multivariate linear regression (MLR) has been investigated to propose a more accurate prediction model. For this propose, some important climate parameters, including daily average temperature, relative humidity, and wind speed, in addition to urban parameters such as population density, were considered, and their impacts on confirmed cases of COVID-19 were analyzed. The analysis was performed for three case studies in Italy, and the application of the proposed method has been investigated. The impacts of parameters have been considered with a delay time from one to nine days to find out the most suitable combination. The result of the analysis demonstrates the effectiveness of the proposed model and the impact of climate parameters on the trend of confirmed cases. The research hypothesis approved by the MLR model and the present assessment method could be applied by considering several variables that exhibit the exact delay of them to new confirmed cases of COVID-19.

URL: https://doi.org/10.3390/IJERPH17082801

Categories:
The scientific rationale for the use of simple masks or improvised face coverings to trap exhaled aerosols and possibly reduce the breathborne spread of COVID-19

The medical community agrees that breathborne infectious materials can be spread with exhaled aerosols and that asymptomatic people, i.e., those showing no symptoms, could be unknowingly infectious. With the current worldwide pandemic of the respiratory coronavirus disease 2019 (COVID-19), various health bodies and governments are recommending that the population wear some form of mask or improvised facial covers while out in public in an effort to reduce the spread of disease. The general concept is that more accessible masks or mask-like materials (scarves, bandanas, etc.) could serve to reduce the amount of infectious aerosol from infected people, and reduce the viral load in the environment. This editorial addresses the underlying scientific rationale that such inexpensive or improvised could indeed serve to reduce the emissions of infectious aerosol by the mechanism of surface adhesion and particle kinetics in addition to the filtration effect.
Hiccups (singultus) are reflex inspiratory movements that involve the swallowing reflex arc and can be classified as acute (<48 h) or persistent (>48 h). A 62-year-old man with no history of malignancy or pulmonary disease presented to the Emergency Department with a four-day history of persistent hiccups. Other than episodic hiccupping, his physical examination was otherwise unremarkable. An abnormal chest X-ray led to a CT scan of the chest with IV contrast, which demonstrated regional, peripheral groundglass opacities of the upper lobes with small focal groundglass opacities scattered throughout the lungs. He was tested for COVID-19 per admission protocol, started on hydroxychloroquine, his hiccups improved, and he was discharged to home after 3 days. An emergency medicine physician should keep COVID-19 on the differential and be vigilant of exposure in atypical presentations.
A novel coronavirus, SARS-CoV-2, emerged in December 2019, leading within a few months to a global pandemic. COVID-19, the disease caused by this highly contagious virus, can have serious health consequences, though risks of complications are highly age-dependent. Rates of hospitalization and death are less than 0.1% in children, but increase to 10% or more in older people. Moreover, at all ages, men are more likely than women to suffer serious consequences from COVID-19. These patterns are familiar to the geroscience community. The effects of age and sex on mortality rates from COVID-19 mirror the effects of aging on almost all major causes of mortality. These similarities are explored here, and underscore the need to consider the role of basic biological mechanisms of aging on potential treatment and outcomes of COVID-19.
**Title:** Symptomatic COVID-19 Infection in Eye Professionals in Wuhan China  
**Journal:** Ophthalmology  
**DOI:** https://doi.org/10.1016/j.ophtha.2020.04.026  
**Abstract:** On December 31, 2019, the Chinese government officially announced the identification of a new type of coronavirus (SARS-CoV-2) as the etiological cause of a severe acute respiratory syndrome in Wuhan city, Hubei Province. Over the next weeks, SARS-CoV-2 caused a global pandemic as officially declared by the WHO on March 11, 2020, with confirmed cases and deaths in more than 166 countries. We are experiencing a worldwide phenomenon of unprecedented social and economic consequences. Since the beginning of the COVID-19 outbreak, there have been fears that the epidemic could strongly impact weaker health care systems in poor-resource settings, especially in Sub-Saharan Africa (SSA). The 2 million Chinese nationals that live and work in Africa could potentially contribute to the spread of COVID-19 on the continent.  
**URL:** https://doi.org/10.1016/j.ophtha.2020.04.026  
**Categories:**
Implication des services de santé au travail dans la lutte contre l'épidémie de COVID 19: nouvelles possibilités de prescription des arrêts de travail, report de certaines visites, participation active à la lutte

Archives des Maladies Professionnelles et de l'Environnement
https://doi.org/10.1016/j.admp.2020.04.010

COVID-19 evaluation by low-dose High Resolution CT scans protocol
Academic Radiology
https://doi.org/10.1016/j.acra.2020.04.016

Challenges of managing the asymptomatic carriers of SARS-CoV-2
Travel Medicine and Infectious Disease
https://doi.org/10.1016/j.tmaid.2020.101677

The Surgeon's Role During the Coronavirus Pandemic
Annals of plastic surgery
10.1097/SAP.0000000000002427

The coronavirus pandemic has disrupted delivery of healthcare globally, forcing healthcare providers at all levels to adjust their methods of care. Surgeons in the community must respond accordingly and not only take necessary precautions during patient management, but also find opportunities to better educate patients moving forward. Additionally, to best preserve personal protective equipment and staffing resources, surgeons should thoroughly assess their patient load and determine which planned surgeries can be safely delayed to a later date. While not necessarily on the front lines of the pandemic response, surgeons have a vital role in maintaining the public health in the time of crisis.
In December 2019, several patients from Wuhan, China were admitted to hospitals with symptoms of pneumonia. As the number of patients presenting with similar symptoms started to rise, the causative agent was eventually isolated from samples. It was initially called the 2019 novel coronavirus (2019-nCoV) and has been recently relabelled as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2); the disease it causes has been named coronavirus disease 2019 (COVID-19). Over the next few weeks, the virus spread from Wuhan to affect different provinces in China and, after a few months, it is now present in 109 countries. As of March 10, 2020, there have been 113,702 confirmed cases globally, and 4,012 deaths have been registered. The World Health Organization (WHO) called COVID-19 a pandemic on March 11, 2020. There are multiple drug trials going on with some positive results. However, since no vaccine is available, the best way to combat the virus is by preventive methods.
and treatment of this condition.

URL: https://doi.org/10.1111/jth.14854
Categories:

Year: 2020
Author: Raptis, Constantine A.; Hammer, Mark M.; Short, Ryan G.; Shah, Amar; Bhalla, Sanjeev; Bierzalski, Andrew J.; Filev, Peter D.; Hope, Michael D.; Jeudy, Jean; Kligerman, Seth J.; Henry, Travis S.
Title: Chest CT and Coronavirus Disease (COVID-19): A Critical Review of the Literature to Date
Journal: AJR Am J Roentgenol
DOI: 10.2214/AJR.20.23202
Abstract: OBJECTIVE. Coronavirus disease (COVID-19) is a global pandemic. Studies in the radiology literature have suggested that CT might be sufficiently sensitive and specific in diagnosing COVID-19 when used in lieu of a reverse transcription-polymerase chain reaction test; however, this suggestion runs counter to current society guidelines. The purpose of this article is to critically review some of the most frequently cited studies on the use of CT for detecting COVID-19. CONCLUSION. To date, the radiology literature on COVID-19 has consisted of limited retrospective studies that do not substantiate the use of CT as a diagnostic test for COVID-19.
URL: https://doi.org/10.2214/AJR.20.23202
Categories:

Year: 2020
Author: Rathi, Sahaj; Ish, Pranav; Kalantri, Ashwini; Kalantri, Shriprakash
Title: Hydroxychloroquine prophylaxis for COVID-19 contacts in India
Journal: The Lancet Infectious Diseases
DOI: https://doi.org/10.1016/S1473-3099(20)30313-3
Abstract: URL: https://doi.org/10.1016/S1473-3099(20)30313-3
Categories:

Year: 2020
Author: Rauch, Bernhard
Title: Cost-effectiveness of rivaroxaban plus aspirin (dual pathway inhibition) for prevention of ischaemic events in patients with cardiovascular disease: on top optimisation of secondary prevention medication in the context of COVID-19 pandemia
Journal: European journal of preventive cardiology
DOI: 10.1177/2047487320920754
Abstract: URL: https://doi.org/10.1177/2047487320920754
Categories:

Year: 2020
Author: Reider, Bruce
Title: Sports Medicine in a Time of Pandemic
Journal: The American journal of sports medicine
DOI: 10.1177/0363546520923334
Abstract: URL: https://doi.org/10.1177/0363546520923334
Categories:
Title: Comparison of Abbott ID Now, Diasorin Simplexa, and CDC FDA EUA methods for the detection of SARS-CoV-2 from nasopharyngeal and nasal swabs from individuals diagnosed with COVID-19

Abstract: Dozens of in vitro diagnostics (IVDs) have received emergency use authorization (EUA) from the U.S. Food & Drug Administration (FDA) for the detection of SARS-CoV-2, but little has been studied to determine how well these assays perform using clinical specimens....

Title: Coronavirus Disease 2019 (COVID-19) and healthcare-associated infections: Emerging and future challenges for public health in Brazil

Abstract: Blood test and chest X-ray findings in this patient were similar to previously published findings regarding COVID-19. One difference between this case and the known clinical course of COVID-19 is that did not develop cough.

Title: COVID-19 impact on fruit and vegetable markets

Abstract: INTRODUCTION: We present the report of the first, to our best knowledge, case of COVID-19 in a tetraplegic person. CASE PRESENTATION: A 56-year-old male with AIS A C4 tetraplegia developed fever during the night, without any prodrome. His general practitioner suspected a urinary tract infection and prescribed him antibiotic therapy. After 2 days of antibiotic therapy the fever still persisted, so the individual was admitted to the local hospital and treated with broad-spectrum antibiotics. After 2 days he was transferred to our spinal unit. Considering the worsening of the chest X-ray and fever despite 48 h of broad-spectrum antibiotic therapy, we strongly suspected viral pneumonia. SARS-CoV-2 was detected and antiviral therapy with Lopinavir/Ritonavir, associated with hydroxychloroquine, was promptly started. Fever ceased after 2 days of therapy. DISCUSSION: Blood test and chest X-ray findings in this patient were similar to previously published findings regarding COVID-19. One difference between this case and the known clinical course of COVID-19 is that did not develop cough.
being tested for COVID-19. All new patients are submitted to SARS-COV-2 Test. Moreover, routine testing of patients who have to participate in therapy in common gym areas may be warranted.

URL: https://doi.org/10.1038/s41394-020-0274-9

Categories:

Year: 2020
Author: Rimmer, Abi
Title: Covid-19: Disproportionate impact on ethnic minority healthcare workers will be explored by government
Journal: BMJ
DOI: 10.1136/BMJ.M1562

Abstract: The government has said that it will investigate why covid-19 seems to be having a disproportionate impact on healthcare workers from ethnic minority groups. Data from the Intensive Care National Audit and Research Centre, published on 10 April, show that of 3883 patients with confirmed covid-19, 14% (486) were Asian and 12% (402) were black.1 This is nearly double the 14% ethnic minority population in the UK. Reports also show that most doctors who have died from the virus are from ethnic minority backgrounds,2,3,4 although doctors from ethnic minority backgrounds make up only about a third of doctors working in the NHS. Chris Whitty, England’s chief medical officer, said, “It’s critical that we find out which groups are most at risk so we can help to protect them. Three things are clear, and ethnicity is less clear. The three things that are clear are age, people who’ve got more than one other disease, and male sex. Being a member of an ethnic minority group is less clear. I’ve ...

URL: https://doi.org/10.1136/BMJ.M1562

Categories:

Year: 2020
Author: Rimmer, Abi; Chatfield, Cat
Title: What organisations around the world are doing to help improve doctors’ wellbeing
Journal: BMJ
DOI: 10.1136/BMJ.M1541

Abstract: The covid-19 pandemic has increased the pressure and stress that healthcare professionals are under. Now, more than ever, it is important that clinicians look after their wellbeing. Doctors from around the world explain what they have been doing to support their colleagues Lucy Warner, chief executive of NHS Practitioner Health, says, “At this difficult time for doctors and the NHS workforce it feels natural that we at Practitioner Health explore how we can use our experience to support and help. “We’re focusing initially on enabling staff to connect, as we feel many of the anxieties and fear being expressed will be similar for many people. With this in mind, we’re creating a range of online events, webinars, and groups to act as a space to talk, share, learn, and care for one another. “These groups include nightly mindfulness, a singalong, and yoga, as well as safe spaces we’re calling ‘common rooms’ for staff groups to come together. These started on 6 April for doctors and will run twice daily, including weekends, at 11 am and 6 pm They’ll be led by experienced Practitioner Health clinicians, and doctors can access them as often as they like. We hope to have other staff groups running soon. “We’ve been overwhelmed by offers of support and so have built up a range of resources. This includes access to Silvercloud (cognitive behaviour therapy self-care modules) for all NHS staff and their families, as well as other apps such as Sleepio, Daylight, and Headspace. “We’ve also identified a range of therapeutic networks run by accredited professionals who are offering free access to therapy and listening services for NHS staff and have included the links to these on our site. “As part of the national offering being developed through NHS England we’ll be exploring how we can ...

URL: https://doi.org/10.1136/BMJ.M1541

Categories:
Year: 2020
Author: Rimmer, Abi; Wilkinson, Emma
Title: What’s happening in covid-19 ICUs? An intensive care doctor answers some common questions
Journal: BMJ
DOI: 10.1136/BMJ.M1552
Abstract: Alison Pittard, dean of the Faculty of Intensive Care Medicine, answers Abi Rimmer’s queries—and four intensivists tell Emma Wilkinson how they’re coping. Intensive care can’t be provided anywhere except in the intensive care unit (ICU) unless it’s purely on a temporary basis. In order to increase capacity during the current pandemic we have had to look at other areas of the hospital where we could safely provide this high level of care. This has led to the postponement of non-urgent surgery to liberate space, staff, and equipment. Anaesthetists have many skills that are transferable to support the care of the critically ill. We’ve also developed a rapid induction programme, with the Royal College of Surgeons, to help train other specialists to help. There has been a dramatic change in the way we normally work, necessitating a move away from 1:1 nurse:patient ratios. There are concerns about lowering our normal standard of care, not only in terms of patient safety but also the impact on staff of having to work in environments and in ways that they don’t normally. The current covid-19 staffing guidance outlining a team approach stretches the critical care team but is supplemented by non-critical care staff as a means of maintaining safety. Any further dilution may compromise this safety and could have a negative impact on staff health and wellbeing. It is the ratio of staff to patient that’s the biggest change to the normal standard of care; it means we’re not delivering the same standard of intensive care as we’d like to. At the current time we can provide the treatments we would do normally, but a doctor may not examine the patient as frequently, for example; response time to an alarm may be slower. We’ve tried to change the way that we work so...
URL: https://doi.org/10.1136/BMJ.M1552
Categories:

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Year: 2020
Author: Robertson, Faith C.; Lippa, Laura; Broekman, Marike L. D.
Title: Editorial. Task shifting and task sharing for neurosurgeons amidst the COVID-19 pandemic
Journal: Journal of neurosurgery
DOI: 10.3171/2020.4.JNS201056
Abstract: Scientists in Indonesia are exasperated at the country’s response to the COVID-19 pandemic, calling it shambolic and secretive, with a lack of coordination between the national and provincial governments. They also complain that officials have sometimes snubbed their efforts to help. “We have missed many opportunities in the past. What we need now is strong leadership to tackle the pandemic,” says Nurul Nadia, a public health expert at the Center for Indonesia’s Strategic Development Initiatives. She and others say the country needs a clear national strategy for lockdowns and a dramatic increase in testing capacity if it is to control what—at least by official numbers—is a comparatively small outbreak.
URL: https://doi.org/10.3171/2020.4.JNS201056
Categories:

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Year: 2020
Author: Rochmyaningsih, Dyna
Title: 'Open the doors for us.' Indonesian scientists say government snubs offers to help fight coronavirus
Journal: Science
Abstract: Scientists in Indonesia are exasperated at the country’s response to the COVID-19 pandemic, calling it shambolic and secretive, with a lack of coordination between the national and provincial governments. They also complain that officials have sometimes snubbed their efforts to help. “We have missed many opportunities in the past. What we need now is strong leadership to tackle the pandemic,” says Nurul Nadia, a public health expert at the Center for Indonesia’s Strategic Development Initiatives. She and others say the country needs a clear national strategy for lockdowns and a dramatic increase in testing capacity if it is to control what—at least by official numbers—is a comparatively small outbreak.
Categories:
Title: Comparative pathogenesis of COVID-19, MERS, and SARS in a nonhuman primate model
Journal: Science (New York, N.Y.)
DOI: 10.1126/science.abb7314
Abstract: The current pandemic coronavirus, SARS-CoV-2, was recently identified in patients with an acute respiratory syndrome, COVID-19. To compare its pathogenesis with that of previously emerging coronaviruses, we inoculated cynomolgus macaques with SARS-CoV-2 or MERS-CoV and compared the pathology and virology with historical reports of SARS-CoV infections. In SARS-CoV-2-infected macaques, virus was excreted from nose and throat in the absence of clinical signs, and detected in type I and II pneumocytes in foci of diffuse alveolar damage and in ciliated epithelial cells of nasal, bronchial, and bronchiolar mucosae. In SARS-CoV-infection, lung lesions were typically more severe, while they were milder in MERS-CoV infection, where virus was detected mainly in type II pneumocytes. These data show that SARS-CoV-2 causes COVID-19-like disease in macaques, and provides a new model to test preventive and therapeutic strategies.
URL: https://doi.org/10.1126/science.abb7314
Categories:
Year: 2020  
Author: Ros Mendoza, Luis H.  
Title: Coronavirus y radiología. Consideraciones sobre la crisis  
Journal: Radiología  
DOI: https://doi.org/10.1016/j.rx.2020.04.001  
Abstract:  
URL: https://doi.org/10.1016/j.rx.2020.04.001  
Categories:  

Year: 2020  
Author: Rosenbaum, Lisa  
Title: The Untold Toll — The Pandemic’s Effects on Patients without Covid-19  
Journal: New England Journal of Medicine  
DOI: 10.1056/NEJMms2009984  
Abstract:  
URL: https://doi.org/10.1056/NEJMms2009984  
Categories:  

Year: 2020  
Author: Rosin, R. David  
Title: Thoughts about COVID-19  
Journal: Int J Surg  
DOI: 10.1016/j.ijsu.2020.04.015  
Abstract:  
URL: https://doi.org/10.1016/j.ijsu.2020.04.015  
Categories:  

Year: 2020  
Author: Rossi, John J.; Rossi, Daniel  
Title: Oligonucleotides and the COVID-19 Pandemic: A Perspective  
Journal: Nucleic Acid Ther  
DOI: 10.1089/nat.2020.0868  
Abstract: The present global health emergency involving the emergence and rapid spread of a novel coronavirus has prompted the world scientific community to consider how it can help to fight this growing viral pandemic. With few safe and effective drugs available to combat this threat to humanity and the normal functioning of our society, the oligonucleotide research community is uniquely positioned to apply its technology and expertise to help alleviate the crisis, thanks to its capacity for rational drug design, swift development cycles, and pursuing targets undruggable by conventional treatment strategies.  
URL: https://doi.org/10.1089/nat.2020.0868  
Categories:  

Year: 2020  
Author: Rouhezamin, Mohammad Reza; Haseli, Sara  
Title: Diagnosing Pulmonary Thromboembolism in COVID-19: A Stepwise Clinical and Imaging Approach  
Journal: Academic Radiology  
DOI: https://doi.org/10.1016/j.acra.2020.04.023  
Abstract:  
URL: https://doi.org/10.1016/j.acra.2020.04.023  
Categories:
Year: 2020  
Author: Rude, James  
Title: COVID-19 and the Canadian cattle/beef sector: Some preliminary analysis  
Journal: Canadian Journal of Agricultural Economics/Revue canadienne d'agroeconomie  
DOI: 10.1111/cjag.12228  
Abstract: Abstract Canada's cattle/beef sector has already weathered a shock after a 2003 case of BSE resulted in closed borders and industry restructuring. Now the sector has to adjust to similar shocks due to COVID-19. This paper examines the supply chain from the consumer up to the cow-calf producer by considering consumer reactions, labour market constraints, and supply response. A quarterly market model of North American cattle and beef markets is used to examine price and revenue impacts associated with the market disruptions. Depending on the scenario, there is considerable price and revenue suppression at all levels of the market. This article is protected by copyright. All rights reserved  
URL: https://doi.org/10.1111/cjag.12228  
Categories:

Year: 2020  
Author: Saavedra, Juan M.  
Title: Angiotensin Receptor Blockers and 2019-nCoV  
Journal: Pharmacol Res  
DOI: 10.1016/j.phrs.2020.104832  
Abstract: Angiotensin Receptor Blockers (ARBs) exhibit major pleiotropic protecting effects beyond their antihypertensive properties, including reduction of inflammation. ARBs directly protect the lung from the severe acute respiratory syndrome as a result of viral infections, including those from coronavirus. The protective effect of ACE2 is enhanced by ARB administration. For these reasons ARB therapy must be continued for patients affected by hypertension, diabetes and renal disease, comorbidities of the current 2019-nCoV pandemic. Controlled clinical studies should be conducted to determine whether ARBs may be included as additional therapy for 2019-nCoV patients.  
URL: https://doi.org/10.1016/j.phrs.2020.104832  
Categories:

Year: 2020  
Author: Saavedra-Velasco, M.; Chiara-Chilet, C.; Pichardo-Rodriguez, R.; Grandez-Urbina, A.; Inga-Berrospi, F.  
Title: Coinfection between dengue and covid-19: need for approach in endemic zones  
Journal: Revista de la Facultad de Ciencias Medicas (Cordoba, Argentina)  
DOI: 10.31053/1853.0605.v77.n1.28031  
Abstract:  
URL: https://doi.org/10.31053/1853.0605.v77.n1.28031  
Categories:

Year: 2020  
Author: Saberi, Parya  
Title: Research in the Time of Coronavirus: Continuing Ongoing Studies in the Midst of the COVID-19 Pandemic  
Journal: AIDS and Behavior  
DOI: 10.1007/s10461-020-02868-4  
Abstract:  
URL: https://doi.org/10.1007/s10461-020-02868-4  
Categories:
After the cases of COVID-19 skyrocketed, showing that it was no longer possible to contain the spread of the disease, the governments of many countries launched mitigation strategies, trying to slow the spread of the epidemic and flatten its curve. The Spanish Government adopted physical distancing measures on March 14; 13 days after the epidemic outbreak started its exponential growth. Our objective in this paper was to evaluate ex-ante (before the flattening of the curve) the effectiveness of the measures adopted by the Spanish Government to mitigate the COVID-19 epidemic. Our hypothesis was that the behavior of the epidemic curve is very similar in all countries. We employed a time series design, using information from January 17 to April 5, 2020 on the new daily COVID-19 cases from Spain, China and Italy. We specified two generalized linear mixed models (GLMM) with variable response from the Gaussian family (i.e. linear mixed models): one to explain the shape of the epidemic curve of accumulated cases and the other to estimate the effect of the intervention. Just one day after implementing the measures, the variation rate of accumulated cases decreased daily, on average, by 3.059 percentage points, (95% credibility interval: −5.371, −0.879). This reduction will be greater as time passes. The reduction in the variation rate of the accumulated cases, on the last day for which we have data, has reached 5.11 percentage points. The measures taken by the Spanish Government on March 14, 2020 to mitigate the epidemic curve of COVID-19 managed to flatten the curve and although they have not (yet) managed to enter the decrease phase, they are on the way to do so.
El siguiente artículo busca presentar diversas consideraciones para la atención odontológica a fin de disminuir riesgo de exposición al virus «Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)» para el profesional odontólogo. La higiene y el lavado de manos tanto de profesionales como de pacientes, es considerado uno de los puntos más críticos para reducir el contagio. Los odontólogos también deben preferir procedimientos electivos, en caso de atención de urgencias tomar medidas estrictas de bioseguridad para la protección de la piel y mucosas y considerar diferir en lo posible la atención odontológica en pacientes con signos y síntomas de Coronavirus (COVID-19).

URL: https://doi.org/10.1016/j.aprim.2020.04.001

Abstract: Back In this systematic review and meta-analysis, we aimed to explore the association between cardiac injury and mortality, the need for intensive care unit (ICU) care, acute respiratory distress syndrome (ARDS), and severe COVID-19 pneumonia in patients with COVID-19 pneumonia. Methods We performed a comprehensive literature search from several databases. Definition of cardiac injury follows that of the included studies, which includes highly sensitive cardiac troponin I (hs-cTnl) >99th percentile. The primary outcome was mortality, and the secondary outcomes were ARDS, the need for ICU care, and severe COVID-19. ARDS and severe COVID-19 were defined per the World Health Organization (WHO) interim guidance of severe acute respiratory infection (SARI) of COVID-19. Results There were a total of 2389 patients from 13 studies. This meta-analysis showed that cardiac injury was associated with higher mortality (RR 7.95 [5.12, 12.34], p < 0.001; I²: 65%). Cardiac injury was associated with higher need for ICU care (RR 7.94 [1.51, 41.78], p = 0.01; I²: 79%), and severe COVID-19 (RR 13.81 [5.52, 34.52], p < 0.001; I²: 9%). The cardiac injury was not significant for increased risk of ARDS (RR 2.57 [0.96, 6.85], p = 0.06; I²: 84%). The level of hs-cTnl was higher in patients with primary + secondary outcome (mean difference 10.38 pg/mL [4.44, 16.32], p = 0.002; I²: 0%). Conclusion Cardiac injury is associated with mortality, need for ICU care, and severity of disease in patients with COVID-19.

URL: https://doi.org/10.1016/j.diii.2020.04.004

Abstract: Background In this systematic review and meta-analysis, we aimed to explore the association between cardiac injury and mortality, the need for intensive care unit (ICU) care, acute respiratory distress syndrome (ARDS), and severe coronavirus disease 2019 (COVID-19) in patients with COVID-19 pneumonia. Methods We performed a comprehensive literature search from several databases. Definition of cardiac injury follows that of the included studies, which includes highly sensitive cardiac troponin I (hs-cTnl) >99th percentile. The primary outcome was mortality, and the secondary outcomes were ARDS, the need for ICU care, and severe COVID-19. ARDS and severe COVID-19 were defined per the World Health Organization (WHO) interim guidance of severe acute respiratory infection (SARI) of COVID-19. Results There were a total of 2389 patients from 13 studies. This meta-analysis showed that cardiac injury was associated with higher mortality (RR 7.95 [5.12, 12.34], p < 0.001; I²: 65%). Cardiac injury was associated with higher need for ICU care (RR 7.94 [1.51, 41.78], p = 0.01; I²: 79%), and severe COVID-19 (RR 13.81 [5.52, 34.52], p < 0.001; I²: 9%). The cardiac injury was not significant for increased risk of ARDS (RR 2.57 [0.96, 6.85], p = 0.06; I²: 84%). The level of hs-cTnl was higher in patients with primary + secondary outcome (mean difference 10.38 pg/mL [4.44, 16.32], p = 0.002; I²: 0%). Conclusion Cardiac injury is associated with mortality, need for ICU care, and severity of disease in patients with COVID-19.

URL: https://doi.org/10.1016/j.diii.2020.04.004
Abstract: The purpose of this study was to report the clinical evaluation of a 3D-printed protective face shield designed to protect interventional radiologists from droplet transmission of the SARS-Cov-2. Materials and methods: A protective face shield consisting in a standard transparent polymerizing vinyl chloride (PVC) sheet was built using commercially available 3D printers. The 3D-printed face shield was evaluated in 31 interventional procedures in terms of ability to perform the assigned intervention as usual, quality of visual comfort and tolerance using a Likert scale (from 1, as very good to 5, as extremely poor). Results: The mean rating for ability to perform the assigned intervention as usual was 1.7 ± 0.8 (SD) (range: 1 - 4). The mean visual tolerance rating was 1.6 ± 0.7 (SD) (range: 1 - 4). The mean tolerability rating was 1.4 ± 0.7 (SD) (range: 1 - 3). Conclusion: The 3D-printed protective face shield is well accepted in various interventions. It may become an additional option for protection of interventional radiologists.

URL: https://doi.org/10.1016/j.diii.2020.04.004

Categories:
the combined HCQ/CQ + azithromycin group, the PRR and 95% CI was 3.77 (1.80–7.87). For the control of amoxicillin, there were no safety signals when used alone or in combination with HCQ/CQ. Conclusions HCQ/CQ use was not associated with a safety signal in this analysis of FAERS data. However, azithromycin used alone was associated with TdP/QT prolongation events and should be used with caution.

URL: https://doi.org/10.1016/j.sapharm.2020.04.016

Categories:

Year: 2020
Author: Sarkis, Joseph; Cohen, Maurie J.; Dewick, Paul; Schröder, Patrick
Title: A Brave New World: Lessons from the COVID-19 Pandemic for Transitioning to Sustainable Supply and Production
Journal: Resources, Conservation and Recycling
DOI: https://doi.org/10.1016/j.resconrec.2020.104894
Abstract:
URL: https://doi.org/10.1016/j.resconrec.2020.104894

Abstract: The spring of 2020 has been a trying time for the global medical community as it has faced the latest pandemic, COVID-19. This contagious and lethal virus has impacted patients and healthcare workers alike. Elective surgeries have been suspended and the very core of our healthcare system is being strained. The following brief communication reviews pertinent details about the virus, delaying elective surgeries and what patients can do during this time. The goal is to disseminate factual data that surgeons can then use to educate their patients.

URL: https://doi.org/10.1016/j.arth.2020.04.037

Categories:

Year: 2020
Author: Scalea, Joseph R.
Title: The Distancing of Surgeon from Patient in the era of COVID-19: Bring on the Innovation
Journal: Ann Surg
DOI: 10.1097/SLA.0000000000003962
Abstract:
URL: https://doi.org/10.1097/SLA.0000000000003962

Categories:

Year: 2020
Author: Schiariti, Verónica
Title: Les droits humains des enfants en situation de handicap en cas d'urgence sanitaire: le défi du COVID-19
Journal: Developmental medicine and child neurology
DOI: 10.1111/dmcn.14549
Abstract:
URL: https://doi.org/10.1111/dmcn.14549

Categories:
Einstellung von Patienten mit entzündlich-rheumatischen Erkrankungen zur immunsuppressiven Therapie im Rahmen der COVID-19 Pandemie – eine Situationsanalyse

Zeitschrift für Rheumatologie
DOI: 10.1007/s00393-020-00800-8


URL: https://doi.org/10.1007/s00393-020-00800-8

Categories:
Editorial: Studying the effects of the coronavirus pandemic on intercultural relations

Int J Intercult Relat

Schweitzer, Wolf; Ruder, Thomas; Baumeister, Rilana; Bolliger, Stephan; Thali, Michael; Meixner, Eva; Ampanozi, Garyfalia

Implications for forensic death investigations from first Swiss case of non-hospital treatment with COVID-19

Forensic Imaging

Case details: A case of a 50-year old HIV-positive man is presented, with focus on visualization of post-mortem computed tomography (PMCT) of the lungs, in comparison to a forensic control case. He was found dead at home, a day after his nasopharyngeal swab had returned positive for SARS-COV-2, three days after the sample had been taken as an outpatient, over five weeks after first exhibiting possible symptoms. 3D-visualization was performed by visually discriminating correlates for aerated, poorly aerated and non-aerated lung regions. The visual side-by-side comparison with a control case shows the deterioration beyond any “normal” post-mortem finding. The PMCT findings in the lungs resemble those of patients with acute respiratory distress syndrome (ARDS), while histologically identified inflammation also shows, in part binuclear, lymphocytes. In addition, acute liver dystrophy and acute tubular necrosis in the kidneys were found. Except coronary artery atherosclerosis, there appeared to be no remarkable pathology of the heart. Comment: With the pandemic impact of SARS-COV-2, a range of issues unfolds, also for medicolegal investigations into deaths, as we report the first Swiss case of fatal SARS-COV-2 pneumonia with features of a severe acute respiratory distress syndrome of an outpatient. As this pandemic from the view of risk assessment does constitute a black swan, underestimated fat tails as technical reason should be addressed by also analyzing apparent extreme single observations. This case of an outpatient (without intensive-care treatment) shows a pulmonary progression beyond the typical findings of COVID-19, to a non-specific picture of ARDS, where histologically, binuclear lymphocytes were remarked. What appeared to be an initially slow progression with final rapid escalation raises the question whether nasopharyngeal swabs or pulmonary CT might be better suited for screening high-risk patients. The apparent absence of symptoms and relatively late clinic consultation appeared to contrast with the extensive pathology, raising the question whether any search for super-spreaders should not just focus on asymptomatic but under-reported symptomatic patients, and whether their prolonged circulation in everyday life would justify more extensive face mask policies. As post-mortem testing for SARS-COV-2 may not be available for every case, PMCT may provide sensitive testing for lung changes related to COVID-19. In order to allow for more medicolegal investigations in the context of COVID-19, any extra tests may have to be financed by stakeholders in epidemiology, infectious disease or policy.
Striving as a nation to become an academic leader in the COVID-19 crisis

Abstract:"Striving as a nation to become an academic leader in the COVID-19 crisis" is an abstract that discusses the efforts of a nation to become a leader in academic research and leadership during the COVID-19 crisis.

Covid-19 epidemic in Italy: evolution, projections and impact of government measures

Abstract:"Covid-19 epidemic in Italy: evolution, projections and impact of government measures" is an abstract that discusses the evolution and impact of the Covid-19 epidemic in Italy, including the projections of government measures and their impact on the spread of the virus.

COVID-19 protection guidelines in outpatient medical imaging centers

Abstract:"COVID-19 protection guidelines in outpatient medical imaging centers" is an abstract that discusses the guidelines for protecting medical imaging centers from the spread of COVID-19.

COVID-19: Four Paediatric Cases in Malaysia

Abstract:"COVID-19: Four Paediatric Cases in Malaysia" is an abstract that discusses the cases of COVID-19 among children in Malaysia.
cases were likely to have contracted the virus in China. The children had no symptoms or mild flu-like illness. The cases were managed symptomatically. None required antiviral therapy. DISCUSSION: There were 2 major issues regarding the care of infected children. Firstly, the quarantine of an infected child with a parent who tested negative was an ethical dilemma. Secondly, oropharyngeal and nasal swabs in children were at risk of false negative results. These issues have implications for infection control. Consequently, there is a need for clearer guidelines for child quarantine and testing methods in the management of COVID-19 in children.

URL: https://doi.org/10.1016/j.ijid.2020.03.049

Categories:

Year: 2020
Author: Seewoodhary, Jason; Oozageer, Ravi
Title: Coronavirus and diabetes: an update
Journal: Practical Diabetes
DOI: 10.1002/pdi.2260
Abstract: https://doi.org/10.1002/pdi.2260

Categories:

Year: 2020
Author: Sekoai, Patrick T.; Feng, Shiqi; Zhou, Wenwen; Ngan, Wing Y.; Pu, Yang; Yao, Yuan; Pan, Jie; Habimana, Olivier
Title: Insights into the Microbiological Safety of Wooden Cutting Boards Used for Meat Processing in Hong Kong’s Wet Markets: A Focus on Food-Contact Surfaces, Cross-Contamination and the Efficacy of Traditional Hygiene Practices
Journal: Microorganisms 2020, Vol. 8, Page 579
DOI: 10.3390/MICROORGANISMS8040579
Abstract: Hong Kong’s wet markets play a crucial role in the country’s supply of safe, fresh meat to satisfy the dietary needs of its population. Whilst food safety regulations have been introduced over the past few years to maintain the microbial safety of foods sold from these wet markets, it remains unclear whether the hygiene maintenance that is performed on the wooden cutting boards used for meat-processing is effective. In fact, hygiene maintenance may often be overlooked, and hygiene standards may be insufficient. If so, this may lead to the spread of harmful pathogens through cross-contamination, thereby causing severe risks to public health. The aim of this study was to determine the level of microbial transfer between wooden cutting boards and swine meat of various qualities, using 16S metagenomic sequencing, strain identification and biofilm screening of isolated strains. The results established that: (a) the traditional hygiene practices used for cleaning wooden cutting boards in Hong Kong’s wet markets expose the surfaces to potentially harmful microorganisms; (b) the processing of microbially contaminated meat on cutting boards cleaned using traditional practices leads to cross-contamination; and (c) several potentially pathogenic microorganisms found on the cutting boards have good biofilm-forming abilities. These results reinforce the need to review the traditional methods used to clean wooden cutting boards after the processing of raw meat in Hong Kong’s wet markets so as to prevent cross-contamination events. The establishment of proper hygiene protocols may reduce the spread of disease-causing microorganisms (including antibiotic-resistant microorganisms) in food-processing environments.
URL: https://doi.org/10.3390/MICROORGANISMS8040579

Categories:

Year: 2020
Author: Serrano-Castro, Pedro J.; Estivill-Torrús, Guillermo; Cabezudo-Garcia, Pablo; Antonio Reyes-Bueno, José; Petersen, Nicolás Ciano; Aguilar-Castillo, María José; Suárez-Pérez, Juan; Jiménez-Hernández, María Dolores; Moya-Molina, Miguel Ángel; Oliver-Martos, Begoña; Arrabal-Gómez, Carlos; de Fonseca, Fernando Rodríguez
Title: Influencia de la infección SARS-Cov2 sobre Enfermedades Neurodegenerativas y Neuropsiquiátricas: ¿Una pandemia demorada?
Journal: Neurología
DOI: https://doi.org/10.1016/j.neurologia.2020.04.002
Abstract: RESUMEN INTRODUCCIÓN: La infección por el coronavirus SARS-CoV2 originada en Diciembre de 2019 en la región china de Wuhan ha adquirido proporciones pandémicas. A día de hoy ha ocasionado de más de 1,7 millones de contagios y mas de 100.000 muertes en todo el mundo. La investigación científica actual se centra en el
mejor conocimiento de la infección aguda y de sus estrategias terapéuticas. Dada la magnitud de la epidemia, planteamos una revisión especulativa sobre las posibles consecuencias en patología neurológica a medio/largo plazo, con especial atención a Enfermedades neurodegenerativas y neuropsiquiátricas con base neuroinflamatoria, teniendo en cuenta la evidencia directa de afectación neurológica a causa de la infección aguda. DESARROLLO: Revisamos de forma sistemática lo conocido sobre los mecanismos patogénicos de la infección por SARS-CoV2, la repercusión de la tormenta de citoquinas sobre el Sistema Nervioso Central y su persistencia en el tiempo y las consecuencias que la neuroinflamación puede tener sobre el Sistema Nervioso Central. CONCLUSIONES: El SARS-CoV2 es un virus neuroinvasivo capaz de provocar una tormenta de citoquinas que podría convertirse en persistente en población seleccionada. Aunque nuestra hipótesis tiene alto componente especulativo, la repercusión que esta situación puede tener en la puesta en marcha y progresión de Enfermedades neurodegenerativas y neuropsiquiátricas con base neuroinflamatoria debe ser considerada como posible germen de una pandemia demorada que podría tener un gran impacto en salud pública a medio o largo plazo. Se hace necesario un estrecho seguimiento de la salud cognitiva y neuropsiquiátrica de los pacientes supervivientes a infección Covid19. ABSTRACT Introduction: SARS-CoV-2 was first detected in December 2019 in the Chinese city of Wuhan and has since spread across the world. At present, the virus has infected over 1.7 million people and caused over 100 000 deaths worldwide. Research is currently focused on understanding the acute infection and developing effective treatment strategies. In view of the magnitude of the epidemic, we conducted a speculative review of possible medium- and long-term neurological consequences of SARS-CoV-2 infection, with particular emphasis on neurodegenerative and neuropsychiatric diseases of neuroinflammatory origin, based on the available evidence on neurological symptoms of acute SARS-CoV-2 infection. Development: We systematically reviewed the available evidence about the pathogenic mechanisms of SARS-CoV-2 infection, the immediate and lasting effects of the cytokine storm on the central nervous system, and the consequences of neuroinflammation for the central nervous system. Conclusions: SARS-CoV-2 is a neuroinvasive virus capable of triggering a cytokine storm, with persistent effects in specific populations. Although our hypothesis is highly speculative, the impact of SARS-CoV-2 infection on the onset and progression of neurodegenerative and neuropsychiatric diseases of neuroinflammatory origin should be regarded as the potential cause of a delayed pandemic that may have a major public health impact in the medium to long term. Cognitive and neuropsychological function should be closely monitored in COVID-19 survivors.
Androgen hazards with COVID-19

Year: 2020
Author: Sharifi, Nima; Ryan, Charles
Title: Androgen hazards with COVID-19
Journal: Endocr Relat Cancer
DOI: 10.1530/ERC-20-0133
Abstract: URL: https://doi.org/10.1530/ERC-20-0133

Chloroquine Paradox May Cause More Damage Than Help Fight COVID-19

Year: 2020
Author: Sharma, Anuj
Title: Chloroquine Paradox May Cause More Damage Than Help Fight COVID-19
Journal: Microbes and Infection
DOI: https://doi.org/10.1016/j.micinf.2020.04.004
Abstract: Coronavirus disease 2019 (COVID-19) pandemic is the most recent health care crisis without specific prophylactic or therapeutic drugs. Chloroquine (CHL) and its safer derivative hydroxychloroquine (HCHL), antimalarial drugs, have been proposed to be repurposed to treat SARS coronavirus-2 (SARS-CoV-2), the causative agent of COVID-19. CHL/HCHL have anti-inflammatory activity and are used to treat rheumatoid arthritis, osteoarthritis and lupus. Although, CHL/HCHL have an anti-viral activity against several viruses in cell-cultures, the anti-viral activity in-vivo is questionable. Repurposing of CHL/HCHL to treat SARS-CoV-2 infection is appealing. However, there is empirical evidence from animal studies with other viruses suggesting that CHL/HCHL may have an untoward paradoxical effect. One thus cannot exclude the possibility that CHL may increase the severity of the disease and prove deleterious both for the patients and public health efforts to contain the highly contagious and explosive spread of SARS-CoV-2.
URL: https://doi.org/10.1016/j.micinf.2020.04.004

The Contact Activation System as a Potential Therapeutic Target in Patients with COVID-19

Year: 2020
Title: The Contact Activation System as a Potential Therapeutic Target in Patients with COVID-19
Journal: Research and Practice in Thrombosis and Haemostasis
DOI: 10.1002/rth2.12349
Abstract: Abstract COVID-19 is predicted to overwhelm healthcare capacity in the US and worldwide and as such interventions that could prevent clinical decompensation and respiratory compromise in infected patients are desperately needed. Excessive cytokine release and activation of coagulation appear to be key drivers of COVID-19 pneumonia and associated mortality. Contact activation has been linked to pathologic upregulation of both inflammatory mediators and coagulation and accumulating preclinical and clinical data suggest it to be a rational therapeutic target in COVID-19 patients. Pharmacological inhibition of the interaction between coagulation factors XI and XII has been shown to prevent consumptive coagulopathy, pathologic systemic inflammatory response, and mortality in at least 2 types of experimental sepsis. Importantly, inhibition of contact activation also prevented death from S. aureus-induced lethal systemic inflammatory response syndrome in nonhuman primates. The contact system is likely dispensable for hemostasis, and may not be needed for host immunity, suggesting it to be a reasonably safe target that will not result in immunosuppression or bleeding. As a few drugs targeting contact activation are already in clinical development, immediate clinical trials for their use in COVID-19 patients are potentially feasible for the prevention or treatment of respiratory distress.
URL: https://doi.org/10.1002/rth2.12349
The emergence of the novel coronavirus disease known as COVID-19 creates another health burden for people living with HIV (PLWH) who face multiple morbidities and may be at heightened risk for severe physical health illness from COVID-19. Our abilities to address these morbidities in PLWH must be considered alongside the socially-produced burdens that both place this population at risk for COVID-19 and heighten the likelihood of adverse outcomes. These burdens can affect the physical, emotional, and social well-being of PLWH and interfere with the delivery of effective healthcare and access to HIV treatment. We posit that a syndemic framework can be used to conceptualize the potential impact of COVID-19 among PLWH to inform the development of health programming services.

URL: https://doi.org/10.1007/s10461-020-02871-9

Categories:
OBJECTIVE. This series of patients presented to the emergency department (ED) with abdominal pain, without the respiratory symptoms typical of coronavirus disease (COVID-19), and the abdominal radiologist was the first to suggest COVID-19 infection because of findings in the lung bases on CT of the abdomen. CONCLUSION. COVID-19 infection can present primarily with abdominal symptoms, and the abdominal radiologist must suggest the diagnosis when evaluating the lung bases for typical findings.

Abstract: The coronavirus 2 (SARS-CoV-2) pandemic represents and will represent the greatest health, economic and social crisis of the new millennium. According to the World Health Organization (WHO) report published on April 14, 2020, the pandemic SARS-CoV-2 affects 213 countries worldwide, with 1,848,439 infected patients and 117,217 confirmed deaths (https://www.who.int/emergencies/diseases/novel-coronavirus-2019) to this date. Men are much more prone to become seriously ill than women. Fortunately, the majority of men, especially in younger age, survive the infection.

Abstract: The immunological case for staying active during the COVID-19 pandemic

Abstract: Fear in the age of COVID-19

Abstract: Novel Coronavirus Disease 2019 in a Patient on Durable Left Ventricular Assist Device Support
Could COVID-19 represent a negative prognostic factor in patients with stroke?

**Abstract:**

The COVID-19 virus uses the enzyme 2 receptor (ACE2) to gain entry into cells. These receptors have been revealed in the neuronal and glial cells of the human brain, thus being a potential target of COVID-19. This could be responsible for the death of olfactory cells in patients with COVID-19. CoVs can enter the central nervous system through two distinct pathways: retrograde neuronal diffusion or hematogenous diffusion. The spread of COVID-19 through the cribriform plaque of the ethmoid bone during an initial or subsequent infection phase can lead to brain involvement. As for systemic circulation, the presence of ACE2 receptors on both capillary and neuronal endothelial cells could be responsible for the subsequent spread and damage to the cerebral nervous system without substantial inflammation. The presence of CoVs in the cerebral nervous system was confirmed in the cerebrospinal fluid and brain tissue of patients during an autopsy.

**URL:**
https://doi.org/10.1017/ice.2020.146

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INNATE IMMUNITY IN CORONAVIRUS INFECTION; ВРОЖДЕННЫЙ ИММУНИТЕТ ПРИ КОРОНАВИРУСНОЙ ИНФЕКЦИИ

**Abstract:**

Coronaviruses (CoVs) comprise a polymorphic group of respiratory viruses causing acute inflammatory diseases in domestic and agricultural animals (chicken, pig, buffalo, cat, dog). Until recently, this infection in humans was mainly observed during the autumn-winter period and characterized by a mild, often asymptomatic, course. The situation changed dramatically in 2003, when SARS outbreak caused by pathogenic CoV (SARS-CoV) was recorded in China. A decade later, a new CoV outbreak occurred in the form of the Middle East respiratory syndrome (MERS-CoV), whereas in December 2019, SARS-CoV-2 (COVID-19) cases were recorded, which transformed within the first months of 2020 into the pandemic. In all three cases, CoV disease led to severe bronchopulmonary lesions, varying from dry, debilitating cough to acute respiratory distress syndrome (ARDS). At the same time, multiple changes in innate immunity were noted most often manifested as a pronounced inflammatory reaction in the lower respiratory tract, featured by damaged type II pneumocytes, apoptosis, hyalinization of alveolar membranes, focal or generalized pulmonary edema. Destructive processes in the respiratory tract were accompanied by migration of monocytes/macrophages and granulocyte neutrophils to the inflammatory focus. Such events were accompanied by production of pro-inflammatory cytokines, which magnitude could ascend up to a cytokine storm. SARS-CoV is characterized by symptoms of secondary immunosuppression, manifested by the late onset of interferon production and activation of NLRP3 inflammasomes – the key inflammatory factor. The reason for such reaction may be accounted for by CoV arsenal containing extensive set of structural and inflammatory proteins exerting pro-inflammatory and immunosuppressive properties. Delayed IFN production allowed CoV to replicate actively and freely, and when type I IFN synthesis was eventually triggered, its activity was detrimental and accompanied by an aggravated infection course. Thus, SARS can surely be referred to immune-dependent infections with a marked immunopathological component. The purpose of this review was to describe some mechanisms underlying formation of innate immune response to infection caused by pathogenic coronaviruses SARS-CoV, MERS-CoV and SARS-CoV-2 (COVID-19).
У людей инфекция до недавнего времени наблюдалась преимущественно в осеннезимний период и характеризовалась легким, зачастую бессимптомным, течением. Ситуация резко изменилась, в 2003 году, когда в Китае была зарегистрирована вспышка атипичной коронавирусной инфекции (SARS-CoV), вызванной патогенным CoV (SARS-CoV-2, COVID-19). Спустя 10 лет возникла новая вспышка CoV в виде ближневосточного респираторного синдрома (MERS-CoV), а в декабре 2019 г. отмечены случаи SARS-CoV-2 (COVID-19), трансформировавшиеся в первую месяце 2020 г. в пандемию. Во всех трех случаях заболевание часто приводило к бронхолегочным поражениям, варьировавшим от сухого изнурительного кашля до острого респираторного синдрома (ОРС). Одновременно отмечены множественные изменения в иммунной системе врожденного иммунитета чаще в виде выраженной воспалительной реакции в нижних дыхательных путях, повреждением пневмоцитов II типа, явлениями апоптоза, гиалинизацией альвеол, очаговым или генерализованным отеком легких. Дestructивные процессы в респираторном отделе развивались миграцией в очаг воспалительных моноцитов/макрофагов и гранулоцитарных нейтрофилов. Фоне перечисленных явлений наблюдалась выработка провоцирующих цитокинов, интенсивностью которой может нарастать до цитокинового шторма. Длительность SARS-CoV характерны высокой вторичной иммунодепрессией, проявленной в недееспособности интерферонов и активации ключевого фактора - NLRP3 инфламмации. Причиной подобной реакции является «вооруженно» CoV обширным набором структурных и воспалительных белков, обладающих провоцирующими и иммунодепрессивными свойствами. Отсутствие IFN позволило вирусу активно и бессознательно реплицировать, а когда же организм запустил синтез IFN I, его действие оказывало вредным и сопровождало ущерб тканям и органам. Таким образом, SARS можно полностью отнести к числу иммунозависимых инфекций с выраженным иммунопатологическим компонентом. Целью обзора опи- сать некоторые механизмы формирования врожденного иммунного ответа на инфицирование патогенными коронавирусами: SARS-CoV, MERS-CoV и CoV-2 (COVID-19).

URL: https://doi.org/10.15789 / 2220-7619-2019-0

Categories:
Abstract: Since in vitro studies and a preliminary clinical report suggested the efficacy of chloroquine for COVID-19-associated pneumonia, there is increasing interest in this old antimalarial drug. In this article, we discuss the pharmacokinetics and safety of chloroquine that should be considered in light of use in SARS-CoV-2 infections. Chloroquine is well absorbed and distributes extensively resulting in a large volume of distribution with an apparent and terminal half-life of 1.6 days and 2 weeks, respectively. Chloroquine is metabolized by cytochrome P450 and renal clearance is responsible for one third of total clearance. The lack of reliable information on target concentrations or doses for COVID-19 implies that for both adults and children, doses that proved effective and safe in malaria should be considered, such as ‘loading doses’ in adults (30 mg/kg over 48 h) and children (70 mg/kg over 5 days), which reported good tolerability. Here, plasma concentrations were < 2.5 μmol/L, which is associated with (minor) toxicity. While the influence of renal dysfunction, critical illness, or obesity seems small, in critically ill patients, reduced absorption may be anticipated. Clinical experience has shown that chloroquine has a narrow safety margin, as three times the adult therapeutic dosage for malaria can be lethal when given as a single dose. Although infrequent, poisoning in children is extremely dangerous where one to two tablets can potentially be fatal. In conclusion, the pharmacokinetic and safety properties of chloroquine suggest that chloroquine can be used safely for an acute virus infection, under corrected QT monitoring, but also that the safety margin is small, particularly in children.

URL: https://doi.org/10.1007/s40262-020-00891-1

Categories:
Dosing will be a key success factor in repurposing antivirals for COVID-19

Abstract:
Since December 2019, a novel type of coronavirus disease (COVID-19) in Wuhan led to an outbreak throughout China and the rest of the world. To date, there have been more than 1,260,000 COVID-19 patients, with a mortality rate of approximately 5.44%. Studies have shown that coagulation dysfunction is a major cause of death in patients with severe COVID-19. Therefore, the People’s Liberation Army Professional Committee of Critical Care Medicine and Chinese Society on Thrombosis and Hemostasis grouped experts from the frontline of the Wuhan epidemic to come together and develop an expert consensus on diagnosis and treatment of coagulation dysfunction associated with a severe COVID-19 infection. This consensus includes an overview of COVID-19-related coagulation dysfunction, tests for coagulation, anticoagulation therapy, replacement therapy, supportive therapy and prevention. The consensus produced 18 recommendations which are being used to guide clinical work.

URL: https://doi.org/10.1186/s40779-020-00247-7

Categories:
COVID-19 PNEUMONIA IN A DUAL HEART-KIDNEY RECIPIENT

Abstract:

In late 2019, cases of atypical pneumonia were detected in China. The etiological agent was quickly identified as a betacoronavirus (named SARS-CoV-2), which has since caused a pandemic. Several methods allowing for the specific detection of viral nucleic acids have been established, but these only allow detection of the virus during a short period of time, generally during acute infection. Serological assays are urgently needed to conduct serosurveys, to understand the antibody responses mounted in response to the virus, and to identify individuals who are potentially immune to re-infection. Here we describe a detailed protocol for expression of antigens derived from the spike protein of SARS-CoV-2 that can serve as a substrate for immunological assays, as well as a two-stage serological enzyme-linked immunosorbent assay (ELISA). These assays can be used for research studies and for testing in clinical laboratories. © 2020 The Authors.

Basic Protocol 1: Mammalian cell transfection and protein purification

Basic Protocol 2: A two-stage ELISA for high-throughput screening of human serum samples for antibodies binding to the spike protein of SARS-CoV-2.

The Past, Present, and Future of Orthopaedic Education: Lessons Learned from the COVID-19 Pandemic

Abstract:

The COVID-19 global pandemic has upended nearly every medical discipline, dramatically impacted patient care, and has had far-reaching effects on surgeon education. In many areas of the country, elective orthopaedic surgery has completely stopped to ensure that resources are available for the critically ill and to minimize the spread of disease. COVID-19 is forcing many around the world to reevaluate existing processes and organizations and adapt to carry out business, of which medicine and education are not immune. The majority of national and international orthopaedic conferences, training programs, and workshops have been postponed or canceled, and we are now critically evaluating the delivery of education to our colleagues as well as residents and fellows. This manuscript describes the evolution of orthopaedic education and significant paradigm shifts necessary to continue to teach ourselves and the future leaders of our noble profession.
The novel coronavirus SARS-CoV-2, causing the disease COVID-19, first emerged in Wuhan, China in December 2019 and has now spread to 203 countries or territories, infected over 2 million people and caused over 133,000 deaths. There is an urgent need for specific treatments. One potential treatment is chloroquine and its
derivatives, including hydroxychloroquine, which have both antiviral and anti-inflammatory effects. These compounds are effective against SARS-CoV-2 in vitro, but in vivo data are lacking. Although some encouraging outcomes have been reported, and these results have been received enthusiastically, we recommend careful and critical evaluation of current evidence only when all methods and data are available for peer review. Chloroquine is safe and cheap. However, further evidence from coordinated multicentre trials is required before it can be confidently said whether it is effective against the current pandemic.

URL: https://doi.org/10.7861/clinmed.2020-0129

Categories:

Year: 2020
Author: Sun, Yankun; Bao, Yanping; Lu, Lin
Title: Addressing mental health care for bereavements during COVID-19 pandemic
Journal: Psychiatry and clinical neurosciences
DOI: 10.1111/pcn.13008
Abstract: https://doi.org/10.1111/pcn.13008

Categories:

Year: 2020
Author: Sutherland, Danica M.; Taylor, Gwen M.; Dermody, Terence S.
Title: Coping with COVID: How a Research Team Learned To Stay Engaged in This Time of Physical Distancing
Journal: mBio
DOI: 10.1128/MBIO.00850-20
Abstract: Physical distancing imposed by the COVID-19 pandemic has led to alterations in routines and new responsibilities for much of the research community. We provide some tips for how research teams can cope with physical distancing, some of which require a change in how we define productivity. Importantly, we need to maintain and strengthen social connections in this time when we can’t be physically together. The views expressed in this article do not necessarily reflect the views of the journal or of ASM.
URL: https://doi.org/10.1128/MBIO.00850-20

Categories:

Year: 2020
Author: Suwannarach, Nakarin; Kumla, Jaturong; Sujarit, Kanaporn; Pattananandecha, Thanawat; Saenjum, Chalermpong; Lumyong, Saisamorn
Title: Natural Bioactive Compounds from Fungi as Potential Candidates for Protease Inhibitors and Immunomodulators to Apply for Coronaviruses
Journal: Molecules (Basel, Switzerland)
DOI: 10.3390/molecules25081800
Abstract: The inhibition of viral protease is an important target in antiviral drug discovery and development. To date, protease inhibitor drugs, especially HIV-1 protease inhibitors, have been available for human clinical use in the treatment of coronaviruses. However, these drugs can have adverse side effects and they can become ineffective due to eventual drug resistance. Thus, the search for natural bioactive compounds that were obtained from bio-resources that exert inhibitory capabilities against HIV-1 protease activity is of great interest. Fungi are a source of natural bioactive compounds that offer therapeutic potential in the prevention of viral diseases and for the improvement of human immunomodulation. Here, we made a brief review of the current findings on fungi as producers of protease inhibitors and studies on the relevant candidate fungal bioactive compounds that can offer immunomodulatory activities as potential therapeutic agents of coronaviruses in the future.
URL: https://doi.org/10.3390/molecules25081800

Categories:
The case reports 2 cases of novel coronavirus pneumonia diagnosed by concurrent bronchoalveolar lavage in our hospital, 1 case had a history of epidemiology, clinical symptoms and high imaging suspicion, but repeated negative throat swabs. One patient was diagnosed 2019-nCoV. Before the patient was discharged, the clinical symptoms disappeared, the chest CT showed significant improvement, and the pharynx swab was twice negative, reaching the discharge standard. We detected the ORF 1ab gene, the N gene and the nucleic acid of the new coronavirus in the broncho-alveolar lavage fluid of 2 patients. The results showed that the positive rate of bronchoalveolar lavage for detection of new coronavirus nucleic acid was high, and bronchoalveolar lavage for suspected or confirmed new coronavirus pneumonia patients with negative detection of nucleic acid in pharynx swabs but still residual lung lesions was helpful for early diagnosis, treatment and prognosis.
Response to 'Reply to Anticoagulant treatment is associated with decreased mortality in severe coronavirus disease 2019 patients with coagulopathy'

We appreciate the opportunity to respond to the comment about Sequential Organ Failure Assessment (SOFA) score by Dr. Coto, Ruben. We admit that we misquoted the original SOFA score including six items [1] in our paper. But we did not double-count the thrombopenia for sepsis-induced coagulopathy (SIC) score [2] in practice, it's an obvious repetitive item.

URL: https://doi.org/10.1111/jth.14851
Advances on Antiviral Activity of Morus spp. Plant Extracts: Human Coronavirus and Virus-Related Respiratory Tract Infections in the Spotlight

Abstract: (1) Background: Viral respiratory infections cause life-threatening diseases in millions of people worldwide every year. Human coronavirus and several picornaviruses are responsible for worldwide epidemic outbreaks, thus representing a heavy burden to their hosts. In the absence of specific treatments for human viral infections, natural products offer an alternative in terms of innovative drug therapies. (2) Methods: We analyzed the antiviral properties of the leaves and stem bark of the mulberry tree (Morus spp.). We compared the antiviral activity of Morus spp. on enveloped and nonenveloped viral pathogens, such as human coronavirus (HCoV 229E) and different members of the Picornaviridae family—human poliovirus 1, human parechovirus 1 and 3, and human echovirus 11. The antiviral activity of 12 water and water-alcohol plant extracts of the leaves and stem bark of three different species of mulberry—Morus alba var. alba, Morus alba var. rosa, and Morus rubra—were evaluated. We also evaluated the antiviral activities of kuwanon G against HCoV-229E. (3) Results: Our results showed that several extracts reduced the viral titer and cytopathogenic effects (CPE). Leaves' water-alcohol extracts exhibited maximum antiviral activity on human coronavirus, while stem bark and leaves' water-alcohol extracts were the most effective on picornaviruses. (4) Conclusions: The analysis of the antiviral activities of Morus spp. offer promising applications in antiviral strategies.

Management of mild cases of COVID-19 in low-resource countries: An experience in Vietnam

Abstract: (1) Background: Viral respiratory infections cause life-threatening diseases in millions of people worldwide every year. Human coronavirus and several picornaviruses are responsible for worldwide epidemic outbreaks, thus representing a heavy burden to their hosts. In the absence of specific treatments for human viral infections, natural products offer an alternative in terms of innovative drug therapies. (2) Methods: We analyzed the antiviral properties of the leaves and stem bark of the mulberry tree (Morus spp.). We compared the antiviral activity of Morus spp. on enveloped and nonenveloped viral pathogens, such as human coronavirus (HCoV 229E) and different members of the Picornaviridae family—human poliovirus 1, human parechovirus 1 and 3, and human echovirus 11. The antiviral activity of 12 water and water-alcohol plant extracts of the leaves and stem bark of three different species of mulberry—Morus alba var. alba, Morus alba var. rosa, and Morus rubra—were evaluated. We also evaluated the antiviral activities of kuwanon G against HCoV-229E. (3) Results: Our results showed that several extracts reduced the viral titer and cytopathogenic effects (CPE). Leaves’ water-alcohol extracts exhibited maximum antiviral activity on human coronavirus, while stem bark and leaves’ water-alcohol extracts were the most effective on picornaviruses. (4) Conclusions: The analysis of the antiviral activities of Morus spp. offer promising applications in antiviral strategies.

COVID-19 and Working Conditions in Health Care

Abstract: (1) Background: Viral respiratory infections cause life-threatening diseases in millions of people worldwide every year. Human coronavirus and several picornaviruses are responsible for worldwide epidemic outbreaks, thus representing a heavy burden to their hosts. In the absence of specific treatments for human viral infections, natural products offer an alternative in terms of innovative drug therapies. (2) Methods: We analyzed the antiviral properties of the leaves and stem bark of the mulberry tree (Morus spp.). We compared the antiviral activity of Morus spp. on enveloped and nonenveloped viral pathogens, such as human coronavirus (HCoV 229E) and different members of the Picornaviridae family—human poliovirus 1, human parechovirus 1 and 3, and human echovirus 11. The antiviral activity of 12 water and water-alcohol plant extracts of the leaves and stem bark of three different species of mulberry—Morus alba var. alba, Morus alba var. rosa, and Morus rubra—were evaluated. We also evaluated the antiviral activities of kuwanon G against HCoV-229E. (3) Results: Our results showed that several extracts reduced the viral titer and cytopathogenic effects (CPE). Leaves’ water-alcohol extracts exhibited maximum antiviral activity on human coronavirus, while stem bark and leaves’ water-alcohol extracts were the most effective on picornaviruses. (4) Conclusions: The analysis of the antiviral activities of Morus spp. offer promising applications in antiviral strategies.
Year: 2020
Author: Thépaut, Mathieu; Ferracci, Serge; Dormois, Isabelle; Haour, France; Cazenave, Nicolas
Title: Intervention précoce avec un protocole d'EMDR dans un centre de dépistage du COVID-19
Journal: L'Encéphale
DOI: https://doi.org/10.1016/j.encep.2020.04.002
Abstract:
URL: https://doi.org/10.1016/j.encep.2020.04.002
Categories:

Year: 2020
Author: Tobaiqy, Mansour; Qashqary, Mohammed; Al-Dahery, Shrooq; Mujallad, Alaa; Hershan, Almonther Abdullah; Kamal, Mohammad Azhar; Helmi, Nawal
Title: Therapeutic Management of COVID-19 Patients: A systematic review
Journal: Infection Prevention in Practice
DOI: https://doi.org/10.1016/j.infpip.2020.100061
Abstract: Background SARS-CoV-2 is the causative agent of COVID-19; that has been declared a global pandemic by the WHO in 2020. The COVID-19 treatment guidelines vary in each country, and yet there is no approved therapeutic for COVID-19. Aims of the study this review aimed to report any evidence of therapeutics used for the management of COVID-19 patients in clinical practice since the emergence of the virus. Methods A systematic review protocol was developed based on PRISMA Statement. Articles for review were selected from electronic databases (Embase, Medline and Google Scholar). Readily accessible peer-reviewed, full articles in English published from December 1st, 2019 to March 26th, 2020 were included. The search terms included combinations of: COVID, SARS-CoV-2, glucocorticoids, convalescent plasma, antiviral and antibacterial. There were no restrictions on the type of study design eligible for inclusion. Results As of March 26th, 2020, of the initial manuscripts identified (n=449); forty-one studies were included. These consisted of clinical trials (n=3), case reports (n=7), case series (n=10), retrospective (n=11) and prospective (n=10) observational studies. Thirty-six studies were conducted in China (88%). The most commonly reported medicine in this systematic review was corticosteroids (n=25), followed by Lopinavir (n=21) and Oseltamivir (n=16). Conclusions This is the first systematic review to date related to the therapeutics used in COVID-19 patients. Only 41 research articles on COVID-19 and therapeutics were found eligible to be included, most conducted in China. Corticosteroid therapy was found to be the most studied medicine in the literature.
URL: https://doi.org/10.1016/j.infpip.2020.100061
Categories:

Year: 2020
Author: Tobías, Aurelio; Molina, Tomás
Title: Is temperature reducing the transmission of COVID-19?
Journal: Environmental Research
DOI: https://doi.org/10.1016/j.envres.2020.109553
Abstract:
URL: https://doi.org/10.1016/j.envres.2020.109553
Categories:

Year: 2020
Author: Tomlinson, Samuel B.; Hendricks, Benjamin K.; Cohen-Gadol, Aaron A.
Title: Editorial. Innovations in neurosurgical education during the COVID-19 pandemic: is it time to reexamine our neurosurgical training models?
Journal: Journal of neurosurgery
DOI: 10.3171/2020.4.JNS201012
Abstract:
URL: https://doi.org/10.3171/2020.4.JNS201012
Categories:
Year: 2020
Author: Ton, Angie N.; Jethwa, Tarang; Waters, Karen; Speicher, Leigh L.; Francis, Dawn
Title: COVID-19 drive through testing: An effective strategy for conserving personal protective equipment
Journal: American Journal of Infection Control
DOI: https://doi.org/10.1016/j.ajic.2020.04.010
Abstract:
URL: https://doi.org/10.1016/j.ajic.2020.04.010
Categories:

Year: 2020
Author: Torjesen, Ingrid
Title: Covid-19: ibuprofen can be used for symptoms, says UK agency, but reasons for change in advice are unclear
Journal: BMJ (Clinical research ed.)
DOI: 10.1136/bmj.m1555
Abstract:
URL: https://doi.org/10.1136/bmj.m1555
Categories:

Year: 2020
Author: Torous, John; Keshavan, Matcheri
Title: COVID-19, mobile health and serious mental illness
Journal: Schizophrenia Research
DOI: https://doi.org/10.1016/j.schres.2020.04.013
Abstract:
URL: https://doi.org/10.1016/j.schres.2020.04.013
Categories:

Year: 2020
Author: Toscano, Gianpaolo; Palmerini, Francesco; Ravaglia, Sabrina; Ruiz, Luigi; Invernizzi, Paolo; Cuzzoni, M. Giovanna; Franciotta, Diego; Baldanti, Fausto; Daturi, Rossana; Postorino, Paolo; Cavallini, Anna; Micieli, Giuseppe
Title: Guillain–Barré Syndrome Associated with SARS-CoV-2
Journal: New England Journal of Medicine
DOI: 10.1056/NEJMc2009191
Abstract:
URL: https://doi.org/10.1056/NEJMc2009191
Categories:

Year: 2020
Author: Trecca, Eleonora M. C.; Gelardi, Matteo; Cassano, Michele
Title: COVID-19 and hearing difficulties
Journal: American Journal of Otolaryngology
DOI: https://doi.org/10.1016/j.amjoto.2020.102496
Abstract:
URL: https://doi.org/10.1016/j.amjoto.2020.102496
Categories:

Year: 2020
Author: Tregoning, John
Title: Coronavirus diaries: to be a scientist
Journal: Nature
DOI: 10.1038/d41586-020-01138-6
Abstract:
URL: https://doi.org/10.1038/d41586-020-01138-6
Categories:
The BTK-inhibitor ibrutinib may protect against pulmonary injury in COVID-19 infected patients

COVID-19 y enfermedad cardiovascular

Should Patients Receiving ACE Inhibitors or Angiotensin Receptor Blockers be Switched to Other Antihypertensive Drugs to Prevent or Improve Prognosis of Novel Coronavirus Disease 2019 (COVID-19)?
Year: 2020
Author: Tseng, Jen-Yu; Lai, Hsien-Yung
Title: Protecting against COVID-19 aerosol infection during intubation
Journal: J Chin Med Assoc
DOI: 10.1097/JCMA.0000000000000324
Abstract:
URL: https://doi.org/10.1097/JCMA.0000000000000324
Categories:

Year: 2020
Author: Tu, Huilan; Tu, Sheng; Gao, Shiqi; Shao, Anwen; Sheng, Jifang
Title: The epidemiological and clinical features of COVID-19 and lessons from this global infectious public health event
Journal: Journal of Infection
DOI: 10.1016/j.jinf.2020.04.011
Abstract: Coronavirus disease 2019 (COVID-19) is caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and represents a potentially fatal disease of great global public health importance. As of March 26, 2020, the outbreak of COVID-19 has resulted in 462,801 confirmed cases and 20,839 deaths globally, which is more than those caused by SARS and Middle East respiratory syndrome (MERS) in 2003 and 2013, respectively. The epidemic has posed considerable challenges worldwide. Under a strict mechanism of massive prevention and control, China has seen a rapid decrease in new cases of coronavirus; however, the global situation remains serious. Additionally, the origin of COVID-19 has not been determined and no specific antiviral treatment or vaccine is currently available. Based on the published data, this review systematically discusses the etiology, epidemiology, clinical characteristics, and current intervention measures related to COVID-19 in the hope that it may provide a reference for future studies and aid in the prevention and control of the COVID-19 epidemic.
URL: https://doi.org/10.1016/j.jinf.2020.04.011
Categories:

Year: 2020
Author: Tufan, Abdurrahman; Avanoğlu Güler, Aslihan; Matucci-Cerinic, Marco
Title: COVID-19, immune system response, hyperinflammation and repurposing anti-rheumatic drugs
Journal: Turkish journal of medical sciences
DOI: 10.3906/sag-2004-168
Abstract: In the Wuhan province of China, in December 2019, the novel Coronavirus 2019 (COVID-19) has caused a severe involvement of the lower respiratory tract leading to an acute respiratory syndrome. Subsequently, coronavirus 2 (SARS-CoV-2) provoked a pandemic which is considered a life-threatening disease. The SARS-CoV-2, a family member of betacoronaviruses, possesses single single-stranded positive-sense RNA with typical structural proteins, involving the envelope, membrane, nucleocapsid and spike proteins that are responsible for the viral infectivity, and nonstructural proteins. The effectual host immune response including innate and adaptive immunity against SARS-Cov-2 seems crucial to control and resolve the viral infection. However, the severity and outcome of the COVID-19 might be associated with the excessive production of proinflammatory cytokines?cytokine storm? leading to an acute respiratory distress syndrome. Regrettfully, the exact pathophysiology and treatment, especially for the severe disease of COVID-19, is still uncertain. The results of preliminary studies have shown that immune-modulatory or immune-suppressive treatments such as hydroxychloroquine, interleukin (IL)-6 and IL-1 antagonists, commonly used in rheumatology, might be considered as treatment choices for COVID-19, particularly in severe lung disease. In this review, to better gain information about appropriate anti-inflammatory treatments, mostly used in rheumatology for COVID-19, we have focused the attention on the structural features of SARS-CoV-2, the host immune response against SARS-CoV-2 and its association with the cytokine storm.
URL: https://doi.org/10.3906/sag-2004-168
Categories:
Year: 2020  
Author: Tursi, Antonio; Papa, Alfredo  
Title: Impact of anti-tnfa antibodies on the risk of Covid-19 and its severity in patients with inflammatory Bowel Diseases  
Journal: Journal of Crohn's and Colitis  
DOI: 10.1093/ecco-jcc/jjaa076  
Abstract:  
URL: https://doi.org/10.1093/ecco-jcc/jjaa076  
Categories:

Year: 2020  
Author: Tursi, Antonio; Papa, Alfredo  
Title: Impact of anti-tnfalpha antibodies on the risk of Covid-19 and its severity in patients with inflammatory Bowel Diseases  
Journal: J Crohns Colitis  
DOI: 10.1093/ecco-jcc/jjaa076  
Abstract:  
URL: https://doi.org/10.1093/ecco-jcc/jjaa076  
Categories:

Year: 2020  
Author: Twa, Michael D.  
Title: A Need for Data-driven Public Health Responses to COVID-19  
Journal: Optom Vis Sci  
DOI: 10.1097/OPX.0000000000001511  
Abstract:  
URL: https://doi.org/10.1097/OPX.0000000000001511  
Categories:

Year: 2020  
Author: Tyagi, S. K.; Singhal, Rishi  
Title: Bariatric Surgery in the Times of Corona  
Journal: Obesity Surgery  
DOI: 10.1007/s11695-020-04589-y  
Abstract:  
URL: https://doi.org/10.1007/s11695-020-04589-y  
Categories:

Year: 2020  
Author: Ulhaq, Z. S.; Soraya, G. V.  
Title:  
Journal: Medecine et maladies infectieuses  
DOI: 10.1016/j.medmal.2020.04.002  
Abstract:  
URL: https://doi.org/10.1016/j.medmal.2020.04.002  
Categories:

Year: 2020  
Author: Ullah, Waqas; Saeed, Rehan; Sarwar, Usman; Patel, Rajesh; Fischman, David L.  
Title: COVID-19 complicated by Acute Pulmonary Embolism and Right-Sided Heart Failure  
Journal: JACC: Case Reports  
DOI: https://doi.org/10.1016/j.jaccas.2020.04.008  
Abstract: A patient with Coronavirus Disease-2019 (COVID-19) developed sudden shortness of breath and hypoxia. She was diagnosed with a massive pulmonary embolism (PE) complicated by right sided heart failure, which was successfully managed conservatively. This marks the first report of COVID-19 induced PE in association with acute heart failure.
CD147 as a Target for COVID-19 Treatment: Suggested Effects of Azithromycin and Stem Cell Engagement

Abstract: The expressive number of deaths and confirmed cases of SARS-CoV-2 call for an urgent demand of effective and available drugs for COVID-19 treatment. CD147, a receptor on host cells, is a novel route for SARS-CoV-2 invasion. Thus, drugs that interfere in the spike protein/CD147 interaction or CD147 expression may inhibit viral invasion and dissemination among other cells, including in progenitor/stem cells. Studies suggest beneficial effects of azithromycin in reducing viral load of hospitalized patients, possibly interfering with ligand/CD147 receptor interactions; however, its possible effects on SARS-CoV-2 invasion has not yet been evaluated. In addition to the possible effect in invasion, azithromycin decreases the expression of some metalloproteinases (downstream to CD147), induces anti-viral responses in primary human bronchial epithelial infected with rhinovirus, decreasing viral replication and release. Moreover, resident lung progenitor/stem are extensively differentiated into myofibroblasts during pulmonary fibrosis, a complication observed in COVID-19 patients. This process, and the possible direct viral invasion of progenitor/stem cells via CD147 or ACE2, could result in the decline of these cellular stocks and failing lung repair. Clinical tests with allogeneic MSCs from healthy individuals are underway to enhance endogenous lung repair and suppress inflammation.

Vacunas contra el coronavirus

Abstract: The COVID-19 epidemic curve in China can be divided into several stages. Despite transparency in informing the world public about clusters of undiagnosed viral pneumonia, the country’s health care at the first stage of the epidemic was not ready to provide adequate and rapid response for a fast increase in the number of patients with COVID-19, infection control measures were not fully implemented, which also led to a large number of nosocomial cases of infection among medical workers and patients. Socially vulnerable groups of the population did not refer for medical assistance in a timely manner due to the lack of the disease danger understanding and also in connection with the high cost for them of medical aid. At the second stage, simultaneously with the restrictive measures introduced by the government, the entire health care system was rebooted: free medical care for patients with COVID-19 was provided and the strictest infection control measures were implemented, multi-level contact tracking system using IT technologies was organized, and the capacity of hospitals was increased many times. Through the joint efforts of ministries, mass media, social networks and volunteer movements, an unprecedented social mobilization of the population was achieved. Strict
implementation of the entire set of measures aimed at fighting the epidemic allowed to take it under strict control at the third stage and practically eliminate the epidemic after 2.5 months. China’s response to the COVID-2019 epidemic can be useful to other countries, in fighting the current pandemic and in preparing for a response to biological threats in the future. In the article, the authors provide an overview of the current epidemic situation for the new SARS-CoV-2 coronavirus, summarising the current epidemic situation for the new SARS-CoV-2 coronavirus. The paper points to the need for careful monitoring of outbreaks caused by MERS-CoV and SARS-CoV R-coronaviruses which pose the greatest threat to human health. The review briefly describes two epidemic outbreaks caused by SARS-CoV-2 and summarises the current epidemic situation for the new SARS-CoV-2 coronavirus, describes the main restrictive measures undertaken to prevent the spread of infection in Russia. The paper considers aspects of potential specific therapy and the development of prophylactic vaccines against the new coronavirus infection. The review concludes that SARS-CoV-2 has pandemic potential and that new strains of R-coronaviruses are likely to cause outbreaks in the future. The paper points to the need for careful monitoring of the disease and conducting preventive anti-epidemic measures to curb the spread of infection.

Abstract: Coronaviruses are the largest group of known positive-strand RNA viruses. Coronavirus infection can affect various animal species, as well as humans. Over the past two decades, coronaviruses have caused epidemic outbreaks of two respiratory diseases: the Middle East Respiratory Syndrome and Severe Acute Respiratory Syndrome. At the end of 2019, a new type of virus was detected in China. The virus has been spread by human-to-human transmission and has caused a viral pneumonia outbreak. The emergence of a new coronavirus proves that the diseases caused by this group of viruses pose a threat to global health due to the potential for a pandemic, and, therefore, need careful monitoring. The objective of the study was to analyse the current epidemic situation for the new SARS-CoV-2 coronavirus, taking into account previous outbreaks of infections caused by MERS-CoV and SARS-CoV R-coronaviruses which pose the greatest threat to human health. The review briefly describes two epidemic outbreaks caused by SARS-CoV-2 and summarises the current epidemic situation for the new SARS-CoV-2 coronavirus, describes the main restrictive measures undertaken to prevent the spread of infection in Russia. The paper considers aspects of potential specific therapy and the development of prophylactic vaccines against the new coronavirus infection. The review concludes that SARS-CoV-2 has pandemic potential and that new strains of R-coronaviruses are likely to cause outbreaks in the future. The paper points to the need for careful monitoring of the disease and conducting preventive anti-epidemic measures to curb the spread of infection.

URL: https://doi.org/10.15789/2220-7619-2019-0

URL: https://doi.org/10.30895/2221-996X-2020-20-1
Covid-19 Lock Down: People Psychology due to Law Enforcement

Asian Journal of Psychiatry

https://doi.org/10.1016/j.ajp.2020.102102

Information-rich wheat markets in the early days of COVID-19

Canadian Journal of Agricultural Economics/Revue canadienne d'agroeconomie

10.1111/cjag.12229

This paper uses the information implicit in commodity futures and options prices to infer market beliefs about the impact of early-stages COVID-19 on commodity market fundamentals. The particular commodity examined is soft red winter (SRW) wheat, and the timeframe is early February to late March 2020. The analysis highlights various adjustments in the cash and futures price of SRW wheat in light of surging short-run demand from consumer hoarding of staple food products, and a weakening long-run market from growing wheat stocks and an emerging global recession. This split is causing the forward curve to flatten and basis levels to invert. The change over time in the price of options on wheat futures reveals increased price volatility in response to growing uncertainty about the COVID-19 impacts. Similarly, changes in the skewness of the option’s volatility smile illustrates a shift in traders’ perception about risk in the right versus left tail of the price distribution. This article is protected by copyright. All rights reserved.

https://doi.org/10.1111/cjag.12229

Consideraciones en la Atención Odontológica de Urgencia en Contexto de Coronavirus COVID-19 (SARS-CoV-2)

Int. j. odontostomatol. (Print)

Los Coronavirus son una familia de virus de amplia distribución en la naturaleza presentes principalmente en los animales. El Covid-19 es la enfermedad causada por el coronavirus (SARS-CoV-2), que fue identificado y caracterizado en enero de 2020 en China. Los profesionales del área odontológica deben tomar todas las medidas de protección al tener que realizar una atención de urgencia, lavado de manos y utilización de equipos de protección personal. Para cada una de las urgencias odontológicas consideradas en la guía del Ministerio de Salud de Chile se dan recomendaciones para el actuar y posterior desechos e higienización de materiales. El objetivo de este artículo de revisión es entregar recomendaciones actualizadas y atingentes a nuestra realidad nacional a fin de disminuir las posibilidades de contagio ante la exposición inminente de pacientes sospechosos o que pudiesen presentar Covid-19.

https://doi.org/
Clinical features of covid-19

The wide array of symptoms has implications for the testing strategy. In January 2020, coronavirus SARS-CoV-2 was identified as the cause of an outbreak of severe pneumonia, now known to be a complication of the coronavirus disease 2019 (covid-19). Since then, the spread of covid-19 has increased exponentially, with the World Health Organization declaring a pandemic on 11 March. By 15 April, more than 1,900,000 cases and 123,000 deaths had been reported worldwide. Severe acute respiratory illness with fever and respiratory symptoms, such as cough and shortness of breath, comprise the working case definition used to select people for viral testing. This strategy captures typical symptomatic presentation, but imperfectly identifies unusual manifestations, such as patients without respiratory symptoms or only very mild symptoms. One widely cited modelling study concluded that up to 86% of cases might have been missed in China, and reports of patients with unusual presenting symptoms are rising worldwide. Case series report gastrointestinal symptoms in 2-40% of patients, and diarrhoea can be the initial manifestation of infection. Whether SARS-CoV-2 leads ...
Year: 2020
Author: Virani, Ahmed; Rabold, Erica; Hanson, Taylor; Haag, Aaron; Elrufay, Rawiya; Cheema, Tariq; Balaan, Marvin; Bhanot, Nitin
Title: Guillain-Barré Syndrome associated with SARS-CoV-2 infection
Journal: IDCases
DOI: https://doi.org/10.1016/j.idcr.2020.e00771
Abstract: We present a case of Guillain-Barré Syndrome (GBS) in a patient with confirmed COVID-19 infection. GBS is commonly encountered after an antecedent trigger, most commonly an infection. To date, only one case of GBS associated with this infection has been described. Clinicians should consider this entity since it may warrant appropriate isolation precautions especially in a patient who may not present primarily with typical constitutional and respiratory symptoms associated with COVID-19.
URL: https://doi.org/10.1016/j.idcr.2020.e00771
Categories:

Year: 2020
Author: Vlachakis, Panayotis K.; Tentolouris, Anastasios; Tousoulis, Dimitris; Tentolouris, Nikolaos
Title: Current data on the cardiovascular effects of the COVID-19
Journal: Hellenic Journal of Cardiology
DOI: https://doi.org/10.1016/j.hjc.2020.04.001
Abstract:
URL: https://doi.org/10.1016/j.hjc.2020.04.001
Categories:

Year: 2020
Author: Vlachodimitropoulou Koumoutsea, Evangelia; Vivanti, Alexandre J.; Shehata, Nadine; Benachi, Alexandra; Le Gouez, Agnes; Desconclois, Celine; Whittle, Wendy; Snelgrove, John; Malinowski, Kinga Ann
Title: COVID19 and acute coagulopathy in pregnancy
Journal: Journal of thrombosis and haemostasis : JTH
DOI: 10.1111/jth.14856
Abstract: We present a putative link between maternal COVID19 infection in the peripartum period and rapid maternal deterioration with early organ dysfunction and coagulopathy. The current pandemic with SARS-CoV-2 has already resulted in high numbers of critically ill patients and deaths in the non-pregnant population, mainly due to respiratory failure. During viral outbreaks, pregnancy poses a uniquely increased risk to women due to changes to immune function, alongside physiological adaptive alterations, such as increased oxygen consumption and edema of the respiratory tract. The laboratory derangements may be reminiscent of HELLP syndrome, and thus knowledge of the COVID19 relationship is paramount for appropriate diagnosis and management. In addition to routine measurements of D-dimers, prothrombin time, and platelet count in all patients presenting with COVID19 as per ISTH guidance, monitoring of APTT and fibrinogen levels should be considered in pregnancy, as highlighted in this report. These investigations in SARS-CoV-2-positive pregnant women are vital, as their derangement may signal a more severe COVID19 infection, and may warrant pre-emptive admission and consideration of delivery to achieve maternal stabilization.
URL: https://doi.org/10.1111/jth.14856
Categories:

Year: 2020
Author: Vrdoljak, Eduard; Sullivan, Richard; Lawler, Mark
Title: Cancer and COVID-19; how do we manage cancer optimally through a public health crisis?
Journal: European Journal of Cancer
DOI: https://doi.org/10.1016/j.ejca.2020.04.001
Abstract:
URL: https://doi.org/10.1016/j.ejca.2020.04.001
Categories:
From Mitigation to Containment of the COVID-19 Pandemic

Walensky, Rochelle P.; Del Rio, Carlos

JAMA

DOI: 10.1001/jama.2020.6572

From Mitigation to Containment of the COVID-19 Pandemic: Putting the SARS-CoV-2 Genie Back in the Bottle

Walensky, Rochelle P.; Del Rio, Carlos

JAMA

DOI: 10.1001/jama.2020.6572

Top EU scientist ousted over plans for coronavirus research

Wallace, Nicholas

Science (New York, N.Y.)

DOI: 10.1126/science.368.6488.223


 Walsh, Catharine M.; Fishman, Douglas S.; Lerner, Diana G.

J Pediat Gastroenterol Nutr

DOI: 10.1097/MPG.0000000000002750

The delivery of endoscopic care is changing rapidly in the era of Coronavirus Disease 2019 (COVID-19). The North American Society for Pediatric Gastroenterology, Hepatology, and Nutrition (NASPGHAN) Endoscopy and Procedures Committee has formulated this statement to offer practical guidance to help standardize endoscopy services for pediatric patients with the aim of minimizing COVID-19 transmission to staff, patients, and caregivers and to conserve personal protective equipment (PPE) during this critical time. Appropriate use of PPE is essential to minimize transmission and preserve supply. Pediatric endoscopic procedures are considered at high risk for COVID-19 transmission. We recommend that all pediatric endoscopic procedures are done in a negative pressure room with all staff using proper airborne, contact, and droplet precautions regardless of patient risk stratification. This includes appropriate use of a filtering face-piece respirator (N95, N99, FFP2/3, or PAPR), double gloves, facial protection (full visor and/or face shield), full body water-resistant disposable gown, shoe covers and a hairnet. In deciding which endoscopic procedures should proceed, it is important to weigh the risks and benefits to optimize healthcare delivery and minimize risk. To inform these decisions, we propose a framework for stratifying procedures as emergent (procedures that need to PROCEED), urgent (PAUSE, weigh the benefits and risks in deciding whether to proceed) and elective (POSTPONE procedures). This statement was based on emerging evidence and is meant as a guide. It is important that all endoscopy facilities where pediatric procedures are performed follow current recommendations from public health agencies within their jurisdiction regarding infection prevention and control of COVID-19.
Abstract: The aim of this paper was to monitor the presence of SARS-Cov-2 among hospital environment surfaces, sewage, and personal protective equipment (PPE) of staffs in isolation wards in the First
Affiliated Hospital of Zhejiang University, China. Methods Surfaces of objects were routinely wiped with 1,000mg/L chlorine containing disinfectant. Air and sewage disinfection was proceeded routinely and strictly. Hospital environmental surfaces and PPE of staffs in isolation wards were sampled using swabs. The sewage from various inlet and outlets were sampled. The respiratory and stool specimens of patients were collected. The respiratory specimens of staffs in the isolation wards were also sampled once a week. Quantitative real-time reverse transcription PCR (qRT-PCR) methods were used to confirm the existence of SARS-CoV-2 RNA. Viral culture was done for the samples positive for SARS-CoV-2 RNA. Results During the study period, 33 laboratory-confirmed patients were hospitalized in isolation wards in the hospital. None of SARS-CoV-2 RNA was detected among the 36 objects surface samples and 9 staffs PPE samples in isolation wards. Though the 3 sewage samples from the inlet of preprocessing disinfection pool were positive for SARS-CoV-2 RNA and the sample from the outlet of preprocessing disinfection pool was weakly positive, the sewage sample from the outlet of the last disinfection pool was negative. All of the 5 sewage samples from various points were negative by viral culture of SARS-CoV-2. None of the respiratory specimens of staffs in the isolation wards were positive. Conclusions Though SARS-CoV-2 RNA of the sewage samples were positive from inlets of the sewage disinfection pool and negative from the outlet of the last sewage disinfection pool, no viable virus was detected by culture. The monitoring data in this study suggested that the strict disinfection and hand hygiene could decrease the hospital-associated COVID-19 infection risk of the staffs in isolation wards.

URL: https://doi.org/10.1016/j.ijid.2020.04.024
Categories:
hospitalization, and avoiding false negative result is critical essential. Methods We reviewed the medical record of 353 patients who received tests with both specimens simultaneously, and compared the performance between nasopharyngeal and oropharyngeal swabs. Results Of the 353 patients (outpatients, 192; inpatients, 161) studied, the median age was 54 years, and 177 (50.1%) were women. Higher positive rate (positive tests/total tests) was observed in nasopharyngeal swabs than oropharyngeal swabs, especially in inpatients. Nasopharyngeal swabs from inpatients showed higher positive rate than outpatients. Nasopharyngeal swabs from male showed higher positive rate than female, especially in outpatients. Detection with both specimens slightly increased the positive rate than nasopharyngeal swab only. Moreover, the consistency between from nasopharyngeal and oropharyngeal swabs were poor (Kappa=0.308). Conclusion In conclusion, our study suggests that nasopharyngeal swabs may be more suitable than oropharyngeal swab at this stage of COVID-19 outbreak.

URL:       https://doi.org/10.1016/j.ijid.2020.04.023
Categories:

Year:        2020
Author:      Wang, Yanbo; Zhao, Xudong; Feng, Qiang; Liu, Liang; Yao, Yuhong; Shi, Jingyu
Title:       Psychological assistance during the coronavirus disease 2019 outbreak in China
Journal:     Journal of health psychology
DOI:         10.1177/1359105320919177
Abstract:    Disaster psychological assistance has become an important part of the disaster relief system, playing a crucial role in restoring and maintaining emotional stability and security of people and reducing trauma-related stress. As the first country to experience the outbreak of the coronavirus disease 2019 (COVID-19), China actively adopted psychological assistance measures in response to the panic caused by the epidemic. These measures are expected to help the Chinese government and governments in other parts of the world to better respond to the outbreaks of COVID-19.

URL:        https://doi.org/10.1177/1359105320919177
Categories:

Year:        2020
Author:      Wang, Yin; Xu, Lizhe; Noll, Lance; Stoy, Colin; Porter, Elizabeth; Fu, Jingping; Feng, Yuan; Peddireddi, Lalitha; Liu, Xuming; Dodd, Kimberly A.; Jia, Wei; Bai, Jianfa
Title:       Development of a real-time PCR assay for detection of African swine fever virus with an endogenous internal control
Journal:     Transboundary and Emerging Diseases
DOI:         10.1111/tbed.13582
Abstract:    Real-time PCR assays are highly sensitive, specific and rapid techniques for the identification of ASF virus (ASFV) (Section 3.8, OIE Terrestrial Manual, 2019). Although an ASFV p72 gene based real-time PCR assay (a.k.a. the Zsak assay) (Zsak et al. J. Clinical Microbiology, 43, 2005, 112) has been widely used for ASFV detection, several more ASFV sequences have become available in the 15 years since the design of the Zsak assay. In this study, we developed a new ASFV p72 gene based real-time PCR after analysis of all currently available sequences of the p72 gene and multiplexed the new assay with a modified Zsak assay aiming to have a broader coverage of ASFV strain/isolates. To reduce false negative detections, porcine house-keeping gene, beta actin (ACTB), was applied as an internal control. Eight ACTB sequences from the GenBank and 61 partial ACTB sequences generated in this study, and 1,012 p72 sequences from the GenBank and 23 p72 sequences generated at FADDL, were used for ACTB and ASFV primer and probe designs, respectively, to ensure broader host and ASFV coverage. Multiplexing ACTB in the reaction did not inhibit ASFV amplification. The multiplex assay was evaluated for strain/isolate coverage, sensitivity and specificity. The in silico analysis showed high ASFV strain/isolate coverage: 98.4% (978/994) of all p72 sequences currently available. The limit of detection (LOD) was 6 plasmid copies or 0.1-1 TCID50/ml of ASFV isolates per reaction. Only targeted ASFV isolates and the viruses in the positive clinical samples were detected, indicating that the assay is highly specific (100% specificity). The test results of 26 ASFV isolates with different country origins showed that this newly developed multiplex assay performed better than the Zsak assay that has been widely accepted and used worldwide, indicating that it may be used as an alternative assay for ASFV detection.

URL:         https://doi.org/10.1111/tbed.13582
Categories:
Abstract: Vets can help government tackle Covid-19

URL: https://doi.org/10.1136/vr.m3002

Categories:

Year: 2020
Author: Webster, Paul
Title: How is biomedical research funding faring during the COVID-19 lockdown?
Journal: Nat Med
DOI: 10.1038/d41591-020-00010-4
Abstract: Background & Aims We compared clinical, laboratory, radiological, and outcome features of patients with SARS-CoV-2 infection (COVID-19) with pneumonia, with vs without diarrhea. Methods We performed a retrospective, single-center analysis of 84 patients with SARS-CoV-2 pneumonia in Wuhan Union Hospital, China, from January 19 through February 7, 2020. Cases were confirmed by real-time reverse transcriptase PCR of nasal and pharyngeal swab specimens for SARS-CoV-2 RNA. Blood samples were analyzed for white blood cell count, lymphocyte count, alanine aminotransferase, creatine kinase, lactate dehydrogenase, D-dimer, C-reactive protein, and in some cases, immunoglobulins, complement, lymphocyte subsets, and cytokines. Virus RNA was detected in stool samples by real-time PCR. Results Of the 84 patients with SARS-CoV-2 pneumonia, 26 (31%) had diarrhea. The duration of fever and dyspnea in patients with diarrhea was significantly longer than those without diarrhea (all P<.05). Stool samples from a higher proportion of patients with diarrhea tested positive for virus RNA (69%) than from patients without diarrhea (17%) (P<.001). As of February 19, a lower proportion of patients with diarrhea had a negative result from the latest throat swab for SARS-CoV-2 (77%) than patients without diarrhea (97%) (P=.010), during these patients’ hospitalization. Of 76 patients with a negative result from their latest throat swab test during hospitalization, a significantly higher proportion of patients with diarrhea had a positive result from the retest for SARS-CoV-2 in stool (45%) than patients without diarrhea (20%) (P=.039). Conclusions At a single center in Wuhan, China, 31% of patients with SARS-CoV-2 pneumonia had diarrhea. A significantly higher proportion of patients with diarrhea have virus RNA in stool than patients without diarrhea. Elimination of SARS-CoV-2 from stool takes longer than elimination from the nose and throat.
URL: https://doi.org/10.1016/j.cgh.2020.04.030
Categories:

Year: 2020
Author: Weible, Christopher M.; Nohrstedt, Daniel; Cairney, Paul; Carter, David P.; Crow, Deserai A.; Durnová, Anna P.; Heikkilä, Tanya; Ingold, Karin; McConnell, Allan; Stone, Diane
Title: COVID-19 and the policy sciences: initial reactions and perspectives
Journal: Policy Sciences
DOI: 10.1007/s11177-020-09381-4
Abstract: The world is in the grip of a crisis that stands unprecedented in living memory. The COVID-19 pandemic is urgent, global in scale, and massive in impacts. Following Harold D. Lasswell’s goal for the policy sciences to offer insights into unfolding phenomena, this commentary draws on the lessons of the policy sciences literature to understand the dynamics related to COVID-19. We explore the ways in which scientific and technical expertise, emotions, and narratives influence policy decisions and shape relationships among citizens, organizations, and
governments. We discuss varied processes of adaptation and change, including learning, surges in policy responses, alterations in networks (locally and globally), implementing policies across transboundary issues, and assessing policy success and failure. We conclude by identifying understudied aspects of the policy sciences that deserve attention in the pandemic’s aftermath.

URL: https://doi.org/10.1007/s11077-020-09381-4

Categories:

Year: 2020
Author: Weiner, Howard L.; Adelson, P. David; Brockmeyer, Douglas L.; Maher, Cormac O.; Gupta, Nalin; Smyth, Matthew D.; Jea, Andrew; Blount, Jeffrey P.; Riva-Cambrin, Jay; Lam, Sandi K.; Ahn, Edward S.; Albert, Gregory W.; Leonard, Jeffrey R.
Title: Editorial. Pediatric neurosurgery along with Children's Hospitals' innovations are rapid and uniform in response to the COVID-19 pandemic
DOI: 10.3171/2020.4.PEDS20240
Abstract:

URL: https://doi.org/10.3171/2020.4.PEDS20240

Categories:

Year: 2020
Author: Wenzel, Richard P.
Title: After Covid-19
Journal: Clinical Infectious Diseases
DOI: 10.1093/cid/ciaa455
Abstract:

URL: https://doi.org/10.1093/cid/ciaa455

Categories:

Year: 2020
Title: Responsibilities of Weaning Centers during the COVID-19 Pandemic Outbreak - Recommendations for the Assignment of ICU Capacities in COVID-19 Patients as shown by the Berlin-Brandenburg POST-SAVE-Model TT - Aufgaben der Weaning-Zentren im Pandemiefall COV
Journal: Pneumologie (Stuttgart, Germany)
DOI: 10.1055/a-1153-9710
Abstract: The enormous increase in patients with severe respiratory distress due to the COVID-19 pandemic outbreak requires a systematic approach to optimize ventilated patient at risk flow. A standardised algorithm called "SAVE" was developed to distribute patients with COVID-19 respiratory distress syndrome requiring invasive ventilation. This program is established by now in Berlin. An instrumental bottleneck of this approach is the vacant slot assignment in the intensive care unit to guarantee constant patient flow. The transfer of the patients after acute care treatment is needed urgently to facilitate the weaning process. In a next step we developed a triage algorithm to identify patients at SAVE intensive care units with potential to wean and transfer to weaning institutions - we called POST SAVE. This manuscript highlights the algorithms including the use of a standardised digital evaluation tool, the use of trained navigators to facilitate the communication between SAVE intensive care units and weaning institutions and the establishment of a prospective data registry for patient assignment and reevaluation of the weaning potential in the future. Die enorme Zunahme von Patienten mit schwerer respiratorischer Insuffizienz aufgrund der COVID19-Pandemie erfordert einen systematischen Ansatz zur Optimierung der Betreuung von beatmeten Patienten. Ein standardisierter Algorithmus namens SAVE wurde in Berlin entwickelt, um Patienten mit COVID-19-Infektion, die eine invasive Beatmung benötigen, zu lenken. Um Bettenkapazitäten auf den Intensivstationen sicherzustellen, muss eine konstante Patientenentlassung gewährleistet sein. Ein strukturierter Entlassungsprozess der Patienten nach der Akutbehandlung ist dringend erforderlich. In einem nächsten Schritt haben wir einen Triage-Algorithmus entwickelt, um Patienten auf SAVE-Intensivstationen zu identifizieren, die das Potenzial haben, von der Beatmung entwöhnt zu werden und in dafür spezialisierte Einrichtungen zu verlegen. Dieser Prozess ist das POST-SAVE-Konzept. In der vorliegenden Arbeit werden die Algorithmen dargestellt, einschließlich der Verwendung einer standardisierten digitalen Datenbank,
der Verwendung geschulter Lotsen zur Erleichterung der Kommunikation zwischen SAVE-Intensivstationen und Weaningeinheiten und der Etablierung eines prospektiven Datenregisters, um Patienten dauerhaft hinsichtlich ihres Weaningpotenzials reevaluieren zu können.
URL: https://doi.org/10.1055/a-1153-9710
Categories:

Year: 2020
Author: Willis, M. D.; Robertson, N. P.
Title: Multiple sclerosis and the risk of infection: considerations in the threat of the novel coronavirus, COVID-19/SARS-CoV-2
Journal: Journal of Neurology
DOI: 10.1007/s00415-020-09822-3
Abstract:
URL: https://doi.org/10.1007/s00415-020-09822-3
Categories:

Year: 2020
Author: Wilson, Clare
Title: Concern coronavirus may trigger post-viral fatigue syndromes
Journal: New Scientist
DOI: https://doi.org/10.1016/S0262-4079(20)30746-6
Abstract:
URL: https://doi.org/10.1016/S0262-4079(20)30746-6
Categories:

Year: 2020
Author: Wilson, M. P.; Coulden, R. A.; Low, G.
Title: COVID-19-related cardiac involvement and potential implications for cardiothoracic imaging
Journal: Clinical Radiology
DOI: https://doi.org/10.1016/j.crad.2020.04.004
Abstract:
URL: https://doi.org/10.1016/j.crad.2020.04.004
Categories:

Year: 2020
Author: Wittbold, Kelley A.; Baugh, Joshua J.; Yun, Brian J.; Raja, Ali S.; White, Benjamin A.
Title: iPad deployment for virtual evaluation in the emergency department during the COVID-19 pandemic
Journal: The American Journal of Emergency Medicine
DOI: https://doi.org/10.1016/j.ajem.2020.04.025
Abstract:
URL: https://doi.org/10.1016/j.ajem.2020.04.025
Categories:

Year: 2020
Author: Wong, John B.
Title: Pandemic Surge Models in the Time of Severe Acute Respiratory Syndrome Coronavirus-2: Wrong or Useful?
Journal: Ann Intern Med
DOI: 10.7326/M20-1956
Abstract:
URL: https://doi.org/10.7326/M20-1956
Categories:
Title: Precautions and Procedures for Coronary and Structural Cardiac Interventions During the COVID-19 Pandemic: Guidance from Canadian Association of Interventional Cardiology

Abstract: The globe is currently in the midst of a COVID-19 pandemic, resulting in significant morbidity and mortality. This pandemic has placed considerable stress on health care resources and providers. This document from the Canadian Association of Interventional Cardiology specifically addresses the implications for the care of patients in the cardiac catheterization laboratory (CCL) in Canada during the COVID-19 pandemic. The key principles of this document are to maintain essential interventional cardiovascular care while minimizing risks of COVID-19 to patients and staff and maintaining the overall health care resources. As the COVID-19 pandemic evolves, procedures will be increased or reduced based on the current level of restriction to health care services. Although some consistency across the country is desirable, provincial and regional considerations will influence how these recommendations are implemented. We believe the framework and recommendations in this document will provide crucial guidance for clinicians and policy makers on the management of coronary and structural procedures in the CCL as the COVID-19 pandemic escalates and eventually abates.

URL: https://doi.org/10.1016/j.cjca.2020.03.027

Categories:
nasopharyngeal swabs are mostly used as nucleic acid detection samples in China, but the positive rate is low. However, there are few reports on clinical application of 2019-nCoV nucleic acid detection in other biological samples. Methods | The East Section of Renmin Hospital of Wuhan University is a designated COVID-19 hospital in Wuhan City, Hubei Province, China. This observation study included 132 patients diagnosed with COVID-19 in the infectious disease areas of the East Section of Renmin Hospital of Wuhan University from 2020.1.31 to 2020.2.29. COVID-19 diagnostic criteria: according to China’s 《pneumonia diagnosis and treatment Program of novel coronavirus infection (trial version 7) 》， in accordance with the relevant epidemiological and clinical manifestations, nasopharyngeal swabs real-time fluorescence RT-PCR detection of 2019-nCoV nucleic acid positive, COVID-19 cases were divided into mild, ordinary, severe and severe [4]. The nasopharyngeal swabs of 132 cases of COVID-19 were positive for 2019-nCoV nucleic acid on admission, including 72 males and 60 females, with an average age of 66.7 ± 9.1 years, including 80 cases of common type, 44 cases of severe type and 8 cases of critical type. During the period of admission, under the condition of tertiary protection, nasopharyngeal swabs, sputum, blood, feces and anal swabs of COVID-19 cases were collected many times in the isolation ward for 2019-nCoV nucleic acid detection. All biological samples are sealed and transferred to the laboratory in strict accordance with the standard process. The RT-PCR test kits (BioGerm) were recommended by the Chinese Center for Disease Control and Prevention. The same technician and brand of test kit was used for all RT-PCR testing reported; both internal controls and negative controls were routinely performed with each batch of tests. Results | 132 the results of 2019-nCoV nucleic acid test of various biological samples during the treatment of confirmed COVID-19 cases are as follows: the positive rate of 2019-nCoV nucleic acid test of nasopharyngeal swab is 38.13% (180/472 times), the positive rate of 2019-nCoV nucleic acid test of sputum is 48.68% (148/304 times), the positive rate of blood 2019-nCoV nucleic acid test is 3.03% (4/132 times), and the positive rate of 2019-nCoV nucleic acid test of feces is 9.83% (24/244 times). The positive rate of 2019-nCoV nucleic acid detection in anal swabs is 10.00% (12/120 times). Discussion | In this study, it was found that the positive rate of 2019-nCoV nucleic acid in sputum of 132 patients with COVID-19 was higher than that of nasopharyngeal swabs, and viral nucleic acids were also detected in blood and digestive tract (fecal/anal swabs). Simple detection of nasopharyngeal swab 2019-nCoV nucleic acid detection positive rate is not high, multi-sample 2019-nCoV nucleic acid detection can improve the accuracy, reduce the false negative rate, better guide clinical treatment and evaluate the therapeutic effect.

URL: https://doi.org/10.1016/j.tmaid.2020.101673
Categories:
A novel coronavirus (COVID-19) pandemic threatens the world. Here, we first studied the dynamics profile of SARS-CoV-2 from 56 recovered COVID-19 patients. We found virus shedding was up to 6 weeks after onset of symptoms. Prolonged observation period is necessary for older patients.

Coronavirus disease 2019 (COVID-19) is widely spread and poses a critical threat to global health (Zhang et al). Prominent changes in coagulation function in severe patients of COVID-19 have been reported in a recent study (Han, et al 2020). Therefore, we conducted this quantitative meta-analysis to explore the difference in blood coagulation parameters between severe and mild cases of COVID-19.

Suppressed T cell-mediated immunity in patients with COVID-19: a clinical retrospective study in Wuhan, China

2019-nCoV epidemic was firstly reported at late December of 2019 and has caused a global outbreak of COVID-19 now. Saliva, a biofluid largely generated from salivary glands in oral cavity, has been reported 2019-nCoV nucleic acid positive. Besides lungs, salivary glands and tongue are possibly another hosts of 2019-nCoV due to expression of ACE2. Close contact or short-range transmission of infectious saliva droplets is a primary mode for 2019-nCoV to disseminate as claimed by WHO, while long-distance saliva aerosol transmission is highly environment dependent within indoor space with aerosol-generating procedures such as dental practice. So far, no direct evidence has been found that 2019-nCoV is vital in air flow for long time. Therefore, to prevent formation of
infectious saliva droplets, to thoroughly disinfect indoor air and to block acquisition of saliva droplets could slow down 2019-nCoV dissemination. This review summarizes diagnostic value of saliva for 2019-nCoV, possibly direct invasion into oral tissues, and close contact transmission of 2019-nCoV by saliva droplets, expecting to contribute to 2019-nCoV epidemic control.
beta-CoVs of medical importance. During the SARS-CoV and MERS-CoV epidemics, a variety of molecular and serological diagnostic assays were established and should be referred to for SARS-CoV-2. In this review, by summarizing the articles and guidelines about specimen collection, nucleic acid tests (NAT) and serological tests for SARS-CoV, MERS-CoV, and SARS-CoV-2, several suggestions are put forward to improve the laboratory testing of SARS-CoV-2. In summary, for NAT: collecting stool and blood samples at later periods of illness to improve the positive rate if lower respiratory tract specimens are unavailable; increasing template volume to raise the sensitivity of detection; putting samples in reagents containing guanidine salt to inactivate virus as well as protect RNA; setting proper positive, negative and inhibition controls to ensure high-quality results; simultaneously amplifying human RNase P gene to avoid false-negative results. For antibody test, diverse assays targeting different antigens, and collecting paired samples are needed.

URL: https://doi.org/10.1002/rmv.2106
Categories:

Year: 2020
Author: Yang, Ai-Ping; Liu, Jian-Ping; Tao, Wen-Qiang; Li, Hui-Ming
Title: The diagnostic and predictive role of NLR, d-NLR and PLR in COVID-19 patients
Journal: Int Immunopharmacol
DOI: 10.1016/j.intimp.2020.106504
Abstract: AIM: To accumulate evidence that indicated the key role played by virus-triggered inflammation in the 2019-novel coronavirus disease (COVID-19) which emerged in Wuhan City and rapidly spread throughout China. METHODS: Age, neutrophil(NEU)-to-lymphocyte (LYM) ratio (NLR), lymphocyte-to-monocyte (MON) ratio, platelet-to-lymphocyte ratio (PLR), and C-reactive protein (CRP) of 93 patients with laboratory confirmed COVID-19 were investigated and compared. The receiver operating characteristic curve was applied to determine the thresholds for five bio-markers, and their prognostic values were assessed via the Kaplan-Meier curve and multivariate COX regression models. RESULTS: The median age was 46.4 years old, and 37cases were females. A total of 27.8% of patients had been to Wuhan, and 73.1% had contacted with people from Wuhan. Fever (83.8%) and cough (70.9%) were the two most common symptoms. Elevated NLR and age were significantly associated with illness severity. The binary logistic analysis identified elevated NLR (hazard risk [HR] 2.46, 95% confidence interval [CI] 1.98-4.57) and age (HR 2.52, 95% CI 1.65-4.83) as independent factors for poor clinical outcome of COVID-19. NLR exhibited the largest area under the curve at 0.841, with the highest specificity (63.6%) and sensitivity (88%). CONCLUSIONS: Elevated age and NLR can be considered independent biomarkers for indicating poor clinical outcomes.

URL: https://doi.org/10.1016/j.intimp.2020.106504
Categories:

Year: 2020
Author: Yang, P.; Shao, F. L.; Wang, G. J.
Title: Clinical observation on increasing the positive rate of novel coronavirus nucleic acid tests by sputum excretion induced by nebulizer therapy
Journal: Zhonghua Jie He He Hu Xi Za Zhi
DOI: 10.3760/cma.j.cn112147-20200212-00076
Abstract: Coronavirus disease 2019 (COVID-19) is highly contagious, mainly causing inflammatory lesions in the lungs, and can also cause damage to the intestine and liver. The rapid spread of the virus that causes coronavirus disease 2019 (COVID-19) pneumonia has posed complex challenges to global public health. Early detection, isolation, diagnosis, and treatment are the most effective means of prevention and control. At present, the epidemic situation of new coronavirus infection has tended to be controlled in China, and it is still in a period of rapid rise in much of the world. The current gold standard for the diagnosis of COVID-19 is the detection of coronavirus nucleic acids, but imaging has an important role in the detection of lung lesions, stratification,
evaluation of treatment strategies, and differentiation of mixed infections. This Chinese expert consensus statement summarizes the imaging features of COVID-19 pneumonia and may help radiologists across the world to understand this disease better.

URL: https://doi.org/10.1016/j.ejrad.2020.109008

Abstract: BACKGROUND: Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), which causes novel coronavirus disease 2019 (COVID-19), is spreading rapidly around the world. Thrombocytopenia in patients with COVID-19 has not been fully studied. OBJECTIVE: To describe thrombocytopenia in patients with COVID-19. METHODS: For each of 1476 consecutive patients with COVID-19 from Jinyintan Hospital, Wuhan, China, nadir platelet count during hospitalization was retrospectively collected and categorized into (0, 50], (50, 100], (100 - 150] or (150 - ] group after taking the unit (× 10(9/L) ) away from the report of nadir platelet count. Nadir platelet counts and in-hospital mortality were analyzed. RESULTS: Among all patients, 238 (16.1%) patients deceased and 306 (20.7%) had thrombocytopenia. Compared with survivors, non-survivors were older, were more likely to have thrombocytopenia and had lower nadir platelet counts. The in-hospital mortality was 92.1%, 61.2%, 17.5% and 4.7% for (0, 50], (50, 100], (100 - 150] and (150 - ] group, respectively. With (150 - ] as the reference, nadir platelet counts of (100 - 150], (50, 100] and (0, 50] group had a relative risk of 3.42 (95% CI 2.36 - 4.96), 9.99 (95% CI 7.16 - 13.94) and 13.68 (95% CI 9.89 - 18.92), respectively. CONCLUSIONS: Thrombocytopenia is common in patients with COVID-19, and it is associated with increased risk of in-hospital mortality. The lower the platelet count is, the higher the mortality becomes.

URL: https://doi.org/10.1111/jth.14848

Abstract: The COVID-19 outbreak has drawn heightened attention from public health scholars researching ways to limit its spread. Much of the research has been focused on minimizing transmission in hospitals and in the general community. However, a particularly vulnerable community that has received relatively little attention is elders residing in long-term care facilities (LTCFs). In this article we address this relative lack of attention, arguing that enhanced traffic control bundling (eTCB) can and should be adopted and implemented as a means of protecting LTCF residents and staff. Enhanced TCB has been widely applied in hospital settings and has proven effective at limiting droplet and fomite transmissions both within hospitals and between hospitals and the general community. By effectively adapting eTCB to LTCF conditions, particularly by incorporating compartmentalization within zones plus active surveillance, COVID-19 transmission into and throughout LTCFs can be minimized, thereby saving numerous lives among an especially vulnerable population.

URL: https://doi.org/10.1016/j.jmii.2020.04.003

Abstract: COVID-19 & the General Surgical Department - Measures to Reduce Spread of SARS-COV-2 Among Surgeons

URL: https://doi.org/10.1097/SLA.0000000000003957
Year: 2020
Author: Yeo, Yao Yu; Ganem, Bruce
Title: The Importance of Initial Response During Outbreaks: A Perspective from Observations on COVID-19
Journal: Infection Control & Hospital Epidemiology
DOI: 10.1017/ice.2020.150
Abstract: Three countries and sovereignties that have managed COVID-19 remarkably well (Singapore, Hong Kong, Taiwan) happen to be densely populated regions that frequently inter-travel with mainland China, which makes their achievement noteworthy. Since the inception of COVID-19, these countries have made tests widely available and accessible and carried out rigorous contact tracing, thus facilitating the diagnosis and treatment of every case. Ministers have also been warning about the impending outbreak and relaying accurate information round the clock. While initially creating much panic, these efforts resulted in a perpetual minimal relative number of new cases over the past few months (Fig. 1). Today, Singapore, Hong Kong, Taiwan enjoy a reassuring sense of social calm and security. By contrast, three countries that currently face sharp increases of new cases each day (Italy, Spain, U.S.) (Fig. 1) either delayed or lacked sufficient access to reliable testing for varying reasons. One critical difference in initial approach was the overall sense of complacency by government officials, resulting in a reactive instead of proactive response. Italy, Spain, and the U.S chose to reassure the populace and downplayed the threat of COVID-19.
URL: https://doi.org/10.1017/ice.2020.150

Year: 2020
Author: Yeung, Peter
Title: Facing two deadly viruses
Journal: New Scientist
DOI: https://doi.org/10.1016/S0262-4079(20)30743-0
Abstract: As covid-19 begins to take hold, the Democratic Republic of the Congo has detected its first new Ebola cases in months, reports Peter Yeung
URL: https://doi.org/10.1016/S0262-4079(20)30743-0

Year: 2020
Author: Yin, ZhiQiang
Title: Covid-19: Countermeasure for N95 mask-induced pressure sore
Journal: Journal of the European Academy of Dermatology and Venereology : JEADV
DOI: 10.1111/jdv.16490
Abstract: As known to all, World Health Organization has declared on March 11th, 2020 that Coronavirus (Covid-19) epidemic could be characterized as a pandemic, which proposed a big challenge for healthcare works worldwide, especially doctors and nurses. The strong infectiousness of SARS-CoV-2 forces medical personnel to do good and needful safeguard against virus.
URL: https://doi.org/10.1111/jdv.16490

Year: 2020
Author: Yip, Paul S. F.; Chau, Pui Hing
Title: Physical Distancing and Emotional Closeness Amidst COVID-19
Journal: Crisis
DOI: 10.1027/0227-5910/a000710
Abstract: https://doi.org/10.1027/0227-5910/a000710
Can Global Pharmaceutical Supply Chains Scale Up Sustainably for the COVID-19 Crisis?

Resources, Conservation and Recycling

https://doi.org/10.1016/j.resconrec.2020.104868

Assessment of the quality of systematic reviews on COVID-19: A comparative study of previous coronavirus outbreaks

Journal of medical virology

10.1002/jmv.25901

THE HISTORY OF INVESTIGATION AND MODERN CLASSIFICATION OF CORONAVIRUSES (NIDOVIRALES: CORONAVIRIDAE); ИСТОРИЯ ИЗУЧЕНИЯ И СОВРЕМЕННАЯ КЛАССИФИКАЦИЯ КОРОНАВИРУСОВ (NIDOVIRALES: CORONAVIRIDAE)

Russian Journal of Infection and Immunity (Infektsiya i immunitet) / Инфекция и иммунитет
a repeated layering of obsolete names. By the beginning of the XXI century coronaviruses were a serious veterinary
problem but it was believed that epidemic coronaviruses were not especially dangerous. The scientific community
had to revise these views for the very first time in 2002, when SARS-CoV (Severe acute respiratory syndrome-
related coronavirus) virus entered the human population from the bats in Southeast Asia, and then in 2012 â€“
when natural foci of the MERS-CoV (Middle East respiratory syndrome-related coronavirus) were discovered on the
territory of the Arabian Peninsula. As a result of increased interest in coronaviruses a large number of new
members of the Coronaviridae were discovered in the first two decades of the XXI century, which required several
revisions of the taxonomic structure of this family. This review is devoted to the history of studying coronaviruses
and the system of their modern classification, which has developed at the beginning of 2020 in accordance with
the latest recommendations of the International Committee on Taxonomy of Viruses. 

URL: https://doi.org/

Categories:
BACKGROUND: The coronavirus disease 2019 (COVID-19) had spread rapidly since late December 2019. Personal protective equipment was essential to prevent transmission. Owing to shortage of face masks, Taiwan government began to implement quasi rationing on February 6, 2020, by allowing each resident to purchase two masks in seven days. Taiwan National Health Insurance Administration offered online data with real-time updates on face mask availability in all contracted pharmacies and selected local health centers. Based on the open data, numerous software applications quickly emerged to assist the public in finding sales locations efficiently. METHODS: Up until March 15, 2020, the Public Digital Innovation Space of Taiwan government had recorded 134 software applications of face mask availability, and 24 were excluded due to defect, duplicate and unavailability. These applications were analyzed according to platform, developer type, and display mode. RESULTS: Of the 110 valid software applications, 67 (60.9%) applications were deployed on websites, followed by 21 (19.1%) on social networking sites, 19 (17.3%) as mobile applications, and 3 (2.7%) in other modes. Nearly two thirds (n = 70) of applications were developed by individuals, one third (n = 37) by commercial companies, only two applications by central and local governments, and one by a non-governmental organization. With respect to the display mode, 47 (42.7%) applications adopted map-view only, 41 (37.3%) table-view only, and 19 (17.3%) both modes. Of the remaining three applications, two offered voice user interfaces and one used augmented reality. CONCLUSION: Taiwan’s open data strategy facilitated rapid development of software applications for information dissemination to the public during the COVID-19 crisis. The transparency of real-time data could help alleviate the panic of the public. The collaborative contributions from the grassroots in disasters were priceless treasures.


CONCLUSIONS: The Taiwan government’s quasi rationing system and the open data provided a unique opportunity for the rapid development of software applications that facilitated the public’s access to face masks. This study demonstrated the potential of open data in disaster response and public health. The collaborative contributions from the grassroots in disasters were priceless treasures.

URL: https://doi.org/10.1097/JCMA.0000000000000325


Efficacy and safety of lopinavir/ritonavir or arbidol in adult patients with mild/moderate COVID-19: an exploratory randomized controlled trial

BACKGROUND: Antiviral therapies against the novel coronavirus SARS-CoV-2, which has caused a global pandemic of respiratory illness called COVID-19, are still lacking. Methods: Our study (NCT04252885, named ELACOI), was an exploratory randomized (2:2:1) controlled trial assessing the efficacy and safety of lopinavir/ritonavir (LPV/r) or arbidol monotherapy for treating patients with mild/moderate COVID-19. Findings: This study successfully enrolled 86 patients with mild/moderate COVID-19 with 34 randomly assigned to receive LPV/r, 35 to arbidol and 17 with no antiviral medication as control. Baseline characteristics of the three groups were comparable. The primary endpoint, the rate of positive-to-negative conversion of SARS-CoV-2 nucleic acid, was similar between groups (all P>0.05). There were no differences between groups in the secondary endpoints, the rates of antipyresis, cough alleviation, or improvement of chest CT at days 7 or 14 (all P>0.05). At day 7, eight (23.5%) patients in the LPV/r group, 3 (8.6%) in the arbidol group and 2(11.8%) in the control group showed a deterioration in clinical status from moderate to severe/critical (P =0.206). Overall, 12 (35.3%) patients in the LPV/r group and 5 (14.3%) in the arbidol group experienced adverse events during the follow-up period. No apparent 4 4 adverse event occurred in the control group. Conclusions: LPV/r or arbidol monotherapy present little benefit for improving the clinical outcome of patients hospitalized with mild/moderate COVID-19 over supportive care. Funding: This study was supported by project 2018ZX10302103-002, 2017ZX10202102-003-004 and Infectious Disease Specialty of Guangzhou High-level Clinical Key Specialty (2019-2021).
Year: 2020
Author: Yun, Hu; Sun, Zhuoran; Wu, Jun; Tang, Aiguo; Hu, Min; Xiang, Zhongyuan
Title: Laboratory data analysis of novel coronavirus (COVID-19) screening in 2510 patients
Journal: Clinica Chimica Acta
DOI: https://doi.org/10.1016/j.cca.2020.04.018
Abstract: Background Novel coronavirus (COVID-19) is highly infectious and requires early detection, isolation, and treatment. We tried to find some useful information by analyzing the covid-19 screening data, so as to provide help for clinical practice. Method We collected nucleic acid and hematology data from 2510 patients for COVID-19 infection for retrospective analysis. Result COVID-19 and influenza A and B infection rates were 1.3%, 3%, and 3%, respectively. COVID-19 nucleic acid was detected in stool but not in tear samples from 8 positive patients. Among the 32 patients with COVID-19, 15 (47%) and 16 (50%) patients showed decreased lymphocyte count and lymphocyte ratio, 21 (66%) and 24 (75%) patients showed decreased eosinophil count and eosinophil ratio, and 18 (56%) patients showed increased C-reactive protein. Ten hematological indicators significantly differed in the blood of patients with COVID-19 and those with influenza A and B (P < 0.05). Eighteen hematological indicators significantly differed between patients with COVID-19 and negative patients (P < 0.05). Conclusion The positive rate of influenza A and B infection was higher than that of COVID-19. When pharyngeal swab collection may cause infection, fecal samples can be examined. Evaluation of pharyngeal swab and fecal samples can improve the positive rate of nucleic acid detection. The COVID-19 can cause some hematological indices changes.
URL: https://doi.org/10.1016/j.cca.2020.04.018
Categories:
other countries in December 2019. The infected patients presented with fever, respiratory symptoms, sometimes with digestive and other systemic manifestations, and some progressed with a severe acute respiratory syndrome or even death. Associated digestive symptoms were frequently observed in the patients, with an unknown significance and mechanism. ACE2, as the major known functional receptor of the 2019 novel coronavirus (2019-nCoV) attracted our attention. We collected the clinical data of the 2019-nCoV-infected patients from published studies and extracted the data about the incidence of gastrointestinal symptoms. Furthermore, we used online datasets to analyze ACE2 expression in different human organs, especially in the small intestine, to explore the relationship between ACE2 expression patterns and clinical symptoms. We found that diarrhea accounted for a notable proportion of COVID-19 patients, ranging from 8.0% to 12.9%. The results reveal that ACE2 mRNA and protein are highly expressed in the small intestinal enterocytes but not in the goblet cells or intestinal immune cells. High expression of ACE2 on the surface cells in the digestive tract may lead to gastrointestinal symptoms and inflammation susceptibility. Overall, digestive symptoms were common in the COVID-19 patients. ACE2 expression on surface cells of the small intestine may mediate the invasion and amplification of the virus and activation of gastrointestinal inflammation. It is a possible mechanism of digestive symptoms in the COVID-19 patients and explains the presence of the virus in patients’ stool samples. The study also highlights the necessity of taking stool samples for suspected patients to help in early diagnosis and assessment of disease status.

URL: https://doi.org/10.1016/j.ijid.2020.04.027
Categories:

Year: 2020
Author: Zhang, Jie; Lu, Huipeng; Zeng, Haiping; Zhang, Shining; Du, Qifeng; Jiang, Tingyun; Du, Baoguo
Title: The differential psychological distress of populations affected by the COVID-19 pandemic
Journal: Brain Behav Immun
DOI: 10.1016/j.bbi.2020.04.031
Abstract: URL: https://doi.org/10.1016/j.bbi.2020.04.031
Categories:

Year: 2020
Author: Zhang, Jixiang; Wang, Xiaoli; Jia, Xuemei; Li, Jiao; Hu, Ke; Chen, Guozhong; Wei, Jie; Gong, Zuojiong; Zhou, Chenliang; Yu, Hongang; Yu, Mosheng; Lei, Hongbo; Cheng, Fan; Zhang, Binhong; Xu, Yu; Wang, Gaohua; Dong, Weiguo
Title: Risk factors for disease severity, unimprovement, and mortality of COVID-19 patients in Wuhan, China
Journal: Clin Microbiol Infect
DOI: 10.1016/j.cmi.2020.04.012
Abstract: OBJECTIVE: Since December 2019, coronavirus disease (COVID-19) emerged in Wuhan. However, the characteristics and risk factors associated with disease severity, unimprovement and mortality are unclear. METHODS: All consecutive patients diagnosed with COVID-19 admitted to the Renmin Hospital of Wuhan University from January 11 to February 6, 2020 were enrolled in this retrospective cohort study. RESULTS: A total of 663 COVID-19 patients were included in this study. Among those, 247 (37.3%) had at least one kind of chronic disease. A total of 0.5% (n=3) of patients were diagnosed with mild COVID-19, while 37.8% (251/663), 47.5% (315/663), and 14.2% (94/663) were in moderate, severe, and critical condition, respectively. In our hospital during follow-up, 251 of 663 (37.9%) patients were improved and 25 patients died, leading to a mortality rate of 3.77%. Older patients (>60 years old) and those with chronic diseases were prone to have severe and critical COVID-19 conditions, show unimprovement, and die (P < 0.001, < 0.001). Multivariate logistic regression analysis identified being male (OR = 0.486, 95% CI 0.311-0.758; P = 0.001), having severe COVID-19 conditions (OR = 0.129, 95% CI 0.082-0.201; P < 0.001), expectoration (OR = 1.796, 95% CI 1.062-3.036; P = 0.029), muscle ache (OR = 0.309, 95% CI 0.153-0.626; P = 0.001), and decreased albumin (OR = 1.929, 95% CI 1.199-3.104; P = 0.007) were associated with unimprovement in COVID-19 patients. CONCLUSION: Being male, in severe COVID-19 conditions, expectoration, muscle ache, and decreased albumin were independent risk factors which influence the improvement of COVID-19 patients.
URL: https://doi.org/10.1016/j.cmi.2020.04.012
Categories:
Year: 2020
Author: Zhang, Li; Li, Jiyong; Zhou, Mingxing; Chen, Zhijun
Title: Summary of 20 tracheal intubation by anesthesiologists for patients with severe COVID-19 pneumonia: retrospective case series
Journal: Journal of Anesthesia
DOI: 10.1007/s00540-020-02778-8
Abstract: SARS-CoV-2 pandemic is announced and it is very important to share our experience to the critical care community in the early stage. Urgent intubation team was organized by anesthesiologists and was dispatched upon request. We have retrospectively reviewed medical charts of 20 critically ill patients with Covid-19 pneumonia who required tracheal intubation from February 17 to March 19 in Wuhan No.1 hospital, China. We collected their demographics, vital signs, blood gas analysis before and after tracheal intubation, and 7-day outcome after tracheal intubation. Out of 20 patients, 90% were over 60 years old and 15 were with at least one comorbidity. All meet the indication for tracheal intubation announced by treatment expert group. We had successfully intubated all patients using personal protective equipment without circulatory collapse during tracheal intubation. During the observational period, none of 17 anesthesiologists were infected. Although intubation improved SPO2, reduced PaCO2 and blood lactate, seven of 20 patients died within 7-days after tracheal intubation. Non-survivors showed significantly lower SPO2 and higher PaCO2 and blood lactate compared to survivors. For those who are anticipated to deteriorate severe pneumonia with poor prognosis, earlier respiratory support with tracheal intubation may be advised to improve outcome.
URL: https://doi.org/10.1007/s00540-020-02778-8
Categories:

Year: 2020
Author: Zhang, Litao; Yan, Xinsheng; Fan, Qingkun; Liu, Haiyan; Liu, Xintian; Liu, Zejin; Zhang, Zhenlu
Title: D-dimer levels on admission to predict in-hospital mortality in patients with Covid-19
Journal: Journal of Thrombosis and Haemostasis
DOI: 10.1111/jth.14859
Abstract: Abstract Background The outbreak of the coronavirus disease 2019 (Covid-19) shows a global spreading trend. Early and effective predictors of clinical outcomes is urgent needed to improve management of Covid-19 patients. Objective The aim of the present study was to evaluate whether elevated D-dimer levels could predict mortality in patients with Covid-19. Methods Patients with laboratory confirmed Covid-19 were retrospective enrolled in Wuhan Asia General Hospital from January 12, 2020 to March 15, 2020. D-dimer levels on admission, and death events were collected to calculate the optimum cutoff using receiver operating characteristic curve. According to the cutoff, the subjects were divided into two groups. Then the in-hospital mortality between two groups were compared to assess the predictive value of D-dimer level. Results A total of 343 eligible patients were enrolled in the study. The optimum cutoff value of D-dimer to predict in-hospital mortality was 2.0 µg/ml with a sensitivity of 92.3% and a specificity of 83.3%. There were 67 patients with D-dimer≥2.0 µg/ml, and 267 patients with D-dimer <2.0 µg/ml on admission. 13 deaths occurred during hospitalization. Patients with D-dimer levels≥2.0 µg/ml had a higher incidence of mortality when comparing to those who with D-dimer levels < 2.0 µg/ml (12/67 vs 1/267, P<0.001, HR:51.5, 95%CI:12.9-206.7). Conclusions D-dimer on admission greater than 2.0µg/mL (fourfold increase) could effectively predict in-hospital mortality in patients with Covid-19, which indicated D-dimer could be an early and helpful marker to improve management of Covid-19 patients.
URL: https://doi.org/10.1111/jth.14859
Categories:

Year: 2020
Author: Zhang, Li; Li, Jiyong; Zhou, Mingxing; Chen, Zhijun
Title: Association of Inpatient Use of Angiotensin Converting Enzyme Inhibitors and Angiotensin II Receptor Blockers with Mortality Among Patients With Hypertension Hospitalized With COVID-19
Journal: Circulation research
DOI: 10.1161/CIRCRESAHA.120.317134
Abstract: Rationale: Use of angiotensin-converting enzyme inhibitors (ACEIs) and angiotensin II receptor blockers (ARBs) is a major concern for clinicians treating coronavirus disease 2019 (COVID-19) in patients with hypertension. Objective: To determine the association between in-hospital use of ACEI/ARB and all-cause mortality in COVID-19 patients with hypertension. Methods and Results: This retrospective, multi-center study included 1128 adult patients with hypertension diagnosed with COVID-19, including 188 taking ACEI/ARB (ACEI/ARB group; median age 64 [IQR 55-68] years; 53.2% men) and 940 without using ACEI/ARB (non-ACEI/ARB group; median age 64 [IQR 57-69]; 53.5% men), who were admitted to nine hospitals in Hubei Province, China from December 31, 2019 to February 20, 2020. Unadjusted mortality rate was lower in the ACEI/ARB group versus the non-ACEI/ARB group (3.7% vs. 9.8%; P = 0.01). In mixed-effect Cox model treating site as a random effect, after adjusting for age, gender, comorbidities, and in-hospital medications, the detected risk for all-cause mortality was lower in the ACEI/ARB group versus the non-ACEI/ARB group (adjusted HR, 0.42; 95% CI, 0.19-0.92; P = 0.03). In a propensity score-matched analysis followed by adjusting imbalanced variables in mixed-effect Cox model, the results consistently demonstrated lower risk of COVID-19 mortality in patients who received ACEI/ARB versus those who did not receive ACEI/ARB (adjusted HR, 0.37; 95% CI, 0.15-0.89; P = 0.03). Further subgroup propensity score-matched analysis indicated that, compared to use of other antihypertensive drugs, ACEI/ARB was also associated with decreased mortality (adjusted HR, 0.30; 95%CI, 0.12-0.70; P = 0.01) in COVID-19 patients with hypertension. Conclusions: Among hospitalized COVID-19 patients with hypertension, inpatient use of ACEI/ARB was associated with lower risk of all-cause mortality compared with ACEI/ARB non-users. While study interpretation needs to consider the potential for residual confounders, it is unlikely that in-hospital use of ACEI/ARB was associated with an increased mortality risk.

URL: https://doi.org/10.1161/CIRCRESAHA.120.317134
Categories:

Year: 2020
Author: Zhao, Bing; Ni, Chao; Gao, Ran; Wang, Yuyan; Yang, Li; Wei, Jinsong; Lv, Ting; Liang, Jianqing; Zhang, Qisheng; Xu, Wei; Xie, Youhua; Wang, Xiaoyue; Yuan, Zhenghong; Liang, Junbo; Zhang, Rong; Lin, Xinhua
Title: Recapitulation of SARS-CoV-2 infection and cholangiocyte damage with human liver ductal organoids
Journal: Protein & Cell
DOI: 10.1007/s13238-020-00718-6
Abstract: 

URL: https://doi.org/10.1007/s13238-020-00718-6
Categories:

Year: 2020
Author: Zhao, Jing-Ya; Yan, Jia-Yang; Qu, Jie-Ming
Title: Interpretations of "Diagnosis and Treatment Protocol for Novel Coronavirus Pneumonia (Trial Version 7)"
Journal: Chin Med J (Engl)
DOI: 10.1097/CM9.00000000000000866
Abstract: 

URL: https://doi.org/10.1097/CM9.00000000000000866
Categories:

Year: 2020
Author: Zhao, Xin; Wu, Youchun; Li, Zhiwei; Liu, Lei
Title: Response to the COVID-19 epidemic: a report from Shenzhen, China
Journal: Global Health & Medicine
DOI: 10.35772/ghm.2020.01025
Abstract: The whole world is now facing an unprecedented pandemic with over 1.8 million confirmed cases and more than one hundred thousand deaths. To counter the pandemic, Shenzhen created a central command and control structure based on the only designated hospital- Shenzhen Third People's Hospital which is a large general hospital specialized on infectious diseases in the bay area. The hospital has taken many decisive and effective actions to respond to the epidemic. Here, we will describe and share healthcare experiences from Shenzhen and call for international cooperation and collaboration.

URL: https://doi.org/10.35772/ghm.2020.01025
Categories:
Obesity as a risk factor for greater severity of COVID-19 in patients with metabolic associated fatty liver disease

**Abstract:** Background & Aims. Coronavirus disease 2019 (COVID-19) has been declared a pandemic in 2020. Patients with metabolic associated fatty liver disease (MAFLD) are often obese and have additional metabolic risk factors which may aggravate the severity of respiratory diseases and of COVID-19. This study aims to investigate the association between MAFLD and COVID-19 severity. Methods 214 patients with laboratory-confirmed COVID-19 aged between 18 and 75 years from three hospitals in Wenzhou, China were consecutively enrolled. Sixty-six patients with MAFLD were included in the final analysis. COVID-19 was diagnosed as a positive result by high-throughput sequencing or real-time reverse transcriptase-polymerase chain reaction assay of oropharyngeal swab specimens. COVID-19 severity was assessed during hospitalization and classified as severe and non-severe based on the current management guideline. All patients were screened for fatty liver by computed tomography and subsequently diagnosed as MAFLD according to a recent set of consensus diagnostic criteria. Obesity was defined as BMI >25 kg/m2. Results The presence of obesity in MAFLD patients was associated with a ~6-fold increased risk of severe COVID-19 illness (unadjusted OR 5.77, 95% CI 1.19–27.91, p = .029). Notably, this association with obesity and COVID-19 severity remained significant (adjusted OR 6.32, 95% CI 1.16–34.54, p = .033) even after adjusting for age, sex, smoking, diabetes, hypertension, and dyslipidaemia. Conclusions Our data demonstrate that the risk of obesity to COVID-19 severity is greater in those with, than those without MAFLD.

**URL:** https://doi.org/10.1016/j.metabol.2020.154244

**Categories:**

Epidemiological characteristics and clinical features of 32 critical and 67 noncritical cases of COVID-19 in Chengdu

**Abstract:** BACKGROUND: In December 2019, Wuhan, China, experienced an outbreak of coronavirus (COVID-19). The number of cases has increased rapidly, but information on the clinical characteristics remains limited. OBJECTIVES: This paper describes the epidemiological and clinical characteristics of COVID-19. Early detection and identification of critically ill patients is necessary to facilitate scientific classification and treatment. STUDY DESIGN: This study included a retrospective, single-center case series of 99 consecutively hospitalized patients with confirmed COVID-19 at Chengdu Public Health Clinical Medical Center in Chengdu, China, from January 16 to February 20, 2020. The final date of follow-up was February 23, 2020. We collected and analyzed epidemiological, demographic, clinical, laboratory, radiological, and treatment data. We compared outcomes of critically ill patients and noncritically ill patients. RESULTS: Of the 99 hospitalized patients with COVID-19, the median age was 49 years (minimum, 3 months; maximum, 87 years) and 51 (52 %) were men; 42 (42 %) had traveled to or lived in Wuhan and 48 (49 %) had come into close contact with patients with new coronavirus pneumonia; 41 (41 %) patients had underlying disease. Common symptoms included fever (85 [86 %]), dry cough (84 [85 %]), and fatigue (72 [73 %]). We analyzed the clinical characteristics of patients. We expressed the measurement data as mean±standard deviation. We collected data for age (49.39±18.45 years), number of hospital days (12.32±6.70 days), and laboratory indicators. We compared critically ill and noncritically ill patients: p-values for age, C-reactive protein, high-sensitivity troponin T, prothrombin time, fibrin degradation products, D-Dimer, and CD4+ count were p<0.001; and p-values for hospital days, white blood cell, neutrophil, lymphocyte, creatine kinase isoenzyme,
myoglobin, N-terminal brain natriuretic peptide, and CD8+ count were p<0.05. CONCLUSIONS: We collected data from a single-center case series of 32 hospitalized patients who were critically ill with confirmed COVID-19 in Chengdu, China, and compared data with 67 noncritically ill patients. Elderly patients had chronic underlying diseases, notably cardiovascular disease. Higher C-reactive protein levels, higher levels of myocardial damage, and higher brain natriuretic peptide levels; lower white blood cells, neutrophils, and lymphocytes; and lower CD4 and CD8 counts could be used for early detection and identification of critically ill patients, and dynamic Data observation was more important than at a single moment.

URL: https://doi.org/10.1016/j.jcv.2020.104366
Categories:

Year: 2020
Author: Zhifeng, Jiang; Feng, Aiqiao; Li, Tao
Title: Consistency analysis of COVID-19 nucleic acid tests and the changes of lung CT
Journal: J Clin Virol
DOI: 10.1016/j.jcv.2020.104359
Abstract: BACKGROUND: COVID-19, the latest outbreak of infectious disease, has caused huge medical challenges to China and the entire globe. No unified diagnostic standard has been formulated. The initial diagnosis remains based on the positive of nucleic acid tests. However, early nucleic acid tests were identified to be negative in some patients, whereas the patients exhibited characteristic CT changes of lung, and positive test results appeared after repeated nucleic acid tests, having caused the failure to diagnose these patients early. The study aimed to delve into the relationships between initial nucleic acid testing and early lung CT changes in patients with COVID-19. METHOD: In accordance with the latest COVID-19 diagnostic criteria, 69 patients diagnosed with COVID-19 treated in the infected V ward of Xiaogan Central Hospital from 2020/1/25 to 2020/2/6 were retrospectively analyzed. The consistency between the first COVID-19 nucleic acid test positive and lung CT changes was studied. In addition, the sensitivity and specificity of CT and initial nucleic acid were studied. RESULT: The Kappa coefficient of initial nucleic acid positive changes and lung CT changes was -1.52. With a positive nucleic acid test as the gold standard, the sensitivity of lung CT was 12.00 %, 95 % CI: 4.6-24.3; with the changes of CT as the gold standard, the sensitivity of nucleic acid positive was 30.16 %, 95 % CI: 19.2-43.0. CONCLUSION: The consistency between the initial positive nucleic acid test and the CT changes in the lungs is poor; low sensitivity was achieved for initial nucleic acid detection and CT changes.

URL: https://doi.org/10.1016/j.jcv.2020.104359
Categories:

Year: 2020
Author: Zhongqing, Xu
Title: Self-care of medical staff in primary care: An issue that needs attention during the COVID-19 outbreak
Journal: Australian journal of general practice
DOI: 10.31128/AJGP-COVID-11
Abstract: Self-care is essential for primary care professionals who are at risk of COVID-19.

URL: https://doi.org/10.31128/AJGP-COVID-11
Categories:

Year: 2020
Author: Zhou, Bo; She, Jianqing; Wang, Yadan; Ma, Xiancang
Title: Venous thrombosis and arteriosclerosis obliterans of lower extremities in a very severe patient with 2019 novel coronavirus disease: a case report
Journal: Journal of Thrombosis and Thrombolysis
DOI: 10.1007/s11239-020-02084-w
Abstract: The outbreak of 2019 novel coronavirus disease (COVID-19) began since early December 2019, and has been declared as a public health emergency by the World Health Organization. Due to the hypercoagulable state, blood stasis and endothelial injury, severe patients with COVID-19 are at high risk for thrombosis. We report a case of very severe COVID-19 complicated with venous thrombosis and arteriosclerosis obliterans of lower extremities. Risk stratification for deep vein thrombosis and peripheral arterial disease are of vital importance for the prognosis of COVID-19.

URL: https://doi.org/10.1007/s11239-020-02084-w
Categories:
The 2019 coronavirus disease (COVID-19) has drawn global intensive attention. Most of studies paid attention to epidemiological, clinical, and radiological features of inpatients with COVID-19. However, little studies have focused on clinical characteristics of discharged patients with severe COVID-19, especially the duration of viral shedding.

**Authors:** Zhou, Bo; She, Jianqing; Wang, Yadan; Ma, Xiancang

**Journal:** Clinical Infectious Diseases

**DOI:** 10.1093/cid/ciaa451

**Abstract:**

The 2019 coronavirus disease (COVID-19) has drawn global intensive attention. Most of studies paid attention to epidemiological, clinical, and radiological features of inpatients with COVID-19. However, little studies have focused on clinical characteristics of discharged patients with severe COVID-19, especially the duration of viral shedding.

**URL:** https://doi.org/10.1093/cid/ciaa451

**Categories:**
with normal immunity, but lack data on immunocompromised populations. Objective To evaluate the clinical features and outcomes of COVID-19 pneumonia in kidney transplant recipients. Design, setting, and participants A total of 10 renal transplant recipients with laboratory-confirmed COVID-19 pneumonia were enrolled in this retrospective study. In addition, 10 of their family members diagnosed with COVID-19 pneumonia were included in the control group. Intervention Immunosuppressant reduction and low-dose methylprednisolone therapy. Outcome measurements and statistical analysis The clinical outcomes (the severity of pneumonia, recovery rate, time of virus shedding, and length of illness) were compared with the control group by statistical analysis. Results and limitations The clinical symptom, laboratory, and radiological characteristics of COVID-19 pneumonia in the renal transplant recipients were similar to those of severe COVID-19 pneumonia in the general population. The severity of COVID-19 pneumonia was greater in the transplant recipients than in the control group (five severe/three critical cases vs one severe case). Five patients developed transient renal allograft damage. After a longer time of virus shedding (28.4 ± 9.3 vs 12.2 ± 4.6 d in the control group) and a longer course of illness (35.3 ± 8.3 vs 18.8 ± 10.5 d in the control group), nine of the 10 transplant patients recovered successfully after treatment. One patient developed acute renal graft failure and died of progressive respiratory failure. Conclusions Kidney transplant recipients had more severe COVID-19 pneumonia than the general population, but most of them recovered after a prolonged clinical course and virus shedding. Findings from this small group of cases may have important implications for the treatment of COVID-19 pneumonia in immunosuppressed populations. Patient summary Immunosuppressed transplant recipients with coronavirus disease 2019 infection had more severe pneumonia, but most of them still achieved a good prognosis after appropriate treatment.

Categories: Year: 2020 Author: Zhu, Shen; Wu, Yue; Zhu, Chun-yan; Hong, Wan-chu; Yu, Zhi-xi; Chen, Zhi-ke; Chen, Zhen-lei; Jiang, De-guo; Wang, Yong-guang Title: The immediate mental health impacts of the COVID-19 pandemic among people with or without quarantine managements Journal: Brain, Behavior, and Immunity DOI: https://doi.org/10.1016/j.bbi.2020.04.045 Abstract: https://doi.org/10.1016/j.bbi.2020.04.045 Categories: Year: 2020 Author: Zhu, Wende; Huang, Xing; Zhao, Hongyang; Jiang, Xiaobing Title: A COVID-19 Patient Who Underwent Endonasal Endoscopic Pituitary Adenoma Resection: A Case Report Journal: Neurosurgery DOI: 10.1093/neuros/nyaa147 Abstract: https://doi.org/10.1093/neuros/nyaa147 Categories: Year: 2020 Author: Zhu, Y. L.; Yang, B. B.; Wu, F. Title: Understanding of COVID-19 in children from different perspectives of traditional Chinese medicine and western medicine Journal: Chinese Traditional and Herbal Drugs DOI: 10.7501/j.issn.0253-2670.2020.04.009 Abstract: Since December 2019, Wuhan city of Hubei Province has been the center of a number of patients infected with coronavirus disease 2019 (COVID-19). People are susceptible to be infected. The infection has spread to newborn and small infants, and severe cases of children have now occurred. Cases of infection in children have drawn great attention from the society. The pathogenesis of COVID-19 is unclear, and there is no specific drug for treatment, which brings great difficulties to epidemic prevention and clinical treatment. In this paper, we try to understand COVID-19 in children from different perspectives of TCM and western medicine. We also try to analyze the etiology, epidemic characteristics, disease development characteristics and treatment measures of COVID-19 in
children. At the same time, we try to explore the etiology, pathogenesis, syndrome differentiation and treatment of COVID-19 in children with TCM. It is hoped that the combination of TCM and western medicine can better understand the new coronavirus pneumonia in children and its pathological basis, analyze the current trend of the epidemic situation, so as to find out safe and effective prevention and control measures and provide reference for clinical prevention and treatment of COVID-19 in children.

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Abstract: Many public officials are calling for increased testing for the 2019 novel coronavirus disease (COVID-19), and some governments have taken extraordinary measures to increase the availability of testing. However, little has been published about the sensitivity and specificity of the reverse transcriptase-polymerase chain reaction (RT-PCR) nasopharyngeal swabs that are commonly used for testing. This narrative review evaluates the literature regarding the accuracy of these tests, and makes recommendations based on this literature. In brief, a negative RT-PCR nasopharyngeal swab test is insufficient to rule out COVID-19. Thus, over-reliance on the results of the test may be dangerous, and the push for widespread testing may be overstated.

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Abstract: 2003年、重症急性呼吸器症候群（severe acute respiratory syndrome: SARS）が蔓延し、WCPTスペイン学会への参加を取り止めてから17年が経ち、今度も中国から新たな呼吸器系疾患が発生しました。世界保健機関（WHO）はこの新型コロナウイルスによる呼吸器系疾患を「COVID-19」と名付けています。このCOVID-19に関連して、私が所属する大学の卒業式および謝恩会は中止することが決まり、日本理学療法士協会は、主催する研修会や会議について当初は3月31日、そして追加として4月末日まで中止することを発表するなど、身近にも影響を及ぼしています（3月10日現在）。徒手理学療法第20巻第1号は、1本の症例報告と4本の海外の理学療法に関連した特集から構成されています。症例研究では、脊椎および両下肢に症状を呈した患者に対する胸椎への介入についてご報告いただいた松本論文、海外の理学療法に関連した特集として、オーストラリアの理学療法と卒後教育について、日本との比較を含めてご説明いただいた葛山論文、オーストラリアの卒後教育と臨床家キャリアアップについて英語能力や費用を含めてご説明いただいた長谷川論文、米国におけるダンサーへの理学療法と継続教育についてご自身のご経験とご参加されてきた徒手理学療法の研修会などをふまえてご解説いただいた鍋田論文、オランダのサッカー選手に特化した理学療法士を目指し、開業されご活躍されている内容をふまえた中田論文、の計5論文を読むことができます。これらは、徒手理学療法という共通する内容を中心に、臨床と国際感覚を幅広く学ぶことができる内容となっています。不要不急の外出が抑制されている中で、徒手理学療法を読むことにより、充実した時間を過ごすことができます。