

2020-02-28 Novel Coronavirus_Daily Article List

DOCUMENTS GOUVERNEMENTAUX

Coronavirus (COVID-19) Supply Chain Update

FDA (e-date: 27/02/2020)

[Lien original](#)

Evaluating and Reporting Persons Under Investigation (PUI)

CDC (e-date: 27/02/2020)

[Lien original](#)

COVID-19: decontamination in non-healthcare settings

Information on the novel coronavirus (COVID-19) including guidance for professionals helping people in the education, transport and other sectors.

Public Health England (e-date: 26/02/2020)

[Lien original](#)

Avis relatif à la prise en charge du corps d'un patient décédé infecté par le virus SARS-CoV-2.

Sur la base des connaissances disponibles, et prenant en compte les données sur la survie des agents infectieux, la localisation du coronavirus SARS-CoV-2 dans les voies aériennes et les risques d'exposition lors de la manipulation d'un corps, les recommandations concernent le personnel soignant (respect des précautions standard et complémentaires de type air et contact, bionettoyage de la chambre, brancards, housses mortuaires) et le personnel funéraire.

HCSP (e-date: 27/02/2020)

[Lien original](#)

Avis relatif à la conduite à tenir pour les personnels hospitaliers de retour des zones d'exposition à risque définies par Santé publique France

Après avoir pris en compte l'évolution de la situation épidémiologique et des connaissances sur le virus et la maladie qu'il provoque, le HCSP distingue pour le personnel hospitalier trois conduites à tenir en fonction du type de séjour dans les zones à risque et de leur activité de soins au sein de l'hôpital. Il préconise de plus que les personnels concernés suivent les mesures recommandées pour toute personne revenant de zones à risque et que les personnels hospitaliers évitent de se rendre dans des zones à risque d'exposition au coronavirus SARS-CoV-2.

HCSP (e-date: 27/02/2020)

[Lien original](#)

Avis relatif au traitement du linge, au nettoyage d'un logement ou de la chambre d'hospitalisation d'un patient confirmé à SARS-CoV-2 et à la protection des personnels

Le HCSP s'est basé sur les connaissances actuellement disponibles dont l'analyse de risque de l' *European center for disease control and prevention* (ECDC) et de l'OMS, et a pris en compte le fait que les mesures d'hygiène strictes ne s'appliquent que pour les logements ou les chambres d'hospitalisation des cas confirmés.

Le HCSP rappelle l'importance des précautions standard (en particulier l'hygiène des mains par friction hydro-alcoolique) et, en complément, les mesures « Risque Epidémique et Biologique » (REB) renforcées (précautions complémentaires de type air et contact) avec port d'équipement de protection individuelle (EPI).

Il précise la prise en charge des draps et du linge d'un cas confirmé, l'entretien des sols, la protection des personnes et le suivi des personnes chargées de l'entretien du linge et de l'environnement.

HCSP (e-date: 27/02/2020)

[Lien original](#)

Community Mitigation Guidance for COVID-19 Response in the United States: Nonpharmaceutical Interventions for Community Preparedness and Outbreak Response

CDC (e-date: 28/02/2020)

[Lien original](#)

Coronavirus Disease 2019 (COVID-19) Situation Summary

CDC (e-date: 27/02/2020)

[Lien original](#)

Updated WHO recommendations for international traffic in relation to COVID-19 outbreak

WHO (e-date: 28/02/2020)

[Lien original](#)

Guidance for NHS clinicians on home isolation of a patient whilst being tested for SARS-CoV-2

This guidance provides advice for individuals who are awaiting results from diagnostic testing for novel coronavirus (SARS-CoV-2) and do not require admission to hospital.

Isolation of individuals awaiting results in their own home will be decided on a case-by-case basis by the individual's clinician(s) and the local Health Protection Team, following a discussion about the suitability of self-isolation in the home. (...)

Public Health England (e-date: 28/02/2020)

[Lien original](#)

Preparing for large-scale community transmission of COVID-19. Guidance for countries and areas in the WHO Western Pacific Region.

WHO Western Pacific Region (e-date: 28/02/2020)

[Lien original](#)

COVID-19: guidance for educational settings

Public Health England (e-date: 28/02/2020)

[Lien original](#)

[Sommaire](#)

ARTICLES PUBLIES OU IN PRESS

Positive RT-PCR Test Results in Patients Recovered From COVID-19

Previous studies on coronavirus disease 2019 (COVID-19) mainly focused on epidemiological, clinical, and radiological features of patients with confirmed infection.¹⁻⁴ Little attention has been paid to the follow-up of recovered patients. (...)

JAMA (e-date: 27/02/2020)

Lan L, Xu D, Ye G, Xia C, Wang S, Li Y, et al.

[Lien original](#)

Secondary attack rate and superspreading events for SARS-CoV-2

A basic reproduction number, R_0 , of about 2 was estimated for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in Wuhan, China, early in the outbreak.

However, this value only captures the average dynamics of transmission; a crucial question for control is whether specific situations and settings might be driving the outbreak. The secondary attack rate (SAR), defined as the probability that an infection occurs among susceptible people within a specific group (ie, household or close contacts), can provide an indication of how social interactions relate to transmission risk. (...)

The Lancet (e-date: 27/02/2020)

Liu Y, Eggo RM, Kucharski AJ

[Lien original](#)

Looming threat of COVID-19 infection in Africa: act collectively, and fast

Because of the high volume of air traffic and trade between China and Africa, Africa is at a high risk for the introduction and spread of the novel coronavirus disease 2019 (COVID-19); although only Egypt has reported the first case, from a non-national.

The greatest concern for public health experts is whether COVID-19 will

become a pandemic, with sustained year-round transmission, similar to influenza, as is now being observed in several countries. (...)

The Lancet (e-date: 27/02/2020)

Nkengasong JN, Mankoula W

[Lien original](#)

Lessons for managing high-consequence infections from first COVID-19 cases in the UK

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is the cause of an ongoing international outbreak of respiratory illness, known as coronavirus disease 2019 (COVID-19).

In the week commencing Jan 27, 2020, the first two cases were diagnosed in England. Both patients were identified as being at risk while still in the community, and transported directly from their hotel to the regional Infectious Disease Unit at Hull University Teaching Hospitals. (...)

The Lancet (e-date: 27/02/2020)

Moss P, Barlow G, Easom N, Lillie P, Samson A

[Lien original](#)

COVID-19: combining antiviral and anti-inflammatory treatments

Both coronavirus disease 2019 (COVID-19) and severe acute respiratory syndrome (SARS) are characterised by an overexuberant inflammatory response and, for SARS, viral load is not correlated with the worsening of symptoms.

In our previous Correspondence to *The Lancet*, we described how BenevolentAI's proprietary artificial intelligence (AI)-derived knowledge graph, queried by a suite of algorithms, enabled identification of a target and a potential therapeutic against SARS coronavirus 2 (SARS-CoV-2; the causative organism in COVID-19). (...)

The Lancet Infectious Diseases (e-date: 27/02/2020)

Stebbing J, Phelan A, Griffin I, Tucker C, Oechsle O, Smith D, et al

[Lien original](#)

Convalescent plasma as a potential therapy for COVID-19

The outbreak of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), which originated in Wuhan, China, has become a major concern all over the world. The pneumonia induced by the SARS-CoV-2 is named coronavirus disease 2019 (COVID-19). By Feb 22, 2020, this virus has affected more than 77 700 people worldwide and caused more than 2300 deaths. To date, no specific treatment has been proven to be effective for SARS-CoV-2 infection. Apart from supportive care, such as oxygen supply in mild cases and extracorporeal membrane oxygenation for the critically ill patients, specific drugs for this disease are still being researched. (...)

The Lancet Infectious Diseases (e-date: 27/02/2020)

Chen L, Xiong J, Bao L, Shi Y

[Lien original](#)

How to fight an infodemic

WHO is leading the effort to slow the spread of the 2019 coronavirus disease (COVID-19) outbreak. But a global epidemic of misinformation—spreading

rapidly through social media platforms and other outlets—poses a serious problem for public health. “We’re not just fighting an epidemic; we’re fighting an infodemic”, said WHO Director-General Tedros Adhanom Ghebreyesus at the Munich Security Conference on Feb 15. (...)

The Lancet (e-date: 29/02/2020)

Zarocostas J

[Lien original](#)

Preliminary Identification of Potential Vaccine Targets for the COVID-19 Coronavirus (SARS-CoV-2) Based on SARS-CoV Immunological Studies[Déjà publié en preprint dans bioRxiv]. *Viruses.* 2020;12(3):E254.

The beginning of 2020 has seen the emergence of COVID-19 outbreak caused by a novel coronavirus, Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). There is an imminent need to better understand this new virus and to develop ways to control its spread. In this study, we sought to gain insights for vaccine design against SARS-CoV-2 by considering the high genetic similarity between SARS-CoV-2 and SARS-CoV, which caused the outbreak in 2003, and leveraging existing immunological studies of SARS-CoV. (...)

PubMed (e-date: 28/02/2020)

Ahmed SF, Quadeer AA, McKay MR

[Lien original](#)

Essentials for Radiologists on COVID-19: An Update-Radiology Scientific Expert Panel. *Radiology.* 2020:200527-

PubMed (e-date: 28/02/2020)

Kanne JP, Little BP, Chung JH, Elicker BM, Ketai LH

[Lien original](#)

Trust is a key factor in the willingness of health professionals to work during the COVID-19 outbreak: Experience from the H1N1 pandemic in Japan 2009. *Psychiatry Clin Neurosci.* 2020:10.1111/pcn.12995.

PubMed (e-date: 28/02/2020)

Imai H

[Lien original](#)

Immune responses in COVID-19 and potential vaccines: Lessons learned from SARS and MERS epidemic. *Asian Pac J Allergy Immunol.* 2020:10.12932/AP-200220-0772.

As the world is witnessing the epidemic of COVID-19, a disease caused by a novel coronavirus, SARS-CoV-2, emerging genetics and clinical evidences suggest a similar path to those of SARS and MERS. The rapid genomic sequencing and open access data, together with advanced vaccine technology, are expected to give us more knowledge on the pathogen itself, including the host immune response as well as the plan for therapeutic vaccines in the near future. (...)

PubMed (e-date: 28/02/2020)
Promptchara E, Ketloy C, Palaga T
[Lien original](#)

Novel coronavirus COVID-19: an overview for emergency clinicians. Emerg Med Pract. 2020;22(2 Suppl 2):1-21.

Prior to the global outbreak of SARS-CoV in 2003, HCoV-229E and HCoV-OC43 were the only coronaviruses known to infect humans. Following the SARS outbreak, 5 additional coronaviruses have been discovered in humans, most recently the novel coronavirus COVID-19, believed to have originated in Wuhan, Hubei Province, China. SARS-CoV and MERSCoV are particularly pathogenic in humans and are associated with high mortality. In this review, the epidemiology, pathophysiology, and management of the recently discovered COVID-19 are reviewed, with a focus on best practices and the public health implications.

PubMed (e-date: 28/02/2020)
Giwa A, Desai A
[Lien original](#)

Development and Clinical Application of A Rapid IgM-IgG Combined Antibody Test for SARS-CoV-2 Infection Diagnosis. J Med Virol. 2020;10.1002/jmv.25727.

The outbreak of the novel coronavirus disease (COVID-19) quickly spread all over China and to more than 20 other countries. Although the virus (SARS-Cov-2) nucleic acid RT-PCR test has become the standard method for diagnosis of SARS-CoV-2 infection, these real-time PCR test kits have many limitations. In addition, high false negative rates were reported. There is an urgent need for an accurate and rapid test method to quickly identify large number of infected patients and asymptomatic carriers to prevent virus transmission and assure timely treatment of patients. (...)

PubMed (e-date: 28/02/2020)
Li Z, Yi Y, Luo X, Xiong N, Liu Y, Li S, et al
[Lien original](#)

The neuroinvasive potential of SARS-CoV2 may be at least partially responsible for the respiratory failure of COVID-19 patients. J Med Virol. 2020;10.1002/jmv.25728.

Following the severe acute respiratory syndrome coronavirus (SARS-CoV) and Middle East respiratory syndrome coronavirus (MERS-CoV), another highly pathogenic coronavirus named SARS-CoV-2 (previously known as 2019-nCoV) emerged in December 2019 in Wuhan, China, and rapidly spreads around the world. This virus shares highly homologous sequence with SARS-CoV, and causes acute, highly lethal pneumonia (COVID-19) with clinical symptoms similar to those reported for SARS-CoV and MERS-CoV. The most characteristic symptom of COVID-19 patients is respiratory distress, and most of the patients admitted to the intensive care could not breathe spontaneously. (...)

PubMed (e-date: 28/02/2020)
Li Y-C, Bai W-Z, Hashikawa T
[Lien original](#)

Evolutionary history, potential intermediate animal host, and cross-species analyses of SARS-CoV-2. J Med Virol.
2020:10.1002/jmv.25731.

To investigate the evolutionary history of the recent outbreak of SARS-CoV-2 in China, a total of 70 genomes of virus strains from China and elsewhere with sampling dates between 24 December 2019 and 3 February 2020 were analyzed. To explore the potential intermediate animal host of the SARS-CoV-2 virus, we re-analyzed virome datasets from pangolins and representative SARS-related coronaviruses isolates from bats, with particular attention paid to the spike glycoprotein gene. We performed phylogenetic, split network, transmission network, likelihood-mapping, and comparative analyses of the genomes. (...)

PubMed (e-date: 28/02/2020)

Li X, Zai J, Zhao Q, Nie Q, Li Y, Foley BT, et al

[Lien original](#)

COVID-19: Lessons from SARS and MERS. Eur J Immunol.
2020:10.1002/eji.202070035

PubMed (e-date: 28/02/2020)

Park M, Thwaites RS, Openshaw PJM

[Lien original](#)

A Systematic Review of Lopinavir Therapy for SARS Coronavirus and MERS Coronavirus-A Possible Reference for Coronavirus Disease-19 Treatment Option. J Med Virol.
2020:10.1002/jmv.25729.

In the past few decades, coronaviruses have risen as a global threat to public health. Currently, the outbreak of coronavirus disease-19 (COVID-19) from Wuhan caused a worldwide panic. There are no specific antiviral therapies for COVID-19. However, there are agents that were used during the SARS and MERS epidemics. We could learn from SARS and MERS. Lopinavir (LPV) is an effective agent that inhibits the protease activity of coronavirus. In this review, we discuss the literature on the efficacy of LPV in vitro and in vivo, especially in patients with SARS and MERS, so that we might clarify the potential for the use of LPV in patients with COVID-19.

PubMed (e-date: 28/02/2020)

Yao T-T, Qian J-D, Zhu W-Y, Wang Y, Wang G-Q

[Lien original](#)

Nepal's First Case of COVID-19 and public health response

J Travel Med (e-date: 28/02/2020)

Shrestha R, Shrestha S, Khanal P, Bhuvan KC

[Lien original](#)

Severe SARS-CoV-2 infections: practical considerations and management strategy for intensivists. Intensive care medicine. 2020;10.1007/s00134-020-5967-x

PubMed (e-date: 28/02/2020)

Bouadma L, Lescure F-X, Lucet J-C, Yazdanpanah Y, Timsit J-F

[Lien original](#)

Negative Nasopharyngeal and Oropharyngeal Swab Does Not Rule Out COVID-19

J Clin Microbiol (e-date: 28/02/2020)

Winichakoon P, Chaiwarith R, Liwsrisakun C, Salee P, Goonna A, Limsukon A, et al

[Lien original](#)

Covid-19: Italy confirms 11 deaths as cases spread from north

BMJ (e-date: 28/02/2020)

Day M

[Lien original](#)

The 2019 novel coronavirus resource. Yi Chuan. 2020;42(2):212-21.

An ongoing outbreak of a novel coronavirus infection in Wuhan, China since December 2019 has led to 31,516 infected persons and 638 deaths across 25 countries (till 16:00 on February 7, 2020). The virus causing this pneumonia was then named as the 2019 novel coronavirus (2019-nCoV) by the World Health Organization. To promote the data sharing and make all relevant information of 2019-nCoV publicly available, we construct the 2019 Novel Coronavirus Resource (2019nCoVVR, <https://bigd.big.ac.cn/ncov>). 2019nCoVVR features comprehensive integration of genomic and proteomic sequences as well as their metadata information from the Global Initiative on Sharing All Influenza Data, National Center for Biotechnology Information, China National GeneBank, National Microbiology Data Center and China National Center for Bioinformation (CNCB)/National Genomics Data Center (NGDC). (...) *PubMed (e-date: 28/02/2020)*

Zhao W-M, Song S-H, Chen M-L, Zou D, Ma L-N, Ma Y-K, et al

[Lien original](#)

Expert Recommendations for Tracheal Intubation in Critically ill Patients with Noval Coronavirus Disease 2019. Chin Med Sci J. 2020;10.24920/003724.

Coronavirus Disease 2019 (COVID-19), caused by a novel coronavirus (SARS-CoV-2), is a highly contagious disease. It firstly appeared in Wuhan, Hubei province of China in December 2019. During the next two months, it moved rapidly throughout China and spread to multiple countries through infected persons travelling by air. Most of the infected patients have mild symptoms including fever, fatigue and cough. But in severe cases, patients can progress rapidly and develop to the acute respiratory distress syndrome, septic shock, metabolic acidosis and coagulopathy. (...)

PubMed (e-date: 28/02/2020)

Zuo M-Z, Huang Y-G, Ma W-H, Xue Z-G, Zhang J-Q, Gong Y-H, et al

[Lien original](#)

Detectable 2019-nCoV viral RNA in blood is a strong indicator for the further clinical severity

The novel coronavirus (2019-nCoV) infection caused pneumonia. we retrospectively analyzed the virus presence in the pharyngeal swab, blood, and the anal swab detected by real-time PCR in the clinical lab. Unexpectedly, the 2019-nCoV RNA was readily detected in the blood (6 of 57 patients) and the anal swabs (11 of 28 patients). Importantly, all of the 6 patients with detectable viral RNA in the blood cohort progressed to severe symptom stage, indicating a strong correlation of serum viral RNA with the disease severity (p -value = 0.0001). (...)

Emerg Microbes Infect (e-date: 28/02/2020)

Chen W, Lan Y, Yuan X, Deng X, Li Y, Cai X, et al

[Lien original](#)

No credible evidence supporting claims of the laboratory engineering of SARS-CoV-2

Emerg Microbes Infect (e-date: 28/02/2020)

Liu S-L, Saif LJ, Weiss SR, Su L

[Lien original](#)

2019-novel Coronavirus severe adult respiratory distress syndrome in two cases in Italy: An uncommon radiological presentation

Introduction- Several recent case reports have described common early chest imaging findings of lung pathology caused by 2019 novel Coronavirus (SARS-CoV2) which appear to be similar to those seen previously in SARS-CoV and MERS-CoV infected patients.

Objective- We present some remarkable imaging findings of the first two patients identified in Italy with COVID-19 infection travelling from Wuhan, China. The follow-up with chest X-Rays and CT scans was also included, showing a progressive adult respiratory distress syndrome (ARDS). (...)

International Journal of Infectious Diseases (e-date: 26/02/2020)

Albarelli F, Pianura E, Di Stefano F, Cristofaro M, Petrone A, Marchioni L, et al

[Lien original](#)

First case of Coronavirus Disease 2019 (COVID-19) pneumonia in Taiwan

An outbreak of respiratory illness proved to be infected by a 2019 novel coronavirus, officially named Coronavirus Disease 2019 (COVID-19), was notified first in Wuhan, China, and has spread rapidly in China and to other parts of the world. Herein, we reported the first confirmed case of novel coronavirus pneumonia (NCP) imported from China in Taiwan. This case report revealed a natural course of NCP with self-recovery, which may be a good example in comparison with medical treatments.

Journal of the Formosan Medical Association (e-date: 28/02/2020)

Cheng S-C, Chang Y-C, Fan Chiang Y-L, Chien Y-C, Cheng M, Yang C-H, et al

[Lien original](#)

The Inevitable Reimagining of Medical Education

Medical education is currently undergoing a gradual but significant change. Part of the ongoing transformation is reducing the time of education by shortening the preclinical education period from 24 months to 12 to 15 months and, therefore, potentially reducing the total time of medical school.¹ Another change is more training in the predominant site of care, the outpatient setting. Additionally, the confirmation and assessment of completed training will shift from time in school to proven competencies. Incorporating all these changes is slow—inordinately slow for many people. But these changes seem inevitable. (...)

JAMA (e-date: 27/02/2020)

Emanuel EJ

[Lien original](#)

When Can Intermediate Outcomes Be Used as Surrogate Outcomes?

Randomized clinical trials have a long history of success in many medical arenas. Many trials that change clinical practice use clinical outcomes that are direct measures of how a patient feels, functions, or survives. The substantial resources required by trials using such end points are powerful incentive to pursue designs that reduce the numbers of patients required, the length of follow-up, and the trial costs. (...)

JAMA (e-date: 28/02/2020)

DeMets DL, Psaty BM, Fleming TR

[Lien original](#)

Indian pharma threatened by COVID-19 shutdowns in China

As factories in China are closed, India is working to maintain supplies of active pharmaceutical ingredients. Patralekha Chatterjee reports from New Delhi. India supplies low-cost generic drugs to millions of people, both within and outside the country. But Indian pharmaceutical companies procure almost 70% of the active pharmaceutical ingredients (APIs) for their medicines from China, the world's leading producer and exporter of APIs by volume. As factories in China are closed to try to stem the coronavirus disease 2019 outbreak, pharmaceutical companies and the Indian Government are becoming concerned over the vulnerability of the Indian pharmaceutical supply chain. (...)

The Lancet (e-date: 28/02/2020)

Chatterjee P

[Lien original](#)

[Sommaire](#)

PREPRINTS

Epitope-based peptide vaccines predicted against novel coronavirus disease caused by SARS-CoV-2

The outbreak of the 2019 novel coronavirus (SARS-CoV-2) has infected thousands of people with a large number of deaths across 26 countries. The sudden appearance of the virus leads to the limited existing therapies for SARS-CoV-2. Therefore, vaccines and antiviral medicines are in desperate need. This study took immune-informatics approaches to identify B- and T-cell epitopes for surface glycoprotein (S) of SARS-CoV-2, followed by estimating their antigenicity and interactions with the human leukocyte antigen (HLA) alleles. (...)

bioRxiv (e-date: 27/02/2020)

Li L, Sun T, He Y, Li W, Fan Y, Zhang J

[Lien original](#)

An Effective CTL Peptide Vaccine for Ebola Zaire Based on Survivors' CD8+ Targeting of a Particular Nucleocapsid Protein Epitope with Potential Implications for COVID-19 Vaccine Design

The 2013-2016 West Africa EBOV epidemic was the biggest EBOV outbreak to date. An analysis of virus-specific CD8+ T-cell immunity in 30 survivors showed that 26 of those individuals had a CD8+ response to at least one EBOV protein. The dominant response (25/26 subjects) was specific to the EBOV nucleocapsid protein (NP). It has been suggested that epitopes on the EBOV NP could form an important part of an effective T-cell vaccine for Ebola Zaire. (...)

bioRxiv (e-date: 27/02/2020)

Herst CV, Burkholz S, Sidney J, Sette A, Harris PE, Massey S, et al

[Lien original](#)

Structure-based drug design, virtual screening and high-throughput screening rapidly identify antiviral leads targeting COVID-19

A coronavirus identified as 2019 novel coronavirus (COVID-19) is the etiological agent responsible for the 2019-2020 viral pneumonia outbreak that commenced in Wuhan. Currently there is no targeted therapeutics and effective treatment options remain very limited. In order to rapidly discover lead compounds for clinical use, we initiated a program of combined structure-assisted drug design, virtual drug screening, and high-throughput screening to identify new drug leads that target the COVID-19 main protease (Mpro). (...)

bioRxiv (e-date: 27/02/2020)

Jin Z, Du X, Xu Y, Deng Y, Liu M, Zhao Y, et al

[Lien original](#)

Increasing Host Cellular Receptor—Angiotensin-Converting Enzyme 2 (ACE2) Expression by Coronavirus may Facilitate 2019-nCoV Infection

The ongoing outbreak of a new coronavirus (2019-nCoV) causes an epidemic of acute respiratory syndrome in humans. 2019-nCoV rapidly spread to national regions and multiple other countries, thus, pose a serious threat to public health. Recent studies show that spike (S) proteins of 2019-nCoV and SARS-CoV may use the same host cell receptor called angiotensin-converting enzyme 2 (ACE2) for entering into host cells. (...)

bioRxiv (e-date: 27/02/2020)
Wang P-H
[Lien original](#)

Comparative analysis of primer-probe sets for the laboratory confirmation of SARS-CoV-2

Coronavirus disease 2019 (COVID-19) is newly emerging human infectious diseases, which is caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2, also previously known as 2019-nCoV). Within two months of the outbreak, more than 80,000 cases of COVID-19 have been confirmed worldwide. Since the human to human transmission occurred easily and the human infection is rapidly increasing, the sensitive and early diagnosis is essential to prevent the global outbreak. (...)

bioRxiv (e-date: 27/02/2020)
Jung YJ, Park G-S, Moon JH, Ku K, Beak S-H, Kim S, et al
[Lien original](#)

An R package and a website with real-time data on the COVID-19 coronavirus outbreak

To provide convenient access to epidemiological data on the coronavirus outbreak, we developed an R package, nCov2019 (<https://github.com/GuangchuangYu/nCov2019>). Besides detailed real-time statistics, it also includes historical data in China, down to the city-level. We also developed a website (<http://www.bcloud.org/e/>) with interactive plots and simple time-series forecasts. These analytics tools could be useful in informing the public and studying how this and similar viruses spread in populous countries.

medRxiv (e-date: 27/02/2020)
Wu T, Ge X, Yu G
[Lien original](#)

Community responses during the early phase of the COVID-19 epidemic in Hong Kong: risk perception, information exposure and preventive measures

Background: Community responses are important for outbreak management during the early phase when non-pharmaceutical interventions are the major preventive options. Therefore, this study aims to examine the psychological and behavioral responses of the community during the early phase of the COVID-19 epidemic in Hong Kong. (...)

medRxiv (e-date: 27/02/2020)
Kwok KO, Li KK, Chan HH, Yi YY, Tang A, Wei WI, et al
[Lien original](#)

Estimate number of individuals infected with the 2019-novel coronavirus in South Korea due to the influx of international students from countries with virus risk: a simulation study

Background: In March 2020, overall, 37,000 international students from the country at risk of the 2019-novel coronavirus (COVID-19) infection will arrive in Seoul, South Korea. Individuals from the country at risk of COVID-19 infection

have been included in a home-quarantine program, but the efficacy of the program is uncertain. (...)

medRxiv (e-date: 27/02/2020)

Ryu S, Ali ST, Lim J-s, Chun BC

[Lien original](#)

A simple magnetic nanoparticles-based viral RNA extraction method for efficient detection of SARS-CoV-2

The ongoing outbreak of the novel coronavirus disease 2019 (COVID-19) originating from Wuhan, China, draws worldwide concerns due to its long incubation period and strong infectivity. Although RT-PCR-based molecular diagnosis techniques are being widely applied for clinical diagnosis currently, timely and accurate diagnosis are still limited due to labour intensive and time-consuming operations of these techniques. (...)

bioRxiv (e-date: 27/02/2020)

Zhao Z, Cui H, Song W, Ru X, Zhou W, Yu X

[Lien original](#)

Spike protein binding prediction with neutralizing antibodies of SARS-CoV-2

Coronavirus disease 2019 (COVID-19) is a new emerging human infectious disease caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2, also previously known as 2019-nCoV), originated in Wuhan seafood and animal market, China. Since December 2019, more than 69,000 cases of COVID-19 have been confirmed in China and quickly spreads to other countries. Currently, researchers put their best efforts to identify effective drugs for COVID-19. (...)

bioRxiv (e-date: 27/02/2020)

Park T, Lee S-Y, Kim S, Kim MJ, Kim HG, Jun S, et al

[Lien original](#)

Clinical characteristics of 82 death cases with COVID-19

Background A recently developing pneumonia caused by SARS-CoV-2 was originated in Wuhan, China, and has quickly spread across the world. We reported the clinical characteristics of 82 death cases with COVID-19 in a single center. Methods Clinical data on 82 death cases laboratory-confirmed as SARS-CoV-2 infection were obtained from a Wuhan local hospital's electronic medical records according to previously designed standardized data collection forms. (...)

medRxiv (e-date: 27/02/2020)

Zhang B, Zhou X, Qiu Y, Feng F, Feng J, Jia Y, et al

[Lien original](#)

Perceptions of the Adult US Population regarding the Novel Coronavirus Outbreak

Background: COVID-19 outbreak is spreading globally. Although the risk of infection in the US is currently low, it is important to understand the public perception of risk and trust in sources of information to better inform public

health messaging. In this study, we surveyed the adult US population to understand their risk perceptions about the COVID-19 outbreak. (...)

medRxiv (e-date: 27/02/2020)

McFadden SM, Malik AA, Aguolu OG, Willebrand KS, Omer SB

[Lien original](#)

Application and optimization of RT-PCR in diagnosis of SARS-CoV-2 infection

Background: Coronavirus Disease 2019 (COVID-19) caused by Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has become a global threat to public health. Aiming to construct an efficient screening pattern, we comprehensively evaluated the performances of RT-PCR and chest CT in diagnosing COVID-19. Methods: The records including demographics, RT-PCR, and CT from 87 confirmed COVID-19 cases and 481 exclusion cases were collected. (...)

medRxiv (e-date: 27/02/2020)

Jiang G, Renc X, Liu Y, Chen H, Liu W, Guo Z, et al

[Lien original](#)

Clinical features and sexual transmission potential of SARS-CoV-2 infected female patients: a descriptive study in Wuhan, China

Background : As of February 26, 2020, SARS-CoV-2 has infected more than 78190 people and caused 2718 deaths in China. This virus rapidly spreads to 33 countries worldwide. Thus, in order to effectively block its transmission, it is urgent to uncover all of the possible transmission routes of SARS-CoV-2.

Methods : From January 28 to February 18, 2020, 35 female patients diagnosed with COVID-19 in Tongji Hospital were included in this descriptive study. The gynecologic history, clinical characteristics, laboratory findings and chest computed tomography (CT) of all patients were recorded in detail. (...)

medRxiv (e-date: 27/02/2020)

Cui P, Chen Z, Wang T, Dai J, Zhang J, Ding T, et al

[Lien original](#)

Transmission potential of the New Corona (COVID-19) onboard the Princess Cruises Ship, 2020

Using mathematical modeling and time-series incidence data describing the trajectory of the outbreak among passengers and crew members, we characterize the transmission potential of the COVID-19 outbreak aboard the Princess Cruises Ship, January-February 2020. Probably due to the enhanced quarantine control, overall R_t decreased substantially compared to values during the early stage, but it exhibited fluctuations around the epidemic threshold, which suggests a very low probability of observing secondary outbreaks of the disease. (...)

medRxiv (e-date: 27/02/2020)

Mizumoto K, Chowell G

[Lien original](#)

Correlation Analysis Between Disease Severity and Inflammation-related Parameters in Patients with COVID-19 Pneumonia

Aim: The new coronavirus pneumonia (COVID-19) outbreaking at the end of 2019 is highly contagious. Crude mortality rate reached 49% in critical patients. Inflammation matters on disease progression. This study analyzed blood inflammation indicators among mild, severe and critical patients, helping to identify severe or critical patients early. **Methods:** In this cross-sectional study, 100 patients were included and divided to mild, severe or critical groups. (...)

medRxiv (e-date: 27/02/2020)

Gong J, Dong H, Xia SQ, Huang YZ, Wang D, Zhao Y, et al

[Lien original](#)

Spread and control of COVID-19 in China and their associations with population movement, public health emergency measures, and medical resources

BACKGROUND The COVID-19 epidemic, first emerged in Wuhan during December 2019, has spread globally. While the mass population movement for Chinese New Year has significantly influenced spreading the disease, little direct evidence exists about the relevance to epidemic and its control of population movement from Wuhan, local emergency response, and medical resources in China. (...)

medRxiv (e-date: 27/02/2020)

Ying S, Li F, Geng X, Li Z, Du X, Chen H, et al

[Lien original](#)

Prevalence and clinical features of 2019 novel coronavirus disease (COVID-19) in the Fever Clinic of a teaching hospital in Beijing: a single-center, retrospective study

Background With the spread of COVID-19 from Wuhan, Hubei Province to other areas of the country, medical staff in Fever Clinics faced the challenge of identifying suspected cases among patients with respiratory infections manifested with fever. We aimed to describe the prevalence and clinical features of COVID-19 as compared to pneumonias of other etiologies in a Fever Clinic in Beijing. (...)

medRxiv (e-date: 27/02/2020)

Liang Y, Liang J, Zhou Q, Li X, Lin F, Deng Z, et al

[Lien original](#)

Illness and Fatality Risks of COVID-19 of General Public in Hubei Provinces and Other Parts of China

New coronavirus 2019-nCoV poses a big challenge for global public health in early 2020. Coronavirus Disease 2019 (COVID-19) caused by the virus rapidly spreads all over the world and takes thousands of lives in just two months. To assess illness and fatality risk of the viral infection is exceedingly helpful to ensure effective management of the general public and patients in the outbreak. (...)

medRxiv (e-date: 27/02/2020)

He Y

[Lien original](#)

Clinical Features of COVID-19 Related Liver Damage

BACKGROUND: A recent outbreak of SARS-CoV-2 infection occurs mainly in China, with rapidly increasing the number of cases (namely COVID-19). Abnormal liver functions are frequently present in these patients, here we aimed to clarify the clinical features of COVID-19-related liver damage to provide some references for the clinical treatment. (...)

medRxiv (e-date: 27/02/2020)

Fan Z, Chen L, Li J, Tian C, Zhang Y, Huang S, et al

[Lien original](#)

Estimation of country-level basic reproductive ratios for novel Coronavirus (COVID-19) using synthetic contact matrices

The outbreak of novel coronavirus (COVID-19) has the potential for global spread, infecting large numbers in all countries. In this case, estimating the country-specific basic reproductive ratio is a vital first step in public-health planning. The basic reproductive ratio (R_0) is determined by both the nature of pathogen and the network of contacts through which the disease can spread - with this network determined by socio-demographics including age-structure and household composition. (...)

medRxiv (e-date: 27/02/2020)

Hilton J, Keeling MJ

[Lien original](#)

The definition and risks of Cytokine Release Syndrome-Like in 11 COVID-19-Infected Pneumonia critically ill patients: Disease Characteristics and Retrospective Analysis

IMPORTANCE: COVID-19-infected pneumonia patients with severe immune abnormalities and risk of cytokine release syndrome. The definition, prevention, and treatment of COVID-19-infected pneumonia in critically ill patients with cytokine release syndrome symptoms is an important problem.

medRxiv (e-date: 27/02/2020)

Wang W, He J, Lie p, Huang I, Wu S, lin y, et al

[Lien original](#)

Clinical and radiographic features of cardiac injury in patients with 2019 novel coronavirus pneumonia

Objective: To investigate the correlation between clinical characteristics and cardiac injury of COVID-2019 pneumonia. **Methods:** In this retrospective, single-center study, 41 consecutive corona virus disease 2019 (COVID-2019) patients (including 2 deaths) of COVID-2019 in Beijing Youan Hospital, China Jan 21 to Feb 03, 2020, were involved in this study. The high risk factors of cardiac injury in different COVID-2019 patients were analyzed. (...)

medRxiv (e-date: 27/02/2020)

Hui H, Zhang Y, Yang X, Wang X, He B, Li L, et al

[Lien original](#)

Clinical Data on Hospital Environmental Hygiene Monitoring and Medical Staffs Protection during the Coronavirus Disease 2019 Outbreak

Background: The outbreak of coronavirus disease 2019 (COVID-19) and SARS-CoV-2 have placed unprecedented challenges on hospital environmental hygiene and medical staffs protection. It is crucial to assess hospital environmental hygiene to understand the most important environmental issues for controlling the spread of 2019-nCoV in hospitals. **Objective:** To detect the presence of the COVID-19 in the air and on the surfaces of the guide station, fever clinic, and isolation areas, and the close contacts medical staffs in the First Hospital of Jilin University. (...)

medRxiv (e-date: 27/02/2020)

Jiang Y, Wang H, Chen Y, He J, Chen L, Liu Y, et al

[Lien original](#)

Comorbidity and its impact on 1,590 patients with COVID-19 in China: A Nationwide Analysis

Objective: To evaluate the spectrum of comorbidities and its impact on the clinical outcome in patients with coronavirus disease 2019 (COVID-19).

Design: Retrospective case studies **Setting:** 575 hospitals in 31 province/autonomous regions/provincial municipalities across China

Participants: 1,590 laboratory-confirmed hospitalized patients. Data were collected from November 21st, 2019 to January 31st, 2020. (...)

medRxiv (e-date: 27/02/2020)

Guan W-j, Liang W-h, Zhao Y, Liang H-r, Chen Z-s, Li Y-m, et al

[Lien original](#)

The ACE2 expression of maternal-fetal interface and fetal organs indicates potential risk of vertical transmission of SARS-COV-2

The new type of pneumonia caused by the SARS-CoV-2 (Severe acute respiratory syndrome coronavirus 2) has been declared as a global public health concern by WHO. Thousands of human infections have been diagnosed in China along with many other countries, which exhibited apparent person-to-person transmission characteristics of this virus. The capacity of vertical transmission in SARS-CoV-2 remains controversial recently. (...)

bioRxiv (e-date: 27/02/2020)

Li M, Chen L, Xiong C, Li X

[Lien original](#)

The efficacy of convalescent plasma for the treatment of severe influenza

Background. Administration of convalescent plasma may be of clinical benefit for treatment of severe acute viral respiratory infections. However, no clear evidence exists to support or oppose convalescent plasma use in clinical practice. We conducted a systematic review and meta-analysis to assess the evidence of randomized controlled trials (RCTs) in the convalescent plasma for the treatment of severe influenza. (...)

medRxiv (e-date: 25/02/2020)

Xu Z, Zhou J, Huang Y, Liu X, Xu Y, Chen S, et al

[Lien original](#)

DOCUMENTS DE PREVENTION

Guidance for COVID-19. Advice sheet for home isolation

Public Health England (e-date: 27/02/2020)

[Lien original](#)

Advice for home isolation

Your local health protection team (HPT) and your doctor have agreed that you may stay at home while you wait for the results of tests for COVID-19 (SARS-CoV-2) infection. This is because you do not need to be admitted to hospital and because you have agreed to follow the important instructions described below. (...)

Public Health England (e-date: 28/02/2020)

[Lien original](#)

Self-isolation

Advice for patients with and without symptoms of infection, who are isolating themselves due to potential exposure to novel coronavirus (COVID-19). These actions will help to protect others inside & outside of your home from infection. (...)

Public Health England (e-date: 28/02/2020)

[Lien original](#)

COVID-19. Advice sheet for home isolation (Mandarin)

Public Health England (e-date: 28/02/2020)

[Lien original](#)

Advice for people who live in the same accommodation as the patient

Public Health England (e-date: 28/02/2020)

[Lien original](#)

Advice for people who live in the same accommodation as the patient (English)

Public Health England (e-date: 28/02/2020)

[Lien original](#)

Advice for people who live in the same accommodation as the patient (Mandarin)

Public Health England (e-date: 28/02/2020)

[Lien original](#)

Coronavirus advice for education settings poster

Public Health England (e-date: 28/02/2020)

[Lien original](#)

[Sommaire](#)

ARTICLES EN CHINOIS (résumé en anglais)

[Surgical treatment for esophageal cancer during the outbreak of COVID-19]. Zhonghua Zhong Liu Za Zhi. 2020;42(0):E003-E.

PubMed (e-date: 28/02/2020)

Li Y, Qin JJ, Wang Z, Yu Y, Wen YY, Chen XK, et al

[Lien original](#)

[Recommendation on the modernization of disease control and prevention]. Zhonghua Liu Xing Bing Xue Za Zhi. 2020;41(4):453-60.

Special Expert Group for Control of the Epidemic of COVID-19 of the Chinese Preventive Medicine Association have had a deep discussion on how to promote the modernization progress of current disease control and prevention system in China. By deeply investigating and analyzing the problems existed in the current Chinese disease control and prevention system, and learning the experiences from the disease control and prevention systems of other countries, the expert group suggested the following recommendations, included the enhance and update the laws related to public health, build up advanced institution mechanisms that meet current social status, reform current emergency response system, clarify the dominance and function of disease control and prevention system in Health China developing, and speed up the construction of a modern information system, talented professional groups, and advanced culture.

PubMed (e-date: 28/02/2020)

Special Expert Group for Control of the Epidemic of Novel Coronavirus Pneumonia of the Chinese Preventive Medicine Association

[Lien original](#)

[Sommaire](#)