**Prediction models for diagnosis and prognosis of covid-19 infection: systematic review and critical appraisal**

**Conclusion** Prediction models for covid-19 are quickly entering the academic literature to support medical decision making at a time when they are urgently needed. This review indicates that proposed models are poorly reported, at high risk of bias, and their reported performance is probably optimistic. Immediate sharing of well documented individual participant data from covid-19 studies is needed for collaborative efforts to develop more rigorous prediction models and validate existing ones. The predictors identified in included studies could be considered as candidate predictors for new models. Methodological guidance should be followed because unreliable predictions could cause more harm than benefit in guiding clinical decisions. Finally, studies should adhere to the TRIPOD (transparent reporting of a multivariable prediction model for individual prognosis or diagnosis) reporting guideline.

**A cluster randomised trial of cloth masks compared with medical masks in healthcare workers**

**Conclusions** This study is the first RCT of cloth masks, and the results caution against the use of cloth masks. This is an important finding to inform occupational health and safety. Moisture retention, reuse of cloth masks and poor filtration may result in increased risk of infection. Further research is needed to inform the widespread use of cloth masks globally. However, as a precautionary measure, cloth masks should not be recommended for HCWs, particularly in high-risk situations, and guidelines need to be updated.

**Digestive system is a potential route of COVID-19: an analysis of single-cell coexpression pattern of key proteins in viral entry process**

**Conclusion** This study provides the evidence of the potential route of SARS-CoV-2 in the digestive system along with the respiratory tract based on single-cell transcriptomic analysis. This finding may have a significant impact on health policy setting regarding the prevention of SARS-CoV-2 infection. Our study also demonstrates a novel method to identify the prime cell types of a virus by the coexpression pattern analysis of single-cell sequencing data.

**Ocular manifestations of a hospitalised patient with confirmed 2019 novel coronavirus disease**

**Conclusion** SARS-CoV-2 is capable of causing ocular complications such as viral conjunctivitis in the middle phase of illness. Precautionary measures are recommended when examining infected patients throughout the clinical course of the infection…

**Pharmacologic Treatments for Coronavirus Disease 2019 (COVID-19) A Review**

No proven effective therapies for this virus currently exist. The rapidly expanding knowledge regarding SARS-CoV-2 virology provides a significant number of potential drug targets. The most promising therapy is remdesivir. Remdesivir has potent in vitro activity against SARS-CoV-2, but it is not US Food and Drug Administration approved and currently is being tested in ongoing randomized trials. Oseltamivir has not been shown to have efficacy, and corticosteroids are currently not recommended. Current clinical evidence does not support stopping angiotensin-converting enzyme inhibitors or angiotensin receptor blockers in patients with COVID-19.

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

Interventions to prevent transmission from HCP include:

- expanding symptoms-based screening criteria
- furloughing symptomatic HCP
- facilitating testing of symptomatic HCP
- creating sick leave policies that are nonpunitive, flexible, and consistent with public health guidance

Face mask use by all HCP for source control might prevent transmission from mildly symptomatic and asymptomatic HCP. This may be particularly important in long-term care facility settings and regions with widespread community transmission.

**Sudden and Complete Olfactory Loss Function as a Possible Symptom of COVID-19**

We believe that the association of a sudden and complete olfactory function loss, without nasal obstruction in a patient with other symptoms, such as cough or fever, should alert the clinician to suspect SARS-CoV-2 infection.

**Rates of Co-infection Between SARS-CoV-2 and Other Respiratory Pathogens**

These results suggest higher rates of co-infection between SARS-CoV-2 and other respiratory pathogens than previously reported, with no significant difference in rates of SARS-CoV-2 infection in patients with and without other pathogens. The presence of a non–SARS-CoV-2 pathogen may not provide reassurance that a patient does not also have SARS-CoV-2.
Safety and immunogenicity of a modified vaccinia virus Ankara vector vaccine candidate for Middle East respiratory syndrome: an open-label, phase 1 trial

Interpretation Vaccination with MVA-MERS-S had a favourable safety profile without serious or severe adverse events. Homologous prime–boost immunisation induced humoral and cell-mediated responses against MERS-CoV. A dose–effect relationship was demonstrated for reactogenicity, but not for vaccine-induced immune responses. The data presented here support further clinical testing of MVA-MERS-S in larger cohorts to advance MERS vaccine development.

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

Interpretation Our study shows that non-pharmaceutical interventions (including border restrictions, quarantine and isolation, distancing, and changes in population behaviour) were associated with reduced transmission of COVID-19 in Hong Kong, and are also likely to have substantially reduced influenza transmission in early February, 2020.

First-wave COVID-19 transmissibility and severity in China outside Hubei after control measures, and second-wave scenario planning: a modelling impact assessment

Interpretation The first wave of COVID-19 outside of Hubei has abated because of aggressive non-pharmaceutical interventions. However, given the substantial risk of viral reintroduction, particularly from overseas importation, close monitoring of Rt and cCFR is needed to inform strategies against a potential second wave to achieve an optimal balance between health and economic protection.

COVID-19 in a patient with chronic lymphocytic leukaemia

Conclusion Clinical and biochemical data of COVID-19 might be partly masked by coexisting chronic lymphocytic leukaemia; better diagnostic strategies (i.e. superior CT differential techniques such as radiomics) could be used for diagnosis; individuals with compromised immune status might be subjected to a longer incubation period (although the underlying mechanisms are not known); and it remains uncertain whether the combination of chemotherapy, corticosteroids, α-interferon, and immunoglobulins could work synergistically in patients with chronic lymphocytic leukaemia and COVID-19.

Universal weekly testing as the UK COVID-19 lockdown exit strategy

We recommend evaluation of weekly severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) antigen testing of the whole population in an entire city as a demonstration site (preferably several towns and cities, if possible), with strict household quarantine after a positive test. Quarantine would end when all residents of the household test negative at the same time; everyone else in the city can resume normal life, if they choose to…

Spread of SARS-CoV-2 in the Icelandic Population

Conclusions In a population-based study in Iceland, children under 10 years of age and females had a lower incidence of SARS-CoV-2 infection than adolescents or adults and males. The proportion of infected persons identified through population screening did not change substantially during the screening period, which was consistent with a beneficial effect of containment efforts.

Compassionate Use of Remdesivir for Patients with Severe Covid-19

Conclusions In this cohort of patients hospitalized for severe Covid-19 who were treated with compassionate-use remdesivir, clinical improvement was observed in 36 of 53 patients (68%). Measurement of efficacy will require ongoing randomized, placebo-controlled trials of remdesivir therapy. (Funded by Gilead Sciences.)

Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1

We found that the stability of SARS-CoV-2 was similar to that of SARS-CoV-1 under the experimental circumstances tested. This indicates that differences in the epidemiologic characteristics of these viruses probably arise from other factors, including high viral loads in the upper respiratory tract and the potential for persons infected with SARS-CoV-2 to shed and transmit the virus while asymptomatic. Our results indicate that aerosol and fomite transmission of SARS-CoV-2 is plausible, since the virus can remain viable and infectious in aerosols for hours and on surfaces up to days (depending on the inoculum shed). These findings echo those with SARS-CoV-1, in which these forms of transmission were associated with nosocomial spread and super-spreading events and they provide information for pandemic mitigation efforts.

How to Obtain a Nasopharyngeal Swab Specimen

This video demonstrates the collection of specimens from the surface of the respiratory mucosa with nasopharyngeal swabs for the diagnosis of Covid-19 in adults and in children. It is important to use approved PPE and the appropriate technique to minimize the possibility of spreading the virus.

Clinical Characteristics of Pregnant Women with Covid-19 in Wuhan, China

The present data do not suggest an increased risk of severe disease among pregnant women, as has been observed with influenza.5 The exacerbations of respiratory disease that are observed in women during the postpartum period are likely to relate to pathophysiological changes (e.g., increased circulating blood volume) that occur in this period.

ST-Segment Elevation in Patients with Covid-19 — A Case Series

Myocardial injury with ST-segment elevation has been observed in patients with coronavirus disease 2019 (Covid-19). Here, we describe our experience in the initial month of the Covid-19 outbreak in New York City.

To request the full text of any of the above click here.