Dear Mr Clark,

COVID-19 antigen testing of asymptomatic cases in the health and care sectors.

Thank you for your letter dated 2nd July about antigen testing of asymptomatic healthcare workers for COVID-19.

Reducing infection in high risk settings is very important to managing the impact of the pandemic and testing of asymptomatic health and care staff can have an important role as part of that. There is still uncertainty as to the proportion of cases who are asymptomatic, although the ONS survey is giving better data on this, and a wide range of estimates on how infectious they are to others.

There is no doubt about the central importance of testing healthcare and social care workers who are symptomatic, and this has been a priority as soon as we had the testing capacity to do so. This also allows for contact tracing and isolation.

The role, and optimal frequency of antigen testing of asymptomatic health and social care workers in low incidence settings without an outbreak is not yet settled, and the relative importance of using testing for this indication compared to others has changed over time. There is broad agreement that wide testing of asymptomatic healthcare workers and social care workers in places with outbreaks is a key part of the response.

The ONS infection survey currently indicates that 67% of UK infections are asymptomatic. The New and Emerging Respiratory Virus Threats Advisory Group (NERVTAG) conducted a meta-analysis of methodologically-appropriate evidence and found that 4% to 43% individuals may be truly asymptomatic. The closest exact figure given was 17%. On June 11th SAGE considered the percentage of people who are infected asymptomatic remains uncertain and is between 30-80%. This is therefore not a settled question. The infectiousness of those who are asymptomatic is also unclear with a wide range of estimates, although it is clear pre-symptomatic people can be infectious in the 2-3 days before their symptoms start and much of the NHS test and trace work is to identify people who are contacts of cases and isolate them before they become pre-symptomatic.
In the absence of good data on optimal frequency of testing of asymptomatic healthcare or social care workers (although many opinions) my main advice is that at the current stage of the epidemic with low incidence in most parts of the country, in settings without outbreaks, the best way to deploy regular antigen testing in asymptomatic healthcare workers and social care workers is as part of a study such as SIREN (NHS) and VIVALDI (social care), or systematic point prevalence surveys or local studies. Doing this through studies allows for systematic data capture, which tells us more than a large amount of unconnected data would. It also means antigen testing and antibody testing can be done on the same cohort, which provides more information than using the tests alone, including quantifying the relevance, if any, of antibody testing in those who are seropositive and whether they have a different incidence of subsequent infection. I would be very happy to send you details of these studies if it would be useful to the Committee.

Currently our advice is that systematic asymptomatic antigen testing of healthcare workers or social care workers should be used widely during incidents, outbreaks and settings where it has been shown that there is currently high incidence (e.g. in Leicester at the moment we have recommended weekly testing of healthcare staff).

It is likely our advice on the best approach to testing asymptomatic health care workers and social care workers in settings without outbreaks will change with three things: changing national and local epidemiology; more data which will allow a better fix on optimal asymptomatic testing frequency in different settings; changing testing capacity.

Yours sincerely,

PROFESSOR CHRIS WHITTY