

## **First Precautionary Scientific Advisory Group for Emergencies (SAGE)**

### **Ebola outbreak in North-Western DRC**

Friday 18<sup>th</sup> May 2018

10 Victoria Street, London, SW1H 0ET

#### **Situation update**

1. The Democratic Republic of the Congo (DRC) is experienced at dealing with Ebola. There is no data yet on sequencing to confirm the strain or any divergence of the strain.
2. There is considerable uncertainty around the outbreak, including number of cases and duration of transmission. Concerning features include the spread to cities, failure to follow up on contacts of suspected patients and levels of mobility among the population.
3. DRC has a (mainly Francophone) support system for tackling outbreaks but they are accepting other support. They are aware of the UK's offer of support (including laboratory support, the lack of which hampered the response in 2014).
4. There are complex logistical issues around getting experts into the affected area, which could prevent a clearer understanding of the outbreak for some time.
5. There is expected to be an increase in reported numbers due to case ascertainment – which would not necessarily imply an escalation of the outbreak.
6. Modelling is currently not possible owing to paucity of data.

#### **Vaccines for UK nationals**

7. The only available vaccine for which efficacy data is available is Merck/MSD rVSV-ZEBOV. It is unlicensed, but available under a trial protocol. Decisions on usage can be made for this vaccine only.
8. There is a necessary time lag between vaccination and deployment to the frontline.
9. There may be more information on the Janssen AD26.ZEBOV/ MVA-BN-Filo prime-boost regimen after a FDA meeting on 28 June.
10. The rVSV-ZEBOV stockpile ought to be sufficient for the current scale of outbreak. Although there are some transient side effects from rVSV-ZEBOV, there are currently no known serious adverse effects. Long-term safety is currently unknown.
11. Frontline workers should certainly receive the vaccine. For others, there is currently a negligible risk of exposure, and thus vaccination is not indicated.
12. Access to the vaccine is currently only available through WHO in Geneva or in Kinshasa. No separate UK policy on vaccine access is required for nationals deployed to DRC.
13. SAGE regards the current WHO protocol on vaccination administration for frontline workers (with review as the situation develops) as scientifically sound.
14. It is important to monitor any changes to the protocol and any changes to the approaches adopted by other countries.
15. During the West Africa outbreak, WHO made vaccine available to UK authorities to offer to contacts of the Glasgow case. Should a similar situation arise in the future, it is highly likely that WHO would release vaccine to the UK in a similar manner.
16. DHSC CSA is responsible, on behalf of the CMO, for providing vaccination advice should people infected with Ebola (or suspected of infection) enter the UK.
17. Vaccination is only one element of containing any Ebola outbreak.

#### **Epidemiological modelling**

18. The purpose of any modelling is to understand risk, interpret trends, explore scenarios, and to inform and evaluate day-to-day operations.
19. There is very limited epidemiological data at this stage, and no line lists to understand geospatial or temporal patterns. Demographic data is patchy. Sequencing data is critical to understand evolution of the virus. Likely future scenarios remain unclear, though firmer predictions may be possible a week from now.

20. There is considerable uncertainty concerning the potential scale of the outbreak. Emerging data should be monitored in order to flag when features become more certain.
21. A formal mechanism is required to ensure information is shared across HMG and to agree trigger points for further action.
22. There was clear agreement that data sharing is essential. The greatest obstacle is accessing line list data from in country.
23. There has been a concerted effort from journal editors, funders and HMG to facilitate data sharing. SAGE will undertake to unblock obstacles to data sharing within its remit.

### **Triggers for escalation**

24. The domestic risk to the UK remains negligible but triggers for escalation should be agreed, including:
  - Spread within DRC, including signs of onward transmission at significant locations (for example Kinshasa, Katanga mining region).
  - Spread to neighbouring countries with significant UK diasporas (for example Uganda), direct flights and tourist destinations.
  - The epidemic rapidly escalates.
25. These triggers should not immediately lead to UK action, but to a rapid reassessment of the risk to the UK.

### **List of Actions:**

**ACTION: DfID and DHSC** to propose a mechanism for data sharing, coordination of modelling activity and for updating GCSA – and identify trigger points for convening any formal meetings. **GCSA** to approve proposal today.

*Update: DfID CSA will chair a group for these purposes, supported by the Scientific Pandemic Influenza Subgroup on Modelling (SPI-M). It will meet for the first time in the week commencing 28 May 2018, with attendance from DHSC CSA, PHE, the academic teams represented at the pre-SAGE and others. Circumstances prompting escalation will be discussed at that first meeting.*

**ACTION: PHE, DfID and DHSC** to agree and share circumstances under which UK would review its own risk assessment and domestic preparedness arrangements. If any of these circumstances occur, **CMO and DHSC CSA** to discuss next steps, informed by data from academic groups.

*Update: A note is attached to these minutes (Annex A). It may be updated after review by the DfID team located in DRC.*

**ACTION: DfID, PHE and DHSC** to agree who is responsible for ensuring that UK nationals being deployed to DRC on behalf of HMG are vaccinated through the WHO system.

*Update: It has been agreed that DfID and PHE will have joint responsibility for ensuring UK nationals being deployed to DRC on behalf of HMG are vaccinated through WHO.*

### **Attendees**

**Scientific experts (15):** Patrick Vallance (GCSA), Andrew Hayward (UCL), Andrew Pollard (Oxford), Cathy Roth (DfID), Charlotte Watts (DfID CSA), Chris Whitty (DHSC CSA), Daniel Bausch (PHE), David Salisbury (Chatham House), Dilys Morgan (PHE), Jeremy Farrar (Wellcome), John Edmunds (LSHTM), Jonathan Van Tam (DHSC dCMO), Julian Bonnerjea (Medicines & Healthcare Products Regulatory Agency), Mike Tildesley (Warwick), Neil Ferguson (Imperial), Peter Openshaw (Imperial)

**Observers and government officials (4):** [REDACTED], [REDACTED], [REDACTED], John Aston (HO CSA), Stuart Wainwright (Cabinet Office)

**Secretariat (all GO-Science) (6):** [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED], [REDACTED]

## **ANNEX A: TRIGGERS FOR RE-ASSESSMENT OF RISK TO THE UK**

Main triggers which would inform and underpin any assessment of the risk of persons returning to the UK with Ebola infection associated with the current outbreak:

Clinically Compatible cases (CCC) as a result of local transmission in a country with:

- Direct flight connections to UK
- Significant diaspora communities in the UK from that country
- Recognised as a tourist destination for UK travellers
- Significant numbers of UK nationals working in the country

Transmission in DRC where there are British interests – the capital Kinshasa and mining areas such as Katanga.

Increase in the risk would require escalation of NHS preparedness.

*Currently Uganda would be the only adjacent country of concern, where, although of limited public health utility, they appear to be screening people arriving from DRC. Outbreak is on the opposite side of DRC from Uganda.*