

COVID-19 Daily Briefing: May 5th

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1. Summary

EQUALITY

- <u>ETHNIC MINORITIES</u>: Of the 106 UK healthcare workers who have lost their lives to COVID-19, 63% were from ethnic minority backgrounds. NHS leaders in England have been told to "risk assess" and "make appropriate arrangements" to protect BAME staff, though what this means is unclear.
- DEPRIVED AREAS in England and Wales had death rates more than double those of more prosperous areas such as in the South West, which saw the lowest mortality rate. 22% of all deaths registered between 1 March and 17 April 2020 were COVID-19 related. Urban areas have higher mortality rates, with London having the highest rate; twice that of the next highest area.
- <u>CONFLICT</u>: A commentary in the Lancet argues that there is an urgent need to ramp up the COVID-19 response for the most vulnerable populations in conflict areas. People in conflict zones or refugee camps cannot physically distance or self-isolate; have inadequate washing facilities, and are often without access to health care.

EPIDEMIOLOGY

- <u>IMMUNITY PASSPORTS</u>: The suggestion of using 'immunity passports' to certify individuals who have recovered from COVID-19 and have antibodies should be considered with caution until it is clarified whether the presence of antibodies confers immunity to further infection.
- <u>SECOND WAVE</u>: Modelling of one county in Washington State, USA has shown that nonpharmaceutical interventions put in place in March have been effective at flattening the curve, but that any relaxation of these interventions yielded a second wave. The best-case modelling scenario found that even if daily confirmed cases dropped to a single digit number, relaxing social distancing could cause cases to jump back up to as high as nearly 1000 per day. The authors advise extreme caution against lifting lockdowns in the US at this time.
- MODELLING EXIT: A report from the Imperial College COVID-19 response team estimates the average reproduction number (R0) is currently below 1 in all Italian regions, but that an increase in mobility to 20% of pre-lockdown levels could lead to a severe second outbreak.
- <u>BREAST MILK</u>: Milk samples from nursing mothers with COVID-19 were tested for the virus. Viral RNA was detected in breastmilk samples from one of two mothers in a hospital. The mother wore a facemask from the onset of symptoms. The new-born of the mother with detectable RNA in breastmilk also tested positive for the virus, but it remains unclear whether it spread through breastmilk or other means.

DRUGS

• **SHORTAGES**: A survey of over 16,000 UK doctors highlights widespread shortages of medicines, medical gases and other therapeutics; and the worsening of care available to patients with non-COVID-19 clinical presentation.

3. Quick Summaries

AKI during COVID-19 infection: low incidence, high risk of death

• ACUTE KIDNEY INJURY (AKI) incidence was found to be only 3.8% in COVID-19 patients in this meta-study, but the mortality rate of patients with acute kidney injury was 32.6 %, 16 times higher



than for patients without AKI. Though AKI is rare, these authors suggest that clinicians should use AKI as a red flag for high risk of death.

<u>Commercial stocks of SARS-CoV-2 RNA may report low concentration values, leading to artificially increased</u> <u>apparent sensitivity of diagnostic assays</u>

 COMMERCIAL SARS-COV-2 RNA: Manufacturers of RNA stocks used in diagnostic tests may be significantly mis-reporting the amounts of RNA in those stocks; and stocks may suffer from batch-tobatch variation. This finding may impact the reported sensitivity of PCR tests. As such, these authors suggest that test-kit reagents should be systematically validated before use.

4. Longer Reading

Report 20: Using mobility to estimate the transmission intensity of COVID-19 in Italy: a subnational analysis with future scenarios

 MODELLING EXIT: Pre-print of a journal article. Imperial College researchers have modelled three scenarios for the next eight weeks over which lockdown is lifted in Italy. The scenarios are based on three different transmission rates (according to pre-lockdown levels of transmission), in the absence of additional interventions such as vaccination or enhanced testing and tracing policies. If Italy returns to just 20% of the pre-lockdown transmission rate, a resurgence in the number of deaths, far greater than currently experienced, could occur in some areas.

A cohort of patients with COVID-19 in a major teaching hospital in Europe

• **PATIENT PROFILES:** *Pre-print of a journal article.* Based on 2226 patients in a Madrid hospital, 79.3% (1766) of patients were discharged and 20.7% (460) died. The mortality rates between males and females differed, with the male mortality rate being 26.6% and the female rate being 15.1%. Of the 2226 patients, the median hospital stay was six days and the median age of hospital admissions was 61 years. 58% of those admitted were female. The most common symptom was fever and the most common underlying health condition was arterial hypertension.

Effect of non-pharmaceutical interventions to contain COVID-19 in China

• CHINA: *Peer-reviewed journal article.* The authors of this study estimate that between 70,000 and 170,000 cases had occurred in mainland China by the end of February. However, without non-pharmaceutical interventions, this number would have been 40 to 100 times higher. Improved detection, isolation, and social distancing likely had a greater impact than travel restrictions. These authors' analyses suggest that at this stage, with even mild social distancing, China should be able to continue to control the disease.