

Potential COVID-19 Treatments: Some In, Some Out



The UK health ministry has announced that the antiviral drug remdesivir would be made available to selected COVID-19 patients while the World Health Organization (WHO) is putting the hydroxychloroquine arm within the COVID-19 Solidarity Trial on hold.

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On 26 May, the UK government <u>said</u> the National Health Service would provide access to remdesivir to adult and adolescent COVID-19 patients meeting certain clinical criteria, to speed up their recovery. Treatment was authorised through the Medicines & Healthcare products Regulatory Agency (MHRA)'s Early Access to Medicines Scheme and will be prioritised for patients who are likely to benefit the most.

The antiviral drug, originally developed as an Ebola treatment, is currently undergoing clinical trials for COVID-19 around the world, and preliminary data show it can shorten the time to recovery by about four days, from 15 to 11 days.

This step is part of a collaboration between the UK and manufacturer Gilead Sciences. Similar arrangements have already been made with other countries, including the U.S. and Japan. In mid-May, Gilead <u>licensed</u> remdesivir to five generic drug makers with operations in India and Pakistan, which is reported to help to make the medicine available to 127 countries. The manufacturers will not pay royalties until either a second drug is approved, or the pandemic is declared ended.

In the laboratory, remdesivir <u>has been found</u> to inhibit the growth of several notable viruses, including severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), Middle East respiratory syndrome coronavirus (MERS), SARS-CoV-1, and SARS-CoV-2. In early April, the European Medicines Agency <u>approved</u> remdesivir for compassionate use in COVID-19 patients.

Meanwhile, WHO's clinical trial of another much-hyped potential COVID-19 treatment, hydroxycholoroquine and chloroquine, has been paused. This was <u>announced</u> by WHO Director-General *Dr Tedros* Adhanom Ghebreyesus at the media briefing on COVID-19 on 25 May. (*UPDATED, 4 June 2020: the study has been since resumed.)*

Some two months ago the UN agency initiated the Solidarity Trial to evaluate the safety and efficacy of four drugs and drug combinations against COVID-19. For now, about 3,500 patients from 17 countries have been recruited.

On May 22, the Lancet published an observational study on hydroxycholoroquine and chloroquine (commonly used for autoimmune diseases or malaria) and its effects on COVID-19 patients that have been hospitalised. The study found that hydroxychloroquine alone and its combinations with other medicines were independently associated with an increased risk of in-hospital mortality. The next day, the Executive Group of the Solidarity Trial agreed to review evidence available globally and to implement a temporary pause of the hydroxychloroquine/chloroquine arm within the trial until the safety data has been reviewed. (*UPDATED*, 4 June 2020: The integrity of the study has since been disputed, and the Lancet has retracted it.)

In April, CDC removed the guidance for using hydroxychloroquine as a potential treatment for the new coronavirus.

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