ARTICLES PUBLIES OU IN PRESS

First known person-to-person transmission of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in the USA | The Lancet

BackgroundCoronavirus disease 2019 (COVID-19) is a disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), first detected in China in December, 2019. In January, 2020, state, local, and federal public health agencies investigated the first case of COVID-19 in Illinois, USA.

thelancet.com (e-date: 13/03/2020)
Ghinai I, McPherson TD, Hunter JC, Kirking HL, Christiansen D, Joshi K, et al.
Lien original

COVID-19 and Italy: what next? | The Lancet

The spread of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) has already taken on pandemic proportions, affecting over 100 countries in a matter of weeks. A global response to prepare health systems worldwide is imperative. Although containment measures in China have reduced new cases by more than 90%, this reduction is not the case elsewhere, and Italy has been particularly affected. There is now grave concern regarding the Italian national health system's capacity to effectively respond to the needs of patients who are infected and require intensive care for SARS-CoV-2 pneumonia.

thelancet.com (e-date: 13/03/2020)
Remuzzi A, Remuzzi G.
Lien original

Did the hesitancy in declaring COVID-19 a pandemic reflect a need to redefine the term? | The Lancet

In almost all good textbooks, an epidemic becomes a pandemic when there is widespread geographical distribution of the disease. For some weeks, the COVID-19 epidemic, which had spread to over 100 countries, seemed to fit the classical definition of a pandemic. One could reasonably ask whether the use of the term pandemic would change any of the actions necessary to control the spread of the virus.

thelancet.com (e-date: 13/03/2020)
Green MS
Lien original

Real estimates of mortality following COVID-19 infection | The Lancet Infectious Diseases

As of March 1, 2020, 79 968 patients in China and 7169 outside of China had tested positive for coronavirus disease 2019 (COVID-19).1 Among Chinese patients, 2873 deaths had occurred, equivalent to a mortality rate of 3.6% (95% CI 3.5-3.7), while 104 deaths from COVID-19 had been reported outside of China (1.5% [1.2-1.7]). However, these mortality rate estimates are based on the number of deaths relative to the number of confirmed cases of infection, which is not representative of the actual death rate;

thelancet.com (e-date: 12/03/2020)
Baud D, Qi X, Nielsen-Saines K, Musso D, Pomar L, Favre G.
Lien original

Indirect Virus Transmission in Cluster of COVID-19 Cases, Wenzhou, China, 2020 | Emerging Infectious Diseases journal - CDC

To determine possible modes of virus transmission, we investigated a cluster of COVID-19 cases associated with a shopping mall in Wenzhou, China. Data indicated that indirect transmission of the causative virus occurred, perhaps resulting from virus contamination of common objects, virus aerosolization in a confined space, or spread from asymptomatic infected persons.

cdc.gov (e-date: 12/03/2020)
Jing C, Wenjie S, Jianping H, Michelle G, Jing W, Guiqing H.
Lien original

History in a Crisis - Lessons for Covid-19 | NEJM

Times have changed. From herpes and legionnaires' disease in the 1970s, to AIDS, Ebola, the severe acute respiratory syndrome (SARS), and now Covid-19, contagious diseases continue to threaten and disrupt human populations. Historians, who never lost interest in epidemics, have much to offer.

nejm.org (e-date: 12/03/2020)
Jones DS.
Lien original

Detection of Covid-19 in Children in Early January 2020 in Wuhan, China | NEJM

A small number of cases of coronavirus disease 2019 (Covid-19) have been described in children,[1,2] and our understanding of the spectrum of illness is limited.[3] We conducted a retrospective analysis involving hospitalized children in Wuhan, China.

www.nejm.org (e-date: 12/03/2020)
Liu W, Zhang Q, Chen J, Xiang R, Song H, Shu S, et al.
Lien original

SARS-CoV-2 Infection among Travelers Returning from Wuhan, China | NEJM

As severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infections (causing coronavirus disease 2019 [Covid-19]) spread globally, uncertainty surrounds estimates of the true number of infected persons, which is crucial to determining the severity of infection

nejm.org (e-date: 12/03/2020)
Ng O-T, Marimuthu K, Chia P-Y, Koh V, Chiew CJ, De Wang L, et al.
Lien original

Retrospective analysis of the possibility of predicting the COVID-19 outbreak from Internet searches and social media data, China, 2020 | Eurosurveillance

In this study, we aimed to evaluate the prediction value of the Internet search data from web-based search engines and social media for the COVID-19 outbreak in China.

eurosurveillance.org (e-date: 12/03/2020)
Li C, Chen LJ, Chen X, Zhang M, Pang CP, Chen H.
Lien original

Post-discharge surveillance and positive virus detection in two medical staff recovered from coronavirus disease 2019 (COVID-19), China, January to February 2020 | Eurosurveillance

Since December 2019, 62 medical staff of Zhongnan Hospital in Wuhan, China have been hospitalised with coronavirus disease 2019. During the post-discharge surveillance after clinical recovery, swabs were positive in two asymptomatic cases (3.23%). Case 1 had presented typical clinical and radiological manifestations on admission, while manifestation in Case 2 was very mild. In conclusion, a small proportion of recovered patients may test positive after discharge, and post-discharge surveillance and isolation need to be strengthened.

eurosurveillance.org (e-date: 12/03/2020)
Xing Y, Mo P, Xiao Y, Zhao O, Zhang Y, Wang F.

Estimating the asymptomatic proportion of coronavirus disease 2019 (COVID-19) cases on board the Diamond Princess cruise ship, Yokohama, Japan, 2020 | Eurosurveillance

On 5 February 2020, in Yokohama, Japan, a cruise ship hosting 3,711 people underwent a 2-week quarantine after a former passenger was found with COVID-19 post-disembarking. As at 20 February, 634 persons on board tested positive for the causative virus. We conducted statistical modelling to derive the delay-adjusted asymptomatic proportion of infections, along with the infections' timeline. The estimated asymptomatic proportion was 17.9% (95% credible interval (CrI): 15.5–20.2%). Most infections occurred before the quarantine start.

eurosurveillance.org (e-date: 12/03/2020)
Mizumoto K, Kagaya K, Zarebski A, Chowell G.
Lien original

Updated rapid risk assessment from ECDC on the novel coronavirus disease 2019 (COVID-19) pandemic: increased transmission in the EU/EEA and the UK | Eurosurveillance

The European Centre for Disease Prevention and Control (ECDC) provides regularly updated information on coronavirus disease-2019 (COVID-19) relevant to Europe on a dedicated webpage

eurosurveillance.org (e-date: 12/03/2020)
Eurosurveillance editorial team
Lien original

Video consultations for covid-19 : An opportunity in a crisis? [Editorial] | BMJ

How appropriate are video consultations for dealing with the coronavirus crisis—and what are the challenges of scaling up this model at speed?

bmj.com (e-date: 12/03/2020)
Greenhalgh T, Wherton J, Shaw S, Morrison C.
Lien original

Clinical analysis of 10 neonates born to mothers with 2019-nCoV pneumonia | Translational Pediatrics

The clinical features and outcomes of 10 neonates (including 2 twins) born to 9 mothers with confirmed 2019-nCoV infection in 5 hospitals from January 20 to February 5, 2020 were retrospectively analyzed.

pubmed.gov (e-date: 11/03/2020)
Zhu H, Wang L, Fang C, Peng S, Zhang L, Chang G, et al.
Lien original

Chinese expert consensus on the perinatal and neonatal management for the prevention and control of the 2019 novel coronavirus infection (First edition) | Annals of Translational Medicine

Since December 2019, there has been an outbreak of novel coronavirus (2019-nCoV) infection in China. Two cases of neonates with positive 2019-nCoV tests have been reported. Due to the immature immune system and the possibility of vertical transmission from mother to infant, neonates have become a high-risk group susceptible to 2019-nCoV, which emphasize a close cooperation from both perinatal and neonatal pediatrics. In neonatal intensive care unit (NICU), to prevent and control infection, there should be practical measures to ensure the optimal management of children potentially to be infected. According to the latest 2019-nCoV national management plan and the actual situation, the Chinese Neonatal 2019-nCoV expert working Group has put forward measures on the prevention and control of neonatal 2019-nCoV infection.

pubmed.gov (e-date: 11/03/2020)
Wang L, Shi Y, Xiao T, Fu J, Feng X, Mu D, et al.
Lien original

Discovering drugs to treat coronavirus disease 2019 (COVID-19) | Drug Discoveries & Therapeutics

The SARS-CoV-2 virus emerged in December 2019 and then spread rapidly worldwide, particularly to China, Japan, and South Korea. Scientists are endeavoring to find antivirals specific to the virus. Several drugs such as chloroquine, arbidol, remdesivir, and favipiravir are currently undergoing clinical studies to test their efficacy and safety in the treatment of coronavirus disease 2019 (COVID-19) in China; some promising results have been achieved thus far. This article summarizes agents with potential efficacy against SARS-CoV-2.

pubmed.gov (e-date: 10/03/2020)
Dong L, Hu S, Gao J.
Lien original

2019-novel coronavirus outbreak: A new challenge | Journal of Global Antimicrobial Resistance.

Objectives Following the public health emergency declared by the World Health Organization and the recent outbreak by 2019-nCoV in China and through other 29 countries, we aimed to summarize the clinical aspects of novel beta-coronavirus infection and its possible clinical presentations together with suggested therapeutic algorithms for patients who may require antibiotic treatment.

pubmed.gov (e-date: 07/03/2020)
Lupia T, Scabini S, Pinna SM, Di Perri G, De Rosa FG, Corcione S.
Lien original

PREPRINTS

Virus strain of a mild COVID-19 patient in Hangzhou representing a new trend in SARS-CoV-2 evolution related to Furin cleavage site

We found, in our 788 confirmed COVID-19 patients, the decreased rate of severe/critical type, increased liver/kidney damage and prolonged period of nuclear acid positivity during virus dissemination, when compared with Wuhan. To investigate the underlining mechanism, we isolated one strain of SARS- CoV-2 (ZJ01) in mild COVID-19 patient and found the existence of 35 specific gene mutation by gene alignment.

medrxiv.org (e-date: 13/03/2020)
Xi J, Xu K, Jiang P, Lian J, Hao S, Jia H, et al.
Lien original

Protocol for a randomized controlled trial testing inhaled nitric oxide therapy in spontaneously breathing patients with COVID-19

We hypothesize that high concentrations of inhaled NO administered during early phases of COVID-19 infection can prevent the progression of the disease. Methods and analysis: This is a multicenter randomized controlled trial. Spontaneous breathing patients admitted to the hospital for symptomatic COVID-19 infection will be eligible to enter the study.

medrxiv.org (e-date: 13/03/2020)
Berra L, Lei C, Su B, Dong H, Safaee Fakhr B, Grassi LG, et al.
Lien original

Clinical features of imported cases of coronavirus disease 2019 in Tibetan patients in the Plateau area

Abstract Coronavirus disease 2019 (COVID-19), caused by SARS-CoV-2, has rapidly spread throughout China, but the clinical characteristics of Tibetan patients living in the Qinghai-Tibetan plateau are unknown. We aimed to investigate the epidemiological, clinical, laboratory and radiological characteristics of these patients. We included 67 Tibetan patients with confirmed SARS-CoV-2 infection.

Epidemiological, Clinical Characteristics and Outcome of Medical Staff Infected with COVID-19 in Wuhan, China: A Retrospective Case Series Analysis

Backgrounds Since December 2019, a novel coronavirus epidemic has emerged in Wuhan city, China and then rapidly spread to other areas. As of 20 Feb 2020, a total of 2,055 medical staff confirmed with coronavirus disease 2019 (COVID-19) caused by SARS-Cov-2 in China had been reported. We sought to explore the epidemiological, clinical characteristics and prognosis of novel coronavirus-infected medical staff.

The demand for inpatient and ICU beds for COVID-19 in the US: lessons from Chinese cities

Background: Sustained spread of SARS-CoV-2 has happened in major US cities. Capacity needs in Chinese cities could inform the planning of local healthcare resources. Methods: We described the intensive care unit (ICU) and inpatient bed needs for confirmed COVID-19 patients in two Chinese cities (Wuhan and Guangzhou) from January 10 to February 29, 2020, and compared the timing of disease control measures in relation to the timing of SARS-CoV-2 community spread.

Genomic epidemiology of a densely sampled COVID19 outbreak in China

Analysis of genetic sequence data from the pandemic SARS Coronavirus 2 can provide insights into epidemic origins, worldwide dispersal, and epidemiological history. With few exceptions, genomic epidemiological analysis has focused on geographically distributed data sets with few isolates in any given location. Here we report an analysis of 20 whole SARS-CoV 2 genomes from a single relatively small and geographically constrained outbreak in Weifang, People's Republic of China.

Effectiveness of isolation and contact tracing for containment and slowing down a COVID-19 epidemic: a modelling study

Background: Novel coronavirus (SARS-CoV-2) is extending its range of transmission in all parts of the world, with substantial variation in rates of transmission and severity of associated disease. Methods: We evaluated whether and under which conditions it is possible to control and slow down a COVID-19 epidemic in the early stages by isolation and contact tracing.

Analysis clinical features of COVID-19 infection in secondary epidemic area and report potential biomarkers in evaluation

Objective: Based on the clinical characteristics of infected patients with novel coronavirus in secondary epidemic areas,we aimed to identify potential biomarkers for the evaluation of novel coronavirus-infected patients,guide the diagnosis and treatment of this disease in secondary epidemic areas and provide a reference for the clinical prevention and control of this epidemic situation.

Novel Coronavirus (COVID-19) Knowledge and Perceptions: A Survey on Healthcare workers

The study aimed to investigate the knowledge and perceptions of HCWs about COVID-19. Methods: A cross-sectional, web-based study was conducted among HCWs about COVID-19 during the first week of March 2020. A 23-item survey instrument was developed and distributed randomly to HCWs using social media; it required 5 minutes to complete.

medrxiv.org (e-date: 13/03/2020)
Bhagavathula AS, Aldhaleei WA, Rahmani J, Mahabadi MA, Bandari DK.

Inhibition of SARS-CoV-2 infection (previously 2019-nCoV) by a highly potent pan-coronavirus fusion inhibitor targeting its spike protein that harbors a high capacity to mediate membrane fusion

The recent outbreak of coronavirus disease (COVID-19) caused by SARS-CoV-2 infection in Wuhan, China has posed a serious threat to global public health. To develop specific anti-coronavirus therapeutics and prophylactics, the molecular mechanism that underlies viral infection must first be confirmed. Therefore, we herein used a SARS-CoV-2 spike (S) protein-mediated cell-cell fusion assay and found that SARS-CoV-2 showed plasma membrane fusion capacity superior to that of SARS-CoV.

biorxiv.org (e-date: 12/03/2020)
Xia S, Liu M, Wang C, Xu W, Lan Q, Feng S, et al.

Age specificity of cases and attack rate of novel coronavirus disease (COVID-19)

Age distribution of the cases with novel coronavirus disease (COVID-19) is rather different from that of influenza. We examined the age distribution of COVID-19 cases in Japan from January to March, 2020. Children are less likely to be diagnosed as cases, and moreover, the risk of disease given exposure among children appears to be low.

medrxiv.org (e-date: 13/03/2020)
Mizumoto K, Omori R, Nishiura H.

Estimation of instant case fatality rate of COVID-19 in Wuhan and Hubei based on daily case notification data

Background The outbreak of coronavirus disease 2019 (COVID-19) initially appeared and has most rapidly spread in Wuhan, China. The case fatality rate is the most direct indicator to assess the hazards of an infectious disease. We aimed to estimate the instant fatality rate and cure rate of COVID-19 in Wuhan City and its affiliated Hubei Province.

medrxiv.org (e-date: 13/03/2020)
Cao L, Huang T-t, Zhang J-x, Qin Q, Liu S-y, Xue H-m, et al.

Maternal and neonatal outcomes of pregnant women with COVID-19 pneumonia: a case-control study

Background The ongoing epidemics of coronavirus disease 2019 (COVID-19) have caused serious concerns about its potential adverse effects on pregnancy. There are limited data on maternal and neonatal outcomes of pregnant women with COVID-19 pneumonia. Methods We conducted a case-control study to compare clinical characteristics, maternal and neonatal outcomes of pregnant women with and without COVID-19 pneumonia.

medrxiv.org (e-date: 13/03/2020)
Li N, Han L, Peng M, Lv Y, Ouyang Y, Liu K, et al.

Prediction of the COVID-19 outbreak based on a realistic stochastic model

In this paper, a novel stochastic model is proposed which aims to account for the unique transmission dynamics of COVID-19 and capture the effects of intervention measures implemented in Mainland China

medrxiv.org (e-date: 13/03/2020)
Zhang Y, You C, Cai Z, Sun J, Hu W, Zhou X-H.
Lien original

The Prediction for Development of COVID-19 in Global Major Epidemic Areas Through Empirical Trends in China by Utilizing State Transition Matrix Model

Background: Since pneumonia caused by coronavirus disease 2019 (COVID-19) broke out in Wuhan, Hubei province, China, tremendous infected cases has risen all over the world attributed to high transmissibility. We managed to mathematically forecast the inflection point (IFP) of new cases in South Korea, Italy, and Iran, utilizing the transcendental model from Hubei and non-Hubei in China.

medrxiv.org (e-date: 13/03/2020)
Zheng Z, Wu K, Yao Z, Zheng J, Chen J.
Lien original

Predicting the cumulative number of cases for the COVID-19 epidemic in China from early data

We model the COVID-19 coronavirus epidemic in China. We use early reported case data to predict the cumulative number of reported cases to a final size. The key features of our model are the timing of implementation of major public policies restricting social movement, the identification and isolation of unreported cases, and the impact of asymptomatic infectious cases.

medrxiv.org (e-date: 13/03/2020)
Liu Z, magal p, Seydi O, Webb G.
Lien original

The Impact of School Closure for COVID-19 on the US Healthcare Workforce and the Net Mortality Effects

Background COVID-19 is leading to the implementation of social distancing policies around the world and in the United States, including school closures. The evidence that mandatory school closures reduce cases and ultimately mortality mostly comes from experience with influenza or from models that do not include the impact of school closure on the healthcare labor supply or the role of the healthcare labor force in reducing the per infection mortality from the pathogen.

medrxiv.org (e-date: 13/03/2020)
Bayham J, Fenichel EP.
Lien original

Lessons drawn from China and South Korea for managing COVID-19 epidemic: insights from a comparative modeling study

We conducted a comparative study of COVID-19 epidemic in three different settings: mainland China, the Guangdong province of China and South Korea, by formulating two disease transmission dynamics models incorporating epidemic characteristics and setting-specific interventions, and fitting the models to multi-source data to identify initial and effective reproduction numbers and evaluate effectiveness of interventions.

medrxiv.org (e-date: 13/03/2020)
Tang B, Xia F, Bragazzi NL, Wang X, He S, Sun X, et al.
Lien original

Estimates of the severity of COVID-19 disease

Background: A range of case fatality ratio (CFR) estimates for COVID 19 have been produced that differ substantially in magnitude. Methods: We used individual-case data from mainland China and

cases detected outside mainland China to estimate the time between onset of symptoms and outcome (death or discharge from hospital).

medrxiv.org (e-date: 13/03/2020)
Verity R, Okell LC, Dorigatti I, Winskill P, Whittaker C, Imai N, et al.
Lien original

Inferring the number of COVID-19 cases from recently reported deaths

We estimate the number of COVID-19 cases from newly reported deaths in a population without previous reports. Our results suggest that by the time a single death occurs, hundreds to thousands of cases are likely to be present in that population. This suggests containment via contact tracing will be challenging at this point, and other response strategies should be considered. Our approach is implemented in a publicly available, user-friendly, online tool.

medrxiv.org (e-date: 13/03/2020)
Jombart T, van Zandvoort K, Russell T, Jarvis C, Gimma A, Abbott S, et al.
Lien original

The time scale of asymptomatic transmission affects estimates of epidemic potential in the COVID-19 outbreak

We assess the impact of asymptomatic transmission on epidemic potential of novel respiratory pathogens (like COVID-19) -- as measured both by the basic reproduction number (i.e., the expected number of secondary cases generated by an average primary case in a fully susceptible population) and the fraction of new secondary cases attributable to asymptomatic individuals

medrxiv.org (e-date: 13/03/2020)
Park SW, Cornforth DM, Dushoff J, Weitz JS.
Lien original

Modeling the situation of COVID-19 and effects of different containment strategies in China with dynamic differential equations and parameters estimation

This paper proposed a quarantine-susceptible-exposed-infectious-resistant (QSEIR) model which considers the unprecedented strict quarantine measures in almost the whole of China to resist the epidemic. We estimated model parameters from published information with the statistical method and stochastic simulation, we found the parameters that achieved the best simulation test result.

medrxiv.org (e-date: 13/03/2020)
Liu X, Hewings GJD, Wang S, Qin M, Xiang X, Zheng S, et al.
Lien original

A human monoclonal 1 antibody blocking SARS-CoV-2 infection

The emergence of the novel human coronavirus SARS-CoV-2 in Wuhan, China has caused a worldwide epidemic of respiratory disease (COVID-19). Vaccines and targeted therapeutics for treatment of this disease are currently lacking. Here we report a human monoclonal antibody that neutralizes SARS-CoV-2 (and SARS-CoV).

biorxiv.org (e-date: 12/03/2020)
Wang C, Li W, Drabek D, Okba NMA, van Haperen R, Osterhaus ADME, et al.
Lien original

The SARS-CoV-2 exerts a distinctive strategy for interacting with the ACE2 human receptor

The COVID-19 disease has plagued over 110 countries and has resulted in over 4,000 deaths within 10 weeks. We compare the interaction between the human ACE2 receptor and the SARS-CoV-2 spike protein with that of other pathogenic coronaviruses using molecular dynamics simulations.

biorxiv.org (e-date: 12/03/2020)
Brielle ES, Schneidman D, Linial M.
Lien original

Rigidity, normal modes and flexible motion of a SARS-CoV-2 (COVID-19) protease structure.

The rigidity and flexibility of two recently reported crystal structures (PDB entries 6Y2E and 6LU7) of a protease from the SARS-CoV-2 virus, the infectious agent of the COVID-19 respiratory disease, has been investigated using pebble-game rigidity analysis, elastic network model normal mode analysis, and all-atom geometric simulations. This computational investigation of the viral protease follows protocols that have been effective in studying other homodimeric enzymes.

biorxiv.org (e-date: 12/03/2020)
Wells SA.
Lien original

The inhaled corticosteroid ciclesonide blocks coronavirus RNA replication by targeting viral NSP15

Steroid compounds, which are expected to have dual functions in blocking host inflammation and MERS-CoV replication, were screened from a chemical library. Within this library, ciclesonide, an inhaled corticosteroid, suppressed human coronavirus replication in cultured cells, but did not suppress replication of respiratory syncytial virus or influenza virus.

biorxiv.org (e-date: 12/03/2020)
Matsuyama S, Kawase M, Nao N, Shirato K, Ujike M, Kamitani W, et al.
Lien original

The effectiveness of full and partial travel bans against COVID-19 spread in Australia for travellers from China.

Australia implemented a travel ban on China on February 1st 2020. Partial lifting of the ban is being considered, given the decline in incidence of COVID-19 in China. We modelled three scenarios to test the impact of travel bans on epidemic control in Australia.

medrxiv.org (e-date: 13/03/2020)
Costantino V, Heslop DJ, MacIntyre CR.
Lien original

Retrospective Analysis of Clinical Features in 101 Death Cases with COVID-19

Background The illness progress of partial patient of COVID-19 is rapid and the mortality rate is high.we aim to describe the clinical features in death cases with COVID-19. Methods In this single center, observational study, We recruited all Death Cases with FoNt3

medrxiv.org (e-date: 12/03/2020)
Chen J, Fan H, Zhang L, Huang B, Zhu M, Zhou Y, et al.
Lien original

Epidemiological and clinical characteristics of COVID-19 in adolescents and young adults

Background: Adolescents and young adults might play a key role in the worldwide spread of Coronavirus Disease 2019 (COVID-19), because they are more involved in overseas studying, business, working, and travelling. However, the epidemiological and clinical characteristics of them are still unknown.

medrxiv.org (e-date: 12/03/2020)
Liao J, Fan S, Chen J, Wu J, Xu S, Guo Y, et al.
Lien original

Effects of Chinese strategies for controlling the diffusion and deterioration of novel coronavirus-infected pneumonia in China

Background: In December 2019, an outbreak of new type of coronavirus named COVID-19 occurred in Wuhan, Hubei Province, China. In a very short time, this virus spread rapidly over China, greatly threatening public health and economic development. The Chinese government acted quickly and

implemented a series of strategies to prevent diffusion of this disease. We therefore sought to evaluate the effects of these Chinese strategies for controlling the spread of COVID-19.

medrxiv.org (e-date: 12/03/2020)
Wang X, Tian W, Lv X, Shi Y, Zhou X, Yu W, et al.
Lien original

The effect of control strategies that reduce social mixing on outcomes of the COVID-19 epidemic in Wuhan, China

We quantified the effects of control measures on population contact patterns in Wuhan, China, to assess their effects on the progression of the outbreak. We included the latest estimates of epidemic parameters from a transmission model fitted to data on local and internationally exported cases from Wuhan in the age-structured epidemic framework

medrxiv.org (e-date: 13/03/2020)
Prem K, Liu Y, Russell T, Kucharski AJ, Eggo RM, Davies N, et al.
Lien original

Early, low-dose and short-term application of corticosteroid treatment in patients with severe COVID-19 pneumonia: single-center experience from Wuhan, China

We aimed to evaluate the definite efficacy and safety of corticosteroid in the treatment of severe COVID-19 pneumonia. Methods: Forty-six hospitalized patients with severe COVID-19 pneumonia hospitalized at Wuhan Union Hospital from January 20 to February 25, 2020, were retrospectively reviewed

medrxiv.org (e-date: 12/03/2020)
Wang Y, Jiang W, He Q, Wang C, Wang B, Zhou P, et al.
Lien original

Quantifying dynamics of SARS-CoV-2 transmission suggests that epidemic control and avoidance is feasible through instantaneous digital contact tracing

Mobile phone apps implementing algorithmic contact tracing can speed up the process of tracing newly diagnosed individuals, spreading information instantaneously back through a past contact network to inform them that they are at risk of being infected, and thus allow them to take appropriate social distancing and testing measures.

medrxiv.org (e-date: 12/03/2020)
Ferretti L, Wymant C, Kendall M, Zhao L, Nurtay A, Bonsall DG, et al.
Lien original

A data-driven drug repositioning framework discovered a potential therapeutic agent targeting COVID-19

The global spread of SARS-CoV-2 requires an urgent need to find effective therapeutics for the treatment of COVID-19. We developed a data-driven drug repositioning framework, which applies both machine learning and statistical analysis

biorxiv.org (e-date: 12/03/2020)
Ge Y, Tian T, Huang S, Wan F, Li J, Li S, et al.
Lien original

Development of Reverse Transcription Loop-mediated Isothermal Amplification (RT-LAMP) Assays Targeting SARS-CoV-2

Epidemics of Coronavirus Disease 2019 (COVID-19) now have more than 100,000 confirmed cases worldwide. Diagnosis of COVID-19 is currently performed by RT-qPCR methods, but the capacity of RT-qPCR methods is limited by its requirement of high-level facilities and instruments. Here, we developed and evaluated RT-LAMP assays to detect genomic RNA of SARS-CoV-2

biorxiv.org (e-date: 12/03/2020)
Park G-S, Ku K, Beak S-H, Kim SJ, Kim SI, Kim B-T, et al.
Lien original

Discovery of a 382-nt deletion during the early evolution of SARS-CoV-2

To date, the SARS-CoV-2 genome has been considered genetically more stable than SARS-CoV or MERS-CoV. Here we report a 382-nt deletion covering almost the entire open reading frame 8 (ORF8) of SARS-CoV-2 obtained from eight hospitalized patients in Singapore.

biorxiv.org (e-date: 12/03/2020)
Su Y, Anderson D, Young B, Zhu F, Linster M, Kalimuddin S, et al.
Lien original

DOCUMENTS GOUVERNEMENTAUX

Rapid risk assessment: Novel coronavirus disease 2019 (COVID-19) pandemic: increased transmission in the EU/EEA and the UK – sixth update | ECDC

Rapid risk assessment: Novel coronavirus disease 2019 (COVID-19) pandemic: increased transmission in the EU/EEA and the UK – sixth update
European Centre for Disease Prevention and Control. Novel coronavirus disease 2019 (COVID-19) pandemic: increased transmission in the EU/EEA and the UK – sixth update – 12 March 2020. Stockholm: ECDC; 2020.

ecdc.europa.eu (e-date: 12/03/2020)
ECDC
Lien original

Infection prevention and control for COVID-19 in healthcare settings | ECDC

This document aims to provide guidance to EU/EEA healthcare facilities and healthcare providers on infection prevention and control measures during the management of suspected and confirmed cases of COVID-19 infection in healthcare settings, including long-term care facilities (LTCF). It also offers guidance on the management of specimens in laboratories in the EU/EEA. This is an update of the ECDC guidance from February 2020

ecdc.europa.eu (e-date: 12/03/2020)
ECDC
Lien original

Surgical Mask and Gown Conservation Strategies - Letter to Healthcare Providers | FDA

The U.S. Food and Drug Administration (FDA) recognizes that the need for personal protective equipment (PPE), such as surgical masks, surgical and isolation gowns, and surgical suits, may outpace the supply available to healthcare organization during the Coronavirus Disease 2019 (COVID-19) outbreak.

fda.gov (e-date: 11/03/2020)
US FDA
Lien original

FAQs on Shortages of Surgical Masks and Gowns | FDA

Is there a shortage of gowns? Surgical masks? How can manufacturers of personal protective equipment (PPE) who may be considering increasing availability of these products to the US market engage with the FDA? etc.

fda.gov (e-date: 11/03/2020)
U.S. Food and Drug Administration
Lien original

DOCUMENTS DE PRÉVENTION

Leaflet: information on COVID-19 for people with chronic diseases | ECDC

This leaflet provides basic information on novel coronavirus disease (COVID-19), how it spreads, symptoms, how to avoid catching or spreading the virus, and some specific advice for people with chronic diseases, their families and care-givers.

ecdc.europa.eu (e-date: 12/03/2020)
ECDC
Lien original

Leaflet: information on COVID-19 for people with immunocompromising condition | ECDC

This leaflet provides basic information on novel coronavirus disease (COVID-19), how it spreads, symptoms, how to avoid catching or spreading the virus, and some specific advice for people with immunocompromising condition, their families and care-givers.

ecdc.europa.eu (e-date: 12/03/2020)
ECDC
Lien original

Leaflet: information on COVID-19 for pregnant women | ECDC

This leaflet provides basic information on novel coronavirus disease (COVID-19), how it spreads, symptoms, how to avoid catching or spreading the virus, and some specific advice for pregnant women, their families and care-givers.

ecdc.europa.eu (e-date: 12/03/2020)
ECDC
Lien original

Leaflet: information on self-isolation and quarantine after exposure to COVID-19 | ECDC

This leaflet provides basic information on novel coronavirus disease (COVID-19), how it spreads, symptoms, how to avoid catching or spreading the virus, and some specific advice and rules on self-isolation or quarantine when presenting mild symptoms of COVID-19 or after exposure to the SARS-CoV-2 virus.

ecdc.europa.eu (e-date: 12/03/2020)
ECDC
Lien original

NEWS & BLOGS

Over-70s and at-risk Brits advised against travelling on cruise ships | GOV.UK

British nationals aged 70 and over, and those with underlying health conditions such as chronic diseases and diabetes, have been advised not to travel on cruise ships in response to the coronavirus outbreak.

gov.uk (e-date: 12/03/2020)
UK Gov. Foreign & Commonwealth Office
Lien original

WHO announces COVID-19 outbreak a pandemic | WHO/Europe

Today, as WHO/Europe's Standing Committee of the Regional Committee met, Dr Hans Henri P. Kluge, WHO Regional Director for Europe, briefed the group on the rapid escalation of COVID-19 in the WHO European Region, now placing it at the centre of this pandemic.

euro.who.int (e-date: 12/03/2020)
WHO
Lien original

COVID-19: government announces moving out of contain phase and into delay - GOV.UK

The government has announced that we are moving out of the contain phase and into delay, in response to the ongoing coronavirus outbreak.

www.gov.uk (e-date: 12/03/2020)
GOV.UK : Department of Health and Social Care
Lien original

ECDC: COVID-19 not containable, set to overwhelm hospitals | CIDRAP News

In a stark and urgent COVID-19 risk assessment update today, the European Centre for Disease Prevention and Control (ECDC) said that, in a few weeks or even days, other countries in the region may face huge surges that mirror those of China and Italy.

cidrap.umn.edu (e-date: 12/03/2020)
Schnirring L.
Lien original

Study: COVID-19 may spread in several different ways | CIDRAP News

In a research letter published yesterday in JAMA, Chinese scientists describe testing lung wash (bronchoalveolar lavage), lung biopsy, nasal, sputum, and blood samples for live virus in 1,070 specimens from 205 infected patients in three hospitals in China from Jan 1 to Feb 17.

cidrap.umn.edu (e-date: 12/03/2020)
Van Beusekom M.
Lien original

Covid-19: Trump cancels all flights from Europe, apart from the UK | BMJ

President Donald Trump announced on Tuesday night in a national TV broadcast that the US would be closed to all flights from Europe - excluding the UK - for 30 days from midnight on Friday 13 March in an attempt to stop the spread of covid-19 to the country.

bmj.com (e-date: 12/03/2020)
Tanne JH
Lien original

Staff wearing beards and covid-19: trickier than it looks | The BMJ Opinion

We have lately been asked for an opinion on whether doctors who may be exposed to the coronavirus are under an obligation to remove their beards—and, presumably, any other facial hair that may potentially impede the effectiveness of an FFP3 respirator. As with many an ethics question it is trickier than it looks.

blogs.bmj.com (e-date: 12/03/2020)
Sheather J, Brett S.
Lien original

Slowing down the covid-19 outbreak: changing behaviour by understanding it - The BMJ Opinion

There are many strategies to change people's transmission-related behaviours as a method for flattening the peak of the epidemic

blogs.bmj.com (e-date: 11/03/2020)
Michie S, West R, Amlôt R, Rubin J.
Lien original

Carl Heneghan: Assessing mortality during the covid-19 outbreak | The BMJ Opinion

"In an outbreak, understanding the case fatality rate matters. However, the impact on overall rates of death can provide vital information about the effect in the population at large. Essential questions to answer include: are the number of deaths rising? How do they compare with previous years? And in this current outbreak, are the respiratory deaths on the rise?"

blogs.bmj.com (e-date: 11/03/2020)
Heneghan C.

Covid-19: is CT scanning ready to answer a diagnostic call? | The BMJ Opinion

What is the role of imaging in combatting covid-19 pulmonary infections?

blogs.bmj.com (e-date: 12/03/2020)
Hare SS, Jacob J, Johnstone A, Robinson G.
Lien original

To wear or not to wear: WHO's confusing guidance on masks in the covid-19 pandemic | The BMJ Opinion

WHO's guidance on wearing masks during the covid-19 pandemic does little to clear up public confusion, say Aileen Lai-yam Chan, CC Leung, TH Lam, and KK Cheng

blogs.bmj.com (e-date: 13/03/2020)
WHO's guidance on wearing masks during the covid-19 pandemic does little to clear up public confusion, say Aileen Lai-yam Chan, CC Leung, TH Lam, and KK Cheng
Lien original