



Editorial

A Focus on COVID-19: Fast and Accurate Information to Guide Management for Pandemic-Related Issues in Cardiac Patients

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The COVID-19 pandemic is in “full flower,” causing the shedding of many tears for the innocents who have suffered and died, despair over incomes lost and businesses endangered, and spilling of much ink (some of it useful). This new reality has set in much faster than we have been able to absorb it and adjust.

The *Canadian Journal of Cardiology* (*CJC*) and its sister journal, *CJC Open*, in collaboration with the Canadian Cardiovascular Society (CCS), are doing what they can to facilitate the transfer of relevant information. The CCS has set up a Rapid Response Team (Table 1) to digest the rapidly emerging information and provide prompt guidance through the CCS Web site (www.ccs.ca). Areas covered include the use of renin-angiotensin system—inhibiting agents in COVID-19 patients, special considerations in managing cardiac implanted electronic devices, guidance on extracorporeal membrane oxygenation, cardiac procedures, and the distinction between COVID-19 pneumonia and heart failure. A full list of CCS guidance documents is available in the editorial by Graham et al. in this issue.¹

For its part, the *CJC* has developed a strategy to allow rapid review, dissemination, and publication of articles related to COVID-19. All relevant submissions are sent out for rapid review, aiming to provide an editorial decision within 10 days. Articles are then published rapidly in electronic form and designated for print publication in the next available issue. The first set of COVID-19—related papers appears in print form in this (June) issue of the *CJC*, and is the focus of the issue.

Several articles reflect a close collaboration between the *CJC* and the CCS rapid response strategy. These articles provide detailed guidance from the CCS and affiliate societies on cardiac surgery during the COVID-19 epidemic,² minimizing the risk of drug-induced long QT syndrome with QT-prolonging drugs used to treat COVID-19,³ and post discharge cardiac rehabilitation needs during the pandemic.⁴ They are accompanied by an editorial by Graham et al., dealing with a crucial and too-easily overlooked matter: the psychological well-being of health care workers.¹ This article deals with the risks of anxiety, insomnia, depression, and burnout, and also with mitigation strategies to prevent them. Recognizing the problem is not enough; we all need to take active measures to handle it.

These are followed by a compelling review by Peng et al., detailing the extensive early experience in China.⁵ In this article the authors carefully review epidemiology, public health control, and management issues. In many ways, the Chinese experience has become a template for COVID-19 control. The key (and to date only) method established to combat COVID-19 is prevention. The Chinese used vigorous case identification, along with tracking of contacts and isolation of sources of infection, to limit spread and eventually allow cautious resumption of activities. Although one can argue about the precise details of the Chinese approach and its effectiveness, one must not ignore it and the many lessons that can be learned. China and other countries like South Korea that effectively controlled COVID-19 relied heavily on extensive screening followed by careful isolation/tracking of cases and contacts. Because effective broadscale vaccination is likely 12–18 months away, the only way that the public can be protected, while avoiding economic ruin, is to enforce strict public health measures. Any society that attempts to reopen economic activity without careful public health controls risks seeing rapid reactivation of widespread infection and death.

This article is accompanied by a series of shorter articles and commentaries. Vervoort et al. emphasize the critical importance of prompt and open dissemination of information

Received for publication April 21, 2020. Accepted April 21, 2020.

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See page 788 for disclosure information.

Table 1. Canadian Cardiovascular Society Coronavirus Disease 2019 Rapid Response Team

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Dr Gurmeet Singh, Edmonton
Dr Gary Small, Ottawa
Dr Ricky Turgeon, Vancouver
Dr Sean Virani, Vancouver
Dr David Wood, Vancouver
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about COVID-19, its consequences, and management.⁶ Our publisher, Elsevier, is contributing to this effort by facilitating rapid electronic publication of COVID-19-related articles, along with their collection in a freely available open-access repository (<https://www.onlinecjc.ca/covid-19>). Cardinal et al. provide preliminary evidence that the use of fetal echocardiography to screen for congenital malformations can be reduced greatly for patients with a normal second trimester scan, without missing severe congenital heart disease.⁷ Marenzi and colleagues share their experience with tertiary in-hospital management of acute coronary syndromes in the hard-hit Lombardy region of Italy, without units dedicated to isolation of COVID-19 patients.⁸ Although the optimum is clearly to have all COVID-19-positive patients hospitalized in individual negative-pressure rooms geographically distinct from COVID-19-free subjects, this is often not possible in real-world conditions. Thadathilankal-Jess et al. provide a commentary⁹ that takes issue with comments by Bombardini and Picano,¹⁰ emphasizing the complexity of the angiotensin-converting enzyme system balance that governs the risk of acute respiratory distress syndrome, the most common major complication of COVID-19. Peng and colleagues report on cardiac rhythm complications in COVID-19 patients,¹¹ reminding us that COVID-19 can produce serious cardiac complications.⁵ Finally, Babu et al. discuss approaches to maintaining cardiac rehabilitation services despite social distancing and limited institutional access.¹² Their suggestions for more effective use of technologically-driven remote rehabilitation might prove valuable outside the pandemic in underserved areas of challenging environments like rural Canada.¹³

The *CJC* and the *CJC Open* are continuing to receive many submissions related to COVID-19, and to prioritize rapid

editorial consideration and dissemination. COVID-19 began as a sprint, but unfortunately is likely to play out as a marathon (and will feel still longer); optimizing the information base will help to deal with the cardiovascular complications along the way.

Funding Sources

Supported by the Canadian Institutes of Health Research and the Heart and Stroke Foundation of Canada.

Disclosures

The authors have no conflicts of interest to disclose.

References

- Graham MM, Higginson L, Brindley PG, Jetly R. Feel better, work better: the COVID-19 perspective. *Can J Cardiol* 2020;36:789-91.
- Hassan A, Arora RC, Adams C, et al. Cardiac surgery in Canada during the COVID-19 pandemic: a guidance statement from the Canadian Society of Cardiac Surgeons. *Can J Cardiol* 2020;36:952-5.
- Sapp JL, Alqarawi W, MacIntyre CJ, et al. Guidance on minimizing risk of drug-induced ventricular arrhythmia during treatment of COVID-19: a statement from the Canadian Heart Rhythm Society. *Can J Cardiol* 2020;36:948-51.
- Percy E, Luc JGY, Vervoort D, et al. Post-discharge cardiac care in the era of coronavirus 2019: how should we prepare? *Can J Cardiol* 2020;36:956-60.
- Peng F, Tu L, Yang Y, et al. Management and treatment of COVID-19: the Chinese experience. *Can J Cardiol* 2020;36:915-30.
- Vervoort D, Ma X, Luc JGY, Zieroth S. Rapid scholarly dissemination and cardiovascular community engagement to combat the infodemic of the COVID-19 pandemic. *Can J Cardiol* 2020;36:969.e1-2.
- Cardinal M, Poder TG, Roy-Lacroix M, et al. Considerations for scaling down fetal echocardiograms during the COVID-19 pandemic. *Can J Cardiol* 2020;36:969.e5-6.
- Cosentino N, Assanelli E, Merlino L, et al. An in-hospital pathway for acute coronary syndrome patients during the COVID-19 outbreak: initial experience under real-world suboptimal conditions. *Can J Cardiol* 2020;36:961-4.
- Thadathilankal-Jess J, Kiran J. What is the role of angiotensin converting enzyme 2 (ACE2) in COVID-19 infection in hypertensive, diabetic patients? *Can J Cardiol* 2020;36:969.e3.
- Bombardini T, Picano E. Angiotensin converting enzyme 2 as the molecular bridge between epidemiologic and clinical features of COVID-19. *Can J Cardiol* 2020;36:784.e1-2.
- He J, Wu B, Chen Y, et al. Characteristic ECG manifestations in patients with COVID-19. *Can J Cardiol* 2020;36:966.e1-4.
- Babu AS, Arena R, Ozemek C, Lavie CJ. COVID-19: a time for alternate models in cardiac rehabilitation to take centre stage. *Can J Cardiol* 2020;36:792-4.
- Tran M, Pesah E, Turk-Adawi K, et al. Cardiac rehabilitation availability and delivery in Canada: how does it compare with other high-income countries? *Can J Cardiol* 2018;34:S252-62.