Minutes of the NERVTAG Seventeenth Meeting: 07 May 2020

Date & Location:	09:00 – 11:00, 07 May 2020 - Via telecon only
In attendance:	Peter Horby (Chair), Fran ParryFord (Secretariat), Elaine Stanford (admin support), Emma Petty (minute taker). *NERVTAG Members:* Peter Openshaw (PO), Ben Killingley (BK), Calum Semple (CSm), Wei Shen Lim (WSL), Andrew Hayward (AH), Robert Dingwall (RD), John Edmunds (JE), Wendy Barclay (WB), Cariad Evans (CE), Jim McMenamin (JM), Julian Hiscox (JHi), Lisa Ritchie (LR) *Invited Experts:* Ines Campos-Matos (ICM) *PHE Observers:* Gavin Dabrera (GD), Maria Zambon (MZ), Meera Chand (MC), Jamie Lopez-Bernal (JLB), Jake Dunning (JD), Colin Brown (CB), Yousoff Oskrochi (YO) *DHSC Observers:* [redacted] Jonathan van Tam (JVT), Jenny Harries (JHa[redacted] *SAGE Observers:* [redacted]
Apologies:	None recorded

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NERVTAG SEVENTEENTH MEETING

1 Review of actions from the last meeting

1.1 The Chair welcomed members and thanked them for joining the 17th meeting. The minutes of the last meeting had been circulated and members were asked to provide comments.

[Action: ALL to send comments on 16th meeting draft minutes to secretariat by COP 7th May 2020]

1.2 The actions from the last meeting were reviewed.

Item	Action	Status
Item 1: Review of actions from the last meeting	Action: ALL to send comments on 15th meeting draft minutes to secretariat by COP 4th May 2020	Completed
	Action: Secretariat to check on access to online minutes	Completed
	Action: Secretariat to collate comments on AGPs in post-mortems for review by the Chair	Completed
	Action: AH to provide a conclusion sentence on the review of the two modelling papers	Ongoing
Item 2: Anosmia & symptom clusters critical to contact tracing, to address the SAGE action: "NERVTAG and DCMO to finalise assessment of anosmia and consider other symptom clusters which might be critical to contract rapid contact tracing after release of distancing measures"	Action: AH to request data from Kings on symptoms, with support from JVT	Completed
	Action: AH to analyse available data for potential weighting of symptoms and provide results to the secretariat to circulate to members	
	Action: ALL to review analysis on symptom weighting to produce a consensus view on 3rd May 2020	
	Action: NERVTAG to submit consensus on symptom weighting to DHSC ASAP on 3rd May	
Item 3: Asymptomatic transmission in children and adults, to address the question: What proportion of people are asymptomatic?	Action: JE to send the paper on the details of the model and the Bi et al paper to the secretariat for circulation.	Completed – to be discussed under item 3
	Action: AH to extract information on proportion of infections that are asymptomatic from literature	
	Action: Working group (Chair, AH, MZ and JE) to review and summarise the available information on the proportion of infections that are asymptomatic. This should be completed and reviewed by NERVTAG prior to SAGE on 12 May	
	Action: PHE's fortnightly updated paper on pre-symptomatic clusters to include with updates on asymptomatic transmission (GD)	Completed – to be discussed under AOB
	Action: PHE to provide update on hospital trust collated data on snap shot testing of staff (CB)	Update under item 1

Item 4: Interim management of positive people in care homes	Action: CB to report to DHSC/PHE on NERVTAG consensus that: PCR-positive asymptomatic individuals may be infectious; but the level of infectiousness compared to symptomatic individuals is uncertain. PCR-positive asymptomatic staff should not provide care or have contact with susceptible vulnerable individuals.	Complete
Item 5: Paediatric hyper-inflammatory syndrome	Action: Secretariat to add to the agenda for the next meeting	For discussion under item 4
Item 7: Thematic updates	Action: WSL to send anosmia paper to AH	Complete
Item 8: AOB	Action: Secretariat to arrange the next meeting for 7th May 2020 due to the Friday bank holiday	Completed

1.3 For the item 2 actions, members were advised that the analysis had been completed and an algorithm for a symptom combination produced as a starting point. This can be refined as more data become available. A summary paper was circulated to members, which had been sent to SAGE and will also go to the CMO senior clinical group for endorsement and then be taken forwards. Members welcomed the analysis and the ability to refine the algorithm. The current trial of the app is with version 1.0, which uses the original diagnosis symptoms (cough or fever) but the list of symptoms will be updated in the national rollout. AH agreed to review the full paper of the analysis and send the final versions of the full and summary papers to the secretariat for the files.

[Action: AH to provide the final versions (full and summary) of the analysis paper to the secretariat for the files]

1.4 For the item 3 action, CB confirmed that PHE had completed snap shot testing in 4 hospitals and DHSC had tested 11 hospitals, which showed a wide range of infection prevalence. Members were informed that the prevalence in the hospital setting was approximately 10 times the prevalence in the community. Members discussed the sampling in a selection of London care homes at Easter, details of which had been circulated previously to the committee. The Chair noted the importance of healthcare and social care workers and those institutionalised settings in sustaining the current epidemic.

1.5 Members commented that they would like more reassurance that the concerns they have raised about transmission in care homes are being acted upon. JHa confirmed that a ministerial-led group is focused on the issues with care homes and an action plan is in place. A subgroup is also considering the future testing strategy. The Chair agreed to write to the CMO identifying the concerns raised by the committee and asking for assurances of ongoing actions in areas of intervention and a copy of the action plan.

[Action: The Chair to write to the CMO to identify the concerns of the committee and ask for assurances of ongoing actions and for a copy of the action plan]

2 DHSC commission around clinically vulnerable groups

2.1 JHa drew members' attention to the circulated paper. The paper provided the background of the current guidance in terms of clinically vulnerable groups. There were 3 risk groups initially established: 1. the general population; 2. a wide clinically vulnerable group, which

aligns with the flu group and through age, (70 and above); and 3.the clinically extremely vulnerable group, who were advised to shield. The levels of social distancing and shielding initially set for the groups were discussed. A set of questions were posed to NERVTAG to understand the available scientific evidence on risk factors for severe COVID-19 outcomes. It was recognised that several different groups are considering these issues and it was hoped there could be a robust scientific consensus produced on proportionate risk stratification, with the possibility of producing a risk algorithm as a way forward.

2.2 Members discussed how this work could be brought together without there being duplication between groups. It was suggested that it should be possible to produce a risk stratification using the CO-CIN data with control data from the general population and that some work had already been done with the CO-CIN data to look at the risk of hospitalisation for certain groups. A core NERVTAG team could consider this work, supported by external experts and produce formal advice for the DCMO based on the science. It was noted that the risk stratification work would have a dual utility, both for use with the relaxation of lockdown and with the vaccination strategy.

2.3 Members discussed the time frame for producing the risk stratification, what work was already in place and what data would be available. Linkage analysis of the CO-CIN data, could be shared with the NERVTAG team, when available. The Chair agreed that NERVTAG would undertake the work. A subgroup of the Chair, AH, CS, JE, and JVT would hold a preliminary discussion to determine the plan of action and which external experts should be included.

[Decision: NERVTAG to undertake a risk stratification analysis for DCMO]

[Action: NM to provide the full risk stratification information pack from DCMO to the NERVTAG subgroup, via the secretariat]

[Action: Subgroup (Chair, AH, CS, JE, & JVT) to discuss the plan of action and requirements for external experts for the risk stratification work]

3 Proportion of asymptomatic individuals

3.1 AH introduced the paper for this item, presenting a preliminary systematic literature review on asymptomatic infection. A range of studies were identified for a variety of scenarios and settings. Some studies considered PCR, while others considered serology. Members discussed prevalence and noted that the higher levels appear to be in institutional type settings. The potential underestimation and specificity issues with serology studies was considered. It was noted that the paper provided a crude meta-analysis and a more detailed analysis could be undertaken. Members discussed findings from specific settings and the representation of asymptomatics in closed settings compared to the general population. It was noted that the intensity of the follow-up in the studies could be reviewed to give an indication of the relative strength of the papers.

3.2 Members discussed the studies required to determine the relative infectiousness of asymptomatic infections compared to symptomatic infections. The proportion of asymptomatics and the relative level of infectiousness is important for modelling, particularly across ages. Members discussed issues with modes of infection in different settings and the impact this may have on the proportion of infections that are asymptomatic. The viral

load as determined by PCR and relative infectiousness was discussed. MZ suggested that the virus isolation data could be used in modelling and would discuss possible options with JE.

[Action: MZ & JE to discuss options for using virus isolation data in modelling]

3.3 The Chair noted that consideration of pre-symptomatic and asymptomatic individuals is on the agenda for SAGE on 12th May 2020. AH would check whether there was capacity in his team to undertake a quality review of the studies in time for that meeting, including considering any data on the relative level of infectiousness.

[Action: AH to advise on whether there was capacity in his team to undertake a quality review of the asymptomatic studies presented for 12th May 2020]

4 Paediatric hyper-inflammatory syndrome - updates

4.1 This issue was discussed in the previous meeting, and the Chair noted that a lot of work was being done in the paediatric community to understand the issues. CS added that a paper had been submitted for publication by Mike Levine, considering 37 paediatric cases. There is still uncertainty as to whether there is a causal or temporal association with COVID-19, and it remains a low incidence phenomenon. It was agreed that NERVTAG would keep a watching brief on this issue and CS would bring any new information to the attention of the committee.

[Action: NERVTAG to maintain a watching brief on the paediatric hyper-inflammatory syndrome; with CS bringing new information to the attention of the committee]

5 Ethnicity report

5.1 ICM presented the PHE Ethnicity Report to the committee. Members' attention was focused on specific points in the report. Data were provided from four sources and linked with the Hospital Episode Statistics (HES) database to assign ethnicity information. The report looked at testing rates in different ethnic groups and positivity rates. Overall 29% of individuals tested positive; however, the positivity rate was highest in the Black/Black British group. It was noted that there is a disparity in the age distribution within ethnic groups, with a higher proportion of positives amongst younger age groups in non-white ethnic groups. Data were presented on positive individuals in different ethnic groups for different regions; for different levels of deprivation; for levels of hospitalisation and for mortality rates. The excess mortality analysis shows the excess is higher for all BAME groups compared to the white ethnic group.

5.2 A summary report was produced for CMO which compared the PHE data with other analyses. The report concluded:

i. people in Asian, Black and ethnic minority groups are likely to be at increased risk of becoming confirmed cases of coronavirus infection when compared to people in White ethnic groups;

ii. all-cause excess mortality mostly due to Covid-19 is seen during the relevant period in all ethnic groups, but it is higher among people of Black and Asian ethnic groups;

iii. the risk of death among people who are confirmed cases of COVID-19 is higher among people of Indian, Pakistani and Bangladeshi ethnicities;

iv. it is less clear whether the risk of death is different between ethnic groups once individuals are hospitalised.

5.3 The Chair welcomed the comprehensive report from PHE. Members discussed the relationship with social deprivation and ethnic groups; and the controls used in the analyses. The bias of hospital cases was also discussed. Members considered whether genetic factors may have a contribution. It was confirmed that the genetics of hospitalised cases is a work package within ISARIC.

[Action: Chair to follow-up with ISARIC consortium on the genomics work for COVID-19]

5.4 The summary report has been sent to CMO and will be considered by the CMO Senior Group to determine actions going forward. Members suggested that adjustments for household crowding might be incorporated into the analyses, based on postcode data.

6 Weekly surveillance update

a. PHE epidemiological summary

6.1 JLB provided an update on the PHE surveillance report to be published at 2pm. All of the indicators are decreasing at a national level. RCDP positivity is at 14% compared with 16.7% last week. Care home outbreaks are still high. A few more syndromic indicators have been added to the report, which are specific COVID-19 indicators. Members were informed that the surveillance reports are published on the gov.uk website.

[Action: GD to provide details of the online link for the PHE surveillance reports]

b. CO-CIN

6.2 CSm noted that the proportion of apparent hospital acquired infection cases continues to rise, although the number of new cases from the community is falling. SPI-M have completed an independent analysis on this. A message on hospital acquired infections has gone out through the Chief Nursing Officers to hospital trusts. It is understood this is being done by region, and a performance curve is included. The Chair welcomed the promotion of the message to trusts.

7 Thematic updates

a. Antibody response / immunity (WB/PO)

7.1 PO noted a recent paper from New York on antibody testing which appears to show good differentiation.[1] Members discussed different antibody tests for detecting N antibody and S antibody and the consideration for dual vaccines.

b. Virology (CE)

7.2 Members discussed whether the D614G mutation had any implications for epidemiology or vaccinology. Members discussed the heterogeneity in sequences and how the genetics

[1] https://www.medrxiv.org/content/10.1101/2020.04.30.20085613v1

results are considered with regards to biological tests. The Chair asked WB, JHi and CE to produce a paper for the committee on the general issues of virus variants – detection and interpretation. The committee recommended that any work on this issue was co-ordinated.

[Action: WB, JHI & CE to produce a paper on virus variants]

c. Clinical (WSL/PO)

7.3 WSL noted that there was nothing new to report.

d. Therapeutics (PH)

7.4 The Chair noted there was nothing new to report.

e. IPC measures (LR)

7.5 BK informed members that the hospital onset COVID infections subgroup of SAGE was meeting that afternoon and would consider what additional interventions could be made to address hospital transmission and to operationalise guidance.

8 AOB

8.1 The Chair thanked members for their attendance and their contributions. The meeting closed at 11.08 am.