

## **Position Statement of the APSC Council on ACE-Inhibitors and Angiotensin Receptor Blockers use in Hypertension and Heart Disease**

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The current COVID-19 pandemic has been shown to be caused by the novel SARS-COV-2 virus. This SARS-COV-2 virus belongs to the Coronaviridae family of viruses. This is similar to the endemic common cold Coronaviruses (HCoV-NL63, HCoV-229E, HCoV-OC43) and the 2003 SARS-Coronavirus (SARS-CoV).

One important concern has arisen regarding this novel coronavirus (SARS-COV-2), because it has been shown that the infectivity of this virus is through its binding to a specific enzyme called ACE2 on human cells. Thus, there is concern that treatment with medications to treat hypertension such as ACE inhibitors and ARBs, may make COVID-19 infection worse due to this affinity for the ACE2 receptors.

This concern has been amplified via social media posts, such that some patients have stopped taking their ACE-I and ARBs medications. Physicians are also worried as to the safety of these anti-hypertensive and heart drugs during this COVID-19 pandemic.

This speculation about the safety of ACE-i or ARB treatment in relation to COVID-19 does not have sound supporting scientific bases or evidence. Indeed, there is instead evidence from animal studies suggesting that these medications might protect against serious lung complications in COVID-19 infection, rather than increase harm. However, to date there is no data in humans.

It is important to emphasize that patients with hypertension and/or chronic heart disease are at higher risk with COVID-19. This increased risk for complicated pneumonia and heart failure has been shown in all the various countries where the COVID-19 outbreak has been widespread, e.g. in China, Iran and Italy. Furthermore, it is reassuring that treatment with these types of hypertension drugs has not been linked to a worse outcome with Coronavirus infection. To the contrary, the evidence suggests a neutral or beneficial effect.

Strokes and Heart Attacks remain the major cause of death around the world including the Asia Pacific region. Thus, even during this pandemic, stopping these medications may be more likely to cause harm.

The position of Asian-Pacific Society of Cardiology (as well other professional societies such as the European Society of Cardiology) is that current use of ACE and ARB for hypertension and heart failure should continue, in accordance with current guidelines. Physicians should therefore reassure and continue to prescribe these ACE-I and ARB drugs where clinically indicated.

The APSC will continue to monitor the evidence closely and will provide updates as they become available.

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