

## ARTICLES PUBLIES OU IN PRESS

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### Presumed Asymptomatic Carrier Transmission of COVID-19

A novel coronavirus has resulted in an ongoing outbreak of viral pneumonia in China: Person-to-person transmission has been demonstrated,<sup>1</sup> but, to our knowledge, transmission of the novel coronavirus that causes coronavirus disease 2019 (COVID-19) from an asymptomatic carrier with normal chest computed tomography (CT) findings has not been reported.

*JAMA (e-date: 21/02/2020)*

*Bai Y, Yao L, Wei T, et al.*

[Lien original](#)

### Early epidemiological analysis of the coronavirus disease 2019 outbreak based on crowdsourced data: a population-level observational study [Déjà signalé dans medRxiv]

Background : As the outbreak of coronavirus disease 2019 (COVID-19) progresses, epidemiological data are needed to guide situational awareness and intervention strategies. Here we describe efforts to compile and disseminate epidemiological information on COVID-19 from news media and social networks.

*The Lancet Digital Health (e-date: 20/02/2020)*

*Sun, Kaiyuan ; Chen, Jenny ; Viboud, Cécile*

[Lien original](#)

### The continuous evolution and dissemination of 2019 novel human coronavirus

*Journal of Infection (e-date: 22/02/2020)*

*Zhang J, Ma K, Li H, Liao M, Qi W*

[Lien original](#)

### Clinical Features of Atypical 2019 Novel Coronavirus Pneumonia with an initially Negative RT-PCR Assay.

*Journal of Infection (e-date: 22/02/2020)*

*Hao W*

[Lien original](#)

### Estimation of the reproductive number of Novel Coronavirus (COVID-19) and the probable outbreak size on the Diamond Princess cruise ship: A data-driven analysis

Background : Up to February 16, 2020, 355 cases have been confirmed as having COVID-19 infection on the Diamond Princess cruise ship. It is of crucial importance to estimate the reproductive number (R0) of the novel virus in the

early stage of outbreak and make a prediction of daily new cases on the ship.  
(...)

*International Journal of Infectious Diseases (e-date: 22/02/2020)*

Zhang S, Diao M, Yu W, Pei L, Lin Z, Chen D

[Lien original](#)

### Asymptomatic novel coronavirus pneumonia patient outside WuHan: The value of CT images in the course of the disease

The purpose of this case report is to describe the imaging and associated clinical features of an asymptomatic novel coronavirus pneumonia (COVID-19) patient outside WuHan, China. The principle findings are that in this patient with laboratory-confirmed COVID-19, CT findings preceded symptoms and included bilateral pleural effusions, previously not reported in association with COVID-19. (...)

*Clinical Imaging (e-date: 24/02/2020)*

Lin C, Ding Y, Xie B, Sun Z, Li X, Chen Z, et al

[Lien original](#)

### Clinical course and outcomes of critically ill patients with SARS-CoV-2 pneumonia in Wuhan, China: a single-centered, retrospective, observational study

Background : An ongoing outbreak of pneumonia associated with the severe acute respiratory coronavirus 2 (SARS-CoV-2) started in December, 2019, in Wuhan, China. Information about critically ill patients with SARS-CoV-2 infection is scarce. We aimed to describe the clinical course and outcomes of critically ill patients with SARS-CoV-2 pneumonia. (...)

*The Lancet Respiratory Medicine (e-date: 24/02/2020)*

Yang X, Yu Y, Xu J, Shu H, Xia Ja, Liu H, et al

[Lien original](#)

### A novel coronavirus (COVID-19) outbreak: a call for action

*Chest (e-date: 19/02/2020)*

Zhang Y, Xu J, Li H, Cao B

[Lien original](#)

### The SARS, MERS and novel coronavirus (COVID-19) epidemics, the newest and biggest global health threats: what lessons have we learned?

To provide an overview of the three major deadly coronaviruses and identify areas for improvement of future preparedness plans, as well as provide a critical assessment of the risk factors and actionable items for stopping their spread, utilizing lessons learned from the first two deadly coronavirus outbreaks, as well as initial reports from the current novel coronavirus (COVID-19) epidemic in Wuhan, China. (...)

*International Journal of Epidemiology (e-date: 22/02/2020)*

Peeri NC, Shrestha N, Rahman MS, Zaki R, Tan Z, Bibi S, et al.

[Lien original](#)

**Novel Coronavirus disease 2019 (COVID-19): The importance of recognising possible early ocular manifestation and using protective eyewear. *British Journal of Ophthalmology* 2020;104(3):297**

*British Journal of Ophthalmology* (e-date: 24/02/2020)

Li J-PO, Lam DSC, Chen Y, Ting DSW

[Lien original](#)

**Mental health services for older adults in China during the COVID-19 outbreak**

Over the past several weeks, the total number of patients with 2019 novel coronavirus disease (COVID-19) and the number of associated deaths has been increasing. Of the deaths caused by COVID-19, most were older adults.<sup>1</sup> China has the largest ageing population globally. (...)

*The Lancet Psychiatry* (e-date: 19/02/2020)

Yang Y, Li W, Zhang Q, Zhang L, Cheung T, Xiang Y-T.

[Lien original](#)

[Sommaire](#)

## PREPRINTS

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**Functional pangenome analysis provides insights into the origin, function and pathways to therapy of SARS-CoV-2 coronavirus**

Background: Recent epidemic of novel coronavirus (SARS-CoV-2) has triggered a rising global health emergency that demands urgent analysis of its genome and solutions for detection and therapy. Methods: We used a comparative pangenomic analysis of Betacoronavirus sequenced thus far to detect the core and accessory gene clusters of this genus including SARS-CoV-2. We then annotate the functions, which are confirmed by structural analysis, and predict the potential location within the host cells of these proteins. (...)

*bioRxiv* (e-date: 21/02/2020)

Alam I, Kamau AK, Kulmanov M, Arold ST, Pain AT, Gojobori T, et al.

[Lien original](#)

**The role of institutional trust in preventive and treatment-seeking behaviors during the 2019 novel coronavirus (2019-nCoV) outbreak among residents in Hubei, China**

Background Since December 2019, pneumonia associated with the 2019 novel coronavirus (2019-nCoV) has emerged in Wuhan, China. The exponential increase of the confirmed number of cases of 2019n-CoV is of great concern to the global community. The fears and panic among residents in the epicenters have prompted diverse responses, which are understudied. During such a crisis, community trust and support for the government and health authorities are important to contain the outbreak. (...)

*medRxiv* (e-date: 21/02/2020)

*Li Ping Wong, Qun hong Wu, Xi Chen, Zhuo Chen, Haridah Alias, Mingwang Shen, Jing cen Hu, Shiwei Duan, Jin jie Zhang, Liyuan Han*  
[Lien original](#)

### **Clinical features and progression of acute respiratory distress syndrome in coronavirus disease 2019**

Background: The outbreak of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) results in a cluster of coronavirus disease 2019 (COVID-19). We reported the clinical characteristics of COVID-19 patients with acute respiratory distress syndrome (ARDS), and further investigated the treatment and progression of ARDS in COVID-19. (...)

*medRxiv (e-date: 21/02/2020)*

*Yanli Liu, Wenwu Sun, Jia Li, Liangkai Chen, Yujun Wang, Lijuan Zhang, Li Yu*  
[Lien original](#)

### **Single cell RNA sequencing of 13 human tissues identify cell types and receptors of human coronaviruses**

The new coronavirus (2019-nCoV) outbreak from December 2019 in Wuhan, Hubei, China, has been declared a global public health emergency. Angiotensin I converting enzyme 2 (ACE2), is the host receptor by 2019-nCoV to infect human cells. Although ACE2 is reported to be expressed in lung, liver, stomach, ileum, kidney and colon, its expressing levels are rather low, especially in the lung. 2019-nCoV may use co-receptors/auxiliary proteins as ACE2 partner to facilitate the virus entry. (...)

*bioRxiv (e-date: 21/02/2020)*

*Furong Qi, Shen Qian, Shuye Zhang, Zheng Zhang*  
[Lien original](#)

### **A Multiscale and Comparative Model for Receptor Binding of 2019 Novel Coronavirus and the Implication of its Life Cycle in Host Cells**

The respiratory syndrome caused by a new type of coronavirus has been emerging from China and caused more than 1000 death globally since December 2019. This new virus, called 2019 novel coronavirus (2019-nCoV) uses the same receptor called Angiotensin converting enzyme 2 (ACE2) to attack humans as the coronavirus that caused the severe acute respiratory syndrome (SARS) seventeen years ago. (...)

*bioRxiv (e-date: 21/02/2020)*

*Zhaoqian Su, Yinghao Wu*  
[Lien original](#)

### **Assessing the Tendency of 2019-nCoV (COVID-19) Outbreak in China**

Since December 8, 2019, the spread of COVID-19 is increasing every day. It is particularly important to predict the trend of the epidemic for the timely adjustment of the economy and industries. We proposed a Flow-SEHIR model in this paper, based on which we further analyzed the trends of 2019-nCoV (COVID-19) in China. (...)

*medRxiv (e-date: 22/02/2020)*

*Qinghe Liu, Zhicheng Liu, Deqiang Li, Zefei Gao, Junkai Zhu, Junyan Yang, Qiao Wang*  
[Lien original](#)

**Comparative study of the lymphocyte change between COVID-19 and non-COVID-19 pneumonia cases suggesting uncontrolled inflammation might not be the main reason of tissue injury**

Background: The 2019 novel coronavirus (COVID-19) emerged in Wuhan in December 2019 and has since rapidly spread across China and to the globe. This virus shows unusually high transmission rate and unique clinical characteristics, with key pathological mechanism remaining unclear. Here, we analysed the laboratory data based on clinical samples from COVID-19 patients, in parallel comparison with non-COVID-19 pneumonia cases, in an attempt to elucidate the key pathological features of COVID-19 during its infection of the human body. (...)

*medRxiv (e-date: 23/02/2020)*

*Zheng Y, Huang Z, Ying G, Zhang X, Ye W, Hu Z, et al*

[Lien original](#)

**Evolving epidemiology of novel coronavirus diseases 2019 and possible interruption of local transmission outside Hubei Province in China: a descriptive and modeling study**

Background The COVID-19 epidemic originated in Wuhan City of Hubei Province in December 2019 and has spread throughout China. Understanding the fast evolving epidemiology and transmission dynamics of the outbreak beyond Hubei would provide timely information to guide intervention policy. (...)

*medRxiv (e-date: 23/02/2020)*

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

[Lien original](#)

**A descriptive study of the impact of diseases control and prevention on the epidemics dynamics and clinical features of SARS-CoV-2 outbreak in Shanghai, lessons learned for metropolis epidemics prevention**

Objective: To describe and evaluate the impact of diseases control and prevention on epidemics dynamics and clinical features of SARS-CoV-2 outbreak in Shanghai. Design: A retrospective descriptive study Setting: China Participants: Epidemiology information was collected from publicly accessible database. 265 patients admitted to Shanghai Public Health Center with confirmed COVID-19 were enrolled for clinical features analysis. (...)

*medRxiv (e-date: 23/02/2020)*

*Lu H, Ai J, Shen Y, Li Y, Li T, Zhou X, et al.*

[Lien original](#)

**Phase adjusted estimation of the number of 2019 novel coronavirus cases in Wuhan, China**

An outbreak of clusters of viral pneumonia due to a novel coronavirus (2019-nCoV / SARS-CoV-2) happened in Wuhan, Hubei Province in China in December 2019. Since the outbreak, several groups reported estimated R0 of Coronavirus Disease 2019 (COVID-19) and generated valuable prediction for the early phase of this outbreak. (...)

*medRxiv (e-date: 23/02/2020)*

*Wang H, Wang Z, Dong Y, Chang R, Xu C, Yu X, et al.*

[Lien original](#)

### **Trends and prediction in daily incidence of novel coronavirus infection in China, Hubei Province and Wuhan City: an application of Farr law**

Background: The recent outbreak of novel coronavirus (2019-nCoV) has infected tens of thousands of patients in China. Studies have forecasted future trends of the incidence of 2019-nCoV infection, but appeared unsuccessful. Farr law is a classic epidemiology theory/practice for predicting epidemics. Therefore, we used and validated a model based on Farr law to predict the daily-incidence of 2019-nCoV infection in China and 2 regions of high-incidence. (...)

*medRxiv (e-date: 23/02/2020)*

*Xu J, Cheng Y, Yuan X, Li WV, Zhang L*

[Lien original](#)

### **Novel Coronavirus 2019 (Covid-19) epidemic scale estimation: topological network-based infection dynamic model**

Backgrounds: An ongoing outbreak of novel coronavirus pneumonia (Covid-19) hit Wuhan and hundreds of cities, 29 territories in global. We present a method for scale estimation in dynamic while most of the researchers used static parameters. (...)

*medRxiv (e-date: 23/02/2020)*

*Tang K, Huang Y, Chen M*

[Lien original](#)

### **Clinical characteristics of 50404 patients with 2019-nCoV infection**

Objective: To provide reliable evidence of evidence-based medicine for the treatment and prevention of the 2019 novel coronavirus(2019-nCoV) by analyzing all the published studies on the clinical characteristics of patients with 2019-nCoV. Methods: PubMed, Cochrane Library, Embase and other databases were searched. Some studies on the clinical characteristics of 2019-nCoV infection were collected for Meta-analysis. (...)

*medRxiv (e-date: 23/02/2020)*

*Sun P, Qie S, Liu Z, Ren J, Jianing Xi J*

[Lien original](#)

### **Effectiveness of intervention strategies for Coronavirus Disease 2019 and an estimation of its peak time**

The Coronavirus Disease 2019 (COVID-19) has been spreading rapidly to other provinces and neighboring countries. Two mathematical SEIR models have been developed to simulate the current epidemic situation in China. (...)

*medRxiv (e-date: 23/02/2020)*  
*Pan J, Yao Y, Liu Z, Li M, Wang Y, Dong W, et al*  
[Lien original](#)

### Early Phylogenetic Estimate Of The Effective Reproduction Number Of 2019-nCoV

To reconstruct the evolutionary dynamics of the 2019 novel coronavirus, 52 2019-nCoV genomes available on 04 February 2020 at GISAID were analysed. The two models used to estimate the reproduction number (coalescent-based exponential growth and a birth-death skyline method) indicated an estimated mean evolutionary rate of  $7.8 \times 10^{-4}$  subs/site/year (range  $1.1 \times 10^{-4}$ – $15 \times 10^{-4}$ ). (...)

*medRxiv (e-date: 23/02/2020)*  
*Lai A, Bergna A, Acciarri C, Galli M, Zehender G*  
[Lien original](#)

### COVID-19 in Wuhan: Immediate Psychological Impact on 5062 Health Workers

**BACKGROUND:** The outbreak of COVID-19 has laid unprecedented psychological stress on health workers (HWs). We aimed to assess the immediate psychological impact on HWs at Tongji Hospital in Wuhan, China. (...)

*medRxiv (e-date: 23/02/2020)*  
*Zhu Z, Xu S, Wang H, Liu Z, Wu J, Li G, et al.*  
[Lien original](#)

### Association of radiologic findings with mortality of patients infected with 2019 novel coronavirus in Wuhan, China

Radiologic characteristics of 2019 novel coronavirus (2019-nCoV) infected pneumonia (NCIP) which had not been fully understood are especially important for diagnosing and predicting prognosis. (...)

*medRxiv (e-date: 23/02/2020)*  
*Yuan M, Yin W, Tao Z, Tan W, Hu Y*  
[Lien original](#)

### ACP risk grade: a simple mortality index for patients with confirmed or suspected severe acute respiratory syndrome coronavirus 2 disease (COVID-19) during the early stage of outbreak in Wuhan, China

**Background:** Since the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) disease (COVID-19) outbreaks in Wuhan, China, healthcare systems capacities in highly endemic areas have been overwhelmed. Approaches to efficient management are urgently needed and key to a quicker control of the outbreaks and casualties. We aimed to characterize the clinical features of hospitalized patients with confirmed or suspected COVID-19, and develop a mortality risk index for COVID-19 patients. (...)

*medRxiv (e-date: 23/02/2020)*  
*Lu J, Hu S, Fan R, Liu Z, Yin X, Wang Q, et al*  
[Lien original](#)

### A Note on NCP Diagnosis Number Prediction Model

In December 2019, pneumonia infected with the novel coronavirus burst in Wuhan, China. We aimed to use a mathematical model to predict number of diagnosed patients in future to ease anxiety on the emergent situation. In this retrospective, all diagnosis number from Jan 21 to Feb 10, 2020 reported from China was included and downloaded from WHO website. (...)

*medRxiv (e-date: 23/02/2020)*

*Li Y, Yin X, Liang M, Liu X, Hao M, Wang Y*

[Lien original](#)

### Generalized anxiety disorder, depressive symptoms and sleep quality during COVID-19 epidemic in China: a web-based cross-sectional survey

Background: China has been severely affected by COVID-19 (Corona Virus Disease 2019) since December, 2019. This study aimed to assess the population mental health burden during the epidemic, and to explore the potential influence factors. (...)

*medRxiv (e-date: 23/02/2020)*

*Huang Y, Zhao N*

[Lien original](#)

### The serial interval of COVID-19 from publicly reported confirmed cases

As a novel coronavirus (COVID-19) continues to emerge throughout China and threaten the globe, its transmission characteristics remain uncertain. Here, we analyze the serial intervals-the time period between the onset of symptoms in an index (infector) case and the onset of symptoms in a secondary (infectee) case-of 468 infector-infectee pairs with confirmed COVID-19 cases reported by health departments in 18 Chinese provinces between January 21, 2020, and February 8, 2020. (...)

*medRxiv (e-date: 23/02/2020)*

*Du Z, Wang L, Xu X, Wu Y, Cowling BJ, Meyers LA*

[Lien original](#)

### Estimating the risk of 2019 Novel Coronavirus death during the course of the outbreak in China, 2020

Since the first case of Novel Coronavirus (2019-nCov) was identified in December 2019 in Wuhan City, China, the number of cases continues to grow across China and multiple cases have been exported to other countries. The cumulative number of reported deaths is at 637 as of February 7, 2020. (...)

*medRxiv (e-date: 23/02/2020)*

*Mizumoto K, Chowell G*

[Lien original](#)

### Estimating the Asymptomatic Ratio of 2019 Novel Coronavirus onboard the Princess Cruises Ship, 2020.

Potential transmissibility of asymptomatic 2019 Novel Coronavirus infection and a substantial asymptomatic ratio have been reported in clinical studies. Employing a statistical modeling analysis, we derived a delay-adjusted asymptomatic ratio of the positive 2019-nCoV infections onboard the Princess Cruises ship along with the timeline of infections. (...)

*medRxiv (e-date: 23/02/2020)*

*Mizumoto K, Kagaya K, Zarebski A, Chowell G*

[Lien original](#)

### Development and Evaluation of A CRISPR-based Diagnostic For 2019-novel Coronavirus

Background: The recent outbreak of infections by the 2019 novel coronavirus (2019-nCoV), the third zoonotic CoV has raised great public health concern. The demand for rapid and accurate diagnosis of this novel pathogen brought significant clinical and technological challenges. Currently, metagenomic next-generation sequencing (mNGS) and reverse-transcription PCR (RT-PCR) are the most widely used molecular diagnostics. (...)

*medRxiv (e-date: 23/02/2020)*

*Hou T, Zeng W, Yang M, Chen W, Ren L, Ai J, et al*

[Lien original](#)

### Clinical characteristics of 51 patients discharged from hospital with COVID-19 in Chongqing, China

Background : Since December 2019, Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) -infected disease (Coronavirus Disease 2019, COVID-19) emerged in Wuhan , China, and rapidly spread throughout China , even throughout the world. We try to describe the epidemiological and clinical characteristics of COVID-19 in non-Wuhan area, and explore its effective treatment. (...)

*medRxiv (e-date: 23/02/2020)*

*Lei L, Jian-Ya G*

[Lien original](#)

### Evaluating the impact of international airline suspensions on COVID-19 direct importation risk

Global airline networks play a key role in the global importation of emerging infectious diseases. Detailed information on air traffic between international airports has been demonstrated to be useful in retrospectively validating and prospectively predicting case emergence in other countries. In this paper, we use a well-established metric known as effective distance on the global air traffic data from IATA to predict COVID-19 times of arrival (ToA) for different countries as a consequence of direct importation from China. Using this model trained on official first reports from WHO, we provide estimated ToA for all other countries. (...)

*medRxiv (e-date: 23/02/2020)*

*Adiga A, Venkatramanan S, Peddireddy A, Telionis A, Dickerman A, Wilson A, et al*

[Lien original](#)

### From Isolation to Coordination: How Can Telemedicine Help Combat the COVID-19 Outbreak?

The rapid spread of Coronavirus disease 2019 (COVID-19) presents China with a critical challenge. As normal capacity of the Chinese hospitals is exceeded, healthcare professionals struggling to manage this unprecedented crisis face the difficult question of how best to coordinate the medical resources used in highly separated locations. Responding rapidly to this crisis, the National Telemedicine Center of China (NTCC), located in Zhengzhou, Henan Province, has established the Emergency Telemedicine Consultation System (ETCS), a telemedicine-enabled outbreak alert and response network. ETCS is built upon a doctor-to-doctor (D2D) approach, in which health services can be accessed remotely through terminals across hospitals. (...)

*medRxiv (e-date: 23/02/2020)*

*Zhai Y, Wang Y, Zhang M, Gittell JH, Jiang S, Chen B, et al.*

[Lien original](#)

### Public Exposure to Live Animals, Behavioural Change, and Support in Containment Measures in response to COVID-19 Outbreak: a population-based cross sectional survey in China

Background In response to the COVID-19 outbreak, we aimed to investigate behavioural change on exposure to live animals before and during the outbreak, and public support and confidence for governmental containment measures. Methods A population-based cross-sectional telephone survey via random dialing was conducted in Wuhan (the epicentre) and Shanghai (an affected city with imported cases) between 1 and 10 February, 2020. 510 residents in Wuhan and 501 residents in Shanghai were randomly sampled. (...)

*medRxiv (e-date: 23/02/2020)*

*Hou Z, Lin L, Lu L, Du F, Qian M, Liang Y, et al*

[Lien original](#)

### CoVID-19 in Japan: What could happen in the future?

We adopt a novel statistical time delay dynamic model proposed in our recent work to estimate the evolution of COVID-19. Based on the cumulative number of confirmed cases and cured cases published daily by government, we effectively simulate and predict the outbreak trend of COVID-19 in different regions in China. Meanwhile, the model reveals the growth rate of the epidemic, through which the basic reproductive number is thus estimated to be 3.25 to 3.4. (...)

*medRxiv (e-date: 23/02/2020)*

*Shao N, Pan H, Li X, Li W, Wang S, Xuan Y, et al.*

[Lien original](#)

### Assessing the impact of a symptom-based mass screening and testing intervention during a novel infectious disease outbreak: The case of COVID-19

A symptom-based mass screening and testing intervention (MSTI) can identify a large fraction of infected individuals during an infectious disease outbreak. China is currently using this strategy for the COVID-19 outbreak. However,

MSTI might lead to increased transmission if not properly implemented. We investigate under which conditions MSTI is beneficial.

*medRxiv (e-date: 23/02/2020)*

*Ge Y, McKay BK, Sun S, Zhang F, Handel A*

[Lien original](#)

### Comparison of throat swabs and sputum specimens for viral nucleic acid detection in 52 cases of novel coronavirus (SARS-Cov-2) infected pneumonia (COVID-19)

Background: In December 2019, a novel coronavirus (SARS-CoV-2) infected pneumonia (COVID-19) occurred in Wuhan, China. Diagnostic test based on real-time reverse transcription polymerase chain reaction assay (qRT-PCR) was the main means of confirmation, and sample collection was mostly throat swabs, which was easy to miss the diagnosis. It is necessary to seek specimen types with higher detection efficiency and accuracy. (...)

*medRxiv (e-date: 23/02/2020)*

*Lin C, Xiang J, Yan M, Li H, Huang S, Shen C*

[Lien original](#)

### Epidemiological characteristics of 1212 COVID-19 patients in Henan, China

Based on publicly released data for 1212 patients, we investigated the epidemiological characteristics of COVID-19 in Henan of China. The following findings are obtained: 1) COVID-19 patients in Henan show gender (55% vs 45%) and age (81% aged between 21 and 60) preferences, possible causes were explored; 2) Statistical analysis on 483 patients reveals that the estimated average, mode and median incubation periods are 7.4, 4 and 7 days; Incubation periods of 92% patients were no more than 14 days (...)

*medRxiv (e-date: 23/02/2020)*

*Wang P, Lu J, Jin Y, Zhu M, Wang L, Chen S*

[Lien original](#)

### Early Prediction of Disease Progression in 2019 Novel Coronavirus Pneumonia Patients Outside Wuhan with CT and Clinical Characteristics

Objective: To determine the predictive value of CT and clinical characteristics for short-term disease progression in patients with 2019 novel coronavirus pneumonia (NCP). (...)

*medRxiv (e-date: 23/02/2020)*

*Feng Z, Yu Q, Yao S, Luo L, Duan J, Yan Z, et al*

[Lien original](#)

### The cross-sectional study of hospitalized coronavirus disease 2019 patients in Xiangyang, Hubei province

Objective To describe the epidemiological and clinical characteristics of the Coronavirus Disease 2019 (COVID-19) hospitalized patients and to offer suggestions to the urgent needs of COVID-19 prevention, diagnosis and treatment. Methods We included 102 confirmed COVID-19 cases hospitalized in Xiangyang No.1 peoples hospital, Hubei, China until Feb 9th, 2020.

Demographic data, laboratory findings and chest computed tomographic (CT) images were obtained and analyzed. (...)

*medRxiv (e-date: 23/02/2020)*

*Ai J, Chen J, Wang Y, Liu X, Fan W, Qu G, et al.*

[Lien original](#)

### **SARS-CoV-2 infection does not significantly cause acute renal injury: an analysis of 116 hospitalized patients with COVID-19 in a single hospital, Wuhan, China**

Background Whether the patients with COVID-19 infected by SARS-CoV-2 would commonly develop acute renal function damage is a problem worthy of clinical attention. This study aimed to explore the effects of SARS-CoV-2 infection on renal function through analyzing the clinical data of 116 hospitalized COVID-19-confirmed patients. Methods 116 hospitalized COVID-19-confirmed patients enrolled in this study were hospitalized in the Department of Infectious Diseases, Renmin Hospital of Wuhan University from January 14 to February 13, 2020. (...)

*medRxiv (e-date: 24/02/2020)*

*Wang L, Li X, Chen H, Yan S, Li Y, Li D, et al.*

[Lien original](#)

### **Breadth of concomitant immune responses underpinning viral clearance and patient recovery in a non-severe case of COVID-19**

We report the kinetics of the immune response in relation to clinical and virological features of a patient with mild-to-moderate coronavirus disease-19 (COVID-19) requiring hospitalisation. Increased antibody-secreting cells, follicular T-helper cells, activated CD4+ and CD8+ T-cells and IgM/IgG SARS-CoV-2-binding antibodies were detected in blood, prior to symptomatic recovery. (...)

*medRxiv (e-date: 23/02/2020)*

*Thevarajan I, Nguyen TH, Koutsakos M, Druce J, Caly L, van de Sandt CE, et al*

[Lien original](#)

### **Clinical Characteristics of 24 Asymptomatic Infections with COVID-19 Screened among Close Contacts in Nanjing, China**

Background Previous studies have showed clinical characteristics of patients with the 2019 novel coronavirus disease (COVID-19) and the evidence of person-to-person transmission. Limited data are available for asymptomatic infections. This study aims to present the clinical characteristics of 24 cases with asymptomatic infection screened from close contacts and to show the transmission potential of asymptomatic COVID-19 virus carriers. (...)

*medRxiv (e-date: 23/02/2020)*

*Hu Z, Song C, Xu C, Jin G, Chen Y, Xu X, et al*

[Lien original](#)

### **Rapid reconstruction of SARS-CoV-2 using a synthetic genomics platform**

Reverse genetics has been an indispensable tool revolutionising our insights into viral pathogenesis and vaccine development. Large RNA virus genomes, such as from Coronaviruses, are cumbersome to clone and to manipulate in *E. coli* hosts due to size and occasional instability. Therefore, an alternative rapid and robust reverse genetics platform for RNA viruses would benefit the research community. (...)

*bioRxiv (e-date: 21/02/2020)*

*Thao TTN, Labroussaa F, Ebert N, V'kovski P, Stalder H, Portmann J, et al.*

[Lien original](#)

### Potential T-cell and B-cell Epitopes of 2019-nCoV

As of Feb 16th 2020, 2019-nCoV has infected more than 51,857 people across 26 countries and claimed 1666 lives. 2019-nCoV is a novel form of coronavirus that causes COVID-19 and has high similarity with SARS-CoV. No approved vaccine yet exists for 2019-nCoV or any form of coronavirus. Here we use computational tools from structural biology and machine learning to identify 2019-nCoV T-cell and B-cell epitopes based on viral protein antigen presentation and antibody binding properties. (...)

*bioRxiv (e-date: 21/02/2020)*

*Fast E, Chen B*

[Lien original](#)

### Molecular mechanism of evolution and human infection with the novel coronavirus (2019-nCoV)

Since December, 2019, an outbreak of pneumonia caused by the new coronavirus (2019-nCoV) has hit the city of Wuhan in the Hubei Province. With the continuous development of the epidemic, it has become a national public health crisis and calls for urgent antiviral treatments or vaccines. The spike protein on the coronavirus envelope is critical for host cell infection and virus vitality. (...)

*bioRxiv (e-date: 21/02/2020)*

*He J, Tao H, Yan Y, Huang S-Y, Xiao Y.*

[Lien original](#)

[Sommaire](#)

## DOCUMENTS GOUVERNEMENTAUX

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### Report 6: Relative sensitivity of international surveillance

Since the start of the COVID-19 epidemic in late 2019, there are now 29 affected regions and countries with over 1000 confirmed cases outside of mainland China. In previous reports, we estimated the likely epidemic size in Wuhan City based on air traffic volumes and the number of detected cases internationally. Here we analysed COVID-19 cases exported from mainland China to different regions and countries, comparing the country-specific rates of detected and confirmed cases per flight volume to estimate the relative sensitivity of surveillance in different countries. (...)

*Imperial College London (e-date: 21/02/2020)*

[Lien original](#)

### COVID-19: guidance for Ambulance Trusts

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: 21/02/2020)

[Lien original](#)

### Interim Infection Prevention and Control Recommendations for Patients with Confirmed Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) or Persons Under Investigation for SARS-CoV-2 in Healthcare Settings [Mis à jour le 21/02/2020]

CDC (e-date: 21/02/2020)

[Lien original](#)

### COVID-19: interim guidance for primary care [Mis à jour le 20/02/2020]

Primary care professionals can use this information to reduce the risk of spread of infection during and following consultation with a suspected case of COVID-19. (...)

Public Health England (e-date: 20/02/2020)

[Lien original](#)

### Coronavirus Disease 2019 Information for Travel [Mis à jour le 23/02/2020]

CDC (e-date: 23/02/2020)

[Lien original](#)

### COVID-19: epidemiology, virology and clinical features [Mis à jour le 23/02/2020]

Public Health England (e-date: 23/02/2020)

[Lien original](#)

### Outbreak of novel coronavirus disease 2019 (COVID-19): situation in Italy

ECDC (e-date: 23/02/2020)

[Lien original](#)

Interim advice on non-inpatient care of persons with suspected or confirmed Coronavirus Disease 2019 (COVID-19), including use of personal protective equipment (PPE)

*Australian government (e-date: 21/02/2020)*

[Lien original](#)

**Novel coronavirus 2019 (COVID-19) case definition [Mis à jour le 24/02/2020]**

*New South Wales Government (Australia) (e-date: 24/02/2020)*

[Lien original](#)

**Coronavirus in Italy [Mis en ligne le 23/02/2020]**

*CDC (e-date: 23/02/2020)*

[Lien original](#)

**CDC in Action: Preparing Communities for Potential Spread of COVID-19 [mis à jour le 23/02/2020]**

*CDC (e-date: 23/02/2020)*

[Lien original](#)

**Current risk assessment on the novel coronavirus situation, 24 February 2020**

*ECDC (e-date: 24/02/2020)*

[Lien original](#)

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## DOCUMENTS DE PREVENTION

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**Frequently Asked Questions and Answers: Coronavirus Disease 2019 (COVID-19) and Pregnancy [Mis à jour le 21/02/2020]**

*CDC (e-date: 21/02/2020)*

[Lien original](#)

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## ARTICLES EN CHINOIS (résumé en anglais)

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**[Comparison of the clinical characteristics between RNA positive and negative patients clinically diagnosed with 2019 novel**

coronavirus pneumonia]. *Zhonghua Jie He He Hu Xi Za Zhi.*  
2020;43(0):E023-E.

**Objective:** To raise awareness about 2019 novel coronavirus pneumonia (NCP) and reduce missed diagnosis rate and misdiagnosis rate by comparing the clinical characteristics between RNA positive and negative patients clinically diagnosed with NCP. (...)

*PubMed (e-date: 24/02/2020)*

*Li YY, Wang WN, Lei Y, Zhang B, Yang J, Hu JW, et al*

[Lien original](#)

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## WEB – NEWS - BLOG

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Robert Peckham: The covid-19 outbreak has shown we need strategies to manage panic during epidemics - The BMJ

*BMJ Opinion (e-date: 21/02/2020)*

[Lien original](#)

Rules on isolation rooms for suspected covid-19 cases in GP surgeries to be relaxed | The BMJ

GPs seeing patients who might have covid-19 can give them a face mask and ask them to sit two metres away from other people in the surgery if no spare room is available, new guidance is expected to say. (...)

*The BMJ (e-date: 21/02/2020)*

*Kmietowicz Z*

[Lien original](#)

China uses mass surveillance tech to fight spread of coronavirus

*New Scientist (e-date: 22/02/2020)*

*Lu D*

[Lien original](#)

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