

New variant SRS-CoV-2: draft paper for COVID(O)

Summary

1. A new variant of the virus that causes COVID-19 (SARS-CoV-2) has recently been identified in areas across the South-East of England (Kent, London, Essex). This variant includes a mutation in the sequence that codes for the 'spike' (or S) protein, similar to the mutation in the variant previously identified in Danish minks. Changes in this part of the spike protein may result in the virus becoming more infectious and spreading more easily between people. The variant has been named as 'VUI – 202012/01' (the first Variant Under Investigation in December 2020).
2. Public Health England (PHE) identified this variant following proactive and enhanced epidemiological analysis, which included whole genome sequencing and subsequent phylogenetic comparison, in response to the recent increase in cases seen in Kent and London. Further analysis and investigation is ongoing in order to understand the characteristics and therefore potential impact of this variant. Currently there is a lag on genomics data such that the information available now relates to isolates sequenced 2-3 weeks ago.
3. In the meantime, recommended control measures to limit the spread of the new variant remain the same as the current non-pharmaceutical measures in place ('Hands, Face, Space'). A full risk assessment will be undertaken once more is known about the characteristics of this variant and updates will be provided as appropriate.

Identification and initial analysis

4. Following the proactive investigation undertaken by PHE into the increase in cases of COVID-19 in Kent and London, a large cluster of 117 genomically similar cases over the week 10-18 November was identified dating back to...... This cluster was then identified as being part of a larger cluster, which is phylogenetically very distinct from the rest of the UK dataset.
5. By 13 December, **1,108** cases with this variant had been identified, predominantly in the South of England, although more recent cases are increasingly being identified in the East Midlands. Cases have been identified in nearly 60 different local authorities and case numbers are increasing rapidly.
6. Extrapolation from the proportion of positive cases that are subsequently sequenced suggests that at least 10,000 cases with this variant have already occurred. Retrospective analysis has identified that the first cases of this new variant were present in September and numbers have increased rapidly since then. The first case of the VUI – 202012/01 identified had a specimen date of 20/09/2020, and was in Swale, Kent. The second case identified was in Bromley, London, with a specimen date of 21/09/2020.
7. At this stage, we do not know whether VUI-202012/01 is responsible for the increased number of cases in Kent and London.

Current scientific advice

8. The new variant was referred for discussion at a meeting of the New and Emerging Respiratory Virus Threats Advisory Group (NERVTAG) on 11 December and DHSC Ministers were informed the same day.

Commented [VTJ1]: I would like PHE Hopkins/Chand to check this. My understanding COGUK did this. PHE only notified for the first time on 10.12.20????

Commented [VTJ2]: This is a really important point for Covid O to get.

Commented [VTJ3]: This line gives the impression that the discovery and emergence are very recent. I am sure there were UK identifications in September, October and November.

Commented [VTJ4R3]: There will be a PQ at some point on who knew what when so best to surface this.

Commented [VTJ5]: To note and for Nick to consider if relevant. NERVTAG only looked at the science data, they have not seen any of the detailed epidemiology that we have seen over the weekend (and maybe they should).