

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

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

16 May 2019

10 Victoria Street, London, SW1H 0NN

#### **Welcome**

1. GCSA welcomed participants to the meeting. Attendees were informed prior to the meeting that content from SAGE meetings is to be treated as confidential.
2. GCSA set the purpose of the meeting as reaching a consensus on the key scientific aspects of the outbreak, enabling a single, consistent scientific view across government.

#### **Situation update**

3. As of 14 May, the total number of cases is 1,705 (1,617 confirmed and 88 probable). 1,147 people have died. A large number of new cases are being reported every day, many of them previously unknown. At present, new cases remain contained in the two provinces of North Kivu and Ituri.
4. There are 87,000 registered contacts, with 13,000 under surveillance.
5. The outbreak is being exacerbated by civil unrest, violence, political infighting, community mistrust and a lack of a clear command structure for the public health response. The key challenge is coordination of the response rather than any scientific or technical issues.
6. The scale of the outbreak is uncertain. There is a lag – and gaps – in epidemiological data. Cases are occurring in new areas as well as areas thought to be under control – and in healthcare centres. Chains of transmission are poorly understood in many cases.
7. Significant concerns include transmission to the city of Goma (population 1 million), a separate Ebola outbreak occurring in another region of DRC, and current population movements into Uganda for a pilgrimage.

#### **Vaccines**

8. To date, approximately 115,000 people have been vaccinated with the Merck vaccine. Ring vaccination continues with targeting moving out to a third geographical ring.
9. There are nearly 200,000 doses of the Merck vaccine remaining for use with contacts. Under a new, approved protocol, these can undergo 2-fold dilution to increase the supply to near 400,000 doses (with proven efficacy) or 5-fold dilution to increase the supply to near 1 million doses (which, according to the FDA, delivers an immunological response but for which there is no field effectiveness data). A 2-fold dilution would produce immunity after 10 days whereas a 5-fold dilution is claimed to produce immunity after 28 days. There may be another 100,000 doses produced by the end of 2019, but manufacturing capability is limited. It was noted that the FDA had reviewed the data for the reduced dose use and had agreed with the approach.
10. Johnson & Johnson is potentially delivering up to 3 million doses of its vaccine (for 1.5 million people), but there has not yet been trial evidence of clinical efficacy. An ethics review is scheduled for the end of May, with the prospect of deployment in June.
11. The prospect of having 2 different vaccines – one of which with different dose options – and 2 different vaccination regimens could easily create operational, monitoring and community engagement challenges and confusion.
12. Community understanding of vaccines is low, with people questioning how ring vaccination works. Local vaccinators are beginning to be recruited and trained but this takes time. The Merck consent form has been translated into Swahili but is still poorly understood.

#### **Community engagement**

13. Contact tracing needs to become transactional. High demand for vaccines can be used as a driver for positive engagement. Offering the vaccine in return for contact information

would serve to link epidemiological and social data. There needs to be better join up between health responders conducting vaccinations and contact tracing.

14. An annual pilgrimage to the Uganda Martyrs Shrine in Namugongo (15 May to 3 June) is underway, with 1 million pilgrims expected from DRC. Uganda is relatively well prepared and has dealt with haemorrhagic fevers in the past. Border checks are in place but not all pilgrims may cross at official crossings.

**ACTION: Juliet Bedford** to provide Yolande Wright with further information on crossing points for pilgrims.

### **International engagement**

15. SAGE agreed that the UK science position should feed into the WHO-led response via DFID to keep lines of communication simple.
16. This should emphasise that a big increase in contact tracing (active and especially passive) is key to containing the outbreak. Community engagement is essential, primarily to identify infected individuals.

**ACTION: Charlotte Watts/DFID** to coordinate the HMG view on vaccine strategy and community engagement by arranging DFID-run subgroups on vaccinology and social science. Particular topics for consideration include reviewing approaches to enhance contact tracing and determining the  $R_0$  value as well as options for its reduction. This single consistent view is to feed into the WHO response as support to increase options for operating in the region.

### **Triggers for escalation**

17. The PHE assessment is that the risk for the UK population is unchanged at "negligible to very low", with fresh assessments generated every 2 weeks.
18. Triggers for escalation do not currently require revision.

### **Further meetings**

19. These should be at the discretion of DFID, unless there is a significant change in the nature of the outbreak or any of the triggers for escalation are met.

### **List of Actions**

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### **Attendees**

**Scientific Experts (10):** Patrick Vallance (GCSA), Sally Davies (DHSC CMO), Jonathan Van Tam (DHSC dCMO) Chris Whitty (DHSC CSA) Charlotte Watts (DfID CSA), Cathy Roth (DfID), Dilys Morgan (PHE), Jeremy Farrar (Wellcome), Richard Hatchett (Coalition for Epidemic Preparedness Innovations), Juliet Bedford (Anthrologica)

**Observers and government officials (4):** [REDACTED], Yolande Wright (DFID), [REDACTED], [REDACTED]

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