

## **Declaración de la Sociedad Latinoamericana de Hipertensión Arterial (LASH) con Relación a la Epidemia COVID-19**

Dada la pandemia declarada por la OMS, la desorientación de los pacientes y la falta de información basada en la evidencia para aclarar dudas relacionadas con la enfermedad, la Hipertensión Arterial y su Tratamiento, la Sociedad Latinoamericana de Hipertensión Arterial (LASH) hace la presente declaración:

Con relación al Coronavirus y la enfermedad asociada considera acertado la lectura y aplicación de las normativas sugeridas por la OMS, en lo que corresponde a la prevención, detección, seguimiento y tratamiento en las diferentes poblaciones, en su boletín del día 13 de marzo de este año titulada “Clinical management of severe acute respiratory infection (SARI) when COVID-19 disease is suspected” (<file:///C:/Users/Agustin/Downloads/WHO-2019-nCoV-clinical-2020.4-eng.pdf>).

Por otro lado, se asocia a las declaraciones de la Sociedad Europea de Hipertensión Arterial y la de Cardiología (ESH / ESC: <https://www.eshonline.org/spotlights/esh-statement-on-covid-19/>) y de la Sociedad Europea de Cardiología del 16 de marzo (<https://pace-cme.org/2020/03/16/esc-position-statement-on-continued-acei-and-arbs-use-in-relation-to-coronavirus-covid-19-outbreak/>), de la Sociedad Internacional de Hipertensión Arterial (<https://ish-world.com/news/a/A-statement-from-the-International-Society-of-Hypertension-on-COVID-19/>) y de la Sociedad Americana de la Insuficiencia Cardíaca / Colegio Americano de Cardiología/ Asociación Americana del Corazón ([https://www.acc.org/latest-in-cardiology/articles/2020/03/17/08/59/hfsa-acc-aha-statement-addresses-concerns-re-using-raas-antagonists-in-covid-19?utm\\_medium=social&utm\\_source=twitter\\_post&utm\\_campaign=twitter\\_post](https://www.acc.org/latest-in-cardiology/articles/2020/03/17/08/59/hfsa-acc-aha-statement-addresses-concerns-re-using-raas-antagonists-in-covid-19?utm_medium=social&utm_source=twitter_post&utm_campaign=twitter_post)), prestando especial atención en el comentario sobre la Hipertensión Arterial - SARI y el uso de los fármacos que interfieren con el sistema renina angiotensina aldosterona. Se menciona específicamente este punto ya que circula la posibilidad que esta familia de fármacos agrave o facilite la infección. Sin embargo, estas Sociedades, luego de evaluaciones exhaustivas, coinciden que, hasta la fecha, no existen evidencias que sustenten esta propuesta. De igual forma se descarta que la Hipertensión Arterial sea un facilitador de esta infección.

Por lo cual, esta Sociedad enfatiza los recaudos a tener en cuenta y a realizar por cada individuo y apela al sentido común individual para optimizar TODAS las medidas sugeridas para evitar el contagio, restringir las actividades multitudinarias y las reuniones en espacios restringidos o con poca ventilación. Para ello debemos mantener reglas de cumplimiento básico:

- *Lavarse las manos frecuentemente con agua y jabón o alcohol en gel,*
- *Toser o estornudar sobre el pliegue del codo o utilizar pañuelos descartables,*
- *No llevarse las manos a la cara,*
- *Ventilar bien los ambientes de la casa y del lugar de trabajo,*
- *Desinfectar bien los objetos que se usan con frecuencia,*
- *No automedicarse,*

- *En caso de presentar síntomas, aunque sean leves, consultar inmediatamente al sistema de salud local (Médico de Cabecera, de Familia, Cobertura Social, etc.), siguiendo las recomendaciones locales, para saber cómo hacer correctamente la consulta.*
- *En cada situación y en cada individuo, será el médico el responsable de la elección de las medicaciones indicadas dependiendo de las necesidades y la evidencia que soporte esa decisión.*
- *Solo si empeora la condición clínica y/o los signos de alarma, dados por lo entes de Salud, se debería consultar al Servicio de Urgencia. Considerar que la necesidad de que los pacientes con síntomas no se dirijan, inicialmente, a los servicios de urgencias se basa en el posible colapso del sistema de salud y, por ende, al aumento del riesgo de trasmisión del virus.*

***Finalmente, deseamos recordar que la prevención de esta patología, la restricción de su diseminación y su control se basa, fundamentalmente, en el trabajo individual de cada uno de nosotros en la aplicación de las reglas dictaminadas en cada uno de los países, cada institución y en el control de su cumplimiento.***

En representación de la Comisión Directiva de la Sociedad Latinoamericana de Hipertensión Arterial (LASH)

Dr Ramirez, Agustin J.  
Presidente  
LASH

Dr.- Jesús López Rivera  
Presidente electo LASH.

Dr.- Ortellado José  
Secretario LASH

**ESH Statement on COVID-19**  
**Statement of the European Society of Hypertension (ESH) on hypertension,**  
**Renin Angiotensin System blockers and COVID-19**  
**March 12th 2020**

Currently there is no clear evidence that hypertension per se is associated with an increased risk of infection by COVID-19. Therefore, patients with hypertension should apply the same precautions as subjects of the same age category and with the same profile of comorbidities (<https://www.ecdc.europa.eu/en/novel-coronavirus-china>).

In stable patients with COVID-19 infections or at risk for COVID-19 infections, treatment with ACEIs and ARBs should be executed according to the recommendations in the 2018 ESC/ESH guidelines. 1

The currently available data on COVID-19 infections do not support a differential use of RAS blockers (ACEI or ARBs) in COVID-19 patients.

In COVID-19 patients with severe symptoms or sepsis, RAS blockers and other blood pressure lowering drugs should be used or discontinued on a case-by-case basis, taking into account current guidelines.

Further research analysing the continuously increasing data on the impact of hypertension and blood pressure lowering drugs, particularly RAS blockers, on the clinical course of COVID-19 infections is warranted.

A note of caution! This statement reflects current evidence at time of release and may need updating according to novel evidence.

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**ESC Position statement on continued ACEi and ARBs use in relation to coronavirus COVID-19 outbreak. NEWS - MAR. 16, 2020**

The Council of Hypertension of the ESC has released a position statement on the recommended continued use of ACEi and ARBs, as there is no clinical or scientific evidence that treatment with these anti-hypertensive drugs should be discontinued in those infected with the COVID-19 coronavirus.

It has been suggested that ACEi or ARBs may have potential adverse effects in hospitalized COVID-19 infected subject and that ACEi and ARBs may increase risk of infection and severity of infection. These concerns are based on the observation that SARS-CoV-2, the virus that causes COVID-19, binds to the angiotensin converting enzyme 2 (ACE2) receptor and a few experimental studies have shown that ACE2 levels are upregulated in the heart with ACEi and ARBs treatment.

Some patients and doctors have become concerned (also due to amplification of this message by social media) and have stopped taking ACEi or ARB medication. The ESC Council of Hypertension would like to stress though that this speculation of unsafety of ACEi or ARBs in relation to COVID-19 is not evidence-based. On the contrary, there is evidence from animal studies suggesting that these therapies are protective against serious lung complication in COVID-19 infected patients.

*SOURCE: ESC POSITION STATEMENT OF THE ESC COUNCIL ON HYPERTENSION, MARCH 13, 2020*

### **A statement from the International Society of Hypertension on COVID-19**

The International Society of Hypertension (ISH) is aware of concern raised by speculation, which was amplified by the media and which suggested that hypertension (raised blood pressure) increases susceptibility to infection with COVID-19. Further speculation reportedly suggested that two commonly used classes of blood pressure lowering agents (ACE-Inhibitors and Angiotensin Receptor Blockers (ARBs)) may worsen the outcome for those who are infected with COVID-19 (1).

The ISH completely endorses the content of two recent statements made by the Council on Hypertension of the European Society of Cardiology and the European Society of Hypertension (2,3) both of which made clear that there is no good evidence to change the use of ACE-inhibitors or ARBs for the management of raised blood pressure in the context of avoiding or treating COVID-19 infection.

In addition, the ISH would like to highlight the following four critical pieces of information:

To date - there is no evidence that people with hypertension are over-represented amongst those seriously infected by COVID-19. Indeed, the opposite is true given that most such cases occur in those over 60 years in whom hypertension usually affects the majority.

There are no clinical data in humans to show that ACE-Inhibitors or ARBs either improve or worsen susceptibility to COVID-19 infection nor do they affect the outcomes of those infected.

In the absence of any such compelling data the ISH strongly recommend that the routine use of ACE-Inhibitors or ARBs to treat raised blood pressure should continue and should not be influenced by concerns about COVID-19 infection.

It is possible that in light of new data it may be that the management of raised blood pressure should be modified to reduce susceptibility to or improve outcomes among those infected by COVID-19. However, currently no such data are available to make such recommendations, and so no changes should be made.

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Statement by the ESC: [https://www.escardio.org/Councils/Council-on-Hypertension-\(CHT\)/News/position-statement-of-the-esc-council-on-hypertension-on-ace-inhibitors-and-ang](https://www.escardio.org/Councils/Council-on-Hypertension-(CHT)/News/position-statement-of-the-esc-council-on-hypertension-on-ace-inhibitors-and-ang)

Statement by the ESH: <https://www.eshonline.org/spotlights/esh-statement-on-covid-19/>

### **HFSA/ACC/AHA Statement Addresses Concerns Re: Using RAAS Antagonists in COVID-19**

**Mar 17, 2020 ACC News Story**

\*The following joint statement from the ACC, American Heart Association and Heart Failure Society of America was posted online on March 17 and addresses using renin angiotensin aldosterone system (RAAS) antagonists in COVID-19.

"The continued highest standard of care for cardiovascular disease patients diagnosed with COVID-19 is top priority, but there are no experimental or clinical data demonstrating beneficial or adverse outcomes among COVID-19 patients using ACE-I or ARB medications," said Richard J. Kovacs, MD, FACC. "We urge urgent, additional research that can guide us to optimal care for the millions of people worldwide with cardiovascular disease and who may contract COVID-19. These recommendations will be adjusted as needed to correspond with the latest research."

Patients with underlying cardiovascular diseases appear to have an increased risk for adverse outcomes with coronavirus disease 2019 (COVID-19). Although the clinical manifestations of COVID-19 are dominated by respiratory symptoms, some patients also may have severe cardiovascular damage. Angiotensin converting enzyme 2 (ACE2) receptors have been shown to be the entry point into human cells for SARS-CoV-2, the virus that causes COVID-19. In a few experimental studies with animal models, both angiotensin converting enzyme (ACE) inhibitors and angiotensin receptor blockers (ARBs) have been shown to upregulate ACE2 expression in the heart. Though these have not been shown in human studies, or in the setting of COVID-19, such potential upregulation of ACE2 by ACE inhibitors or ARBs has resulted in a speculation of potential increased risk for COVID-19 infection in patients with background treatment of these medications.

ACE2 is a homolog of angiotensin converting enzyme (ACE). ACE2 negatively regulates the renin angiotensin system by converting Angiotensin II to vasodilatory Angiotensin 1-7, diminishing and opposing the vasoconstrictor effect of angiotensin II. ACE2, ACE, angiotensin II and other renin angiotensin aldosterone system (RAAS) system interactions are quite complex, and at times, paradoxical. Furthermore, tissue expression of ACE2 differ in heart, kidneys and lungs of healthy patients, cardiovascular disease patients, and coronavirus-infected patients, and its role in the setting of COVID-19 infection in patients with cardiovascular disease is unclear. Furthermore, in experimental studies, both ACE inhibitors and ARBs have been shown to reduce severe lung injury in certain viral pneumonias, and it has been speculated that these agents could be beneficial in COVID-19.

Currently there are no experimental or clinical data demonstrating beneficial or adverse outcomes with background use of ACE inhibitors, ARBs or other RAAS antagonists in COVID-19 or among COVID-19 patients with a history of cardiovascular disease treated with such agents. The HFSA, ACC, and AHA recommend continuation of RAAS antagonists for those patients who are currently prescribed such agents for indications for which these agents are known to be beneficial, such as heart failure, hypertension, or ischemic heart disease. In the event patients with cardiovascular disease are diagnosed with COVID-19, individualized treatment decisions should be made according to each patient's hemodynamic status and clinical presentation. Therefore, be advised not to add or remove any RAAS-related treatments, beyond actions based on standard clinical practice.

These theoretical concerns and findings of cardiovascular involvement with COVID-19 deserve much more detailed research, and quickly. As further research and developments related to this issue evolve, we will update these recommendations as needed.

Bozkurt B, MD, PhD  
President, HFSA

Kovacs R, MD, FACC  
President, ACC

Harrington B, MD, FAHA  
President, AHA

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