

COVID-19 Daily Briefing: June 23rd

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1. Summary

PREVENTION AND CONTROL

- **SHIELDING:** Government guidance now tells those who have shielded to maintain social distancing, however, as lockdown measures are lifted many young people are abandoning distancing measures. Not all COVID-19 vulnerabilities are obvious, and so those shielding are left feeling particularly anxious. Some have welcomed suggestions of wearing a recognisable badge to display their vulnerability and encourage social distancing. To protect the most vulnerable as they return to work there is an urgent need for PPE, and where possible, employers should encourage working from home.
- **SCHOOLS:** The incidence of infection in children in Stockholm has been low, despite Swedish schools for under 16s being kept open during the pandemic. The number of children hospitalised for some of other cause but testing positive for COVID-19 was 9/100,000 children whereas in adults the figures were 230/100,000. However, the role of children as asymptomatic carriers is still an area of active research.
- **FACE MASKS:** An observational study in the USA projected that compulsory face mask use in public may have prevented 230,000-450,000 COVID-19 cases by May 22, based on when states passed their mandates. Mandatory face masks are associated with a decrease in the daily COVID-19 growth rate and represent nearly 16-19% of the effects of social distancing measures. Face mask mandates may help avoiding a second wave in the autumn/winter.

EPIDEMIOLOGY

- **CONTACT TRACING:** Local health teams have been found to trace 8 times more contacts than the national service. Statistics from ONS show that potentially half of COVID-19 cases are being missed by contact tracing teams, and most close contacts are being reached by local teams. Gaps in the reporting of the contact tracing means that the authors do not know how well the system is working.
- **INCUBATION PERIOD:** A systematic review of 56 papers (around 4,000 cases of COVID-19) have found a highly variable incubation period for SARS-CoV-2, with a median of 5.8 days, similar to MERS but higher than many other viral respiratory infections. A 14-day quarantine period should still be sufficient to trace and identify symptomatic infections.

TREATMENT

- **HYDROXYCHLOROQUINE:** The National Institute of Health (NIH) has stopped trials of hydroxychloroquine as a treatment for COVID-19 after demonstrating that, though there was no harm, treatment with hydroxychloroquine was found to provide no additional benefits to the patient compared to the placebo control group.
- **ACE INHIBITORS (ACEi) & ANGIOTENSIN-RECEPTOR BLOCKERS (ARB):** This article initially explores whether the use of ACEi and ARB for treatment of cardiac comorbidities could continue in patients that test positive for COVID-19. This study, in addition to others, not only found no harmful relationship between these treatments and COVID-19, but the unexpected result that treatment with these drugs could be beneficial in the treatment of a respiratory disease, such as COVID-19.

- **CALCITRIOL:** This preprint article identifies 121 compounds with suspected activity against COVID-19 from 4 separate compound libraries. Calcitriol, the active form of vitamin D, was found to exhibit significant, potent activity against the virus, indicating that host-directed therapies should be considered for ring prophylaxis of contacts of COVID-19 patients.

3. Quick Summaries

[Children with COVID-19 at a specialist centre: initial experience and outcome](#)

- **CHILDREN:** *Correspondence.* In this study of 65 COVID-19 positive children admitted to Great Ormond Street Hospital, 31 were classified as vulnerable. The proportion of vulnerable children requiring admission to an intensive care unit for mechanical ventilation was not different from those classed as non-vulnerable. However, the cohort of study participants was highly pre-selected for children with severe conditions and underlying medical conditions. The authors conclude that the underlying medical conditions which increase children's risk of COVID-19 or complications may be different to those of adults.

[Ethnic minority doctors feel more pressured and less protected than white colleagues, survey finds](#)

- **ETHNICITY:** *News.* A BMA survey of around 7,500 doctors showed that only 29% of ethnic minority doctors feel fully protected that COVID-19 at work; compared to 46% of their white colleagues. Survey results also showed that 7% of doctors from ethnic minority groups often felt pressured into treating a patient without the proper PPE, compared to only 2.5% of their white colleagues.

[Doctors may quit without proper post-pandemic support, defence body warns](#)

- **MENTAL HEALTH:** *News.* The Medical Protection Society (MPS) state that the government must create a national plan to provide doctors with mental well-being support following the COVID-19 pandemic. MPS call on the government to invest in local initiatives, such as counselling services, and to fast track research into the impact of this pandemic on doctors' wellbeing. Once the crisis recedes, medical staff will need the most support, having experienced grief and moral injury that could contribute to burnout and post-traumatic stress. Action must be taken to protect and maintain the frontline medical workforce.

4. Longer Reading

[Intrafamilial Exposure to SARS-CoV-2 Induces Cellular Immune Response without Seroconversion](#)

- **T-CELLS:** *Academic pre-print* When 9 mild COVID-19 patients, 8 of their contacts, and 10 uninfected controls were tested, it was found that while all of the patients developed anti-SARS-CoV-2 antibodies (detectable for up to 69 days after symptom onset), the 6 of the eight contacts that became symptomatic tested negative for COVID-19 in an antibody test. However, they did mount a SARS-CoV-2 specific T-cell response that was detectable up to 80 days after infection. This has implications for COVID-19 testing and raises questions about what constitutes protective immunity to SARS-CoV-2.