

# COVID-19 Daily Briefing May 19<sup>th</sup>

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## 1. Summary

### CONTACT TRACING APPS

- **PRIVACY PROTECTION**: The authors of a detailed Canadian white paper present an overview of the concerns and strategies which could be used for peer-to-peer contact tracing, and discuss leveraging digital technologies whilst protecting privacy.
- **EUROPEAN FRAMEWORK**: The authors of this article consider the design of contact tracing apps, given current available technologies and legal frameworks in Europe. The authors propose that now is the time to work in union and promote trust in a common initiative that ensures data governance, otherwise European laws and regulations on data privacy are at risk of being flouted.
- **PREVENTION OF A SECOND WAVE**: A model studying mitigation of a second wave in Boston found that strict social distancing with robust testing, contact tracing, and a household quarantine policy when lockdown is lifted would keep the level of the disease below the healthcare capacity. At least 50% of symptomatic cases need to be tested and 40% of cases need to have their contacts traced for this to be effective (resulting in an expected 9% of households quarantined).

### GLOBAL HEALTH

- **THERAPEUTIC INTERVENTIONS AND VACCINES**: The National Institute of Health-led 'ACTIV' project (USA) aims to establish a collaborative framework for prioritising vaccine and therapeutic candidates (170 already identified), to streamline clinical trials and to coordinate regulatory processes.
- **CANCER IN LATIN AMERICA**: A survey of onco-haematologists found that while chemotherapy continued to be administered for 95% of actively ongoing cancer cases and 97% of new cases, there is indefinite postponement or delay of many procedures, and a shortage of staff/products due to quarantine, travel restrictions, or infection. As the burden on healthcare systems increases, disruptions of cancer treatment may become more severe if preventative actions not taken.

### N95 RESPIRATOR EFFECTIVENESS

- **PRISTINE VS REPROCESSED MASKS**: The authors of a preprint article showed that regardless of the reprocessing method (e.g. autoclaving, ethanol vapour, peroxide vapour) both pristine and reprocessed N95 masks were effective in limiting exposure to infectious aerosols, providing care is taken to mitigate degradation of filter charge and to limit non-compliant wear of these masks.
- **TESTING N95 FILTERS**: The authors of a preprint article found that a commonly used method to test filter efficacy after sterilisation overestimates the ability of respirators to protect against SARS-CoV-2. The authors recommend using size-specific filtration design for use with particles similar in size to infectious particles to evaluate reuse of respirators. Care must be paid to assessing reprocessed masks.

### 3. Quick Summaries

#### [COVID-19 screening of health-care workers in a London maternity hospital](#)

- **TESTING:** *Correspondence article.* Universal testing identified that 18% of healthcare workers at The Portland Hospital for Women and Children (London, UK) tested positive for SARS-CoV-2. Of these 47 workers, 31 were asymptomatic. Of 76 symptomatic healthcare workers, 45 tested negative for SARS-CoV-2. Universal hospital staff testing could prevent unnecessary quarantine of workers and their families. More importantly, universal testing would allow asymptomatic healthcare workers to be isolated early, reducing transmission within hospitals.

#### [Prevalence of obesity among adult inpatients with COVID-19 in France](#)

- **OBESITY:** *Correspondence article.* Evidence is emerging that complications related to obesity (as defined by a BMI of at least 30 kg/m<sup>2</sup>), for example type 2 diabetes or hypertension, worsen the effects of SARS-Cov-2 infection. Data from New York City suggest that obesity may be a risk factor for ICU admission, especially for those younger than 60. A study from Lyon University Hospital supports this finding with the prevalence of obesity higher both in patients with severe COVID-19 and in ICU compared to the general French population.

#### [What can psychiatrists learn from SARS and MERS outbreaks?](#)

- **MENTAL HEALTH:** *Comment article.* The authors of a systematic review showed that most hospital patients from the SARS or MERS outbreaks did not develop psychiatric disorders, but between 36% – 54% exhibited confusion, depressed mood, anxiety, impaired memory, and insomnia; with some patients developing post-traumatic stress symptoms. While it is reasonable to compare the diseases because coronaviruses have been shown to be potentially neuroinvasive, the social situation to which COVID-19 survivors return is different from that of SARS and MERS and thus holds different mental health implications.

### 4. Longer Reading

#### [Systematic review and meta-analysis of sex-specific COVID-19 clinical outcomes](#)

- **MALE SEX:** *Pre-print of a journal article.* A systematic review of 31 studies from around the world found that males accounted for 53% of COVID-19 cases. Males also accounted for 56% of severe cases, 71% of critically ill cases and 69% of deaths.

#### [Current evidence of the pharmacological treatments for novel coronavirus disease 2019 \(COVID-19\) a scoping review](#)

- **DRUGS EFFECTIVENESS:** *Pre-print of a journal article.* There are currently 135 ongoing randomised control trials studying drugs for COVID-19 treatment; 72 for hydroxychloroquine and chloroquine, 29 for lopinavir/ritonavir, 14 for remdesivir, 16 for tocilizumab and 4 for favipiravir. However, at this stage the clinical effectiveness and safety of these drugs remains unclear, due to the lack of large, high-quality trials completed thus far.