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Long wait yet for Ebola vaccine: experts

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It will be months, at least, before a vaccine becomes available to tackle Ebola, experts said Thursday as researchers reported success in early, safety tests with a leading candidate.

A Phase I trial with the virus-based prophylactic carried by chimps showed it was "well-tolerated" by 20 healthy adults who generated antibodies and immune cells in response—though this did not mean they were protected.

The work was "encouraging," epidemiologist Rodolphe Thiebaut of France's Institute of Health and Medical Research (Inserm) said of the candidate vaccine dubbed cAd3-ZEBOV.

But "we still don't have formal proof that the vaccine will work," he told AFP.

Such proof could only come from observing a reduced infection rate among vaccinated people in an outbreak zone.

"We don't know if the immunity seen in vaccinated people is protective, nor if the other vaccines in development will perform better," said Jonathan Ball, virology professor at the University of Nottingham in England.

cAd3-ZEBOV and other vaccines candidates have yet to cross several hurdles before this will become clear.

Safety having been established in healthy volunteers, Phase II and Phase III clinical trials will determine, in larger groups of infected people, whether the vaccine actually works—and at which dose.

Pharmaceutical companies and health agencies are scrambling to fast-track experimental drugs and vaccines, and trials are under way in the United States, Europe and in Africa.

There is no licenced drug against the deadly haemorrhagic fever-causing virus which is transmitted through bodily fluids.

Developed by the US National Institute of Allergy and Infectious Diseases (NIAID) and drug firm GlaxoSmithKline, cAd3-ZEBOV is based on a chimp adenovirus to which an Ebola virus gene has been added to stimulate an immune response.

The NIAID said Wednesday a decision on further trials with the vaccine would depend on data from ongoing Phase I tests with volunteers also at the University of Oxford and in Mali.

"Announcements on larger-scale testing will not be made until early 2015," it said.

The other leading prototype, VSV-ZEBOV manufactured by the Public Health Agency of Canada, uses a weakened livestock disease virus of which a gene has been replaced by an Ebola virus gene.

It is also in Phase I safety trials, and pharma company Merck recently announced it would scale up production.

A lot of 'ifs'

"It is important that this momentum is maintained, and that these

vaccines can move to being tested in countries affected by the epidemic as soon as possible," Jeremy Farrar, director of the Wellcome Trust health charity.

The latest World Health Organization statistics showed that 5,689 people have died out of 15,935 infected with Ebola in west Africa since the start of the year, making it by far the worst outbreak in history.

Michael Kurilla, director of the NIAID's office of biodefence research, told AFP on Wednesday "we may not know until well into 2015" whether any of the vaccines currently on trial could potentially be licenced.

But a vaccine on its own is unlikely to sound the death knell for Ebola.

"There's a lot of ifs. If one of the vaccines actually works, that remains to be seen, and then if we can manufacture enough of the vaccine at a reasonable enough cost, and if we can then institute a vaccination campaign that is acceptable to nations that would be at risk," said Kurilla.

In the meantime, it could offer welcome protection to health workers in the front line of infection.

The only pharmaceutical tools available today are a handful of unapproved treatments, all still being tested, with ZMapp, a cocktail of three antibodies seemingly the most promising.

The World Health Organization gave the green light in August for such experimental treatments to be used in the Ebola outbreak.