Canadian Cardiovascular Society

GUIDANCE FROM THE CCS COVID-19 RAPID RESPONSE TEAM

March 19, 2020

Hospital-based care and cardiac procedure use during the COVID-19 crisis

Principles

- Create capacity to accommodate increasing demand for hospital beds and health human resources in response to the COVID pandemic
- Implement social and healthcare distancing to minimize disease transmission, including non-urgent/emergent inter-hospital transfers
- Make decisions informed by understanding of patient risk profile, natural history of disease, spectrum of management options and anticipated length-of-stay data for various cardiac conditions
- Document decision-making processes to ensure due diligence in the care process
- Expect dynamic reassessment and iteration based on daily communication by operational and medical leadership

Recommendations across key clinical service areas

1. Invasive diagnostic testing, surgery and procedures

a) All inpatient procedures should be performed as soon as possible to facilitate treatment and discharge planning. This includes but is not limited to the following:

i. Revascularization by surgical or catheterization means, including acute ST elevation myocardial infarction (STEMI) care

ii. Surgical emergencies such as aortic dissection, infective endocarditis, and cardiogenic shock

iii. Secondary prevention ICD or CRT ICD

iv. Pacemaker implantation in patients with symptomatic bradycardia

v. Surgery or intervention for symptomatic advanced valvular heart disease

vi. Left ventricular assist device (LVAD) implantation or heart transplantation

vii. Pacemaker or ICD lead fracture/dislodgement leading to arrhythmia, hemodynamic compromise, inappropriate shock, and/or hospital admission

viii. Pacemaker or ICD lead extraction for infection

ix. Ventricular tachycardia ablation in medically refractory electrical storm

b) Regular triage by Cardiac Catheterization, Electrophysiology and Cardiac Surgery Directors or designates to ensure appropriateness, urgency and alignment with local outbreak response phase

c) Cancellation of all outpatient invasive diagnostic tests and related outpatient or inpatient procedures, with the following exceptions:

   i. Non-invasive diagnostic testing suggests urgent/high risk for cardiac events, integrated with clinical status to assign urgency and need for short term care as determined through a daily triage process

   ii. Endomyocardial biopsy for post-transplant surveillance (guided by local programs)

   iii. Pacemaker implantation in asymptomatic patients (prolonged pauses, high grade AV block)

   iv. Pacemaker or ICD generator changes for device at end of life, or in dependent patients at elective replacement indication

   v. Cardioversion or ablation of unstable supraventricular arrhythmia (syncope, preexcited atrial fibrillation, acute heart failure), particularly in patients at high risk of emergency room presentation

   vi. Invasive testing for high-risk syncope

d) A daily reassessment of critical care and STEMI capacity through the medical and operational leadership group

2. Ambulatory cardiology (please see CCS's Guidance on ambulatory management and diagnostic testing during the COVID-19 crisis)

a) Transition to virtual health/telehealth if possible and/or cancellation/rescheduling of routine follow-up visits

b) Continue emergency clinic visits based on local triage algorithms, as a mechanism to avoid pressures on the emergency room and to avert potential hospitalization

   i. Urgent appointments by virtual health/telehealth preferred

   ii. When in-person is deemed necessary, consider a "consultant of the day" model

   iii. Use ambulatory facilities where available

c) If face-to-face consults are required, limit the number of heath care providers involved to the minimum number required (especially multi-disciplinary clinics)

3. Non-invasive diagnostic services (please see CCS's Guidance on ambulatory management and diagnostic testing during the COVID-19 crisis)

a) Cancellation of all routine elective/surveillance appointments.

b) Retain limited diagnostic capacity for outpatients who are deemed to be unstable and/or to support urgent clinical assessment

   i. Testing should be preceded by a virtual or face to face assessment

ii. Where the testing is reasonably expected to inform patient management in the short term.

iii. Well defined and finite daily capacity which assumes a substantial reduction in outpatient volumes.

iv. Regular triage by Echocardiography and Electrodiagnostics Lab Directors, or designate at each site, to ensure appropriateness, urgency and alignment with local outbreak response phase.

c) A parallel discussion should be undertaken with adjacent departments such as Nuclear Medicine and Radiology to ensure aligned processes including myocardial perfusion imaging.

We will continue to provide updates as information becomes available.

Stay connected and stay healthy, to best support our patients.

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