Use of personal protective equipment against coronavirus disease 2019 by healthcare professionals in Wuhan, China: cross sectional study

**Conclusion** Before a safe and effective vaccine becomes available, healthcare professionals remain susceptible to COVID-19. Despite being at high risk of exposure, study participants were appropriately protected and did not contract infection or develop protective immunity against SARS-CoV-2. Healthcare systems must give priority to the procurement and distribution of personal protective equipment, and provide adequate training to healthcare professionals in its use.

Characteristics and outcomes of pregnant women admitted to hospital with confirmed SARS-CoV-2 infection in UK: national population based cohort study

**Conclusions** Most pregnant women admitted to hospital with SARS-CoV-2 infection were in the late second or third trimester, supporting guidance for continued social distancing measures in later pregnancy. Most had good outcomes, and transmission of SARS-CoV-2 to infants was uncommon. The high proportion of women from black or minority ethnic groups admitted with infection needs urgent investigation and explanation.

Kawasaki-like multisystem inflammatory syndrome in children during the covid-19 pandemic in Paris, France: prospective observational study

**Conclusions** The ongoing outbreak of Kawasaki-like multisystem inflammatory syndrome among children and adolescents in the Paris area might be related to SARS-CoV-2. In this study an unusually high proportion of the affected children and adolescents had gastrointestinal symptoms, Kawasaki disease shock syndrome, and were of African ancestry.

Characterization and clinical course of 1000 patients with coronavirus disease 2019 in New York: retrospective case series

**Conclusions** Patients admitted to hospital with covid-19 at this medical center faced major morbidity and mortality, with high rates of acute kidney injury and inpatient dialysis, prolonged intubations, and a bimodal distribution of time to intubation from symptom onset.

Scope, quality, and inclusivity of clinical guidelines produced early in the covid-19 pandemic: rapid review

**Conclusions** Guidelines available early in the covid-19 pandemic had methodological weaknesses and neglected vulnerable groups such as older people. A framework for development of clinical guidelines during public health emergencies is needed to ensure rigorous methods and the inclusion of vulnerable populations.

Prone Positioning in Awake, Nonintubated Patients With COVID-19 Hypoxemic Respiratory Failure

**Discussion** In this small single-center cohort study, we found that the use of the prone position for awake, spontaneously breathing patients with COVID-19 severe hypoxemic respiratory failure was associated with improved oxygenation. In addition, patients with an SpO2 of 95% or greater after 1 hour of the prone position was associated with a lower rate of intubation. Limitations of our study are the lack of control group and a small sample size. Randomized clinical trials are needed to establish whether improved oxygenation after use of the prone position in awake, nonintubated patients improves survival.

Prevalence of Taste and Smell Dysfunction in Coronavirus Disease 2019

**Conclusions** The findings of this telephone survey study suggest that reduction of taste and/or smell may be a frequent and early symptom of COVID-19. Nasal obstruction was not commonly present at the onset of the disease in this study. The general practitioner may play a pivotal role in identifying potential COVID-19 in patients at an early stage if taste and/or smell alterations manifest and in suggesting quarantine before confirmation or exclusion of the diagnosis.

Prevalence of Gastrointestinal Symptoms and Fecal Viral Shedding in Patients With Coronavirus Disease 2019 A Systematic Review and Meta-analysis

**Conclusions** These findings suggest that that 12% of patients with COVID-19 will manifest GI symptoms; however, SAR-CoV-2 shedding was observed in 40.5% of patients with confirmed SARS-CoV-2 infection. This highlights the need to better understand what measures are needed to prevent further spread of this highly contagious pathogen.

Factors Associated With Surgical Mortality and Complications Among Patients With and Without Coronavirus Disease 2019 (COVID-19) in Italy

**Conclusions** In this matched cohort study, surgical mortality and complications were higher in patients with COVID-19 compared with patients without COVID-19. These data suggest that, whenever possible, surgery should be postponed in patients with COVID-19.
Household secondary attack rate of COVID-19 and associated determinants in Guangzhou, China: a retrospective cohort study

**Interpretation** SARS-CoV-2 is more transmissible in households than SARS-CoV and Middle East respiratory syndrome coronavirus. Older individuals (aged ≥60 years) are the most susceptible to household transmission of SARS-CoV-2. In addition to case finding and isolation, timely tracing and quarantine of close contacts should be implemented to prevent onward transmission during the viral incubation period.

GM-CSF blockade with mavrilimumab in severe COVID-19 pneumonia and systemic hyperinflammation: a single-centre, prospective cohort study

**Interpretation** Mavrilimumab treatment was associated with improved clinical outcomes compared with standard care in non-mechanically ventilated patients with severe COVID-19 pneumonia and systemic hyperinflammation. Treatment was well tolerated. Confirmation of efficacy requires controlled testing.

Effectiveness of isolation, testing, contact tracing, and physical distancing on reducing transmission of SARS-CoV-2 in different settings: a mathematical modelling study

**Interpretation** Consistent with previous modelling studies and country-specific COVID-19 responses to date, our analysis estimated that a high proportion of cases would need to self-isolate and a high proportion of their contacts to be successfully traced to ensure an effective reproduction number lower than 1 in the absence of other measures. If combined with moderate physical distancing measures, self-isolation and contact tracing would be more likely to achieve control of severe acute respiratory syndrome coronavirus 2 transmission.

Global, regional, and national estimates of the population at increased risk of severe COVID-19 due to underlying health conditions in 2020: a modelling study

**Interpretation** About one in five individuals worldwide could be at increased risk of severe COVID-19, should they become infected, due to underlying health conditions, but this risk varies considerably by age. Our estimates are uncertain, and focus on underlying conditions rather than other risk factors such as ethnicity, socioeconomic deprivation, and obesity, but provide a starting point for considering the number of individuals that might need to be shielded or vaccinated as the global pandemic unfolds.

Pulmonary post-mortem findings in a series of COVID-19 cases from northern Italy: a two-centre descriptive study

**Interpretation** The predominant pattern of lung lesions in patients with COVID-19 patients is diffuse alveolar damage, as described in patients infected with severe acute respiratory syndrome and Middle East respiratory syndrome coronaviruses. Hyaline membrane formation and pneumocyte atypical hyperplasia are frequent. Importantly, the presence of platelet–fibrin thrombi in small arterial vessels is consistent with coagulopathy, which appears to be common in patients with COVID-19 and should be one of the main targets of therapy.

Genomewide Association Study of Severe Covid-19 with Respiratory Failure

**Conclusions** We identified a 3p21.31 gene cluster as a genetic susceptibility locus in patients with Covid-19 with respiratory failure and confirmed a potential involvement of the ABO blood-group system. (Funded by Stein Erik Hagen and others)

A Randomized Trial of Hydroxychloroquine as Postexposure Prophylaxis for Covid-19

**Conclusions** After high-risk or moderate-risk exposure to Covid-19, hydroxychloroquine did not prevent illness compatible with Covid-19 or confirmed infection when used as postexposure prophylaxis within 4 days after exposure. (Funded by David Baszucki and Jan Ellison Baszucki and others; ClinicalTrials.gov number, NCT04308668)

Observational Study of Hydroxychloroquine in Hospitalized Patients with Covid-19

**Conclusions** In this observational study involving patients with Covid-19 who had been admitted to the hospital, hydroxychloroquine administration was not associated with either a greatly lowered or an increased risk of the composite end point of intubation or death. Randomized, controlled trials of hydroxychloroquine in patients with Covid-19 are needed. (Funded by the National Institutes of Health)

Presymptomatic SARS-CoV-2 Infections and Transmission in a Skilled Nursing Facility

**Conclusions** Rapid and widespread transmission of SARS-CoV-2 was demonstrated in this skilled nursing facility. More than half of residents with positive test results were asymptomatic at the time of testing and most likely contributed to transmission. Infection-control strategies focused solely on symptomatic residents were not sufficient to prevent transmission after SARS-CoV-2 introduction into this facility.

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)

To request the full text of any of these articles click here

This bulletin is produced by BHT Library and Knowledge Services