

# Viewpoint: What To Do About ACE Inhibitors During COVID-19 Pandemic

- [Kevin Kavanagh, MD](#) April 7, 2020

Many who are on ACE (angiotensin converting enzyme) Inhibitor and ARBs want to know what they should do in the midst of the COVID-19 pandemic. First and foremost, always consult a physician before making any decisions. The interaction between ACE Inhibitors and the COVID-19 virus has not been verified by clinical studies, but there is laboratory and animal evidence that raises concerns. Concerns which the NIH Director's Blog further fueled by reiterating that the virus can adapt to bind to angiotensin converting enzymes (ACE2).<sup>1</sup>

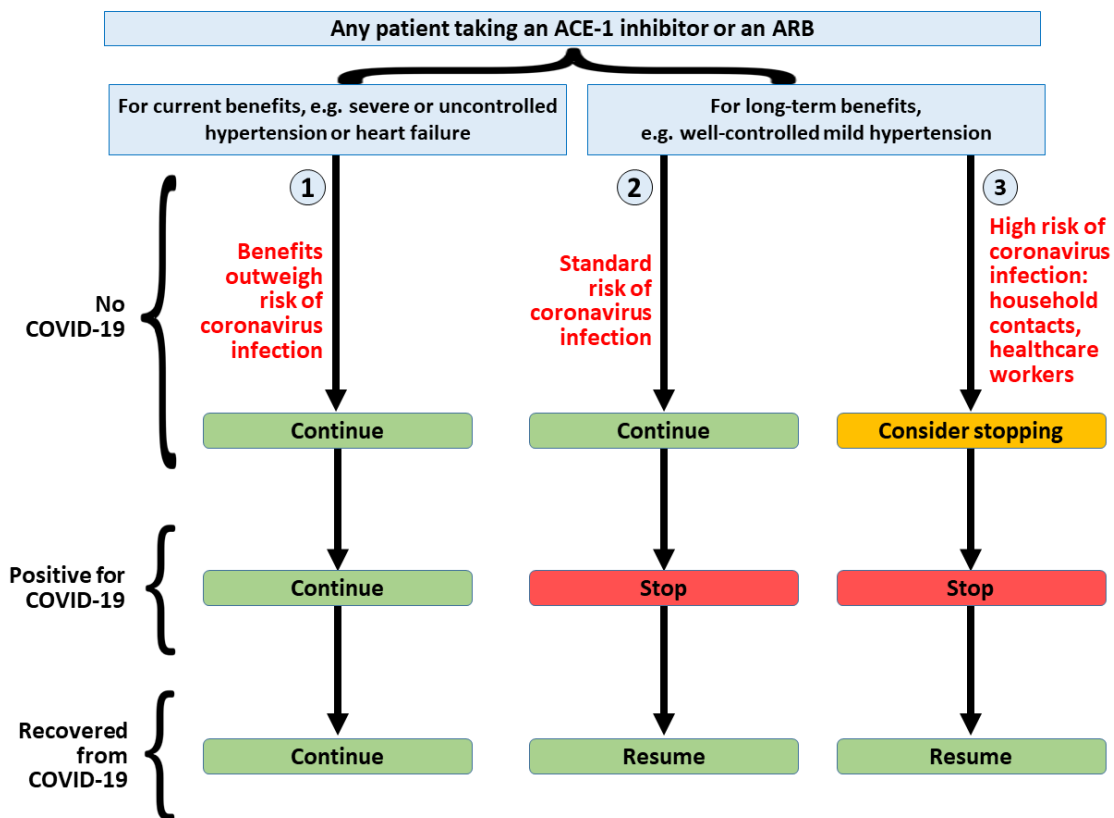
Concerns have also been raised regarding a number of studies which found that the COVID-19 co-morbidity with the highest incidence was hypertension.<sup>2,3,4</sup> The CDC does not list hypertension as a co-morbidity for the flu.<sup>5</sup> Dr Fauci has recently reported to state the following:

“Dr Fauci wondered why someone with well-controlled hypertension would have a much greater chance of dying from COVID-19. He urged delving into this deeper and finding out which medications those individuals were taking.”<sup>6</sup>

Authorities are split on what to do if a person is already on ACE Inhibitors and ARBs. Many in the United States have advocated to stay the course, until more information is known.<sup>7,8</sup> Switching medications may be difficult at best due to possible hypertensive rebound and exacerbation of high-blood pressure, especially in high risk patients.

A few authors feel these drugs may help COVID-19 patients.<sup>9</sup> However, some of the underlying Chinese laboratory research bolstering this contention may have methodological flaws<sup>10</sup> and one clinical trial regarding the provision of Recombinant Human Angiotensin-converting Enzyme 2 to COVID-19 patients has been withdrawn because of unfavorable results in a small pilot study.<sup>11</sup>

Another research group out of England has recommended attempting to withdraw these medications if a COVID-19 infection develops in patients with mild diabetes or cardiovascular disease; and possibly those with mild disease and high risk of infection (such as healthcare workers).<sup>12</sup>



The above figure shows the their treatment algorithm.

Thus, to put it simply, if you are on an ACE Inhibitor at home during this COVID-19 epidemic and you do not have COVID-19, you have two choices:

1. You can stay at home performing reverse isolation and have little risk of contracting the virus. And come off your medications **you may increase your** risk of a stroke or heart attack.
2. You can stay at home performing reverse isolation and have little risk of contracting the virus. And stay on your medications without increasing your risk of a stroke or heart attack.

It seems in an environment of decreased medical access and monitoring due to COVID-19, the latter may well be the safest choice. **However, always consult your healthcare provider for advice** and to weigh the risk and benefits depending on the prevalence of the COVID-19 virus in your area and your comorbidities for a severe COVID-19 disease.

Similar theoretical concerns exist for ibuprofen (Advil) and thiazolidinediones (a diabetic drug). There is less data regarding these drugs, since they are not designed to target the angiotensin pathways.

At the least, until this controversy can be resolved, if you are on one of these medications one should perform strict social distancing, **and reverse isolation** and protect yourself from contracting COVID-19. Staying safe at home is best and follow strict recommendations when contacting the public. Providers should be cautious starting new patients on these medications, especially for mild conditions.

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