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Commentary: Cardiac surgery during the coronavirus disease 2019 (COVID-19) pandemic: Feeling our way in the dark

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CENTRAL MESSAGE

The views of senior surgeons can provide recommendations for clinical decision-making for cardiac surgery during the COVID-19 pandemic while clinical data are awaited.

The coronavirus disease 2019 (COVID-19) pandemic has presented unprecedented challenges to international health care systems. While cardiac surgeons have been deployed to assist in treating nonsurgical patients with COVID-19, a major challenge has been in providing cardiac surgical treatment that keeps both patients and staff safe from COVID-19 infection. However, with no recommendations available to guide current decision-making, there is significant variation in practice, and only time will reveal the impact of the pandemic on patient outcomes.

In this issue of the *Journal*, Benedetto and colleagues[1] appraised UK consultant surgeons' opinions on clinical decision-making to generate provisional recommendations for cardiac surgery during the COVID-19 pandemic. A Web-based questionnaire was sent to all consultant cardiac surgeons, and responses were received from 86 of 198 surgeons. The authors defined a "strong consensus" as an opinion shared by at least 60% of responders and also considered whether surgeons worked in units in which resources were entirely, partially, or not at all redirected to treat patients with COVID-19.

Responses were varied, revealing considerable uncertainty even within a single country and health care system. Nevertheless, there was strong agreement that the risk of COVID-19 exposure for patients undergoing heart surgery could be moderate to high and likely to increase mortality if it occurs. As a result, personal protective equipment should be adopted in every case by the operating room team regardless of the patient's COVID-19 status, and all cardiac procedures should be decided based on an ad-hoc multidisciplinary team. The responders strongly supported that, before hospital admission, every patient should receive a nasopharyngeal swab, polymerase chain reaction and, more surprisingly, computed tomography (CT) of the chest. The majority (>50%) agreed that patients who tested positive for COVID-19 before salvage surgery (ie, dissection) should be considered for surgery only if they have no symptoms of infection and that aortic and mitral valve surgery should similarly be considered only in selected cases. Opinion about who should have coronary artery bypass graft surgery was much more varied. Most pleasingly, there was strong agreement that this pandemic will not have a long-term impact on surgical activities.

The study by Benedetto and colleagues[1] provides important and interesting information. Although the authors describe some recommendations as a "consensus," which implies a degree of discussion and agreement, and many of them echo existing national and international recommendations, the views of senior surgeons can represent an instrument to guide heath policy makers. UK units were unequally represented, some with only one responder and others with several who possibly all reflected the same locally agreed protocols. Nevertheless, the study provides information for treating patients who are suspected to be COVID-19 positive and negative as well as those with

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common valvular heart conditions. It discusses the debate and uncertainty of the role of coronary artery bypass graft surgery during the pandemic. Some recommendations, such as the importance of multidisciplinary team discussion, are surely here to stay. Others, for example recommending a CT of the chest in asymptomatic patients who test COVID-19 negative, are probably impractical or even contraindicated. In the rest, such as whether personal protective equipment affects operating room performance, data will emerge to reinforce or modify them.

At this time of global crisis, national and international associations of cardiac surgeons are co-operating, learning, leading, and sharing information on an unparalleled scale. In many ways we are "feeling our way in the dark." Although useful guidance is provided by the study of Benedetto and colleagues,[1] the greatest reassurance is the confidence shown by so many senior surgeons that normal cardiac surgery practice will return when the pandemic is over.

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Commentary: Performing cardiac surgery in the coronavirus disease 2019 (COVID-19) era: What is the new normal?

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CENTRAL MESSAGE

The optimal preoperative assessment and intraoperative approach to the cardiac surgical patient in the COVID-19 era remain unknown, although information from surveys may be useful.

The global impact of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection and the coronavirus disease 2019 (COVID-19) pandemic crisis has significantly changed the landscape of cardiac surgical practice. There is a sense of urgency that is all the more intensified given the many unanswered questions surrounding virus transmission. Furthermore, the cardiac surgeon's primary responsibility is to assure patient safety and excellent outcome. There remains a huge gap between the different aspects of this biopsychosocial viral crisis and our current knowledge.

In this issue of the *Journal*, Benedetto and colleagues[1] analyzed the data gathered from a national survey of senior cardiac surgeons across the United Kingdom regarding what needs to be changed in the perioperative approach to the adult cardiac surgery patient during the COVID-19 pandemic. The authors emphasized that expert opinion may help health authorities achieve some interim recommendations while awaiting more robust data. A total of 86 of 198 senior cardiac surgeons of the Society for Cardiothoracic Surgery in Great Britain and Ireland from 35 institutions completed a Web-based questionnaire of

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