WORLD

# Two Experimental Ebola Drugs Reduce Mortality Rate

Preliminary data from a medical trial offer hope for halting outbreak in eastern Congo

The disease has gripped parts of the Democratic Republic of Congo for more than a year. PHOTO: ADRIANE OHANESIAN FOR THE WALL STREET JOURNAL

*By Gabriele Steinhauser*

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Two experimental Ebola drugs significantly improve a patient's chance of surviving the virus, according to preliminary data from a medical trial released Monday, offering fresh hope for stopping an outbreak of the disease that has gripped parts of the Democratic Republic of Congo for more than a year.

Of the 2,831 people who have been infected with Ebola in eastern Congo since Aug. 1, 2018, two-thirds—or 1,888—have died, according to the World Health Organization. But patients who received a cocktail of antibodies developed by U.S. drugmaker Regeneron Pharmaceuticals Inc. only faced a 29% mortality rate, said Anthony Fauci, director of the U.S. National Institute of Allergy and Infectious Diseases, or NIAID.

A second drug, developed by the NIAID and licensed by closely held Ridgeback Biotherapeutics, reduced the mortality rate to 34% among the patients that received it, said Dr. Fauci. That is a significant improvement over ZMapp, made by Mapp Biopharmaceutical Inc., another Ebola

treatment that had been tested in the waning months of the 2014-to-2016 Ebola epidemic in West Africa, which killed more than 11,300 people. Of the patients who received ZMapp during the trial, 49% died.

The preliminary results of the trial, which included 681 patients who contracted Ebola during the current outbreak in Congo, are a rare success for researchers, international health officials and aid organizations that have struggled with militia attacks and community distrust. Last month the WHO declared the outbreak—the world's second deadliest and the first in an active conflict zone—a global public-health emergency after Ebola was detected in Goma, a town of two million people on the border with Rwanda.

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There have been isolated cases of the virus in neighboring Uganda, and the WHO has warned about a possible spread to Rwanda, Burundi and civil-war-torn South Sudan.

"Today we have started a new stage" in the fight against Ebola, said Jean-Jacques Muyembe, director-general of Congo's National Institute for Biomedical Research and part of the team of researchers that investigated the first known outbreak of the virus in 1976. "We can no longer say that the Ebola virus is incurable."

Dr. Muyembe said that the promise of a cure for Ebola should get more patients in eastern Congo to seek treatment, which will boost their chances of survival and reduce the risk of family members and other contacts getting sick. Health workers have already vaccinated 191,000 people in Congo, including contacts of known patients, doctors, nurses and burial teams.

The WHO says the vaccine, while also still experimental, is 97.5% effective.

Still, resistance to medical treatment has been one of the big challenges during the current outbreak, where many patients either die at home or only seek help very late. On average, patients now wait four days after the onset of Ebola symptoms before seeking treatment and many stay away much longer, said Dr. Michael Ryan, executive director of the WHO's health emergencies program.

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Getting help early is key for survival, even with the new drugs. Of the patients who received Regeneron's REGN-EB3 while they still had a low viral load, only 6% died, according to Dr. Fauci, while those receiving the NIAID's mAb114 had an 11% mortality rate.

The superior results of REGN-EB3 prompted researchers to stop their medical trial early. ZMapp and a fourth experimental drug used in the trial will now be dropped from the treatment plans in Congo, with all patients receiving either REGN-EB3 or mAb114, said Dr. Fauci. While only 681 patients were part of the clinical trial, many more received the experimental drugs under a compassionate-care protocol.

Even holding a controlled medical trial during an outbreak that has seen deadly attacks on treatment centers and health workers was a victory for researchers, aid organizations and the doctors who had to administer the drugs. During the West African epidemic, disputes broke out between researchers and doctors over whether it was ethical to have to have a placebo-controlled study in the midst of a devastating outbreak, since it would mean giving some patients a nonactive drug.

For this trial, researchers found a way around this dilemma by ensuring that all patients were offered a treatment, including ZMapp, for which there were already some positive published data.

*—Thomas M. Burton contributed to this article.*

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