

March 19, 2020

## **Guidance on 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 health 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.

**Andrew Krahn, MD, FCCS**

President, Canadian Cardiovascular Society, 2018-2020

[akrahn@mail.ubc.ca](mailto:akrahn@mail.ubc.ca)

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