Eighty-ninth SAGE meeting on COVID-19, 13 May 2021

Held via Video Teleconference

Situation update

1. R is estimated to be between 0.8 and 1.1 in England, between 0.8 and 1.0 in Scotland, between 0.7 and 1.0 in Wales, and between 0.8 and 1.1 in Northern Ireland. R is an indicator that lags by two to three weeks, and estimates are averages over populations and areas.
2. For the most recent week of the study (2nd to 8th May), the ONS COVID-19 Infection Survey estimates that an average of 40,800 people had COVID-19 in the community in England (credible interval 31,900 to 50,900), 4,200 in Scotland (credible interval 1,900 to 7,700), 700 in Wales (credible interval 100 to 1,900) and 1,300 in Northern Ireland (credible interval 300 to 3000). SPI-M estimates that there are between 1,000 and 7,000 new infections per day in England.
3. There are local areas in all nations where the number of new infections is increasing. Some local areas have had continued rapid growth in variants, and of particular concern is the B.1.617.2 variant (a variant first identified in India, where it is now widespread). There are now multiple fast-growing clusters of this variant in the UK, with the largest in the Northwest of England.
4. Transmission of this variant is currently faster than that of the B.1.1.7 variant most prevalent in the UK (high confidence). This is based on observed growth in sequenced cases, and in S-gene positive cases (S-gene positivity can now be used as a reasonable proxy for B.1.617.2, though not all labs are able to identify this). Observed doubling times are around a week or shorter for some of the largest clusters but slower in others.
5. This is unlikely to be wholly due to inherently higher transmission in the communities within which B.1.617.2 is currently circulating (i.e., this faster transmission cannot be explained entirely by contact patterns or behaviours). The places where transmission of this variant is occurring have different characteristics to each other, and do not appear to be experiencing similar growth of other variants (i.e., B.1.1.7).
6. It is therefore highly likely that this variant is more transmissible than B.1.1.7 (high confidence), and it is a realistic possibility that it is as much as 50% more transmissible. There are also plausible biological reasons as to why some of the mutations present could make this variant more transmissible.
7. It is unclear whether this same growth advantage that has been observed over recent weeks would apply to sustained wider community transmission regionally or nationally. The range of possible differences in transmissibility reflects the uncertainty around the number of imported cases, and the current relatively localised transmission.
8. In the areas where numbers of infections are increasing rapidly under the measures currently in place, an even faster increase can be expected if measures are relaxed (high confidence).
9. If this variant were to have a 40-50% transmission advantage nationally compared to B.1.1.7, sensitivity analyses in the modelling of the roadmap in England (SAGE 88) indicate that it is likely that progressing with step 3 alone (with no other local, regional, or national changes to measures) would lead to a substantial resurgence of hospitalisations (similar to, or larger than, previous peaks). Progressing with both steps 3 and 4 at the earliest dates could lead to a much larger peak. Smaller transmission advantage would lead to smaller peaks.

10. Early indications are that there is some antigenic distance between B.1.617.2 and wild-type virus, and that this distance is greater than that for B.1.1.7, but less than for B.1.351, and similar to that for B.1.617.1 (low confidence). This means that there may be some reduction in protection given by vaccines or by naturally acquired immunity from past infection, though data on this are still mixed.
11. Any such reduction is likely to affect protection against infection more than protection against severe disease or death. If protection against infection were reduced it could contribute to a transmission advantage over B.1.1.7. PHE has linked data on vaccinations and variants and is monitoring for any signals of an impact on vaccine efficacy.
12. There is not yet any clear evidence of any difference in disease severity following infection with this variant. The number of hospitalisations remains low in the affected areas, though this could be because the number of infections has only recently increased. As emphasised by SAGE previously rapid sequencing of hospitalised cases and infections post vaccination is important, and work is underway to increase the proportion of these cases sequenced.
13. Continued monitoring will be needed to identify any increase in hospitalisation rates, any new clusters, continued rapid growth in existing clusters (particularly the largest one), or evidence of immune escape. Any of these would be further cause for concern.
14. The "earlier, harder, broader" principles of responding quickly, taking strong measures, and doing so over a wider geography than where the issues have been identified in response to outbreaks, remain relevant. Testing, tracing and, in particular, isolating cases remains very important.
15. If vaccination reduces the likelihood of transmission for this variant, increasing regional vaccination in areas where it is prevalent could dampen growth in infections, although it takes several weeks for vaccines to provide protection. The benefits would need to be balanced against the costs of moving vaccines from elsewhere. JCVI continues to review the evidence on different vaccination strategies.

ACTION: NHSE and **COG-UK** to work together to ensure that hospitals receive rapid feedback on results of sequencing.

Attendees

Scientific experts (39): *Patrick Vallance (GCSA), Chris Whitty (CMO), Adam Kucharski (LSHTM), Andrew Rambaut (Edinburgh), Angela McLean (MoD, CSA), Calum Semple (Liverpool), Catherine Noakes (Leeds), Charlotte Watts (FCDO), Fliss Bennee (Welsh Government), Graham Medley (LSHTM), Gregor Smith (Scottish Government, CMO), Harry Rutter (Bath), Ian Boyd (St Andrews), Ian Diamond (ONS), Ian Young (Northern Ireland, CSA), Jeanelle de Gruchy (ADPH), Jenny Harries (UKHSA), Jeremy Farrar (Wellcome), Julia Gog (Cambridge), John Edmunds (LSHTM), Jonathan Van Tam (dCMO), Kamlesh Khunti (Leicester), Linda Partridge (Royal Society), Maria Zambon (PHE), Mark Walport, Mark Wilcox (Leeds), Meera Chand (PHE), Michael Parker (Oxford), Paul Kellam (Imperial), Peter Horby (Oxford), Ravindra Gupta (Cambridge), Rob Orford (Welsh Government, CSA), Sharon Peacock (PHE), Sheila Rowan (Scottish Government, CSA), Steve Powis (NHS England), Susan Hopkins (PHE/NHST&T), Wei Shen Lim (Nottingham), Wendy Barclay (Imperial), and Yvonne Doyle (PHE).*

Observers and government officials (33): *Alan Penn (MHCLG, CSA), Andrew Curran (HSE, CSA),* [redacted]*, Ben Warner (No.10), Charlette Holt-Taylor (DHSC), David Lamberti (DHSC),* [redacted]*, Fergus Cumming (JBC), Gideon Henderson (Defra, CSA), Giri Shankar (PHW),* [redacted]*, Jennifer Rubin (HO, CSA), Jim McMenamin (Health Protection Scotland), Julian Fletcher (CO),* [redacted]*, Liz Lalley (Welsh Government), Louise Tinsley (HMT),* [redacted]*,* [redacted]*,* [redacted]*,* [redacted]*,* [redacted]*,* [redacted]*,* [redacted]*, Paul Monks (BEIS),* [redacted] *Phil Blythe (DfT, CSA),* [redacted]*, Rob Harrison (CO), Rosie Bate-Williams (No.10), Rupert Shute (HO),* [redacted]*, Tom Rodden (DCMS), and* [redacted].

Secretariat (all GO-Science) (15): [redacted]*, Laura Eden,* [redacted]*, Simon Whitfield,* [redacted]*, and* [redacted].

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