

Up to 30,000 in need of Ebola drugs by now, analysis shows

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Ebola virus virion. Credit: CDC

Up to 30,000 people would have required Ebola drugs in the west African outbreak by now, according to a scientific attempt to quantify demand for a treatment and vaccine, published Wednesday.

No approved drugs exist though several are under development and the World Health Organisation last week gave the [green light](#) for experimental medicines to be used to fight the deadly disease.

University of Oxford epidemiologist Oliver Brady published a guide in the journal *Nature* for drug manufacturers and regulators to determine

potential demand.

"This demand is likely to be higher than many people realise," he wrote.

"For example, our analysis suggests that, even under a conservative scenario, up to 30,000 people would have so far required treatment or prophylaxis in the current outbreak."

This was "substantially more" than for any of the 22 other Ebola outbreaks that have occurred since 1976.

Brady told AFP the calculation was based on the number of people known to be infected and those they would have been in close contact with, as well as the number of doctors, nurses, corpse-handlers and non-essential support staff at risk of exposure.

Of the 30,000 estimate, some 2,250 individuals known to have fallen ill to date would have required a treatment, while the rest are people considered at a "high enough level of risk" to warrant being given a vaccine.

The tropical virus has killed 1,350 people so far, roughly half the number infected, according to the World Health Organisation.

The disease is spread through contact with body fluids of those infected—dead or alive.

Several candidate drugs are in different stages of experimentation, though most have only been tested on animals.

One of the most promising is ZMapp, a cocktail of three antibodies that has been given to a number of doctors who contracted the virus from treating patients in west Africa. Some have shown improvement.

Canada has offered to provide up to 1,000 doses of a [vaccine](#) called VSV-EBOV, which has shown promise in animal research.

Brady pointed out "it seems that supplies of... ZMapp are already exhausted and available stocks of many other investigational drugs are limited to treatment courses for tens or hundreds of people."

Epidemic far from over

Brady said his calculations were "just rough approximations of the demand", and were based on the spread patterns of past Ebola outbreaks, which had been confined to much smaller areas.

"What is clear is that the epidemic is far from over and shows no signs of easing," he said.

The outbreak "is the first to spread into three countries and is now circulating in high-density urban environments, which it has never done before.

"The outbreak is unprecedented and requires new tools and new decisions to be made on how we control its spread and prevent mortality in the most affected regions."

Commenting on the publication, University of Nottingham virology professor Jonathan Ball said treatments have never eradicated viral infection outbreaks, but vaccines have.

"If the aim is to prevent the disease occurring in humans, then history tells us that our best bet is vaccination. But that isn't going to happen tomorrow, and it won't solve the current problem in west Africa."

More information: Scale up the supply of experimental Ebola drugs,

Nature, 2014.

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