

COVID-19 Treatments: Is there a treatment or vaccine for COVID-19 and how long will it take to develop one?

Questions about treatments for COVID-19 are very common in community feedback data, with many people believing a cure either exists already or asking why herbal remedies have not been approved. Example comments include: *"Corona is treated by traditional medicine, no need to seek for hospital assistance"*, *"We heard that a cure has been found in Madagascar, when will it start working here?"* and *"Malaria medication will prevent or treat coronavirus"*. If left unaddressed, these beliefs could lead people to pay less attention to prevention measures or fail to seek medical attention if they fall seriously ill, which could increase the number of people who die from the virus.

This factsheet is designed to help those working with communities to answer questions about treatments and vaccines, including explaining the process of medical trials.

Is there a treatment for COVID-19?

- Major research is underway across the world through different clinical trials to find effective treatments for COVID-19, but so far, no medicines have been approved yet to prevent, cure, or treat COVID-19, from Africa or from anywhere else in the world.
- Before a medicine can be approved, it needs to be properly tested to make sure it is safe for people to use and has been proven to work against COVID-19. Only medicines that have been proven through a preclinical study to be safe for human beings are considered for human clinical trials. Clinical trials typically take more than a year and involve at least four phases. These are:
 - Phase I studies usually test new drugs for the first time in a small group of people to evaluate a safe dosage range and identify side effects.
 - Phase II studies test treatments that have been found to be safe in phase I but now need a larger group of human subjects to monitor for any adverse effects.
 - Phase III studies are conducted on larger populations and in different regions and countries and are often the step right before a new treatment is approved.
 - Phase IV studies take place after country approval and there is a need for further testing in a wide population over a longer timeframe. It is also referred as quality control or getting more information on possible side effects on a course of many years.
- **The Solidarity Trial** is an international trial organized by WHO and partners comparing four treatment options to assess their effectiveness against COVID 19. More than 5000 patients have been recruited from 21 countries around the world. The four treatment options being assessed are:
 1. Remdesivir
 2. Lopinovir /ritonavir
 3. Lopinovir/ritonavir with Interferon beta 1alpha
 4. Hydroxychloroquine.
- By early July, the lopinovir/ritonavir and hydroxychloroquine arms of the Solidarity Trial were discontinued because the evidence so far shows they do not reduce deaths or provide clinical benefits among hospitalised COVID-19 patients. There is currently no research or data about hydroxychloroquine's ability to prevent COVID-19.
- The United States Food and Drug Administration (FDA) has warned against taking hydroxychloroquine or chloroquine outside of a hospital or formal study citing serious heart rhythm problems and other safety issues, including blood and lymph system disorders, kidney injuries, and liver problems and failure. The WHO says the misuse of hydroxychloroquine, which is generally safe for patients with malaria and autoimmune diseases, can cause serious side effects, including heart disease or arrhythmia.

- In a UK study, a cheap and widely-used steroid called dexamethasone, has been shown to reduce mortality by about one-third in COVID-19 patients on ventilators and one-fifth in those who require oxygen. Further research is being carried out into the use of this drug as a treatment for seriously ill patients.
- WHO and the Africa Centres for Disease Control and Prevention (Africa CDC) launched an expert advisory committee in July to provide independent scientific advice and support to countries on the safety, efficacy and quality of traditional medicines. The Regional Expert Committee on Traditional Medicine for COVID-19 will support countries to conduct clinical trials of traditional medicines in compliance with international standards.
- Tests are also being carried out into Madagascar's COVID Organics tonic, which uses extracts from Artemisia plant, which is one of the main ingredients in many antimalarial drugs. However as yet, there is no conclusive scientific evidence to prove that this tonic is effective against COVID 19. Unfortunately, cases of COVID-19 are rising rapidly in Madagascar, with over 13,000 confirmed cases and Madagascar now within the top 10 worst affected countries in Africa.
- WHO has expressed concerns about the COVID Organics tonic because:
 - The concentration per bottle is not standard in a liquid tonic and this can lead to over or under-dosing.
 - Artemisia is a crucial ingredient of many antimalarial drugs and its indiscriminate use may lead to an increase in resistance against artemisinin containing antimalarial drugs.
- When working with communities, give constructive advice on treatment. Do not stop at "there is no cure", but provide practical advice on how to alleviate symptoms, where to seek help and how to care for sick people in the household in a safe way.

What is the difference between a vaccine, a cure, a treatment, and a remedy?

A vaccine is something that will protect you from catching the virus in the first place. For example, the measles vaccination for children.

A cure will kill the virus inside the body and make it go away completely. For example, taking medicine for malaria aims to kill the parasite in the blood.

A treatment is a medical intervention that reduces the severity of the impact of the disease. It will not kill the virus but can reduce the impact the virus has on the body and help people recover more quickly. For example, medicine for HIV does not cure the virus, but can help people manage the disease and improve their quality of life.

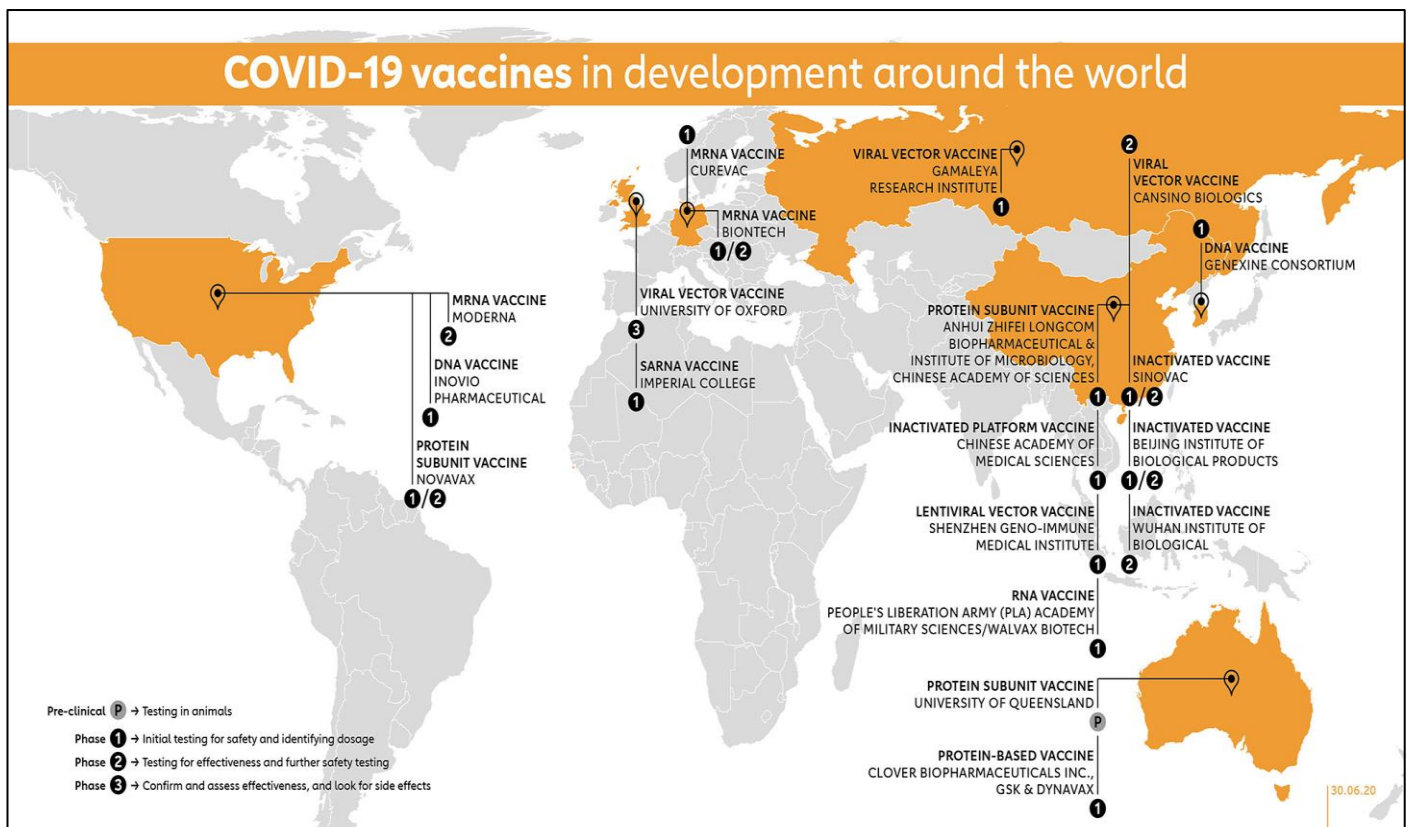
A remedy can help you feel a little better when you are ill by addressing the symptoms of a disease but will not have any impact on the disease itself. For example, paracetamol can ease the fever of malaria but will not do anything to stop the malaria itself.

What about a vaccine for COVID-19?

- Currently there is no vaccine to prevent COVID-19. However, trials are being conducted all over the world and researchers are working as quickly as possible to develop a vaccine for COVID-19.
- Historically, vaccines have taken 2 to 5 years to develop but with a global effort researchers could potentially develop a vaccine in a shorter amount of time. Developing a vaccine is a big task and requires the collaboration of several organisations. There are also many stages that people are not aware of that researchers have to go through before a vaccine is available to the public. Similar to pharmaceutical products, vaccine development also follow a rigorous preclinical and clinical phases of trials. In the clinical phase, it will go through the four phases as highlighted above.
- Of the 148 potential vaccines that researchers are working on, 17 are now in the human clinical trial phase in the US, China, Brazil and Germany, among others. One vaccine trial is taking place in South Africa, it is the first African trial of a COVID-19 vaccine. The South African Vaccine Trial is testing the vaccine that was developed by Oxford University's Jenner Institute, which is also being tested in the UK and Brazil. The trial

in South Africa will involve 2,000 volunteers aged 18-65 years old, including some HIV positive patients to assess the safety of the vaccine and how well it protects people.

- However, even though there are some vaccines in the final phase of clinical trials there are still many challenges that are faced during the testing stages which could delay how quickly a vaccine is determined safe and ultimately approved for human use. Realistically, though efforts are ongoing to hasten this process, it may take until the end of 2021 for a vaccine to be released to the public.
- Developing a vaccine is very important to ending this pandemic, it is one of the most powerful tools in public health and it would provide long-term protection from COVID-19. However until a vaccine become available, people must continue to follow COVID-19 prevention measures like frequent hand washing with soap and water, not touching the eyes, nose and mouth and maintaining a safe distance from other people.



Key messages

- Trials are going on all over the world to test different treatment options for COVID-19, including dexamethasone for very ill patients, or hydroxychloroquine, or the COVID organics herbal tonic. But these trials are still ongoing, and we don't know if these treatments will work until they have been properly tested and this takes time.
- There is no evidence yet that herbal remedies can prevent, cure, or treat COVID-19. If your symptoms are mild, herbal remedies like drinking hot ginger and lemon might ease a sore throat or cough, but they won't kill the virus or stop you from becoming seriously ill.
- If you or your family have COVID-19 symptoms, like a fever and dry cough or difficulty breathing, you should call your Ministry of Health hotline, a local hospital or doctor to ask for advice. It is important that you follow that advice because it is based on what doctors and hospitals have found to work against coronavirus.
- Prevention is always better than a cure so keep yourself and your loved ones safe by:
 - Washing your hands regularly with soap and water or alcohol-based hand sanitizer.
 - Don't touch your eyes, nose and mouth – this increases the chance of passing the virus from your hands into your body.

- The virus spreads from person to person so try to limit your contact with other people. Stay home and avoid crowded places. If you do go out, try to keep a safe 1 meter distance from others.
- Avoid shaking hands, holding hands, cheek kisses or hugs.
- Wear a cloth face mask in crowded places or where physical distancing is difficult – or if your Government has made this mandatory.
- Cover your mouth and nose with a tissue or your bent elbow when you cough or sneeze.
- Stay at home if you feel unwell and have a dry cough, fever, or shortness of breath and contact your local health services or Ministry of Health hotline for advice on what to do.
- Stay home and self-isolate even with minor symptoms such as cough, headache, mild fever, until you recover and if you need to leave your house, wear a mask to avoid infecting others.