Can the antimalarial drug hydroxychloroquine prevent infection with COVID-19?

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UCLA is one of seven sites participating in a clinical trial investigating whether hydroxychloroquine, a commonly used anti-malarial and

autoimmune drug, can prevent infection with COVID-19.

The multi-site study led by the University of Washington in collaboration with six other university centers, is now enrolling 2,000 participants who are close contacts of persons who are confirmed or suspected to be infected with COVID-19. The aim is to determine whether hydroxychloroquine can prevent infection in people exposed to the virus.

"There has been a lot of speculation as to whether hydroxychloroquine can treat or prevent COVID-19," said Dr. Raphael J. Landovitz, professor of medicine, division of infectious diseases, at the David Geffen School of Medicine at UCLA and principal investigator at the UCLA site. "This study provides an important opportunity for Los Angeles to partner with UW and the other collaborators to help answer this question definitively."

The Food and Drug Administration supports the use of hydroxychloroquine in clinical trials investigating its effectiveness against COVID-19, but has issued a warning against its use outside of the setting of clinical trials or in treating hospitalized patients, where close safety monitoring can be assured.

The $9.5 million trial looking at post-exposure preventive therapy for COVID-19 is part of an initiative launched by the Bill & Melinda Gates Foundation, Wellcome, and Mastercard to speed development and access to therapies against the respiratory virus that has spread throughout the world. The COVID-19 Therapeutics Accelerator is funded by the three organizations and an array of government and private sector donors. The hydroxychloroquine trial is one of many approaches the group is funding.

Hydroxychloroquine has been used since the early 1950s to prevent

malaria and treat autoimmune diseases such as rheumatoid arthritis and lupus. Hydroxychloroquine has a long track record of safety for these conditions, and is being studied in similar or lower doses for the prevention of COVID-19. The medication is hypothesized to prevent COVID-19 from infecting cells.

Trial participants are randomly assigned to take hydroxychloroquine or a placebo over two weeks, and nasal swab samples are collected and tested daily to confirm new COVID-19 infections across the two groups. Sandoz, a Novartis division, has donated the hydroxychloroquine doses for the study.

All trial participants will be carefully screened to ensure they do not have an allergy to the medication or a condition that could put them at high risk of any adverse side effects. They will also be monitored through telehealth consultations.

The trial is slated to run over eight weeks. The researchers expect to have answers by summer.

"We currently don't know if hydroxychloroquine works, but we will learn in as short a timeframe as possible what the outcome is," said Ruanne Barnabas, the trial's principal investigator and associate professor of global health at the University of Washington Schools of Medicine and Public Health. "Our goal is to stop transmission of COVID-19 in the community."

If the drug does not work, investigators can put their time and energy into other prevention and treatment interventions, Barnabas said.

Data from the trial will be shared via the open-access COVID-19 Therapeutics Accelerator website, once the site is active, to ensure scientists everywhere can benefit from its findings.

More information: depts.washington.edu/covid19pep/

Provided by University of California, Los Angeles

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