

# Global experts study promising drugs, vaccines for new virus

February 12 2020, by Jamey Keaten and Maria Cheng

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A passenger wearing a full-body protective suit catches the eyes of others as they walk out from the Beijing railway station in Beijing, Tuesday, Feb. 11, 2020. China's daily death toll from a new virus topped 100 for the first time and pushed the total past 1,000 dead, authorities said Tuesday after leader Xi Jinping visited a health center to rally public morale amid little sign the contagion is abating. (AP Photo/Andy Wong)

The World Health Organization convened outside experts Tuesday to try to speed the development of tests, treatments and vaccines against the new coronavirus, as doctors on the front lines experiment on patients with various drugs in hopes of saving lives in the meantime.

The 400 scientists participating in the two-day meeting—many remotely—will try to determine which approaches seem promising enough to advance to the next step: studies in people to prove if they really work.

"We prioritize what is really urgent, what we absolutely need to know to fight the outbreak, to develop drugs, vaccines," said Marie-Paule Kieny, co-chair of the meeting and a viral-disease specialist at the French research institution INSERM. That will allow science to "focus on what is the most pressing issue and not to disperse too much the efforts."

Also on the agenda: Is it possible to build a standing supply of drugs similar to the vaccine stockpiles that exist for diseases such as yellow fever and Ebola?

"If any of these drugs does show an effect, there will be massive demand," Dr. Graham Cooke, a professor of infectious diseases at Imperial College London, said earlier this week.

There are no proven treatments or vaccines for the new and still-mysterious virus, which has infected more than 43,000 people worldwide and killed over 1,000, with the overwhelming majority of cases in China. And while several labs have come up with tests for the virus, there is no quick means of diagnosis, and results take time.



A reporter walks near the quarantined Diamond Princess cruise ship in Yokohama, near Tokyo, Tuesday, Feb. 11, 2020. Japan's Health Minister Katsunobu Kato said the government was considering testing everyone remaining on board and crew on the Diamond Princess, which would require them to remain aboard until results were available. (AP Photo/Jae C. Hong)

"It's hard to believe that just two months ago, this virus—which has come to captivate the attention of media, [financial markets](#) and [political leaders](#)—was completely unknown to us," WHO director-general Tedros Adhanom Ghebreyesus said at the start of the meeting.

Experts say it could be months or even years before any approved treatments or vaccines are developed, by which time the outbreak might be over. But they say they will at least have more weapons at their

disposal if the virus strikes again.

The flu-like disease, officially named COVID-19 on Tuesday, has ranged from mild to serious and can cause pneumonia.

Doctors give patients fluids and pain relievers to try to ease the symptoms, which can include fever, cough and shortness of breath. In the case of those who are severely ill, doctors use ventilators to help them breathe or a machine that pumps and oxygenates their blood outside the body, easing the burden on the heart and lungs.



People wearing protective face masks walk on a street in the Central, the business district of Hong Kong, Tuesday, Feb. 11, 2020. China's daily death toll from new virus has topped 100 for first time, with more than 1,000 total deaths recorded, the health ministry announced Tuesday, as the spread of the contagion

shows little sign of abating while exacting an ever-rising cost. (AP Photo/Kin Cheung)

Beyond those standard treatments, doctors are looking at using drugs that have already been approved to fight other viruses, or experimental medications.

At least two studies in patients are already underway in China: one of a combination HIV drug containing lopinavir and ritonavir, sold in the U.S. as Kaletra, the other of an experimental drug named remdesivir, made by Gilead Sciences.

In a draft research plan published last month, WHO said remdesivir was considered "the most promising candidate." It was used briefly in some Ebola patients in Congo before that study stopped. But the WHO cited laboratory studies that suggested it might be able to target SARS and MERS, cousins to the new virus.

Gilead has provided the drug for use in a small number of patients, including a man in Washington state who fell ill after a trip to Wuhan, the city at the center of the outbreak in China. He is no longer hospitalized, but it is not clear whether the Gilead drug helped him.



A taxi driver looks out from his car as they pile up to wait for customers at the train station in Beijing, Tuesday, Feb. 11, 2020. China's daily death toll from a new virus topped 100 for the first time and pushed the total past 1,000 dead, authorities said Tuesday after leader Xi Jinping visited a health center to rally public morale amid little sign the contagion is abating. (AP Photo/Andy Wong)



A masked woman in a plastic rain coat walks on a street in Beijing, Tuesday, Feb. 11, 2020. China's daily death toll from a new virus topped 100 for the first time and pushed the total past 1,000 dead, authorities said Tuesday after leader Xi Jinping visited a health center to rally public morale amid little sign the contagion is abating. (AP Photo/Andy Wong)



A deliver man uses his phone while waiting on a street of Beijing, China Tuesday, Feb. 11, 2020. China's daily death toll from a new virus topped 100 for the first time and pushed the total past 1,000 dead, authorities said Tuesday after leader Xi Jinping visited a health center to rally public morale amid little sign the contagion is abating. (AP Photo/Ng Han Guan)





Media gather outside the quarantined Diamond Princess cruise ship in Yokohama, near Tokyo, Tuesday, Feb. 11, 2020. Japan's Health Minister Katsunobu Kato said the government was considering testing everyone remaining on board and crew on the Diamond Princess, which would require them to remain aboard until results were available. (AP Photo/Jae C. Hong)



People wear protective suits as they smoke at the railway station as they arrive in Beijing, Tuesday, Feb. 11, 2020. China's daily death toll from a new virus topped 100 for the first time and pushed the total past 1,000 dead, authorities said Tuesday after leader Xi Jinping visited a health center to rally public morale amid little sign the contagion is abating. (AP Photo/Andy Wong)

Doctors in China, Thailand and Italy have also used the HIV drug combination in some patients. In Malaysia, authorities reported that a 40-year-old man with the virus who needed oxygen recovered eight days after receiving the [drug](#), although it is not known if that was the reason.

Dr. David Heymann, who led WHO's response to the global 2002-03 SARS outbreak, said doctors don't entirely understand how the HIV drugs might work to fight the new virus, but hope they will buy patients

some time.

Treatments are mostly intended so that patients "can recover enough so their own immune systems can take over and fight off the virus," he said.

Cooke said it might be enough if these drugs, instead of killing the virus, interfere with how it reproduces and spreads in the body.

The U.N. health agency said there were still many critical unanswered questions about the [virus](#), including what animals it came from and how exactly it is transmitted between people. It is thought to spread through droplets in the air when an infected person sneezes or coughs.

"To defeat this outbreak, we need answers to all those questions and more," Tedros said.

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