NEWS

Experimental vaccine ready for use in Congo's Ebola outbreak

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An experimental vaccine that arrived too late to stem the 2014 Ebola outbreak could be used within hours in the Democratic Republic of the Congo (DRC), WHO director-general Tedros Adhanom Ghebreyesus, said from the capital Kinshasa.

Cold chain equipment arrived in the country on 13 May and has since been set up throughout the affected zone. WHO and the DRC's health ministry have agreed to use a ring vaccination approach, in which all suspected contacts of infected people are vaccinated, in addition to health workers. So far, 382 contacts have been identified, Tedros told the US news website *Stat*.

The early signs, he said, are of an international response far more rapid and robust than the reaction to the 2014 epidemic, in which over 11 000 people died from the disease and, research suggests, as many from disruption to affected countries' health systems.¹

Médecins Sans Frontières will take the lead on administering vaccines, while the costs will be borne by Gavi, the Vaccine Alliance and the Wellcome Trust, among others. The International Federation of the Red Cross and Red Crescent will coordinate safe burials.

Merck will provide its experimental vaccine, known as V920. Four thousand doses that were stored with WHO in Geneva have already left for the DRC. The company has a US stockpile capable of forming a further 300 000 doses if necessary.

DCR's health ministry, now facing its ninth Ebola outbreak, has already provided emergency documentation that will allow the unapproved vaccine's importation under a compassionate use programme. Within days that is likely to be superseded by a research protocol which will allow the vaccinations to take

place as a clinical trial. V920 has previously shown 100% efficacy in a phase 3 ring vaccination trial.²

The urgency of the response is driven partly by the geography of the current outbreak. The epicentre, the market town of Bikoro, is on Lake Tumba in DCR's Equateur province. The lake gives access to two key arteries, the Congo and Ubangi rivers.

These lead to DRC's capital, Kinshasa, home to 11.5 million people; as well as Mbandaka, Equateur's provincial capital; Brazzaville, the capital of the Republic of the Congo; and Bangui, the capital of the Central African Republic, cities which between them contain about four million more people.

On 14 May two new probable cases were found 100 km north of Bikoro, in a village called Watanga, on the Congo River and adjoining Mbandaka, a city of 1.2 million. On 17 May the first case was found in the city itself. WHO, concerned at this development, is deploying 30 experts to monitor the city.

It brings the total so far to 45 cases: three confirmed, 21 probable, and 21 suspected. Nineteen people have died, including one healthcare worker.

- 1 Parpia AS, Ndeffo-Mbah ML, Wenzel NS, Galvani AP. Effects of response to 2014-2015 Ebola outbreak on deaths from malaria, HIV/AIDS, and tuberculosis, west Africa. *Emerg Infect Dis* 2016;22:433-41. 10.3201/eid2203.150977 26886846
- 2 Gsell P-S, Camacho A, Kucharski AJ, et al. Ring vaccination with rVSV-ZEBOV under expanded access in response to an outbreak of Ebola virus disease in Guinea, 2016: an operational and vaccine safety report. *Lancet Infect Dis* 2017;17:1276-84. 10.1016/S1473-3099(17)30541-8 29033032

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