Intended for healthcare professionals

Rapid response to:

Editorials

Mass testing for covid-19 in the UK

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Linked Opinion

Screening the healthy population for covid-19 is of unknown value, but is being introduced nationwide

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Rapid Response:

Evidence of asymptomatic spread is insufficient to justify mass testing for Covid-19

Dear Editor,

Whilst we would take issue with Lateral Flow tests being the main culprit, Mike Gill is absolutely correct to criticise mass testing programmes.

His ire should really be directed, though, at PCR testing. Data from PCR testing – for which there is no proper determination of an end-to-end operational false positive rate – has almost exclusively dictated tier restrictions and lockdown policy in the UK.

PCR's fingerprints can in fact be found all over the entire global response to this pandemic. Testing with Lateral Flow, other antigen tests and bedside PCR tests are all finding far fewer cases than diagnosed by PCR testing. Even a low sensitivity for all these other tests could not account for the size of the discrepancy.

Mass testing and accompanying harmful lockdown policies are justified on the assumption that asymptomatic transmission is a genuine risk. Given the harmful collateral effects of such policies, precautionary principle

should result in a very high evidential bar for asymptomatic transmission being set. However, the only word which can be used to describe the quality of evidence for this is woeful.

It is important to carefully distinguish purely asymptomatic (individuals who never develop any symptoms) from pre-symptomatic transmission (where individuals do eventually develop symptoms). To the extent that the latter phenomenon - which has in fact happened only very rarely - is deemed worthy of public health action, appropriate strategies to manage it (in the absence of significant asymptomatic transmission) would be entirely different and much less disruptive than those actually adopted.

Many early studies which purported to demonstrate the phenomenon of asymptomatic transmission were from China, yet the fact that Chinese studies are only published following government approval must bring into question their reliability (1). Nevertheless, the high volume of these studies spawned significant salience of the issue within the medical community, and an assumption of the likelihood of asymptomatic transmission being an important contributory factor. There then followed a number of meta-analyses examining the issue of asymptomatic transmission which tended to aggregate and give equal weight to studies regardless of origin or quality. In this way, these meta-analyses, given undue credibility by their association with reputable universities, amplified minimal evidence of asymptomatic spread to an importance the data did not warrant.

As reported in a manuscript submitted to this journal and also to medRvix on 16 Dec 2020 (the latter available for download shortly), we examined the papers most frequently cited in support of the existence of asymptomatic transmission. Even despite our criticisms of the sources of the data above, we did in fact find only 6 case reports of viral transmission by people who throughout remained asymptomatic, and this was to a total of 7 other individuals, however all of these were in studies with questionable methodology.

Moreover in all these studies, confirmation of “cases” was made via PCR testing without regard to the possibility that any of the cases found might be false positives. The case numbers found, are, in any event extremely small and certainly not sufficient to conclusively determine that asymptomatic transmission is a major component of spread.

It is also notable that, in what would seem to represent an abrupt volte face by the CCP, a further (presumably government-approved) study from China was recently published (2) which entirely contradicts the earlier conclusions regarding the phenomenon of asymptomatic transmission, which had been driven by Chinese data in particular, early in the pandemic.

Some might conclude that that study lacks the credibility one might expect for a paper published in Nature; it is claimed, for example, that they PCR-tested 92% of Wuhan’s population (~10m individuals) over a 19-day period at the end of May, and found just 300 positive PCR tests, implying a FPR of no greater than 0.003%. Further, it is claimed that while 100% of the 300 PCR positive cases were asymptomatic, there were zero symptomatic PCR positive cases out of ~10m tested during a period only a few weeks after the epidemic had peaked in Wuhan.

If this seems incredulous, then surely that has serious implications for the way in which earlier studies from China - data from which formed a significant part of the worldwide evidence base for asymptomatic transmission - should be regarded.

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