

Statement of the European Society of Hypertension (ESH) on hypertension, Renin-Angiotensin System (RAS) blockers and COVID-19

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The ESH COVID-19 Task Force has generated a review (<https://doi.org/10.1093/cvr/cvaa100>) on the relation of hypertension, the RAS, and risk of lower respiratory tract infections and lung injury¹. This work includes a critical appraisal of the molecular mechanisms linking the RAS to lung damage and the potential clinical impact of treatment with RAS blockers in patients with COVID-19. Taken together, in view of the ESH COVID-19 Task Force, the available evidence does not support a deleterious effect of RAS blockers in COVID-19 infections. Therefore, there is currently no reason to discontinue RAS blockers in stable patients facing the COVID-19 pandemic.

Currently, ESH re-confirms our previous recommendations:

- 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>).
- 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.²
- 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, sepsis, or hemodynamic instability 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.

References

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2. Williams B, Mancia G, Spiering W, Agabiti Rosei E, Azizi M, Burnier M, Clement DL, Coca A, de Simone G, Dominiczak A, Kahan T, Mahfoud F, Redon J, Ruilope L, Zanchetti A, Kerins M, Kjeldsen SE, Kreutz R, Laurent S, Lip GYH, McManus R, Narkiewicz K, Ruschitzka F, Schmieder RE, Shlyakhto E, Tsioufis C, Aboyans V and Desormais I. 2018 ESC/ESH Guidelines for the management of arterial hypertension: The Task Force for the management of arterial hypertension of the European Society of Cardiology and the European Society of Hypertension: The Task Force for the management of arterial hypertension of the European Society of Cardiology and the European Society of Hypertension. *Journal of hypertension*. 2018;36:1953-2041.