Message

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Sent: 30/12/2021 20:40:07
To: Simon Ridley [simon.ridley@cabinetoffice.gov.uk]; 'Vallance, Patrick (GO-Science)' [p.vallance1@go-science.gov.uk]
CC: Name Redacted NR @no10.gov.uk]; Simon Case [simon.case@cabinetoffice.gov.uk]; 'CWP' [chris.wormald-private@dhsc.gov.uk]; Martin Reynolds [MReynolds@no10.gov.uk]; Swinson, Clara [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2c57f68b7aca4c7696d33cdcb66b1d40-CSwinson]
Subject: Advice from CMO, GCSA and SAGE
Attachments: SAGE 101 - Final minutes.pdf; management_information_summary_2021-12-30.docx

Dear Simon

We have considered whether, in the light of new data, we think the issues and conclusions in SAGE 101 minutes (attached) have been overtaken by events. Our view is that broadly they have not and remain the basis of our formal advice to Ministers.

We now have more detailed information on several things which we did not previously know, or did not know as clearly when SAGE last met. These are likely to change the size of effects to some degree, and narrow confidence intervals, but do not change the underlying messages. These new data include:

1) ONS data showing that around 1:25 of the national population and around 1:11 of London's population currently have COVID, and this is still rising (also attached). Almost all now is Omicron. These are by far the highest levels seen yet in the pandemic.
2) Hospitalisation data showing there is now a rapidly growing pressure on the NHS. This is now no longer a theoretical, modelled, outcome but based on observed admission data.
3) The likely magnitude of severity reduction of Omicron compared to Delta (somewhere in the region of 50-70% in a population with high immunity). This has to be set against the increased proportion of the population who will simultaneously be infected due to the speed of the upswing with this highly transmissible variant, and the additional proportion infected due to immune escape relative to Delta.
4) A first ranging shot on vaccine efficacy against severe disease and hospitalisation after 1, 2 and 3 doses, with wide confidence intervals, but implying around 90% vaccine efficacy after booster (subject to change). It is possible this then wanes. UKHSA and academic data will get stronger on this with narrower confidence intervals but this is a reasonable first approximation.
5) Omicron is replacing Delta rather than being on top of it. This is a good thing, but means some of the upswing in Omicron hospitalisations is masked in crude COVID data by decreasing Delta hospitalisations.
6) Workforce implications of the speed of the increase are already been seen in real data rather than in models, initially in the NHS but also likely in the next weeks in many other sectors.

One key thing we cannot know until it happens is where and when the peak will occur and the wave turn over. It may reach its theoretical maximum, as modelled by LSHTM and Warwick among others, or turn over before that, but it would be unwise to assume or plan on the basis it definitely will turn over early; currently we do not have evidence of a peak at a population wide level from ONS data or other sources. Clearly if it does turn over early that would be great, but unless and until we start to see that happen, it would be an unsafe planning assumption to advise Ministers on the basis it will. If it reaches near its theoretical maximum the health service would come under considerable pressure. However it is worth noting that the peak did turn over early in Guateng province in the South African summer (but noting we are in winter with a very different epidemiology).

Three things from the SAGE minutes and wider SAGE and scientific advice we thought worth highlighting.

a) Any action which reduces the peak will be useful in reducing total disease burden and pressure on the NHS, and probably mortality. This would be true up until the point that the peak is reached in the older adults who are most likely to end up in hospital. We have no reason to think this peak in older adults has been reached in London, and certainly not

in the country at large, and this will be later than the peak in younger adults. Therefore we do not, from a technical point of view, consider that it is too late to act with stronger measures if Ministers wish to do so to reduce mortality and pressure on the NHS. A point will come when it will be too late, but it is not now.

b) Taking action is sometimes presented as an all-or-none decision. Generally any additional measures of the kind Ministers have considered are likely to reduce the peak, as is continued population behaviour change. The earlier and more comprehensive the changes, the greater the likely effect on peak size, but this should not be seen as binary (everything/nothing); even modest measures are additive and in some situations could be enough to avoid the most damaging peak.

c) If Ministers are minded to do something, it is important to recognise that the aim of interventions of this type would not be to stop the epidemic in its tracks, or (as previously) get R below 1, which would indeed need severe measures equating to some form of lockdown. Rather it would be to reduce the peak preventing overshoot (more vulnerable people infected than need to be), and to buy time allow the booster campaign to reach all those eligible and willing, plus create time for the immune system to be effective (2 additional weeks for the sake of argument). Some commentators imply that any new measures equate to 'lockdown', but this is a rhetorical device rather than the reality that measures are incremental and nobody is suggesting the kinds of real lockdown measures like stay-at-home regulations previously needed.

d) The effect of action if Ministers decide to take it would, in large part, be to slow the spread to older and more vulnerable agegroups until they are protected by boosters. This would be likely to have a positive effect on mortality, morbidity and NHS pressure.

Please let us know if there are points you would like us to amplify or clarify.

Chris and Patrick

CMO and GCSA