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## **COVID-19 and concerns regarding use of ACEi/ARB/ARNi medications for heart failure or hypertension**

The Canadian Cardiovascular Society and the Canadian Heart Failure Society **strongly discourage the discontinuation of guideline directed medical therapy (GDMT) involving Angiotensin Converting Enzyme Inhibitors (ACEi), Angiotensin Receptor Blockers (ARB) or Angiotensin Receptor Neprilysin Inhibitors (ARNi) in hypertensive or heart failure patients as a result of the COVID-19 pandemic.** Cessation of these drugs in stable patients can lead to uncontrolled hypertension and increased hospitalizations for heart failure with an unnecessary increase in health care utilization, straining our valuable inpatient hospital resources. Although preclinical data has shown that the COVID-19 virus (also known as SARS-CoV-2), uses the SARS-COV receptor angiotensin converting enzyme (ACE) 2 for entry into target cells<sup>1</sup>, *there is NO* clinical evidence at this time to support withdrawal of these agents. Please continue GDMT.

These are difficult times, and we want our members to have all available local, national and global resources to best navigate the COVID-19 pandemic. Based on our local best practice, we are currently guided by the following principles with regards to ambulatory and elective procedure patients:

1. We support the principles of avoiding unnecessary contact and crowding in our workflow for patients and staff.
2. We will provide support for planning of hospital based and private clinics to reduce in person visits and related contact and crowding by maximizing telehealth and videoconferencing.
3. Patients should be offered non "in person" visits if care can be adequately delivered. The process and messaging should come from your local institution to ensure consistency for providers and patients/families.
4. Diagnostic testing warrants review to ensure patients and staff are not placed at unnecessary risk, placing a priority on patients where deferred testing poses potential risk. This safety message must be balanced with inevitable waitlist pressures and need for ongoing care of cardiovascular patients.
5. Pay close attention to local dialogue regarding nonessential procedural bookings in anticipation of increased acute care requirements and the need to delay the procedure.



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**Additional resources for members include:**

The American College of Cardiology COVID-19 Hub:

<https://www.acc.org/latest-in-cardiology/features/accs-coronavirus-disease-2019-covid-19-hub#sort=%40fcommonsortdate90022%20descending>

[Canada.ca COVID -19 website: https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection.html](https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection.html)

COVID -19 Clinical Guidance for the Cardiovascular Team (American College of Cardiology):

<https://www.acc.org/~media/Non-Clinical/Files-PDFs-Excel-MS-Word-etc/2020/02/S20028-ACC-Clinical-Bulletin-Coronavirus.pdf>

Caring for critically ill COVID -19 patients:

[https://jamanetwork.com/journals/jama/fullarticle/2762996?guestAccessKey=91c67e56-599a-43a4-9b29-1d3aaa70733f&utm\\_source=silverchair&utm\\_medium=email&utm\\_campaign=article\\_alert-jama&utm\\_content=olf&utm\\_term=031120](https://jamanetwork.com/journals/jama/fullarticle/2762996?guestAccessKey=91c67e56-599a-43a4-9b29-1d3aaa70733f&utm_source=silverchair&utm_medium=email&utm_campaign=article_alert-jama&utm_content=olf&utm_term=031120)

Preclinical evidence and recommendations on Acei, ARB, ARNi and COVID-19:

<http://www.nephjc.com/news/covidace2>

[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)

<https://www.nature.com/articles/s41569-020-0360-5>

Hoffmann M, Kleine-Weber H, Krüger N, Müller M, Drosten C, Pöhlmann S. The novel coronavirus 2019 (2019-nCoV) uses the SARS-coronavirus receptor ACE2 and the cellular protease TMPRSS2 for entry into target cells. bioRxiv 2020:2020.01.31.929042

All of this of course is subject to the rapidly evolving landscape. Stay connected and healthy, to best support our patients.

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