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Zimbabwe National Covid Action Trust

Treatments for COVID-19

An unbiased review

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Drugs approved to treat COVID-19 in Zimbabwe

During these unpredictable times of the COVID-19 virus people tend to become panicked and desperate, this leads them to believe anything that they are told will keep the safe or save their lives. This can become dangerous as people will start trying unproven medications with unknown side effects.

It is very important to speak to your doctor before taking any medication.

Low molecular weight Heparin

Low molecular weight Heparin (Enoxaparin) Low molecular weight Heparin (Enoxaparin) LMWHs are anticoagulants ("blood thinners") which are medications that help prevent blood clots. Patients with severe COVID-19 are susceptible to a hypercoagulability state which can lead to a fatal blood clot. These drugs are used in the prophylaxis of venous thromboembolic disease (VTE) and they are used in the treatment of deep vein thromboses (DVT) and pulmonary embolism (PE).
Low molecular weight heparin has been seen to improve patients' survival when they have been admitted to hospital with severe COVID-19.

Dexamethasone (or equivalent)

Dexamethasone is a corticosteroid used to treat the inflammation caused by the immunes system over action to the virus. It appears to the immune system's overreaction to the virus that is damaging the lungs and other organs.
This is a potent anti-inflammatory is used to treat patients who have hospitalised with severe COVID-19 who require oxygen, this medication should be used under medical supervision as the drug may worsen a patient's condition

High flow oxygen

Most of the current reports found that the mortality rate of severe COVID-19 patients was high, and most of the patients died of severe hypoxemia (low oxygen levels in the blood). Therefore, high flow oxygen is essential for respiratory support therapy in patients with severe COVID-19.

High flow oxygen therapy is used in the hospital where oxygen, often in conjunction with compressed air and humidification, is delivered to a patient at rates of flow higher than that delivered traditionally in oxygen therapy and its aim is to increase the oxygen levels in the blood.

Azithromycin

If there is a superimposed bacterial infection, the physician can add Azithromycin to cover for atypical pneumonia. Azithromycin is an antibiotic that is widely used to treat chest infections such as pneumonia, infections of the nose and throat such as sinus infection etc.

Colchicine

It is a powerful anti inflammatory used to prevent the **cytokine storm*** in the lungs. If the cytokine storm is left uncontrolled it can cause irreversible damage to organs and it can lead to organ failure thus preventing this is a key treatment used to treat severe COVID-19. A study done with 41000 people showed a 25%reduction in hospitalization and admission into ICU.

This drug has been approved to help with early treatment of COVID 19.

Colchicine for oral use (capsule/tablet/liquid) is currently FDA approved for the prevention and treatment of gout flares in adults. Off-label uses for colchicine are many, including some types of arthritis, and **pericarditis*** and recently, studies have shown colchicine's efficacy in preventing major cardiovascular adverse events among patients who suffered a recent myocardial infarction (heart attack).

The cytokine storm
The immune system's overreaction that causes sudden, uncontrolled release of inflammation, causing molecules called **cytokine**.

Pericarditis- inflammation of the sac that surrounds the heart

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Ivermectin

Ivermectin is an antiparasitic drug that is approved by the Food and Drug Administration (FDA) for the treatment of various parasitic infections such as onchocerciasis ("river blindness") and lice infectations. **Ivermectin is not FDA-approved for the treatment of any viral infection**. In general, the drug is well tolerated and is currently being evaluated as a potential treatment for COVID-19.

Reports from **in vitro studies*** suggest that ivermectin reduced replication (multiplication) of the virus (SARS-CoV-2) in the lab tests performed. These tests suggested that ivermectin demonstrates potential anti-inflammatory properties which could be beneficial in the treatment of COVID-19. Ivermectin has been studied for is possible antiviral properties since 2012.

Results have been progressively documented towards a number of **RNA viruses***, including human immunodeficiency virus (HIV)-1, influenza, flaviruses such as dengue and Zika, and most recently, SARS-CoV-2 (COVID-19). Ivermectin's antiviral activity is based on its ability to bind to and inhibit the transport function of the host importing α (IMPα) protein.

***in vitro studies** Cell cultures in a petri dish

***RNA viruses** - Viruses that use genetic material to multiply in the body.

Paracetamol

Paracetamol can be used as an antipyretic (reduce fever) or as an analgesic (reduce pain). Avoid using nonsteroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen.

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Drugs under investigation as possible COVID-19 treatments

Tocilizumab and Sarilumab

These drugs are currently used to reduce inflammation in patients with arthritis. Hyper-inflammation, whereby the immune system over-responses and destroys a patient's organs by causing irreversible scarring, this appears to be the most common fatal complication of the COVID-19 virus. The drug Dexamethasone is currently being used to treat inflammation caused by the immune's response to COVID-19, by these drugs dampens the immune system across the board. Tocilizumab and sarilumab, by contrast, are more focused. They are both antibodies that block the effect of interleukin-6, a protein that stokes the immune response and has been prominent in patients with covid-19.

Remdesivir

Remdesivir is an antiviral medication that disrupts the virus's ability to replicate and spread within the body. It is recommended for patients who have been hospitalized and require oxygen but are not on mechanical ventilation. The drug was originally developed to treat Ebola.

This drug may be used to treat adults and children over the age of twelve years weighing at least 40 kgs, who have been hospitalised for COVID-19. The drug reduces the duration of COVID-19 symptoms.

Convalescent plasma

This involves injecting the blood plasma of people who have recovered from COVID-19 into patients who are seriously ill.
The NIH found no significant findings (Sept 2020) and so they do not recommend the use of this procedure.

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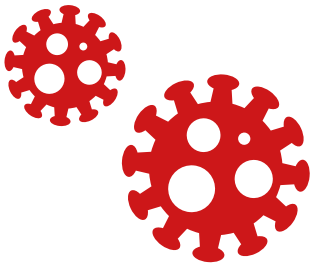

Drugs that are ineffective treatments for COVID-19

Chloroquine and Hydroxychloroquine

Hydroxychloroquine is primarily used to treat malaria and several inflammatory diseases, including lupus and rheumatoid arthritis. In August 2020 the National Institute of Health (NIH) issued a statement recommending against using these drugs.

The initial trial had either shown no benefit to patients suffering from COVID-19 or had led to worse outcomes for patients due to the drugs inherently dangerous side effects.