

## SOMMAIRE

- ↓ **ARTICLES PUBLIES OU IN PRESS (95)**
- ↓ **DOCUMENTS GOUVERNEMENTAUX (41)**
- ↓ **PREPRINTS (69)**
- ↓ **ARTICLES EN ESPAGNOL (2)**
- ↓ **BLOG NEWS (3)**

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## ARTICLES PUBLIES OU IN PRESS (95)

### **Weekly Assessment of the COVID-19 Pandemic and Risk of Importation à China, March 25, 2020**

Along with the announcement of COVID-19 as a global pandemic by the World Health Organization (WHO) on March 12, 2020, COVID-19 appeared to be spreading rapidly around the world. By 10:00 CET on March 25, 2020, a total of 331,619 confirmed cases and 15,146 deaths were reported from 195 foreign countries and regions on 6 continents plus the Diamond Princess international cruise ship, and among them, 124 countries and regions had local transmission. (...)

*China CDC Weekly (e-date: 03/04/2020)*

*Mingfan, Pang; Zuoru, Liang; Zhida, Cheng, et al.*

[Lien original](#)

### **A Public Health Perspective on Preventing and Controlling the Spread of Coronavirus Disease 2019**

*China CDC Weekly (e-date: 03/04/2020)*

*Xifeng W, Yuanqing Y*

[Lien original](#)

### **Severe Acute Respiratory Syndrome Coronavirus 2 RNA Detected in Blood Donations**

Because of high rates of 2019 novel coronavirus disease in Wuhan, China, Wuhan Blood Center began screening for severe acute respiratory syndrome coronavirus 2 RNA on January 25, 2020. We screened donations in real-time and retrospectively and found plasma samples positive for viral RNA from 4 asymptomatic donors.

*Emerging Infectious Disease journal (e-date: 03/04/2020)*

Le C, Lei Z, Huafei G, Lunan W, Lan W

[Lien original](#)

### Detection of SARS-CoV-2 Among Residents and Staff Members of an Independent and Assisted Living Community for Older Adults — Seattle, Washington, 2020 | MMWR

What is already known about this topic?

Community transmission of COVID-19 has been associated with rapid spread and high morbidity and mortality among older adults in long-term skilled nursing facilities. COVID-19 transmission in other types of senior living communities has not been described. (...)

*MMWR Morb Mortal Wkly Rep. 2020. (e-date: 03/04/2020)*

Roxby A, Greninger A, Hatfield K, et al.

[Lien original](#)

### Rapid Sentinel Surveillance for COVID-19 â Santa Clara County, California, March 2020

What is already known about this topic? - On February 27, 2020, Santa Clara County, California, identified its first case of coronavirus disease 2019 (COVID-19) associated with probable community transmission.

What is added by this report? - During March 5–14, among patients with respiratory symptoms evaluated at one of four Santa Clara County urgent care centers serving as sentinel surveillance sites, 23% had positive test results for influenza. Among a subset of patients with negative test results for influenza, 11% had positive test results for COVID-19. (...)

*MMWR Morb Mortal Wkly Rep (e-date: 03/04/2020)*

Zwald M, Lin W, Sondermeyer Cooksey G, et al.

[Lien original](#)

### Erratum: Vol. 69, No. 11

In the report “[Initial Investigation of Transmission of COVID-19 Among Crew Members During Quarantine of a Cruise Ship — Yokohama, Japan, February 2020](#),” on page 312, the second sentence of the first complete paragraph in the second column should have read “The earliest laboratory-confirmed COVID-19 cases in crew members occurred in food service workers (...)

*MMWR Morb Mortal Wkly Rep (e-date: 03/04/2020)*

[Lien original](#)

### The Invisible Hand — Medical Care during the Pandemic

I met him on March 3, 2020, a 70-year-old man with a 6-month history of classic stable angina. He had left-arm achiness whenever he walked uphill, reliably triggered by the same level of exertion and always relieved with rest. A stress test showed a large, reversible inferolateral defect, prompting consultation with me. (...)

*New England Journal of Medicine (e-date: 03/04/2020)*

Kittleson MM

[Lien original](#)

### Barrier Enclosure during Endotracheal Intubation

Clinicians with inadequate access to standard personal protective equipment (PPE) have been compelled to improvise protective barrier enclosures for use during endotracheal intubation. We describe one such barrier that is easily fabricated and may help protect clinicians during this procedure. (...)

*New England Journal of Medicine (e-date: 03/04/2020)*  
*Canelli R, Connor CW, Gonzalez M, Nozari A, Ortega R*  
[Lien original](#)

### **Redefining vulnerability in the era of COVID-19**

What does it mean to be vulnerable? Vulnerable groups of people are those that are disproportionately exposed to risk, but who is included in these groups can change dynamically. A person not considered vulnerable at the outset of a pandemic can become vulnerable depending on the policy response. (...)

*The Lancet (e-date: 03/04/2020)*  
[Lien original](#)

### **COVID-19 and Paediatric Inflammatory Bowel Diseases: Global Experience and Provisional Guidance (March 2020) from the Paediatric IBD Porto group of ESPGHAN**

INTRODUCTION: With the current COVID-19 pandemic, concerns have been raised about the risk to children with inflammatory bowel diseases (IBD). We aimed to collate global experience and provide provisional guidance for managing paediatric IBD (PIBD) in the era of COVID-19. (...)

*J Pediatr Gastroenterol Nutr (e-date: 04/04/2020)*  
*Turner D, Huang Y, Martin-de-Carpi J, Aloï M, Focht G, Kang B, et al*  
[Lien original](#)

### **Heart University: a new online educational forum in paediatric and adult congenital cardiac care. The future of virtual learning in a post-pandemic world?**

Online learning has become an increasingly expected and popular component for education of the modern-day adult learner, including the medical provider. In light of the recent coronavirus pandemic, there has never been more urgency to establish opportunities for supplemental online learning. (...)

*Cardiol Young (e-date: 04/04/2020)*  
*Tretter JT, Windram J, Faulkner T, Hudgens M, Sendzikaite S, Blom NA, et al*  
[Lien original](#)

### **We are here for you and ready to hear from you**

Nathan CF, Nussenzweig MC, Pulvirenti T. We are here for you and ready to hear from you. *J Exp Med*

*J Exp Med (e-date: 04/04/2020)*  
*Nathan CF, Nussenzweig MC, Pulvirenti T*  
[Lien original](#)

### **Healthcare Digitalization and Pay-For-Performance Incentives in Smart Hospital Project Financing**

This study aims to explore the impact of healthcare digitalization on smart hospital project financing (PF) fostered by pay-for-performance (P4P) incentives. Digital platforms are a technology-enabled business model that facilitates exchanges between interacting agents. They represent a bridging link among disconnected nodes, improving the scalable value of networks. (...)

*Int J Environ Res Public Health (e-date: 04/04/2020)*  
*Moro Visconti R, Morea D*  
[Lien original](#)

### **SARS-CoV-2 infection presenting with hematochezia**

*Med Mal Infect (e-date: 04/04/2020)*  
*Li G, Zhao X, Dong Z, Wang H*  
[Lien original](#)

## Blocking information on COVID-19 can fuel the spread of misinformation

*Nature (e-date: 04/04/2020)*

*Larson HJ*

[Lien original](#)

## Analysis on 54 Mortality Cases of Coronavirus Disease 2019 in the Republic of Korea from January 19 to March 10, 2020

Since the identification of the first case of coronavirus disease 2019 (COVID-19), the global number of confirmed cases as of March 15, 2020, is 156,400, with total death in 5,833 (3.7%) worldwide. Here, we summarize the mortality data from February 19 when the first mortality occurred to 0 am, March 10, 2020, in Korea with comparison to other countries. The overall case fatality rate of COVID-19 in Korea was 0.7% as of 0 am, March 10, 2020.

*J Korean Med Sci (e-date: 04/04/2020)*

*Korean Society of Infectious Diseases, Korea Centers for Disease Control Prevention*

[Lien original](#)

## [Editorial] Possibility of transmission through dogs being a contributing factor to the extreme Covid19 outbreak in North Italy

Covid19 origin and transmission to humans. Covid19 infection began in Wuhan (Hubei, China) in December, 2019. Although to date it is considered that Covid19 originates from bats (96.2% overall genome sequence identity), the type of intermediate animals that caused the transmission to humans remains unknown. Zhou et al. mentioned that 'Direct contact with intermediate host animals or consumption of wild animals was suspected to be the main route of SARSCoV2 transmission. However, the source(s) and transmission routine(s) of SARSCoV2 remain elusive'.

*Mol Med Rep (e-date: 04/04/2020)*

*Goumenou M, Spandidos DA, Tsatsakis A*

[Lien original](#)

## What use are words at a time like this?

*J Clin Nurs (e-date: 04/04/2020)*

*Darbyshire P*

[Lien original](#)

## Microbial burden and viral exacerbations in a longitudinal multicenter COPD cohort

ACKGROUND: Chronic obstructive pulmonary disease (COPD) is a heterogeneous disease characterized by frequent exacerbation phenotypes independent of disease stage. Increasing evidence shows that the microbiota plays a role in disease progression and severity, but long-term and international multicenter assessment of the variations in viral and bacterial communities as drivers of exacerbations are lacking.(...)

*Respir Res (e-date: 04/04/2020)*

*Bouquet J, Tabor DE, Silver JS, Nair V, Tovchigrechko A, Griffin MP, et al*

[Lien original](#)

## Baricitinib for COVID-19: a suitable treatment? – Authors' reply

We thank Ennio Favalli and colleagues for their Correspondence regarding our suggestion to use baricitinib for the treatment of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infections.

We also appreciate their recognition that inhibition of numb-associated kinase enzymes could indeed be beneficial in preventing virus infectivity via inhibition of clathrin-mediated endocytosis. (...)

*Lancet Infectious Diseases (e-date: 03/04/2020)*

*Richardson PJ, Corbellino M, Stebbing J*  
[Lien original](#)

### Why inequality could spread COVID-19

Pandemics rarely affect all people in a uniform way. The Black Death in the 14th century reduced the global population by a third, with the highest number of deaths observed among the poorest populations.

Densely populated with malnourished and overworked peasants, medieval Europe was a fertile breeding ground for the bubonic plague. Seven centuries on—with a global gross domestic product of almost US\$100 trillion—is our world adequately resourced to prevent another pandemic? (...)

*The Lancet Public Health (e-date: 02/04/2020)*

*Ahmed F, Ahmed Ne, Pissarides C, Stiglitz J*

[Lien original](#)

### A planetary health perspective on COVID-19: a call for papers

It is natural during the unfolding coronavirus disease 2019 (COVID-19) pandemic to focus on emergency response planning, including containment, treatment procedures, and vaccine development, and nobody would doubt the need for these measures.

However, an emergency can also open a window of opportunity for reflection and learning. We live in increasingly global, interdependent, and environmentally constrained societies and the COVID-19 pandemic exemplifies these aspects of our world. (...)

*The Lancet (e-date: 04/04/2020)*

*Brown A, Horton R*

[Lien original](#)

### Respiratory virus shedding in exhaled breath and efficacy of face masks

We identified seasonal human coronaviruses, influenza viruses and rhinoviruses in exhaled breath and coughs of children and adults with acute respiratory illness.

Surgical face masks significantly reduced detection of influenza virus RNA in respiratory droplets and coronavirus RNA in aerosols, with a trend toward reduced detection of coronavirus RNA in respiratory droplets. (...)

*Nature Medicine (e-date: 03/04/2020)*

*Leung NHL, Chu DKW, Shiu EYC, Chan K-H, McDevitt JJ, Hau BJP, et al*

[Lien original](#)

### Clinician Mental Health and Well-Being During Global Healthcare Crises: Evidence Learned From Prior Epidemics for COVID-19 Pandemic

Novel coronavirus disease 2019 (COVID-19) is sweeping across the globe, having sickened more than 640,000 people and claimed over 30,000 lives in approximately 202 countries at the time of writing with no sign of slowing down (World Health Organization, 2020). (...)

*Worldviews Evid Based Nurs (e-date: 06/04/2020)*

*Jun J, Tucker S, Melnyk B*

[Lien original](#)

### Middle East Respiratory Syndrome Coronavirus (MERS-CoV) and COVID-19 infection during pregnancy

*Travel Med Infect Dis (e-date: 06/04/2020)*

*Al-Tawfiq JA*

[Lien original](#)

### D-dimer is Associated with Severity of Coronavirus Disease 2019: A Pooled Analysis

*Thromb Haemost (e-date: 06/04/2020)*  
*Lippi G, Favaloro EJ*  
[Lien original](#)

### On the frontline against COVID-19: Community pharmacists' contribution during a public health crisis

The global spread of COVID-19 is placing unprecedented demands on healthcare services. In this time of crisis, innovative and adaptive methods of practising will be required across all health professions. In order to maximise the use of current available resources, it is vital that existing services are comprehensively reviewed and full use is made of any unrealised potential among healthcare providers. (...)

*Res Social Adm Pharm (e-date: 06/04/2020)*  
*Cadogan CA, Hughes CM*  
[Lien original](#)

### The impact of Coronavirus (COVID-19) on head and neck cancer patients' care

*Radiother Oncol (e-date: 06/04/2020)*  
*De Felice F, Polimeni A, Valentini V*  
[Lien original](#)

### Projecting hospital utilization during the COVID-19 outbreaks in the United States

In the wake of community coronavirus disease 2019 (COVID-19) transmission in the United States, there is a growing public health concern regarding the adequacy of resources to treat infected cases. Hospital beds, intensive care units (ICUs), and ventilators are vital for the treatment of patients with severe illness. To project the timing of the outbreak peak and the number of ICU beds required at peak, we simulated a COVID-19 outbreak parameterized with the US population demographics. (...)

*Proc Natl Acad Sci USA (e-date: 06/04/2020)*  
*Moghadas SM, Shoukat A, Fitzpatrick MC, Wells CR, Sah P, Pandey A, et al*  
[Lien original](#)

### Emetine, Ipecac, Ipecac Alkaloids and Analogues as Potential Antiviral Agents for Coronaviruses

The COVID-19 coronavirus is currently spreading around the globe with limited treatment options available. This article presents the rationale for potentially using old drugs (emetine, other ipecac alkaloids or analogues) that have been used to treat amoebiasis in the treatment of COVID-19. Emetine had amongst the lowest reported half-maximal effective concentration (EC50) from over 290 agents screened for the Middle East respiratory syndrome (MERS) and severe acute respiratory syndrome (SARS) coronaviruses.(...)

*Pharmaceuticals (Basel) (e-date: 06/04/2020)*  
*Bleasel MD, Peterson GM*  
[Lien original](#)

### SARS-CoV-2 and Coronavirus Disease 2019: What We Know So Far

In December 2019, a cluster of fatal pneumonia cases presented in Wuhan, China. They were caused by a previously unknown coronavirus. All patients had been associated with the Wuhan Wholefood market, where seafood and live animals are sold. The virus spread rapidly and public health authorities in China initiated a containment effort.(...)

*Pathogens (e-date: 06/04/2020)*  
*Rabi FA, Al Zoubi MS, Kasasbeh GA, Salameh DM, Al-Nasser AD*  
[Lien original](#)

### Characterization of the Humoral Immune Response to Porcine Epidemic Diarrhea Virus Infection under Experimental and Field Conditions Using an AlphaLISA Platform

Coronavirus infections are a continuous threat raised time and again. With the recent emergence of novel virulent strains, these viruses can have a large impact on human and animal health. Porcine epidemic diarrhea (PED) is considered to be a reemerging pig disease caused by the enteropathogenic alphacoronavirus PED virus (PEDV). In the absence of effective vaccines, infection prevention and control through diagnostic testing and quarantine are critical.(...)

*Pathogens* (e-date: 06/04/2020)

*Kimpston-Burkgren K, Mora-Diaz JC, Roby P, Bjstrom-Kraft J, Main R, Bosse R, et al*

[Lien original](#)

### Primary stratification and identification of suspected Corona virus disease 2019 (COVID-19) from clinical perspective by a simple scoring proposal

In this Commentary, we would like to comment on the article titled "A rapid advice guideline for the diagnosis and treatment of 2019 novel coronavirus (2019-nCoV) infected pneumonia (standard version)" as a featured article in Military Medical Research. In the guideline, except for "confirmed cases", "suspected cases", "close contact" and "suspicious exposure" were defined by clinical perspective based on epidemiological risk, clinical symptoms and auxiliary examination.(...)

*Mil Med Res* (e-date: 06/04/2020)

*Zhou TT, Wei FX*

[Lien original](#)

### Updating the diagnostic criteria of COVID-19 suspected case and confirmed case is necessary

On 6 February 2020, our team had published a rapid advice guideline for diagnosis and treatment of 2019 novel coronavirus (2019-nCoV) infection, and this guideline provided our experience and make well reference for fighting against this pandemic worldwide. However, the coronavirus disease 2019 (COVID-19) is a new disease, our awareness and knowledge are gradually increasing based on the ongoing research findings and clinical practice experience; hence, the strategies of diagnosis and treatment are also continually updated.(...)

*Mil Med Res* (e-date: 06/04/2020)

*Wang YY, Jin YH, Ren XQ, Li YR, Zhang XC, Zeng XT, et al*

[Lien original](#)

### Pulmonary High-Resolution Computed Tomography (HRCT) Findings of Patients with Early-Stage Coronavirus Disease 2019 (COVID-19) in Hangzhou, China

**BACKGROUND** The aim of this study was to investigate the imaging manifestations of early-stage coronavirus disease 2019 (COVID-19) and to provide imaging basis for early detection of suspected cases and stratified intervention.(...)

*Med Sci Monit* (e-date: 06/04/2020)

*Gao L, Zhang J*

[Lien original](#)

### Liver transplantation in an ICU dominated by COVID-19

The Letter from D'Antiga L about concerns of transplanting patients in the context of COVID19 pandemic is very interesting. COVID-19 designates the infection caused by the SARS-Cov2 virus. This illness originated in December, 2019, in Wuhan, China. Since then, it has been identified in more than 150 countries. The first case of COVID-19 in Portugal was notified in March 02, 2020.

*Liver Transpl (e-date: 06/04/2020)*  
*Cardoso FS*  
[Lien original](#)

### Using observational data to quantify bias of traveller-derived COVID-19 prevalence estimates in Wuhan, China

BACKGROUND: The incidence of coronavirus disease 2019 (COVID-19) in Wuhan, China, has been estimated using imported case counts of international travellers, generally under the assumptions that all cases of the disease in travellers have been ascertained and that infection prevalence in travellers and residents is the same. However, findings indicate variation among locations in the capacity for detection of imported cases.(...)

*Lancet Infect Dis (e-date: 06/04/2020)*  
*Niehus R, De Salazar PM, Taylor AR, Lipsitch M*  
[Lien original](#)

### Difference of coagulation features between severe pneumonia induced by SARS-CoV2 and non-SARS-CoV2

Severe coronavirus disease 2019 (COVID-19) is commonly complicated with coagulopathy, the difference of coagulation features between severe pneumonia induced by SARS-CoV2 and non-SARS-CoV2 has not been analyzed. Coagulation results and clinical features of consecutive patients with severe pneumonia induced by SARS-CoV2 (COVID group) and non-SARS-CoV2 (non-COVID group) in Tongji hospital were retrospectively analyzed and compared.(...)

*J Thromb Thrombolysis (e-date: 06/04/2020)*  
*Yin S, Huang M, Li D, Tang N*  
[Lien original](#)

### Strategies for Disseminating and Implementing COVID-19 Public Health Prevention Practices in Rural Areas

*J Rural Health (e-date: 06/04/2020)*  
*Prusaczyk B*  
[Lien original](#)

### Ethics and Economic Growth in the Age of COVID 19: What Is a Just Society to Do?

*J Rural Health (e-date: 06/04/2020)*  
*Hilsenrath PE*  
[Lien original](#)

### 2020: The Year of the Nurse as Seen Through a Coronavirus Lens

Who could have predicted that 2020, designated by the World Health Organization as the Year of the Nurse and Midwife, would so quickly become a year in which nursing plays such a central role? Who could have predicted that this is the year in which we are called to prevent illness, promote health, care for the sick, and bring comfort to the dying, in ways that haven't been seen since other pandemics (e.g., the flu pandemic of 1918 or the yellow fever epidemics that were experienced in the United States in 1793 and then in recurring waves). (...)

*J Nurs Scholarsh (e-date: 06/04/2020)*  
*Gennaro S*  
[Lien original](#)

### Respiratory failure alone does not suggest central nervous system invasion by SARS-CoV-2

Many viruses can occasionally gain entry into the human central nervous system (CNS), even if most of the disease they cause does not involve the CNS. In a recent review, Li and colleagues (J Med Virol doi: 10.1002/jmv.25728) propose that SARS

coronavirus-2 (SARS-CoV-2) can enter the human CNS, based upon the observation that a number of patients need mechanical ventilation to treat respiratory failure.(...)

*J Med Virol (e-date: 06/04/2020)*

*Turtle L*

[Lien original](#)

### **SARS-COV-2 and infectivity.**

SARS-COV2 represents the causal agent of a potentially fatal disease (COVID-19) that is actually of great global public health concern. SARS-COV2 has diffused throughout the world surprisingly fast demonstrating a far greater infectivity than previously known human coronaviruses and it is also responsible for an unusual high variety of symptoms in affected patients.

*J Med Virol (e-date: 06/04/2020)*

*Tresoldi I, Sangiuolo CF, Manzari V, Modesti A*

[Lien original](#)

### **An alteration of the dopamine synthetic pathway is possibly involved in the pathophysiology of COVID-19**

I have read with great interest the paper by Yan Chao Lee et al. entitled "The neuroinvasive potential of SARS-CoV2 may be at least partially responsible for the respiratory failure of COVID-19 patients"<sup>1</sup>. I would like here to provide arguments indicating that an alteration of the dopamine synthetic pathways is possibly involved in the pathophysiology of COVID-19.

*J Med Virol (e-date: 06/04/2020)*

*Nataf S*

[Lien original](#)

### **Response to Commentary on: The neuroinvasive potential of SARS-CoV-2 may play a role in the respiratory failure of COVID-19 patients**

In a recent review, we have suggested a neuroinvasive potential of SARS-CoV-2 and its possible role in the causation of acute respiratory failure of COVID-19 patients (*J Med Virol* doi: 10.1002/jmv.25728), based upon the clinical and experimental data available on the past SARS-CoV-1 and the recent SARS-CoV-2 pandemic. In this article, we provide new evidences recently reported regarding the neurotropic potential of SARS-CoV-2 and respond to several comments on our previously published article. In addition, we also discuss the peculiar manifestations of respiratory failure in COVID-19 patients and the possible involvement of nervous system.

*J Med Virol (e-date: 06/04/2020)*

*Li Y, Bai WZ, Hashikawa T*

[Lien original](#)

### **Coronavirus occurrence and transmission over 8 years in the HIVE cohort of households in Michigan**

**BACKGROUND:** As part of the Household Influenza Vaccine Evaluation (HIVE) study, acute respiratory infections (ARI) have been identified in children and adults over 8 years. **METHODS:** Annually, 890 to 1441 individuals were followed and contacted weekly to report ARIs. Specimens collected during illness were tested for human coronaviruses (HCoV) types OC43, 229E, HKU1, and NL63. (...)

*J Infect Dis (e-date: 06/04/2020)*

*Monto AS, DeJonge P, Callear AP, Bazzi LA, Capriola S, Malosh RE, et al*

[Lien original](#)

### **A pandemic in times of global tourism: superspreading and exportation of COVID-19 cases from a ski area in Austria**

On January 7, 2020, the World Health Organization (WHO) announced a novel coronavirus to be the cause of unclear pneumonia cases in China....

*J Clin Microbiol (e-date: 06/04/2020)*

*Correa-Martinez CL, Kampmeier S, Kumpers P, Schwierzeck V, Hennies M, Hafezi W, et al.*

[Lien original](#)

## **A Systematic Review of COVID-19 Epidemiology Based on Current Evidence**

As the novel coronavirus (SARS-CoV-2) continues to spread rapidly across the globe, we aimed to identify and summarize the existing evidence on epidemiological characteristics of SARS-CoV-2 and the effectiveness of control measures to inform policymakers and leaders in formulating management guidelines, and to provide directions for future research. We conducted a systematic review of the published literature and preprints on the coronavirus disease (COVID-19) outbreak following predefined eligibility criteria. (...)

*J Clin Med (e-date: 06/04/2020)*

*Park M, Cook AR, Lim JT, Sun Y, Dickens BL*

[Lien original](#)

## **People with Suspected COVID-19 Symptoms Were More Likely Depressed and Had Lower Health-Related Quality of Life: The Potential Benefit of Health Literacy**

The coronavirus disease 2019 (COVID-19) epidemic affects people's health and health-related quality of life (HRQoL), especially in those who have suspected COVID-19 symptoms (S-COVID-19-S). We examined the effect of modifications of health literacy (HL) on depression and HRQoL. A cross-sectional study was conducted from 14 February to 2 March 2020. 3947 participants were recruited from outpatient departments of nine hospitals and health centers across Vietnam. (...)

*J Clin Med (e-date: 06/04/2020)*

*Nguyen HC, Nguyen MH, Do BN, Tran CQ, Nguyen TTP, Pham KM, et al.*

[Lien original](#)

## **Master Regulator Analysis of the SARS-CoV-2/Human Interactome**

The recent epidemic outbreak of a novel human coronavirus called SARS-CoV-2 causing the respiratory tract disease COVID-19 has reached worldwide resonance and a global effort is being undertaken to characterize the molecular features and evolutionary origins of this virus. In this paper, we set out to shed light on the SARS-CoV-2/host receptor recognition, a crucial factor for successful virus infection.(...)

*J Clin Med (e-date: 06/04/2020)*

*Guzzi PH, Mercatelli D, Ceraolo C, Giorgi FM*

[Lien original](#)

## **Smoking Upregulates Angiotensin-Converting Enzyme-2 Receptor: A Potential Adhesion Site for Novel Coronavirus SARS-CoV-2 (Covid-19).**

The epicenter of the original outbreak in China has high male smoking rates of around 50%, and early reported death rates have an emphasis on older males, therefore the likelihood of smokers being overrepresented in fatalities is high. In Iran, China, Italy, and South Korea, female smoking rates are much lower than males. Fewer females have contracted the virus. If this analysis is correct, then Indonesia would be expected to begin experiencing high rates of Covid-19 because its male smoking rate is over 60% (Tobacco Atlas). (...)

*J Clin Med (e-date: 06/04/2020)*

*Brake SJ, Barnsley K, Lu W, McAlinden KD, Eapen MS, Sohal SS*

[Lien original](#)

## **The Coronavirus and the Risks to the Elderly in Long-Term Care**

The elderly in long-term care (LTC) and their caregiving staff are at elevated risk from COVID-19. Outbreaks in LTC facilities can threaten the health care system. COVID-19 suppression should focus on testing and infection control at LTC facilities. Policies should also be developed to ensure that LTC facilities remain adequately staffed and that infection control protocols are closely followed. (...)

*J Aging Soc Policy (e-date: 06/04/2020)*

*Gardner W, States D, Bagley N*

[Lien original](#)

### Insight into 2019 novel coronavirus - an updated intrim review and lessons from SARS-CoV and MERS-CoV

BACKGROUND: The rapid spread of the coronavirus disease 2019 (COVID-19), caused by a zoonotic beta-coronavirus entitled 2019 novel coronavirus (2019-nCoV), has become a global threat. Awareness of the biological features of 2019-nCoV should be updated in time and needs to be comprehensively summarized to help optimize control measures and make therapeutic decisions.(...)

*Int J Infect Dis (e-date: 06/04/2020)*

*Xie M, Chen Q*

[Lien original](#)

### Impact of the COVID-19 Pandemic on Mental Health and Quality of Life among Local Residents in Liaoning Province, China: A Cross-Sectional Study

Our study aimed to investigate the immediate impact of the COVID-19 pandemic on mental health and quality of life among local Chinese residents aged  $\geq 18$  years in Liaoning Province, mainland China. An online survey was distributed through a social media platform between January and February 2020. Participants completed a modified validated questionnaire that assessed the Impact of Event Scale (IES), indicators of negative mental health impacts, social and family support, and mental health-related lifestyle changes.(...)

*Int J Environ Res Public Health (e-date: 06/04/2020)*

*Zhang Y, Ma ZF*

[Lien original](#)

### Prediction of Number of Cases of 2019 Novel Coronavirus (COVID-19) Using Social Media Search Index

Predicting the number of new suspected or confirmed cases of novel coronavirus disease 2019 (COVID-19) is crucial in the prevention and control of the COVID-19 outbreak. Social media search indexes (SMSI) for dry cough, fever, chest distress, coronavirus, and pneumonia were collected from 31 December 2019 to 9 February 2020. The new suspected cases of COVID-19 data were collected from 20 January 2020 to 9 February 2020. We used the lagged series of SMSI to predict new suspected COVID-19 case numbers during this period.(...)

*Int J Environ Res Public Health (e-date: 06/04/2020)*

*Qin L, Sun Q, Wang Y, Wu KF, Chen M, Shia BC, et al*

[Lien original](#)

### COVID-19 transmission through asymptomatic carriers is a challenge to containment

Since the first report on the outbreak of a novel coronavirus disease COVID-19 in Wuhan, Hubei, China, in December, 2019,(1) there have been 78 064 cases have been confirmed and 2715 deaths as of February 25, 2020. For any infectious disease, there are three kinds of way to control the epidemic of infectious disease-that is, to control the source of infection, to cut off transmission routes, and to protect the susceptible population. (...)

*Influenza Other Respir Viruses (e-date: 06/04/2020)*

*Yu X, Yang R*

[Lien original](#)

## Medical Masks vs N95 Respirators for Preventing COVID-19 in Health Care Workers A Systematic Review and Meta-Analysis of Randomized Trials

BACKGROUND: Respiratory protective devices are critical in protecting against infection in health care workers at high risk of novel 2019 coronavirus disease (COVID-19); however, recommendations are conflicting and epidemiological data on their relative effectiveness against COVID-19 are limited.(...)

*Influenza Other Respir Viruses (e-date: 06/04/2020)*

*Bartoszek JJ, Farooqi MAM, Alhazzani W, Loeb M*

[Lien original](#)

## Effective Risk Communication for Public Health Emergency: Reflection on the COVID-19 (2019-nCoV) Outbreak in Wuhan, China

Risk communication is critical to emergency management. The objective of this paper is to illustrate the effective process and attention points of risk communication reflecting on the COVID-19 (2019-nCoV) outbreak in Wuhan, China. We provide the timeline of risk communication progress in Wuhan and use a message-centered approach to identify problems that it entailed. It was found that the delayed decision making of the local government officials and the limited information disclosure should be mainly responsible for the ineffective risk communication.(...)

*Healthcare (Basel) (e-date: 06/04/2020)*

*Zhang L, Li H, Chen K*

[Lien original](#)

## Coronavirus SARS-CoV-2: filtering out fact from fiction in the infodemic Q&A with virologist Prof. Urs Greber.

As the severe acute respiratory syndrome (SARS) coronavirus 2 (SARS-CoV-2) continues to spread across the world, and the associated lung disease COVID-19 remains difficult to treat, information from media and private communication flows at high speed, often through unfiltered channels. Much of this information is speculative, as it derives from preliminary and inconclusive studies, and creates confusion as well as anxiety. This phenomenon was recently labelled as "infodemic" by the World Health Organization.

*FEBS Lett (e-date: 06/04/2020)*

*Ruffell D*

[Lien original](#)

## The indispensable role of chest CT in the detection of coronavirus disease 2019 (COVID-19)

*Eur J Nucl Med Mol Imaging (e-date: 06/04/2020)*

*Liu J, Yu H, Zhang S*

[Lien original](#)

## How we treat patients with lung cancer during the SARS-CoV-2 pandemic: primum non nocere

New cases of the novel coronavirus, also known as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) continue to rise worldwide. A few reports have showed that mortality due to SARS-CoV-2 is higher in elderly patients and other active comorbidities including cancer. To date, no effective treatment has been identified and management for critically ill patients relies on management in intensive care units.(...)

*ESMO Open (e-date: 06/04/2020)*

*Banna G, Curioni-Fontecedro A, Friedlaender A, Addeo A*

[Lien original](#)

## Blockchain and Artificial Intelligence Technology for Novel Coronavirus Disease-19 Self-Testing

The novel coronavirus disease 19 (COVID-19) is rapidly spreading with a rising death toll and transmission rate reported in high income countries rather than in low income countries. The overburdened healthcare systems and poor disease surveillance systems in resource-limited settings may struggle to cope with this COVID-19 outbreak and this calls for a tailored strategic response for these settings.(...)

*Diagnostics (Basel) (e-date: 06/04/2020)*

*Mashamba-Thompson TP, Crayton ED*

[Lien original](#)

## Chloroquine and hydroxychloroquine in the treatment of COVID-19 with or without diabetes: A systematic search and a narrative review with a special reference to India and other developing countries.

BACKGROUND AND AIMS: No drugs are currently approved for Coronavirus Disease-2019 (COVID-19), although some have been tried. In view of recent studies and discussion on chloroquine and hydroxychloroquine (HCQ), we aimed to review existing literature and relevant websites regarding these drugs and COVID-19, adverse effects related to drugs, and related guidelines. (...)

*Diabetes Metab Syndr. (e-date: 06/04/2020)*

*Singh AK, Singh A, Shaikh A, Singh R, Misra A*

[Lien original](#)

## Contentious issues and evolving concepts in the clinical presentation and management of patients with COVID-19 infectionwith reference to use of therapeutic and other drugs used in Co-morbid diseases (Hypertension, diabetes etc)

BACKGROUND AND AIMS: Multiple issues in management of COVID have emerged, but confusion persists regarding rational interpretation. Aim of this brief review is to review these issues based on current literature.(...)

*Diabetes Metab Syndr (e-date: 06/04/2020)*

*Gupta R, Misra A*

[Lien original](#)

## Cardiovascular disease and COVID-19

BACKGROUND AND AIMS: Many patients with coronavirus disease 2019 (COVID-19) have underlying cardiovascular (CV) disease or develop acute cardiac injury during the course of the illness. Adequate understanding of the interplay between COVID-19 and CV disease is required for optimum management of these patients.(...)

*Diabetes Metab Syndr (e-date: 06/04/2020)*

*Bansal M*

[Lien original](#)

## Favipiravir: pharmacokinetics and concerns about clinical trials for 2019-nCoV infection

An outbreak of 2019-nCoV infection in China has spread across the world. No specific antiviral drugs have been approved for the treatment of COVID-2019. In addition to the recommended antiviral drugs such as interferon-a, lopinavir/ritonavir, ribavirin, and chloroquine phosphate, some clinical trials focusing on virus RNA dependent RNA polymerase (RdRp) inhibitors have been registered and initiated.(...)

*Clin Pharmacol Ther (e-date: 06/04/2020)*

*Du YX, Chen XP*

[Lien original](#)

## COVID-19: protecting our ENT workforce

As we write at the end of March 2020, the coronavirus disease 19 (COVID-19) pandemic is posing an urgent and significant threat to global health. It has become clear that the healthcare worker army that forms the front line are also at increased risk of exposure to the SARS-CoV-2 virus that causes this disease. In China 3.8% of all cases of COVID-19 were in healthcare workers, but 14.8% of those had severe or critical disease.

*Clin Otolaryngo (e-date: 06/04/2020)*

*Tysome JR, Bhutta MF*

[Lien original](#)

### COVID-19 and the Inpatient Dialysis Unit: Managing Resources During Contingency Planning Pre-Crisis

*Clin J Am Soc Nephrol (e-date: 06/04/2020)*

*Burgner A, Ikizler TA, Dwyer JP*

[Lien original](#)

### Potential false-negative nucleic acid testing results for Severe Acute Respiratory Syndrome Coronavirus 2 from thermal inactivation of samples with low viral loads.

BACKGROUND: Corona Virus Disease-2019 (COVID-19) has spread widely throughout the world since the end of 2019. Nucleic acid testing (NAT) has played an important role in patient diagnosis and management of COVID-19. In some circumstances, thermal inactivation at 56 degrees C has been recommended to inactivate Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) before NAT. (...)

*Clin Chem (e-date: 06/04/2020)*

*Pan Y, Long L, Zhang D, Yan T, Cui S, Yang P, et al.*

[Lien original](#)

### Traditional Chinese Medicine: an effective treatment for 2019 novel coronavirus pneumonia (NCP)

The novel coronavirus pneumonia broke out in 2019 and spread rapidly. In 30 different countries, there are over seventy thousand patients have been diagnosed in total. Therefore, it is urgent to develop the effective program to prevent and treat for the novel coronavirus pneumonia. In view of Traditional Chinese Medicine has accumulated a solid theoretical foundation of plague in ancient and recent decades.(...)

*Chin J Nat Med (e-date: 06/04/2020)*

*Du HZ, Hou XY, Miao YH, Huang BS, Liu DH*

[Lien original](#)

### Hospital surge capacity in a tertiary emergency referral centre during the COVID-19 outbreak in Italy

The first person-to-person transmission of the 2019-novel coronavirus in Italy on 21 February 2020 led to an infection chain that represents one of the largest known COVID-19 outbreaks outside Asia. In Northern Italy in particular, we rapidly experienced a critical care crisis due to a shortage of intensive care beds, as we expected according to data reported in China. (...)

*Anaesthesia (e-date: 06/04/2020)*

*Carenzo L, Costantini E, Greco M, Barra FL, Rendiniello V, Mainetti M, et al.*

[Lien original](#)

### Personal protective equipment during the COVID-19 pandemic - a narrative review

Personal protective equipment has become an important and emotive subject during the current coronavirus (COVID-19) epidemic. COVID-19 is predominantly caused by contact or droplet transmission attributed to relatively large respiratory particles which are subject to gravitational forces and travel only approximately one metre from the

patient. Airborne transmission may occur if patient respiratory activity or medical procedures generate respiratory aerosols.(...)

*Anaesthesia (e-date: 06/04/2020)*

*Cook TM*

[Lien original](#)

### The use of high-flow nasal oxygen in COVID-19

The key healthcare challenge of the coronavirus disease 2019 (COVID-19) pandemic is the safe delivery of respiratory support on a large scale. The care of critically ill COVID-19 patients is guided by our knowledge and experience with acute respiratory distress syndrome (ARDS), but this crisis is pushing patients and their clinicians into uncharted territories.(...)

*Anaesthesia (e-date: 06/04/2020)*

*Lyons C, Callaghan M*

[Lien original](#)

### Handle the Autism Spectrum Condition During Coronavirus (COVID-19) Stay At Home period: Ten Tips for Helping Parents and Caregivers of Young Children

*Brain Sci (e-date: 06/04/2020)*

*Narzisi A*

[Lien original](#)

### Evolving epidemiology and transmission dynamics of coronavirus disease 2019 outside Hubei province, China: a descriptive and modelling study

BACKGROUND: The coronavirus disease 2019 (COVID-19) epidemic, caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), began in Wuhan city, Hubei province, in December, 2019, and has spread throughout China. Understanding the evolving epidemiology and transmission dynamics of the outbreak beyond Hubei would provide timely information to guide intervention policy.(...)

*Lancet Infect Dis (e-date: 06/04/2020)*

*Zhang J, Litvinova M, Wang W, Wang Y, Deng X, Chen X, et al*

[Lien original](#)

### Urban Intelligence for Pandemic Response: Viewpoint

UNSTRUCTURED: Previous epidemic management research proves the importance of city-level information, but also highlights limited expertise in urban data applications during a pandemic outbreak. In this paper, we provide an overview of city-level information, in combination with analytical and operational capacity, that define urban intelligence for supporting response to disease outbreaks.(...)

*JMIR Public Health Surveill (e-date: 06/04/2020)*

*Yuan L, Yeung W, Celi LA*

[Lien original](#)

### Delivery of infection from asymptomatic carriers of COVID-19 in a familial cluster

OBJECTIVES: With the ongoing outbreak of COVID-19 around the world, it has become a worldwide health concern. One previous study reported a family cluster with asymptomatic transmission of COVID-19. Here, we report another series of cases and further demonstrate the repeatability of the transmission of COVID-19 by pre-symptomatic carriers.(...)

*Int J Infect Dis (e-date: 06/04/2020)*

*Ye F, Xu S, Rong Z, Xu R, Liu X, Deng P, et al*

[Lien original](#)

### Incidence of novel coronavirus (2019-nCoV) infection among people under home quarantine in Shenzhen, China

BACKGROUND: Since the outbreak of 2019-nCoV in December, Chinese government has implemented various measures including travel bans, centralized treatments, and home quarantines to slowing the transmission across the country. In this study, we aimed to estimate the incidence of 2019-nCoV infection among people under home quarantine in Shenzhen, China. (...)

*Travel Med Infect Dis* (e-date: 06/04/2020)

Wang J, Liao Y, Wang X, Li Y, Jiang D, He J, et al.

[Lien original](#)

### The COVID-19 pandemic through the lens of a gastroenterology fellow: looking for the silver lining

*Gastrointest Endosc* (e-date: 06/04/2020)

Shah R, Satyavada S, Ismail M, Kurin M, Smith ZL, Cooper G, et al

[Lien original](#)

### Global interim guidance on coronavirus disease 2019 (COVID-19) during pregnancy and puerperium from FIGO and allied partners: Information for healthcare professionals.

In response to the World Health Organization (WHO) statements and international concerns regarding the coronavirus disease 2019 (COVID-19) outbreak, FIGO has issued the following guidance for the management of pregnant women at the four main settings of pregnancy: (1) ambulatory antenatal care in the outpatient clinics; (...)

*Int J Gynaecol Obstet* (e-date: 06/04/2020)

Poon LC, Yang H, Kapur A, Melamed N, Dao B, Divakar H, et al

[Lien original](#)

### Uneventful course in IBD patients during SARS-CoV-2 outbreak in northern Italy

*Gastroenterology* (e-date: 06/04/2020)

Norsa L, Indriolo A, Sansotta N, Cosimo P, Greco S, D'Antiga L

[Lien original](#)

### Use of a Modified Ventilation Mask to Avoid Aerosolizing Spread of Droplets for Short Endoscopic Procedures during Coronavirus Covid-19 Outbreak

*Gastrointest Endosc* (e-date: 06/04/2020)

Marchese M, Capannolo A, Lombardi L, Di Carlo M, Marinangeli F, Fusco P

[Lien original](#)

### The spread of novel coronavirus has created an alarming situation worldwide.

(e-date: 06/04/2020)

Khan S, Siddique R, Ali A, Bai Q, Li Z, Li H, et al

[Lien original](#)

### A Call for Randomized Controlled Trials to Test the Efficacy of Chloroquine and Hydroxychloroquine as Therapeutics against Novel Coronavirus Disease (COVID-19)

*Am J Trop Med Hyg* (e-date: 06/04/2020)

Keshtkar-Jahromi M, Bavari S

[Lien original](#)

### Natural products and their derivatives against coronavirus: A review of the non-clinical and pre-clinical data

Several corona viral infections have created serious threats in the last couple of decades claiming the death of thousands of human beings. Recently, corona viral epidemic raised the issue of developing effective antiviral agents at the earliest to prevent further losses. Natural products have always played a crucial role in drug development process against various diseases which resulted in screening of such agents to combat emergent mutants of corona virus. This review focuses on those natural compounds that showed promising results against corona viruses.(...)

*Phytother Res (e-date: 06/04/2020)*

*Islam MT, Sarkar C, El-Kersh DM, Jamaddar S, Uddin SJ, Shilpi JA, et al*  
[Lien original](#)

### Unknown unknowns - COVID-19 and potential global mortality

COVID-19 (SARS-CoV-2) is currently a global pandemic. This paper will attempt to estimate global infection rates and potential resultant mortality in the absence of effective treatment and/or vaccination. Calculations are based on World Health Organisation data from Wuhan in China: 14% of infected cases are severe, 5% require intensive care and 4% die. Estimated infection rates and mortality rates at the level of continents and some individual countries (when these are of sufficient size) are tabulated.(...)

*Early Hum Dev (e-date: 06/04/2020)*

*Grech V*

[Lien original](#)

### Precautions for Operating Room Team Members during the COVID-19 Pandemic

BACKGROUND: The novel corona virus SARS-CoV-2 (COVID-19) can infect healthcare workers. We developed an institutional algorithm to protect operating room team members during the COVID-19 pandemic and rationally conserve personal protective equipment (PPE). (...)

*J Am Coll Surg (e-date: 06/04/2020)*

*Forrester JD, Nassar AK, Maggio PM, Hawn MT*

[Lien original](#)

### Protecting healthcare workers from SARS-CoV-2 infection: practical indications

The World Health Organization has recently defined the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection a pandemic. The infection, that may cause a potentially very severe respiratory disease, now called coronavirus disease 2019 (COVID-19), has airborne transmission via droplets.(...)

*Eur Respir Rev (e-date: 06/04/2020)*

*Feroli M, Cisternino C, Leo V, Pisani L, Palange P, Nava S*

[Lien original](#)

### Clinical features of cases and a cluster of Coronavirus Disease 2019 (COVID-19) in Bolivia imported from Italy and Spain

INTRODUCTION: In March 2020, Coronavirus Disease 2019 (COVID-19) arrived in Bolivia. Here, we report the main clinical findings, and epidemiological features of the first series of cases, and a cluster, confirmed in Bolivia.(...)

*Travel Med Infect Dis (e-date: 06/04/2020)*

*Escalera-Antezana JP, Lizón-Ferrufino NF, Maldonado-Alanoca A, Alarcon-De-la-Vega G, Alvarado-Arnez LE, Balderrama-Saavedra MA, et al*

[Lien original](#)

### Early Lessons on the Importance of Lung Imaging in Novel Coronavirus Disease (COVID-19)

*Am J Trop Med Hyg (e-date: 06/04/2020)*  
*Dondorp AM, Schultz MJ*  
[Lien original](#)

### **Kidney disease is associated with in-hospital death of patients with COVID-19**

In December 2019, a coronavirus 2019 (COVID-19) disease outbreak occurred in Wuhan, Hubei Province, China, and rapidly spread to other areas worldwide. Although diffuse alveolar damage and acute respiratory failure were the main features, the involvement of other organs needs to be explored. Since information on kidney disease in patients with COVID-19 is limited, we determined the prevalence of acute kidney injury (AKI) in patients with COVID-19. (...)

*Kidney Int (e-date: 06/04/2020)*  
*Cheng Y, Luo R, Wang K, Zhang M, Wang Z, Dong L, et al.*  
[Lien original](#)

### **Fangcang shelter hospitals: a novel concept for responding to public health emergencies**

Fangcang shelter hospitals are a novel public health concept. They were implemented for the first time in China in February, 2020, to tackle the coronavirus disease 2019 (COVID-19) outbreak. The Fangcang shelter hospitals in China were large-scale, temporary hospitals, rapidly built by converting existing public venues, such as stadiums and exhibition centres, into health-care facilities. They served to isolate patients with mild to moderate COVID-19 from their families and communities, while providing medical care, disease monitoring, food, shelter, and social activities.(...)

*Lancet (e-date: 06/04/2020)*  
*Chen S, Zhang Z, Yang J, Wang J, Zhai X, Barnighausen T, et al.*  
[Lien original](#)

### **Community pharmacists and communication in the time of COVID-19: Applying the health belief model**

The emergence of the novel coronavirus disease (COVID-19) pandemic presents an unprecedented health communications challenge. Healthcare providers should reinforce behaviors that limit the spread of the pandemic, including social distancing and remaining in the home whenever possible.(...)

*Res Social Adm Pharm (e-date: 06/04/2020)*  
*Carico RR, Jr., Sheppard J, Thomas CB*  
[Lien original](#)

### **Remdesivir for severe acute respiratory syndrome coronavirus 2 causing COVID-19: An evaluation of the evidence**

The novel coronavirus infection that initially found at the end of 2019 has attracted great attention. So far, the number of infectious cases has increased globally to more than 100 thousand and defined as a pandemic situation, but there are still no "specific drug" available. Relevant reports have pointed out the novel coronavirus has 80% homology with SARS. (...)

*Travel Med Infect Dis (e-date: 06/04/2020)*  
*Cao YC, Deng QX, Dai SX*  
[Lien original](#)

### **The importance of designing and implementing participatory surveillance system: An approach as early detection and prevention of novel coronavirus (2019-nCov)**

*Am J Infect Control (e-date: 06/04/2020)*  
*Amir-Behghadami M, Janati A.*  
[Lien original](#)

## DOCUMENTS GOUVERNEMENTAUX (41)

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### **Covid-19 : les boues de stations d'épuration produites pendant l'épidémie ne peuvent être épandues qu'après hygiénisation**

Les boues de stations de traitement des eaux usées produites lors de l'épidémie de Covid-19 peuvent-elles contenir et disséminer le virus lors des épandages agricoles ? Saisie en urgence de cette question alors que la période d'épandage va débiter, l'Anses considère le risque de contamination par le SARS-CoV-2 comme faible à négligeable pour les boues ayant subi un traitement hygiénisant conforme à la réglementation. (...)

*ANSES (e-date: 02/04/2020)*

[Lien original](#)

### **COVID-19 : attention aux intoxications liées à la désinfection et aux autres situations à risque**

COVID-19 : attention aux intoxications liées la désinfection et aux autres situations risque

Les centres antipoison signalent de nombreux accidents domestiques et intoxication en lien avec le COVID-19. Le point sur la situation et les recommandations pour ne pas prendre de risques.

*ANSES (e-date: 02/04/2020)*

[Lien original](#)

### **COVID-19 et TOXICOVIGILANCE - Suivi des événements associés au COVID-19 enregistrés par les Centres antipoison (CAP) du 01/03/2020 au 24/03/2020**

Dans le cadre de la crise sanitaire actuelle liée au COVID-19, l'Agence nationale de sécurité sanitaire de l'alimentation, de l'environnement et du travail (Anses) et le réseau des Centres antipoison (CAP) ont mis en place un suivi des appels aux Centres antipoison pour un motif associé au COVID-19. L'objectif est d'identifier les situations à risque liées à la crise sanitaire actuelle et notamment au confinement.

*ANSES (e-date: 02/04/2020)*

[Lien original](#)

### **Algorithm for the management of contacts of probable or confirmed COVID-19 cases**

This algorithm shows the main actions for contacts of probable or confirmed 2019-nCoV cases. Implementation may be modified depending on the risk assessment for individual cases and their contacts by public health authorities.

*ECDC (e-date: 31/03/2020)*

[Lien original](#)

### **Contact tracing: Public health management of persons, including healthcare workers, having had contact with COVID-19 cases in the European Union – first update**

This document aims to help EU/EEA public health authorities in the tracing and management of persons, including healthcare workers, who had contact with COVID-19 cases. It outlines the key steps of contact tracing, including contact identification, listing and follow-up, in the context of the COVID-19 response.

*ECDC (e-date: 31/03/2020)*

[Lien original](#)

## Number of coronavirus (COVID-19) cases and risk in the UK

Public Health England (e-date: 04/04/2020)

[Lien original](#)

## S'enquérir des besoins de ses patients atteints de troubles psychiatriques

La situation épidémique actuelle implique pour les professionnels de ville de gérer en priorité les cas de COVID-19 mais aussi d'organiser leur activité afin de continuer garantir l'accès aux soins des patients tout en limitant les risques de propagation du virus. De fait, la prolongation de la période de

L'épidémie de COVID-19 et le confinement de la population rendent difficile la continuité de la prise en charge des personnes atteintes de troubles psychiatriques.(...)

HAS (e-date: 02/04/2020)

[Lien original](#)

## Des réponses rapides de la HAS qui allient réactivité et méthode

Pour apporter en urgence une réponse concrète, claire et scientifiquement étayée aux questions actuelles des professionnels de santé, des patients et de l'Etat, la HAS s'est dotée d'une [méthode d'élaboration de Réponses rapides](#). Celles-ci sont construites en collaboration avec les professionnels de santé (conseils nationaux professionnels, sociétés savantes) et les associations de malades.(...)

HAS (e-date: 02/04/2020)

[Lien original](#)

## Report 14 - Online Community Involvement in COVID-19 Research & Outbreak Response Early Insights from a UK Perspective

Since the emergence of the new coronavirus (COVID-19) in December 2019, we have adopted a policy of immediately sharing research findings on the developing pandemic. This page provides all publicly published online reports by the Imperial College COVID-19 Response Team.

Imperial College London (e-date: 03/04/2020)

[Lien original](#)

## Recommendations to Member States to improve hand hygiene practices by providing universal access to public hand hygiene stations to help prevent the transmission of the COVID-19 virus

WHO recommends member states provide universal access to public hand hygiene stations and making their use obligatory on entering and leaving any public or private commercial building and any public transport facility. It is also recommended that healthcare facilities improve access to and practice of hand hygiene.

WHO (e-date: 01/04/2020)

[Lien original](#)

## Communiqué de l'Académie : Pandémie à Covid-19 : dangers des interruptions de traitement sans avis médical

Dans un contexte de peur, d'incertitude ou de rumeur, de nombreux patients, ayant une maladie de l'appareil cardio-vasculaire ou inflammatoire, envisagent d'interrompre leur traitement. Il s'agit, par exemple, de patients prenant :

- de l'aspirine à faible dose afin de prévenir le risque de thrombose. A cette dose, l'aspirine n'a aucune action anti-inflammatoire. Dans le contexte de l'infection à Covid-19, il n'y a donc aucune raison médicale d'interrompre ce traitement ;

- des inhibiteurs de l'enzyme de conversion (IEC) ou des antagonistes des récepteurs de l'Angiotensine II communément appelés sartans. (...)

*Académie de médecine (e-date: 03/04/2020)*

[Lien original](#)

### **Communiqué de l'Académie : Covid-19 et santé au travail**

L'épidémie à Covid-19 expose de nombreux professionnels au risque de contamination par le virus dans le cadre de leur activité, en particulier le personnel soignant exposé à des patients infectés. Les risques d'exposition concernent aussi d'autres professions, en activité d'accueil ou de guichet (par exemple les employés du secteur de l'alimentation), en contact avec le public dans des espaces confinés (par exemple les conducteurs de bus) et les métiers de la sécurité. (...)

*Académie de médecine (e-date: 03/04/2020)*

[Lien original](#)

### **Communiqué de l'Académie : « Pandémie de Covid-19 : mesures barrières renforcées pendant le confinement et en phase de sortie de confinement »**

En Extrême-Orient, depuis de nombreuses années, le port d'un masque anti-projection par la population est à la fois une mesure de prévention et un acte de civisme en situation d'épidémie de virus à tropisme respiratoire (notamment dans les pays les plus frappés par le virus du SRAS en 2003). Face à l'épidémie de Covid-19, cette mesure a contribué à une réduction du taux de reproduction à Taïwan, Singapour et en Corée du Sud. (...)

*Académie de médecine (e-date: 02/04/2020)*

[Lien original](#)

### **Considérations visant l'utilisation de masques faits maison pour vous protéger de la COVID-19 - Canada.ca**

Les masques faits maison ne sont pas des instruments médicaux et conséquemment ne sont pas réglementés, comme le sont les masques médicaux et les respirateurs. Leur utilisation présente certaines limites (...)

*Gouvernement du Canada (e-date: 31/03/2020)*

[Lien original](#)

### **Impression 3D et autres fabrications d'équipement de protection individuelle en réponse à la COVID-19 - Canada.ca**

Dans le contexte de la pandémie de la COVID-19, la demande de certains instruments médicaux y compris les équipements de protection individuelle (EPI), peut dépasser l'offre disponible au Canada. Santé Canada reconnaît que les organisations sont à la recherche d'approches de fabrication innovantes pour produire des EPI pour les travailleurs de la santé, y compris l'impression 3D, afin de répondre à la demande accrue et aux interruptions globales de l'approvisionnement mondial de ces produits. (...)

*Gouvernement du Canada (e-date: 03/04/2020)*

[Lien original](#)

### **Avis relatif à la protection des personnels de collecte de déchets au cours de l'épidémie de Covid-19**

Dans son avis du 19 mars 2020 relatif à la gestion des déchets d'activités de soins (DAS) produits au cours de l'épidémie de Covid-19, en particulier en milieu diffus, le Haut Conseil de la santé publique a recommandé selon la situation une élimination des déchets via la filière classique des DASRI ou une élimination selon la filière classique des ordures ménagères avec un double emballage. (...)

*HCSP (e-date: 03/04/2020)*

[Lien original](#)

## **Avis relatif à l'accompagnement des personnes en situation de handicap dans le contexte de l'épidémie à Covid-19 et de la prolongation du confinement**

Le Haut Conseil de la santé publique (HCSP) a analysé dans le cadre de l'épidémie de Covid-19 les possibilités de réouverture des externats et des accueils de jour pour l'accompagnement de certaines catégories de personnes en situation de handicap, et la balance bénéfices-risques au niveau

Les difficultés, les limites et les risques en lien avec le confinement et l'épidémie de Covid-19 y sont déclinés pour les personnes en situation de handicap, les aidants, les professionnels de l'accompagnement social et des soins. (...)

*HCSP (e-date: 03/04/2020)*

[Lien original](#)

## **Définition de cas – Nouveau coronavirus 2019 (COVID-19)**

Ces définitions de cas\* sont à des fins de surveillance et sont à jour en date du 30 mars 2020. Elles ne visent pas à remplacer le jugement d'un praticien clinique ou de santé publique dans l'évaluation et la prise en charge d'un patient.

*Santé publique Ontario (e-date: 30/03/2020)*

[Lien original](#)

## **Document d'orientation sur la COVID-19 : Laboratoires et centres de prélèvement communautaires. Version 3**

*Santé publique Ontario (e-date: 29/03/2020)*

[Lien original](#)

## **Liste de vérification pour le dépistage de la COVID-19**

*Santé publique Ontario (e-date: 17/03/2020)*

[Lien original](#)

## **Recommandations actualisées en PCI concernant l'utilisation d'équipements de protection individuelle pour la prise en charge des personnes dont l'infection à la COVID-19 est présumée ou confirmée**

*Santé publique Ontario (e-date: 25/03/2020)*

[Lien original](#)

## **Principales caractéristiques de la gestion des éclosions de COVID-19 dans les FSLD**

Les nouvelles informations sur la COVID-19 autorisent à penser que les adultes plus âgés ayant des problèmes de santé sous-jacents sont plus exposés à de graves conséquences. Par conséquent, l'identification précoce des cas associés aux FSLD et la mise en œuvre rapide de mesures de lutte contre les éclosions sont essentielles pour prévenir la propagation à domicile.(...)

*Santé Publique Ontario (e-date: 01/04/2020)*

[Lien original](#)

## **COVID-19 – Aide-mémoire des conseils de la Santé publique concernant les tests et les congés. Version 3.0**

Ces renseignements peuvent être utilisés pour aider à orienter le processus décisionnel concernant les tests et les congés de personnes qui sont des cas suspectés ou confirmés de COVID-19. Ces renseignements sont à jour au 27 mars 2020, et peuvent être actualisés à mesure de l'évolution de la situation de la COVID-19.

*Santé publique Ontario (e-date: 27/03/2020)*

[Lien original](#)

## Avis relatif à la prévention et à la prise en charge des patients à risque de formes graves de COVID-19 ainsi qu'à la priorisation des tests diagnostiques

Afin de compléter les deux avis provisoires des 10 et 14 mars 2020, le Haut Conseil de la santé publique émet des recommandations prenant en compte l'actualisation des connaissances disponibles. Le HCSP actualise et précise la liste des personnes à risque de formes graves de Covid-19 ainsi que celles pour lesquelles, dans la situation actuelle, la réalisation des tests de diagnostic virologique est prioritaire. (...)

HCSP (e-date: 04/04/2020)

[Lien original](#)

## Priorisation des traitements de réanimation pour les patients en état critique en situation d'épidémie de COVID-19 avec capacités limitées

Société française d'anesthésie-réanimation (SFAR) (e-date: 03/04/2020)

[Lien original](#)

## COVID-19 : Recommandations intérimaires CERDM - désinfection des protections respiratoires N95 à usage unique

Le CERDM a évalué les options disponibles de désinfection des protections respiratoire N95 à usage unique dans le contexte d'une pénurie de protection respiratoire au sein des établissements de soins de santé suite à la pandémie de la COVID-19 (INSPQ, à venir). En date du 2 avril 2020, au Canada, les procédés de désinfection n'ont pas encore été approuvés par une autorité réglementaire et ne répondent pas aux bonnes pratiques reconnues. Cette démarche s'inscrit dans la volonté d'identifier des stratégies alternatives et supplémentaires aux mesures déjà disponibles afin d'apporter la meilleure protection possible aux travailleurs en cas de pénurie. (...)

INSPQ (e-date: 03/04/2020)

[Lien original](#)

## Strategies for Optimizing the Supply of N95 Respirators

Edited the section on use of airborne infection isolation rooms (AIIRs) for aerosol-generating procedures performed on patients with confirmed or suspected COVID-19 patients.

Combined sections on limited re-use of N95 respirators for tuberculosis and then COVID-19 patients. Added more details surrounding limited re-use.

CDC (e-date: 03/04/2020)

[Lien original](#)

## Resources for Hospitals and Healthcare Professionals Preparing for Patients with Suspected or Confirmed COVID-19

CDC (e-date: 03/04/2020)

[Lien original](#)

## Covid-19 : les lignes ont bougé - leçons tirées de deux mois de covid-19 - La SFAR

La pandémie COVID-19 a plongé notre pays dans une crise sanitaire sans précédent. Le foyer infectieux a débuté en Chine dans la province de Wuhan, puis a touché l'Europe avec un premier foyer en Italie puis une diffusion en France et en Espagne. Depuis, environ deux mois se sont écoulés, et la situation initialement appréhendée a sensiblement évolué au fur et à mesure que les expériences collective et individuelle ont progressé. Nous reprenons ici quelques points subjectifs qui nous semblent intéressants à développer.

SFAR (e-date: 04/04/2020)

Groupe Sfar Covid-19

[Lien original](#)

## Characteristics of COVID-19 patients dying in Italy Report based on available data on April 2nd, 2020

The present report describes characteristics of 12,250 COVID-19 patients dying in Italy.\* Geographic distribution across the 19 regions and 2 autonomous provinces of Trento and Bozen is presented in the table below. Data are update to April 2nd, 2020.

*Instituto superiore di sanita (e-date: 02/04/2020)*

[Lien original](#)

## Coronavirus (COVID-19) - Scaling up our testing programmes

Testing is a key pillar of our strategy to protect the NHS and save lives. Our ultimate ambition is that anyone who needs a test should have one.

The government's testing strategy lays out how we intend to scale up our testing programmes to deliver on this ambition.

*Public Health England (e-date: 04/04/2020)*

[Lien original](#)

## Avis du collège de la Haute Autorité de santé relatif au maintien de la campagne de vaccination contre la grippe saisonnière à la Réunion dans le contexte de l'épidémie de COVID-19 en France

Dans le contexte de l'épidémie de COVID-19 que connaît la France, la Haute Autorité de santé considère que le lancement de la campagne de vaccination contre la grippe à la Réunion n'est pas une priorité en avril 2020 où les Réunionnais sont appelés au confinement strict et qu'il pourrait être décalé jusqu'à la fin du mois de mai 2020 sans conséquence sur l'efficacité de la campagne et sur la prévention de la grippe à la Réunion.(...)

*HAS (e-date: 03/04/2020)*

[Lien original](#)

## Avis du collège de la Haute Autorité de santé relatif au maintien de la vaccination des nourrissons dans le contexte de l'épidémie de COVID-19

La HAS considère qu'il est primordial de maintenir l'ensemble des vaccinations obligatoires des nourrissons (à 2, 4, 5, 11, 12 et 16-18 mois) dans le contexte de l'épidémie de COVID-19.

*HAS (e-date: 03/04/2020)*

[Lien original](#)

## COVID-19 et Chloroquine / hydroxychloroquine

*Institut national d'excellence en santé et en services sociaux (e-date: 04/04/2020)*

[Lien original](#)

## COVID-19: infection prevention and control (IPC) [Mis à jour le 05/04/2020]

*Public Health England (e-date: 05/04/2020)*

[Lien original](#)

## COVID-19: management of exposed healthcare workers and patients in hospital settings

*Public Health England (e-date: 04/04/2020)*

[Lien original](#)

## COVID-19: laboratory investigations and sample requirements for diagnosis [Mis à jour le 03/04/2020]

Information for clinical diagnostic laboratories regarding safety, sampling and packaging specimens associated with COVID-19.

*Public Health England (e-date: 06/04/2020)*

[Lien original](#)

### COVID-19: guidance for Ambulance Trusts [Mis à jour le 03/04/2020]

This guidance has been written by the National Ambulance Service Infection Prevention and Control (IPC) Group, in consultation with NHS England, NHS Improvement, Public Health England, Scotland, Wales, Northern Ireland and the National Ambulance Resilience Unit.

*Public Health England (e-date: 03/04/2020)*

[Lien original](#)

### COVID-19: investigation and initial clinical management of possible cases [Mis à jour le 03/04/2020]

*Public Health England (e-date: 06/04/2020)*

[Lien original](#)

### COVID-19: epidemiology, virology and clinical features [Mis à jour le 03/04/2020]

This document contains information for clinicians and the public on the epidemiology and virology of COVID-19, the infection caused by SARS-CoV-2.

*Public Health England (e-date: 03/04/2020)*

[Lien original](#)

### Communiqué de l'Académie : Covid-19 : sortie du confinement

La courbe épidémique de Covid-19 montre qu'un plateau s'amorce dans les 53 États Membres de la zone Euro de l'OMS.

En l'absence, à ce jour, de vaccin, de traitement antiviral efficace démontré, et dans une situation de pénurie de masques et de tests diagnostiques, force a été, en France comme dans de nombreux pays, de recourir à la méthode du confinement de la population à domicile.

*Académie de médecine (e-date: 05/04/2020)*

[Lien original](#)

[Sommaire](#)

## PREPRINTS (69)

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### Japanese citizens' behavioral changes and preparedness against COVID-19: How effective is Japan's approach of self-restraint?

The Japanese government instituted countermeasures against COVID-19, a pneumonia caused by the new coronavirus, in January 2020. Seeking "people's behavioral changes," in which the government called on the public to take precautionary measures or exercise self-restraint, was one of the important strategies. The purpose of this study is to investigate how and from when Japanese citizens have changed their precautionary behavior under these circumstances, where the government has only requested their cooperation. (...)

*medRxiv (e-date: 03/04/2020)*

*Muto K, Yamamoto I, Nagasu M, Tanaka M, Wada K*

[Lien original](#)

### Reply to Gautret et al. 2020: A Bayesian reanalysis of the effects of hydroxychloroquine and azithromycin on viral carriage in patients with COVID-19

Gautret and colleagues reported results of a non-randomised open-label case series which examined the effects of hydroxychloroquine and azithromycin on viral load in the upper respiratory tract of Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) patients. The authors report that hydroxychloroquine (HCQ) had significant virus reducing effects, and that dual treatment of both HCQ and azithromycin further enhanced virus reduction. This data has triggered speculation whether these drugs should be considered as candidates for the treatment of severe COVID-19. (...)

*medRxiv (e-date: 03/04/2020)*

*Hulme OJ, Wagenmakers E-J, Damkier P, Madelung CF, Siebner HR, Helweg-Larsen J, et al*

[Lien original](#)

### Clinical features, Diagnosis, and Treatment of COVID-19: A systematic review of case reports and case series

Objectives: The 2019 novel coronavirus (COVID-19) has been declared a public health emergency worldwide. The objective of this systematic review was to characterize the clinical, diagnostic, and treatment characteristics of patients presenting with COVID-19. Methods: We conducted a structured search using PubMed/Medline, Embase, Web of Science and the Cochrane Library to collect both case reports and case series on COVID-19 published up to February 30, 2020. (...)

*medRxiv (e-date: 03/04/2020)*

*Tahvildari A, Arbabi M, Farsi Y, Jamshidi P, Hasanzadeh S, Calcagno TM, et al*

[Lien original](#)

### Spatial variability in the risk of death from COVID-19 in Italy, 2020

background: Italy is bearing the brunt of the COVID-19 pandemic, as the death toll there has already surpassed that in Wuhan, the city in China where the coronavirus emerged in December 2019. Here we employ statistical methods to assess the severity of COVID-19 pandemic across different regions of Italy. Method: We manually retrieved the daily cumulative numbers of laboratory-confirmed cases and deaths attributed to COVID-19 stratified by region in Italy from March 2, 2020 to March 28, 2020. (...)

*medRxiv (e-date: 03/04/2020)*

*Mizumoto K, Dahal S, Chowell G*

[Lien original](#)

### Globalized low-income countries may experience higher COVID-19 mortality rates

Understanding the factors underpinning COVID-19 infection and mortality rates is essential in order to implement actions that help mitigate the current pandemic. Here we evaluate how a suit of 15 climatic and socio-economic variables influence COVID-19 exponential growth-phase infection and mortality rates across 36 countries. We found that imports of goods and services, international tourism and the number of published scientific papers are good predictors of COVID-19 infection rates, indicating that more globalized countries may have experienced multiple and recurrent introductions of the virus. (...)

*medRxiv (e-date: 03/04/2020)*

*Jaffe R, Ortiz Vera MP, Jaffe K*

[Lien original](#)

### Harmonizing heterogeneous endpoints in COVID-19 trials without loss of information - an essential step to facilitate decision making

Background: Many trials are now underway to inform decision-makers on potential effects of treatments for COVID-19. To provide sufficient information for all involved

decision-makers (clinicians, public health authorities, drug regulatory agencies) a multiplicity of endpoints must be considered. It is a challenge to generate detailed high quality evidence from data while ensuring fast availability and evaluation of the results. (...)

*medRxiv (e-date: 04/04/2020)*

*von Cube M, Grodd M, Wolkewitz M, Hazard D, Lambert J*

[Lien original](#)

### COVID-19 infection during pregnancy: a systematic review to summarize possible symptoms, treatments, and pregnancy outcomes

Background: The coronavirus disease 2019 (COVID-19); one of the most hazardous threats that the world has ever been faced, is now increasing exponentially worldwide. An increasing proportion of the women are now infected with this virus during their pregnancy, which may put them in danger in terms of adverse maternal and newborn outcomes. (...)

*medRxiv (e-date: 03/04/2020)*

*Khan MA, Khan N, Mustagir G, Rana J, Haque R, Rahman M*

[Lien original](#)

### Structural basis to design multi-epitope vaccines against Novel Coronavirus 19 (COVID19) infection, the ongoing pandemic emergency: an in silico approach

The 2019 novel coronavirus (COVID19 / Wuhan coronavirus), officially named as Severe Acute Respiratory Syndrome Coronavirus 2 (SARS CoV 2), is a positive sense single stranded RNA coronavirus. SARS CoV 2 causes the contagious COVID19 disease also known as 2019 nCoV acute respiratory disease and has led to the ongoing 2019-20 pandemic COVID19 outbreak. (...)

*bioRxiv (e-date: 03/04/2020)*

*Srivastava S, Verma S, Kamthania M, Kaur R, Badyal RK, Saxena AK, et al*

[Lien original](#)

### Meteorological factors correlate with transmission of 2019-nCoV: Proof of incidence of novel coronavirus pneumonia in Hubei Province, China

Objective: many potential factors contribute to the outbreak of COVID-19. The aim of this study was to explore the effects of various meteorological factors on the incidence of COVID-19. Methods: Taking Hubei province of China as an example, where COVID-19 was first reported and there were the most cases, we collected 53 days of cases up to March 10 (total 67773 confirmed cases). (...)

*medRxiv (e-date: 03/04/2020)*

*Li J, Zhang L, Ren Z, Xing C, Qiao P, Chang B*

[Lien original](#)

### Use of siltuximab in patients with COVID-19 pneumonia requiring ventilatory support

COVID-19 is caused by the Severe Acute Respiratory Syndrome Coronavirus-2 (SAR-CoV-2), resulting in symptoms, such as fever, cough, and shortness of breath. The SARS-CoV-2 virus has also been suggested to initiate a cytokine storm in patients with COVID-19 evidenced by elevated cytokines, such as interleukin-6 (IL-6) and C-reactive protein (CRP). (...)

*medRxiv (e-date: 03/04/2020)*

*Gritti G, Raimondi F, Ripamonti D, Riva I, Landi F, Alborghetti L, et al*

[Lien original](#)

### The Spike Protein S1 Subunit of SARS-CoV-2 Contains an LxxIxE-like Motif that is Known to Recruit the Host PP2A-B56 Phosphatase

The novel betacoronavirus (SARS-CoV-2) is highly contagious and can cause serious acute respiratory illness syndromes, often fatal, called covid-19. It is an urgent priority to better understand SARS-CoV-2 infection mechanisms that will help in the development of prophylactic vaccines and therapeutics that are very important to people health and socioeconomic stability around the world. The surface coronavirus spike (S) glycoprotein is considered as a key factor in host specificity because it mediates infection by receptor-recognition and membrane fusion. (...)

*bioRxiv (e-date: 03/04/2020)*

*Maaroufi H*

[Lien original](#)

### **In silico approach for designing of a multi-epitope based vaccine against novel Coronavirus (SARS-COV-2)**

A novel Coronavirus (SARS-COV-2) has now become a global pandemic. Considering the severity of infection and the associated mortalities, there is an urgent need to develop an effective preventive measure against this virus. In this study, we have designed a novel vaccine construct using computational strategies. Spike (S) glycoprotein is the major antigenic component that trigger the host immune responses. (...)

*bioRxiv (e-date: 03/04/2020)*

*Saha R, Prasad BV*

[Lien original](#)

### **Remdesivir inhibits renal fibrosis in obstructed kidneys**

**Aim:** Kidney impairment is observed in patients with COVID-19. We aimed to demonstrate the effect of anti-COVID-19 agent remdesivir on renal fibrosis. **Methods:** Remdesivir and its active nucleoside metabolite GS-441524 were used to treat TGF-beta stimulated renal fibroblasts (NRK-49F) and human renal epithelial cells (HK2). Cell viability was determined by CCK8 assay, and fibrotic markers were measured by Western blotting. (...)

*bioRxiv (e-date: 03/04/2020)*

*Wu M, Xu L, Tan B, Huang D, Yuan M, Ye C*

[Lien original](#)

### **Using ILI surveillance to estimate state-specific case detection rates and forecast SARS-CoV-2 spread in the United States**

Detection of SARS-CoV-2 infections to date has relied on RT-PCR testing. However, a failure to identify early cases imported to a country, bottlenecks in RT-PCR testing, and the existence of infections which are asymptomatic, sub-clinical, or with an alternative presentation than the standard cough and fever have resulted in an under-counting of the true prevalence of SARS-CoV-2. (...)

*medRxiv (e-date: 03/04/2020)*

*Silverman JD, Washburne AD*

[Lien original](#)

### **The QT Interval in Patients with SARS-CoV-2 Infection Treated with Hydroxychloroquine/Azithromycin**

We report the change in the QT interval in 84 adult patients with SARS-CoV-2 infection treated with Hydroxychloroquine/Azithromycin combination. QTc prolonged maximally from baseline between days 3 and 4. In 30% of patients QTc increased by greater than 40ms. In 11% of patients QTc increased to >500 ms, representing high risk group for arrhythmia. The development of acute renal failure but not baseline QTc was a strong predictor of extreme QTc prolongation.

*medRxiv (e-date: 03/04/2020)*

*Chorin E, Dai M, Shulman E, Wadhwani L, Bar Cohen R, Barbhaiya C, et al*

[Lien original](#)

### Intervention Serology and Interaction Substitution: Modeling the Role of 'Shield Immunity' in Reducing COVID-19 Epidemic Spread

The COVID-19 pandemic has precipitated a global crisis, with more than 690,000 confirmed cases and more than 33,000 confirmed deaths globally as of March 30, 2020 [1-4]. At present two central public health control strategies have emerged: mitigation and suppression (e.g, [5]). Both strategies focus on reducing new infections by reducing interactions (and both raise questions of sustainability and long-term tactics). (...)

*medRxiv (e-date: 03/04/2020)*

*Weitz JS, Beckett SJ, Coenen AR, Demory D, Dominguez-Mirazo M, Dushoff J, et al*

[Lien original](#)

### Evaluation of the Anticipated Burden of COVID-19 on Hospital-Based Healthcare Services Across the United States

Background: Coronavirus disease-19 (COVID-19) is a global pandemic, with the potential to infect nearly 60% of the population. The anticipated spread of the virus requires an urgent appraisal of the capacity of US healthcare services and the identification of states most vulnerable to exceeding their capacity Methods: In the American Hospital Association survey for 2018, a database of US community hospitals, we identified total inpatient beds, adult intensive care unit (ICU) beds, and airborne isolation rooms across all hospitals in each state of continental US. (...)

*medRxiv (e-date: 03/04/2020)*

*Khera R, Jain S, Lin Z, Ross JS, Krumholz H*

[Lien original](#)

### Clinical Manifestations of Children with COVID-19: a Systematic Review

Context: The coronavirus disease 2019 (COVID-19) outbreak is an unprecedented global public health challenge, leading to thousands of deaths every day worldwide. Despite the epidemiological importance, clinical patterns of children with COVID-19 remain unclear. Objective: To describe the clinical, laboratorial and radiological characteristics of children with COVID-19. (...)

*medRxiv (e-date: 03/04/2020)*

*de Souza TH, Nadal JA, Nogueira RJN, Pereira RM, Brandao MB*

[Lien original](#)

### Reporting the life tracks of confirmed cases can effective prevent and control the COVID-19 outbreak in China

Since late December 2019, a novel coronavirus (COVID-19) has emerged in Wuhan city and rapidly spread throughout China. Fears were raised higher, so effective policies about the emergency prevention and control were concerned. Till March 3, 91273 confirmed COVID-19 cases were included in. (...)

*medRxiv (e-date: 03/04/2020)*

*Zhang J, Wang T, Wang J, Chen J, Yan H, Sun L*

[Lien original](#)

### The Effectiveness of Targeted Quarantine for Minimising Impact of COVID-19

We model the extent to which age targeted quarantine can be used to reduce ICU admissions caused by novel coronavirus COVID-19. Using demographic data from New Zealand, we demonstrate that lowering the age threshold for quarantine to 50 years of age reduces ICU admissions drastically, and show that for sufficiently strict isolation protocols, isolating one third of the countries population for a total of 6 months is sufficient to avoid overwhelming ICU capacity throughout the entire course of the epidemic. Similar results are expected to hold for other countries, though some minor adaption will be required based on local age demographics and hospital facilities.

*medRxiv (e-date: 03/04/2020)*  
*Jamieson-Lane AD, Cytrnbaum E*  
[Lien original](#)

### Perceptions and behavioural responses of the general public during the COVID-19 pandemic: A cross-sectional survey of UK Adults

Objective: To examine risk perceptions and behavioural responses of the UK adult population during the early phase of the COVID-19 epidemic in the UK. Design: A cross-sectional survey Setting: Conducted with a nationally representative sample of UK adults within 48 hours of the UK Government advising the public to stop non-essential contact with others and all unnecessary travel. Participants: 2,108 adults living in the UK aged 18 years and over. (...)

*medRxiv (e-date: 03/04/2020)*  
*Atchison CJ, Bowman L, Vrinten C, Redd R, Pristera P, Eaton JW, et al*  
[Lien original](#)

### SEIR and Regression Model based COVID-19 outbreak predictions in India

COVID-19 pandemic has become a major threat to the country. Till date, well tested medication or antidote is not available to cure this disease. According to WHO reports, COVID-19 is a severe acute respiratory syndrome which is transmitted through respiratory droplets and contact routes. Analysis of this disease requires major attention by the Government to take necessary steps in reducing the effect of this global pandemic. (...)

*medRxiv (e-date: 03/04/2020)*  
*Gupta R, Pandey G, Chaudhary P, Pal SK*  
[Lien original](#)

### When Darkness Becomes a Ray of Light in the Dark Times: Understanding the COVID-19 via the Comparative Analysis of the Dark Proteomes of SARS-CoV-2, Human SARS and Bat SARS-Like Coronaviruses

Recently emerged coronavirus designated as SARS-CoV-2 (also known as 2019 novel coronavirus (2019-nCoV) or Wuhan coronavirus) is a causative agent of coronavirus disease 2019 (COVID-19), which is rapidly spreading throughout the world now. More than 9,00,000 cases of SARS-CoV-2 infection and more than 47,000 COVID-19-associated mortalities have been reported worldwide till the writing of this article, and these numbers are increasing every passing hour. World Health Organization (WHO) has declared the SARS-CoV-2 spread as a global public health emergency and admitted that the COVID-19 is a pandemic now. (...)

*bioRxiv (e-date: 03/04/2020)*  
*Giri R, Bhardwaj T, Shegane M, Gehi BR, Kumar P, Gadhave K, et al*  
[Lien original](#)

### Insights into The Codon Usage Bias of 13 Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Isolates from Different Geo-locations

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is the causative agent of Coronavirus disease 2019 (COVID-19) which is an infectious disease that spread throughout the world and was declared as a pandemic by the World Health Organization (WHO). In the present study, we analyzed genome-wide codon usage patterns in 13 SARS-CoV-2 isolates from different geo-locations (countries) by utilizing different CUB measurements. (...)

*bioRxiv (e-date: 04/04/2020)*  
*Anwar AM, Khodary SM*  
[Lien original](#)

### In-silico analysis of SARS-CoV-2 genomes: Insights from SARS encoded non-coding RNAs

Recently a novel coronavirus (SARS-CoV-2) emerged from Wuhan, China and has infected more than 571000 people leading to more than 26000 deaths. Since SARS-CoV-2 genome sequences show similarity with those of SARS, we sought to analyze all the available SARS-CoV-2 genomes based on the insights obtained from SARS genome specifically focusing on non-coding RNAs. Here, results are presented from the dual approach i.e identifying host encoded miRNAs that might regulate viral pathogenesis as well as identifying viral encoded miRNAs that might regulate host cell signaling pathways and aid in viral pathogenesis. (...)

*bioRxiv (e-date: 04/04/2020)*

*Periwal N, Sarma S, Arora P, Sood V*

[Lien original](#)

### Comparative genomics suggests limited variability and similar evolutionary patterns between major clades of SARS-Cov-2

Phylogenomic analysis of SARS-CoV-2 as available from publicly available repositories suggests the presence of 3 prevalent groups of viral episomes (super-clades), which are mostly associated with outbreaks in distinct geographic locations (China, USA and Europe). While levels of genomic variability between SARS-CoV-2 isolates are limited, to our knowledge, it is not clear whether the observed patterns of variability in viral super-clades reflect ongoing adaptation of SARS-CoV-2, or merely genetic drift and founder effects.(...)

*bioRxiv (e-date: 04/04/2020)*

*Chiara M, Horner DS, Gissi C, Pesole G*

[Lien original](#)

### Genomic epidemiology of SARS-CoV-2 in Guangdong Province, China

Highlights: 1) 1.6 million molecular diagnostic tests identified 1,388 SARS-CoV-2 infections in Guangdong Province, China, by 19th March 2020; 2) Virus genomes can be recovered using a variety of sequencing approaches from a range of patient samples. 3) Genomic analyses reveal multiple virus importations into Guangdong Province, resulting in genetically distinct clusters that require careful interpretation. 4) Large-scale epidemiological surveillance and intervention measures were effective in interrupting community transmission in Guangdong. (...)

*medRxiv (e-date: 04/04/2020)*

*Lu J, Plessis Ld, Liu Z, Hill V, Kang M, Lin H, et al*

[Lien original](#)

### Detecting SARS-CoV-2 at point of care: Preliminary data comparing Loop-mediated isothermal amplification (LAMP) to PCR

Background: The need for a fast and reliable test for COVID-19 is paramount in managing the current pandemic. A cost effective and efficient diagnostic tool as near to the point of care (PoC) as possible would be a game changer in current testing. We tested reverse transcription loop mediated isothermal amplification (RT-LAMP), a method which can produce results in under 30 minutes, alongside standard methods in a real-life clinical setting. (...)

*medRxiv (e-date: 04/04/2020)*

*Osterdahl MF, Lee KA, Ni Lochlainn M, Wilson S, Douthwaite S, Horsfall R, et al*

[Lien original](#)

### Level of IL-6 predicts respiratory failure in hospitalized symptomatic COVID-19 patients

The pandemic Coronavirus-disease 19 (COVID-19) is characterized by a heterogeneous clinical course. While most patients experience only mild symptoms, a relevant proportion develop severe disease progression with increasing hypoxia up to

acute respiratory distress syndrome. The substantial number of patients with severe disease have strained intensive care capacities to an unprecedented level. Owing to the highly variable course and lack of reliable predictors for deterioration, we aimed to identify variables that allow the prediction of patients with a high risk of respiratory failure and need of mechanical ventilation. Patients with PCR proven symptomatic COVID-19 infection hospitalized at our institution from 29th February to 27th March 2020 (n=40) were analyzed for baseline clinical and laboratory findings. (...)

*medRxiv (e-date: 04/04/2020)*

*Herold T, Jurinovic V, Arnreich C, Hellmuth JC, Bergwelt-Baildon M, Klein M, et al*

[Lien original](#)

### **Feasibility Study of Mitigation and Suppression Intervention Strategies for Controlling COVID-19 Outbreaks in London and Wuhan**

Recent outbreak of coronavirus disease 2019 (COVID-19) in China has led a global pandemic around the world. For controlling COVID-19 outbreaks, most countries take two typical intervention strategies: suppression approach like immediately lockdowning cities at epicentre of and mitigation; or mitigation approach that slows down but not stopping epidemic of COVID-19 for reducing peak healthcare demand. Both strategies have their apparent merits and limitations; it becomes extremely hard to conduct one intervention strategy as the most feasible way to certain country. (...)

*medRxiv (e-date: 04/04/2020)*

*Yang P, Qi J, Zhang S, Wang X, Bi G, Yang Y, et al*

[Lien original](#)

### **Computed Tomography Findings and Short-term follow-up with Novel Coronavirus Pneumonia**

**Objective:** To assess the characteristics of computed tomography (CT) features and changes in CT monitoring in patients with novel coronavirus pneumonia (NCP).

**Methods:** In this retrospective, two-center study, we reviewed the medical records of 57 patients with NCP in CT from January 21 to February 12, 2020. Cases were confirmed by the results of nucleic acid test positive, and were analyzed for demographic, clinical, and CT features. (...)

*medRxiv (e-date: 04/04/2020)*

*Qi S, Guo H, Shao H, Lan S, He Y, Tiheiran M, et al*

[Lien original](#)

### **Countrywide quarantine only mildly increased anxiety level during COVID-19 outbreak in China**

In the recent outbreak of COVID-19, many countries have taken various kinds of quarantine measures to slow down the explosive spreading of COVID-19. Although these measures were proven to be successful in stopping the outbreak in China, the potential adverse effects of nationwide quarantine have not been thoroughly investigated. In this study, we performed an online survey to evaluate the psychological effects of quarantine in China using Zung Self-rating Anxiety Scale in February 2020 when the outbreak was nearly peaked in China. (...)

*medRxiv (e-date: 04/04/2020)*

*Hu W, Su L, Qiao J, Zhu J, Zhou Y.*

[Lien original](#)

### **Modeling the COVID-19 outbreaks and the effectiveness of the containment measures adopted across countries**

On March 11, 2020, the World Health Organization declared the COVID-19 outbreak, originally started in China, a global pandemic. Since then, the outbreak has indeed spread across all continents, threatening the public health of numerous countries. Although the Case Fatality Rate (CFR) of COVID-19 is relatively low when optimal level of healthcare is granted to the patients, the high percentage of severe cases

developing severe pneumonia and thus requiring respiratory support is worryingly high, and could lead to a rapid saturation of Intensive Care Units (ICUs). (...)

*medRxiv (e-date: 04/04/2020)*

*De Brouwer E, Raimondi D, Moreau Y*

[Lien original](#)

### Inferring COVID-19 spreading rates and potential change points for case number forecasts

As COVID-19 is rapidly spreading across the globe, short-term modeling forecasts provide time-critical information for decisions on containment and mitigation strategies. A main challenge for short-term forecasts is the assessment of key epidemiological parameters and how they change as first governmental intervention measures are showing an effect. (...)

*arXiv (e-date: 05/04/2020)*

*Dehning J, Zierenberg J, Spitzner FP, Wibral M, Pinheiro Neto J, Wilczek M, et al*

[Lien original](#)

### The Covid19 Impact Survey: Assessing the Pulse of the COVID-19 Pandemic in Spain via 24 questions

In this paper, we describe the results of analyzing a large-scale survey, called the Covid19Impact survey, to assess citizens feedback on four areas related to the COVID-19 pandemic in Spain: social contact behavior, financial impact, working situation and health status. A total of 24 questions cover the areas of demographics, their home situation, social contact behavior, personal economic impact, their workplace situation and their health. The survey was responded to by 146,728 participants over a period of 44 hours. (...)

*arXiv (e-date: 05/04/2020)*

*Oliver N, Barber X, Roomp K, Roomp K*

[Lien original](#)

### Stochastic modeling and estimation of COVID-19 population dynamics

The aim of the paper is to describe a model of the development of the Covid-19 contamination of the population of a country or a region. For this purpose a special branching process with two types of individuals is considered. This model is intended to use only the observed daily statistics to estimate the main parameter of the contamination and to give a prediction of the mean value of the non-observed population of the contaminated individuals. (...)

*arXiv (e-date: 05/04/2020)*

*Yanev NM, Stoimenova VK, Atanasov DV*

[Lien original](#)

### Power-law distribution in the number of confirmed COVID-19 cases

COVID-19 is an emerging respiratory infectious disease caused by the coronavirus SARS-CoV-2. It was first reported on in early December 2019 in Wuhan, China and within three month spread as a pandemic around the whole globe. Here, we study macro-epidemiological patterns along the time course of the pandemic. We compute the distribution of confirmed COVID-19 cases and deaths for countries worldwide and for US counties and provide prima facie evidence that it follows a power-law over five orders of magnitude.(...)

*arXiv (e-date: 05/04/2020)*

*Blasius B*

[Lien original](#)

### Detecting Suspected Epidemic Cases Using Trajectory Big Data

Emerging infectious diseases are crucial threats to human health and global stability. The recent outbreak of the novel coronavirus COVID-19 has rapidly formed a global

pandemic, causing hundreds of thousands of infections and huge economic loss. The WHO declares that more precise measures to track, detect and isolate infected people are among the most effective means to quickly contain the outbreak. (...)

*arXiv (e-date: 05/04/2020)*

*Zhou C, Yuan W, Wang J, Xu H, Jiang Y, Wang X, et al*

[Lien original](#)

### Efficient network immunization under limited knowledge

Targeted immunization or attacks of large-scale networks has attracted significant attention by the scientific community. However, in real-world scenarios, knowledge and observations of the network may be limited thereby precluding a full assessment of the optimal nodes to immunize (or remove) in order to avoid epidemic spreading such as that of current COVID-19 epidemic. (...)

*arXiv (e-date: 05/04/2020)*

*Liu Y, Sanhedrai H, Dong G, Shekhtman LM, Wang F, Buldyrev SV, et al*

[Lien original](#)

### Strategies for the re-use of FFP3 respiratory masks during the COVID-19 pandemic

The COVID-19 pandemic presents a strain of unprecedented scale on health systems around the world. In order to reliably protect medical personnel, and thus to contain the spread of the pandemic, it is essential to provide FFP3 respiratory masks. Such masks are currently in extreme shortage: To guarantee their supply sufficiently and for all cases, it would absolutely necessary to re-use the FFP3 respiratory masks. (...)

*arXiv (e-date: 05/04/2020)*

*Schöpe HJ, Klopotek M*

[Lien original](#)

### A County-level Dataset for Informing the United States' Response to COVID-19

As the coronavirus disease 2019 (COVID-19) becomes a global pandemic, policy makers must enact interventions to stop its spread. Data driven approaches might supply information to support the implementation of mitigation and suppression strategies. To facilitate research in this direction, we present a machine-readable dataset that aggregates relevant data from governmental, journalistic, and academic sources on the county level.(...)

*arXiv (e-date: 05/04/2020)*

*Killeen BD, Wu JY, Shah K, Zapaishchykova A, Nikutta P, Tamhane A, et al*

[Lien original](#)

### Forecasting COVID 19 growth in India using Susceptible-Infected-Recovered (S.I.R) model

This work covers the analysis of the COVID 19 spread in different countries and dealing the main feature of COVID 19 growth, which is the spread due to the social-contact structure, which is governed by the parameter  $\eta$ . The dependency of this parameter  $\eta$  on the transmission level in society gives a sense of the effectiveness of the measures taken for social distancing. (...)

*arXiv (e-date: 05/04/2020)*

*Naresh Dhanwant J, Ramanathan V*

[Lien original](#)

### Coronavirus Covid-19 spreading in Italy: optimizing an epidemiological model with dynamic social distancing through Differential Evolution

The aim of this paper consists in the application of a recent epidemiological model, namely SEIR with Social Distancing (SEIR--SD), extended here through the definition of a social distancing function varying over time, to assess the situation related to the

spreading of the coronavirus Covid-19 in Italy and in two of its most important regions, i.e., Lombardy and Campania.(...)

*arXiv (e-date: 05/04/2020)*

*De Falco I, Della Cioppa A, Scafuri U, Tarantino E*

[Lien original](#)

### Tracing Contacts to Control the COVID-19 Pandemic

The control of the COVID-19 pandemic requires a considerable reduction of contacts mostly achieved by imposing movement control up to the level of enforced quarantine. This has led to a collapse of substantial parts of the economy. Carriers of the disease are infectious roughly 3 days after exposure to the virus.(...)

*arXiv (e-date: 05/04/2020)*

*Günther C, Günther M, Günther D*

[Lien original](#)

### Adjoint-based Data Assimilation of an Epidemiology Model for the Covid-19 Pandemic in 2020

Sesterhenn JL. Adjoint-based Data Assimilation of an Epidemiology Model for the Covid-19 Pandemic in 2020. OpenAIR

*OpenAIR (e-date: 05/04/2020)*

*Sesterhenn JL*

[Lien original](#)

### Triphosphates of the Two Components in DESCOVY and TRUVADA are Inhibitors of the SARS-CoV-2 Polymerase

SARS-CoV-2, a member of the coronavirus family, is responsible for the current COVID-19 pandemic. We previously demonstrated that four nucleotide analogues (specifically, the active triphosphate forms of Sofosbuvir, Alovudine, AZT and Tenofovir alafenamide) inhibit the SARS-CoV-2 RNA-dependent RNA polymerase (RdRp). Tenofovir and emtricitabine are the two components in DESCOVY and TRUVADA, the two FDA-approved medications for use as pre-exposure prophylaxis (PrEP) to prevent HIV infection. (...)

*bioRxiv (e-date: 05/04/2020)*

*Jockusch S, Tao C, Li X, Anderson TK, Chien M, Kumar S, et al*

[Lien original](#)

### Amantadine disrupts lysosomal gene expression; potential therapy for COVID19

SARS-coronavirus 2 is the causal agent of the COVID-19 outbreak. SARS-Cov-2 entry into a cell is dependent upon binding of the viral spike (S) protein to cellular receptor and on cleavage of the spike protein by the host cell proteases such as Cathepsin L and Cathepsin B. CTSL/B are crucial elements of lysosomal pathway and both enzymes are almost exclusively located in the lysosomes. CTSL disruption offers potential for CoVID-19 therapies. (...)

*bioRxiv (e-date: 05/04/2020)*

*Smieszek S, Przychodzen B, Polymeropoulos MH*

[Lien original](#)

### A snapshot of SARS-CoV-2 genome availability up to 30th March, 2020 and its implications

The SARS-CoV-2 pandemic has been growing exponentially, affecting nearly 900 thousand people and causing enormous distress to economies and societies worldwide. A plethora of analyses based on viral sequences has already been published, in scientific journals as well as through non-peer reviewed channels, to investigate SARS-CoV-2 genetic heterogeneity and spatiotemporal dissemination. We examined full genome sequences currently available to assess the presence of sufficient information for reliable phylogenetic and phylogeographic studies in countries with the highest toll of confirmed cases. (...)

*bioRxiv (e-date: 05/04/2020)*  
*Mavian C, Marini S, Prosperi M, Salemi M*  
[Lien original](#)

### Potent Antiviral Activities of Type I Interferons to SARS-CoV-2 Infection

The ongoing historic outbreak of COVID-19 not only constitutes a global public health crisis, but also carries a devastating social and economic impact. The disease is caused by a newly identified coronavirus, Severe Acute Respiratory Syndrome coronavirus 2 (SARS-CoV-2). There is an urgent need to identify antivirals to curtail the COVID-19 pandemic. Herein, we report the remarkable sensitivity of SARS-CoV-2 to recombinant human interferons  $\alpha$  and  $\beta$  (IFN $\alpha/\beta$ ). (...)

*bioRxiv (e-date: 05/04/2020)*  
*Mantlo EK, Bukreyeva N, Maruyama J, Paessler S, Huang C*  
[Lien original](#)

### Computational analysis suggests putative intermediate animal hosts of the SARS-CoV-2

The recent emerged SARS-CoV-2 may first transmit to intermediate animal host from bats before the spread to humans. The receptor recognition of ACE2 protein by SARS-CoVs or bat-originated coronaviruses is one of the most important determinant factors for the cross-species transmission and human-to-human transmission. (...)

*bioRxiv (e-date: 05/04/2020)*  
*Chu P, Zhou Z, Gao Z, Cai R, Wu S, Sun Z, et al*  
[Lien original](#)

### Increasing testing throughput and case detection with a pooled-sample Bayesian approach in the context of COVID-19

Rapid and widespread implementation of infectious disease surveillance is a critical component in the response to novel health threats. Molecular assays are the preferred method to detect a broad range of pathogens with high sensitivity and specificity. The implementation of molecular assay testing in a rapidly evolving public health emergency can be hindered by resource availability or technical constraints. In the context of the COVID-19 pandemic, the applicability of a pooled-sample testing protocol to screen large populations more rapidly and with limited resources is discussed. (...)

*bioRxiv (e-date: 05/04/2020)*  
*Noriega R, Samore M*  
[Lien original](#)

### Could SARS-CoV-2 be transmitted via speech droplets?

Speaking may be a primary mode of transmission of SARS-CoV-2. Considering that reports of asymptomatic transmission account for 50-80% of COVID-19 cases and that saliva has peak viral loads at time of patient presentation, droplet emission while speaking could be a significant factor driving transmission and warrants further study. We used a planar beam of laser light passing through a dust-free enclosure to detect saliva droplets emitted while speaking. We found that saying the words 'Stay Healthy' generates thousands of droplets that are otherwise invisible to the naked eye. (...)

*medRxiv (e-date: 06/04/2020)*  
*Anfinrud P, Bax CE, Stadnytskyi V, Bax A*  
[Lien original](#)

### Clinical meanings of rapid serological assay in patients tested for SARS-Co2 RT-PCR

Background RT-PCR test for identification of viral nucleic acid is the current standard diagnostic method for the diagnosis of COVID-19 disease but technical reasons limit the utilization of this assay on large scale screenings. Method We verified in a consecutive series of 191 symptomatic patients the clinical information that new rapid

serological colorimetric test qualitatively analyzing IgM/IgG expression can provide with respect to standard assay and with respect to clinical outcome of patients. (...)

*medRxiv (e-date: 06/04/2020)*

*Paradiso AV, De Summa S, Loconsole D, Procacci V, Sallustio A, Centrone F, et al*

[Lien original](#)

### **Virologic and clinical characteristics for prognosis of severe COVID-19: a retrospective observational study in Wuhan, China**

Background: The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has progressed to a pandemic associated with substantial morbidity and mortality. The WHO and the United States Center for Disease Control and Prevention (CDC) have issued interim clinical guidance for management of patients with confirmed coronavirus disease (COVID-19), but there is limited data on the virologic and clinical characteristics for prognosis of severe COVID-19. (...)

*medRxiv (e-date: 06/04/2020)*

*Fu S, Fu X, Song Y, Li M, Pan P-h, Tang T, et al*

[Lien original](#)

### **Projection of COVID-19 Pandemic in Uganda**

COVID-19 (Corona Virus) is caused by Severe Acute Respiratory Syndrome Corona Virus 2 (SARS-COV-2). The virus that was first discovered in China Wuhan Province about 3 months ago (first cases were reported in Wuhan on December 31st, 2019) has spread world wide. The six (6) top countries (excluding China) most affected so far include; USA, Italy, Spain, Germany, France, and Iran. (...)

*medRxiv (e-date: 06/04/2020)*

*Mbabazi FK*

[Lien original](#)

### **Modelling fatality curves of COVID-19 and the effectiveness of intervention strategies**

The main objective is twofold: first, to model the fatality curves of the COVID-19 disease, as represented by the cumulative number of deaths as a function of time; and second, to use the corresponding mathematical model to study the effectiveness of possible intervention strategies. (...)

*medRxiv (e-date: 06/04/2020)*

*Vasconcelos GL, Macêdo AMS, Ospina R, Almeida FAG, Duarte-Filho GC, Souza ICL*

[Lien original](#)

### **Facemasks and similar barriers to prevent respiratory illness such as COVID-19: A rapid systematic review**

The current pandemic of COVID-19 has lead to conflicting opinions on whether wearing facemasks outside of health care facilities protects against the infection. To better understand the value of wearing facemasks we undertook a rapid systematic review of existing scientific evidence about development of respiratory illness, linked to use of facemasks in community settings. METHODS: We included all study designs. There were 31 eligible studies (including 12 RCTs). (...)

*medRxiv (e-date: 06/04/2020)*

*Brainard JS, Jones N, Lake I, Hooper L, Hunter P*

[Lien original](#)

### **How to quit confinement? French scenarios face to COVID-19**

A mathematical model is developed to study the spread of the COVID-19 epidemics in France. Data from French Public Agency of Health are considered to calibrate the model. The spread of the epidemics strongly depends on confinement measures. The aim of the paper is to predict the evolution of the epidemics under various scenarios

that could be taken to quit confinement. The spread of the disease and its re-emergence strongly depends on these scenarios.

*medRxiv (e-date: 06/04/2020)*

*Augeraud-Veron E*

[Lien original](#)

### **Rapid and accurate identification of COVID-19 infection through machine learning based on clinical available blood test results**

Since the sudden outbreak of coronavirus disease 2019 (COVID-19), it has rapidly evolved into a momentous global health concern. Due to the lack of constructive information on the pathogenesis of COVID-19 and specific treatment, it highlights the importance of early diagnosis and timely treatment. In this study, 11 key blood indices were extracted through random forest algorithm to build the final assistant discrimination tool from 49 clinical available blood test data which were derived by commercial blood test equipments. (...)

*medRxiv (e-date: 06/04/2020)*

*Wu J, Zhang P, Zhang L, Meng W, Li J, Tong C, et al*

[Lien original](#)

### **Neutralizing antibody responses to SARS-CoV-2 in a COVID-19 recovered patient cohort and their implications**

Background The COVID-19 pandemic caused by SARS-CoV-2 coronavirus threatens global public health. Currently, neutralizing antibodies (NAbs) versus this virus are expected to correlate with recovery and protection of this disease. However, the characteristics of these antibodies have not been well studied in association with the clinical manifestations in patients. (...)

*medRxiv (e-date: 06/04/2020)*

*Wu F, Wang A, Liu M, Wang Q, Chen J, Xia S, et al*

[Lien original](#)

### **Reliability of self-sampling for accurate assessment of respiratory virus viral and immunologic kinetics**

The SARS-CoV-2 pandemic demonstrates the need for accurate and convenient approaches to diagnose and therapeutically monitor respiratory viral infections. We demonstrated that self-sampling with foam swabs at home is well-tolerated and provides quantitative viral output concordant with flocked swabs. (...)

*medRxiv (e-date: 06/04/2020)*

*Waghmare A, Krantz EM, Baral S, Vasquez E, Loeffelholz T, Chung EL, et al.*

[Lien original](#)

### **A case of SARS-CoV-2 carrier for 32 days with several times false negative nucleic acid tests**

In 2019, a novel coronavirus (SARS-CoV-2) was first discovered in Wuhan, Hubei, China, causing severe respiratory disease in humans, and has been identified as a public health emergency of international concern. With the spread of the virus, there are more and more false negative cases of RT-PCR nucleic acid detection in the early stage of potential infection. In this paper, we collected the epidemiological history, clinical manifestations, outcomes, laboratory results and images of a SARS-CoV-2 carrier with no significant past medical history. (...)

*medRxiv (e-date: 06/04/2020)*

*Song L, He M, Jia X*

[Lien original](#)

### **Optimal COVID-19 epidemic control until vaccine deployment**

Since Dec 2019, the COVID-19 epidemic has spread over the globe creating one of the greatest pandemics ever witnessed. This epidemic wave will only begin to roll back once a critical proportion of the population is immunised, either by mounting natural immunity following infection, or by vaccination. The latter option can minimise the

cost in terms of human lives but it requires to wait until a safe and efficient vaccine is developed, a period estimated to last at least 18 months. In this work, we use optimal control theory to explore the best strategy to implement while waiting for the vaccine. (...)

*medRxiv (e-date: 06/04/2020)*

*Djidjou-Demasse R, Michalakakis Y, Choisy M, Sofonea MT, Alizon S*

[Lien original](#)

### Development and Validation of a Diagnostic Nomogram to Predict COVID-19 Pneumonia

Background: The COVID-19 virus is an emerging virus rapidly spread worldwide This study aimed to establish an effective diagnostic nomogram for suspected COVID-19 pneumonia patients. METHODS: We used the LASSO aggression and multivariable logistic regression methods to explore the predictive factors associated with COVID-19 pneumonia, and established the diagnostic nomogram for COVID-19 pneumonia using multivariable regression. (...)

*medRxiv (e-date: 06/04/2020)*

*Wang Z, Weng J, Li Z, Hou R, Zhou L, Ye H, et al*

[Lien original](#)

### A novel cohort analysis approach to determining the case fatality rate of COVID-19 and other infectious diseases

As the Coronavirus contagion develops, it is increasingly important to understand the dynamics of the disease. Its severity is best described by two parameters: its ability to spread and its lethality. Here, we combine a mathematical model with a cohort analysis approach to determine the range of case fatality rates (CFR). We use a logistical function to describe the exponential growth and subsequent flattening of COVID-19 CFR that depends on three parameters: the final CFR ( $L$ ), the CFR growth rate ( $k$ ), and the onset-to-death interval ( $t_0$ ). Using the logistic model with specific parameters ( $L$ ,  $k$ , and  $t_0$ ), we calculate the number of deaths each day for each cohort. (...)

*medRxiv (e-date: 06/04/2020)*

*Narayanan CS*

[Lien original](#)

### Building an International Consortium for Tracking Coronavirus Health Status

Information is the most potent protective weapon we have to combat a pandemic, at both the individual and global level. For individuals, information can help us make personal decisions and provide a sense of security. For the global community, information can inform policy decisions and offer critical insights into the epidemic of COVID-19 disease. Fully leveraging the power of information, however, requires large amounts of data and access to it. (...)

*medRxiv (e-date: 06/04/2020)*

*Segal E, Zhang F, Lin X, King G, Shalem O, Shilo S, et al*

[Lien original](#)

### Pooling RT-PCR or NGS samples has the potential to cost-effectively generate estimates of COVID-19 prevalence in resource limited environments

Background: COVID-19 originated in China and has quickly spread worldwide causing a pandemic. Countries need rapid data on the prevalence of the virus in communities to enable rapid containment. However, the equipment, human and laboratory resources required for conducting individual RT-PCR is prohibitive. One technique to reduce the number of tests required is the pooling of samples for analysis by RT-PCR prior to testing. (...)

*medRxiv (e-date: 06/04/2020)*

*Narayanan K, Frost I, Heidarzadeh A, Tseng KK, Banerjee S, John J, et al*

[Lien original](#)

### Differential COVID-19-attributable mortality and BCG vaccine use in countries

While mortality attributable to COVID-19 has devastated global health systems and economies, striking regional differences have been observed. The Bacille Calmette Guérin (BCG) vaccine has previously been shown to have non-specific protective effects on infections, as well as long-term efficacy against tuberculosis. Using publicly available data we built a simple log-linear regression model to assess the association of BCG use and COVID-19-attributable mortality per 1 million population after adjusting for confounders including country economic status (GDP per capita), and proportion of elderly among the population. (...)

*medRxiv (e-date: 06/04/2020)*

*Shet A, Ray D, Malavige N, Santosham M, Bar-Zeev N.*

[Lien original](#)

### Covid-19 excess deaths in the United States through July 2020

background: Some have claimed that the number of Covid-19 deaths is not much greater than would be experienced in the usual course of events. We sought to estimate the number of deaths due to Covid-19 in the United States and compare that number to the number of expected deaths in the same time period. Methods: To obtain the number of Covid-19 deaths, we multiplied published infection fatality rates by age by population numbers and assumed infection rates. (...)

*medRxiv (e-date: 06/04/2020)*

*Wetzler HP, Wetzler EA*

[Lien original](#)

[Sommaire](#)

## ARTICLES EN ESPAGNOL (2)

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### Con alerta pero sin panico. El rol de los medios durante la pandemia

Este artículo analiza la cobertura mediática del avance de la pandemia de Covid-19 en Argentina y la medida de aislamiento social preventivo y obligatorio decretada por el gobierno nacional. Destaca tendencias problemáticas y buenas prácticas según un enfoque teórico-normativo, y las vincula con las características históricas del sistema de medios en el país. (...)

*Rev Fac Cien Med Univ Nac Cordoba (e-date: 04/04/2020)*

*Segura MS*

[Lien original](#)

### Coinfección entre dengue y COVID-19: Necesidad de abordaje en zonas endémicas

El impacto que ha originado la enfermedad por coronavirus 2019 (COVID-19) en diferentes partes del mundo, alcanza en la actualidad 597, 072 personas contagiadas y 27,364 fallecidas según los últimos reportes. En ese contexto, en nuestro país, una zona de relevancia epidemiológica es la amazonia peruana, debido a la distribución de enfermedades endémicas como las enfermedades zoonóticas (Dengue, Malaria entre otras), en donde el problema se incrementa debido a que la infección por COVID-19 puede llevar a falsos positivos en las pruebas de cribado para Dengue. (...)

*Rev Fac Cien Med Univ Nac Cordoba (e-date: 04/04/2020)*

*Saavedra-Velasco M, Chiara-Chilet C, Pichardo-Rodriguez R, Grandez-Urbina A, Inga-Berrosqui F*

[Lien original](#)

## BLOG NEWS (3)

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### “China shows COVID-19 responses must be tailored to the local context”

In an interview with WHO/Europe, the WHO Representative to China, Dr Gauden Galea, spoke about the next phase of China’s response to the pandemic and what lessons other countries should draw from its experience. These are excerpts from the interview.

*WHO/Europe (e-date: 03/04/2020)*

[Lien original](#)

### NHS asks people to share their coronavirus symptoms to help others

A new Coronavirus Status Checker will help the NHS coordinate its response and build up additional data on the COVID-19 outbreak.

*Public Health England (e-date: 04/04/2020)*

[Lien original](#)

### How sewage could reveal true scale of coronavirus outbreak

*Nature (e-date: 06/04/2020)*

*Mallapaty S*

[Lien original](#)