Canadian Cardiovascular Society

GUIDANCE FROM THE CCS COVID-19 RAPID RESPONSE TEAM

Management of referral, triage, waitlist and reassessment of cardiac patients during the COVID-19 pandemic

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1. Background

The current recommendation to suspend all elective activities to reduce patient and healthcare provider risk of contracting COVID-19 is a central measure to "flatten the curve" and prepare the healthcare system for an anticipated patient volume surge. During this marked reduction in elective care provision, patients with known or suspected cardiovascular disease will continue to be referred for care, diagnostic testing or treatment, or reside on waitlists for assessment.

Delays in access to clinical assessment, diagnostic testing and subsequent medical treatment, or procedural intervention, will adversely impact patients: extended wait times are presumed to negatively influence patient outcomes across a wide variety of clinical scenarios [1-4]. The required duration of reduction in activity is unknown at this time. In addition, ongoing referral of patients based on limited information is associated with varying abilities to accurately predict risk of deferral from a patient and system perspective.

There is no clearly defined pathway to address how best to manage this escalating backlog of work for consultation, diagnostic testing, follow-up or access to cardiovascular procedures. Simple deferral is not acceptable, and robust processes over and above existing wait list management strategies are needed to ensure risk mitigation and to facilitate planning for resumption of full-scale activity. This document presents principles and guidance to effectively triage new requests for clinical assessments, diagnostic testing and therapeutic procedures, and implement new waitlist management systems with the goal of risk mitigation.

It is anticipated that most jurisdictions, hospital systems and clinics have designed a unified triage system and the principles outlined below should fall within that established structure. As cardiovascular practitioners, we have a primary responsibility to our patients that includes advocating for the provision of lifesaving cardiovascular care despite a pandemic. Considerations during this pandemic should include the severity of the potential or presenting problem, the capacity of the system to provide diagnostic testing and treatment while concomitantly dealing with the pandemic, and the likelihood of rapid discharge with related risk of contracting COVID-19. Risk scores and validated length-of-stay predictors should be used whenever possible, particularly for patients who are being considered for invasive procedures.

2. The referral process, triage and waitlist management: Clinical visits

a) New referrals

The current practice of new referral acceptance and timely triage should continue uninterrupted during the COVID-19 pandemic. This will inform waitlist management as restrictions evolve and guide capacity planning. Usual local minimal standards should apply, including expectations for triage and subsequent communications. Primary clinical contact with patients via telephone or virtual health is strongly recommended (see resources below for previous CCS recommendations). Obtain complete contact information, including an email address and/or (cell) phone number for all newly referred patients, in order to facilitate privacy and health information compliant telephone or virtual care.

i. Referral materials should be reviewed by a physician, or clinically skilled designate (nurse, pharmacist, physician assistant) to determine urgency of consultation.

ii. Patients should be contacted in a timely fashion to clarify stability and inform urgency, as aligned with local practice. They should be promptly informed of the triage decision.

iii. Urgent assessment should begin with telephone or virtual care to inform the need for diagnostic testing and in-person evaluation, consistent with previous guidance (see resources below).

iv. Local and regional groups are strongly encouraged to consolidate processes, to set targets for assessment and communication and consolidate the work of new referral acceptance to as few healthcare providers as possible.

v. It is reasonable to continue routine evaluation of non-urgent patients by telephone or virtual means to provide guidance to referring physicians and patients and reduce waitlist pressures once normal service provision resumes.

b) Follow-up visits

i. Follow-up visits should be conducted using telephone or virtual interactions, with very few exceptions. In specialized clinics, this follow-up may be performed by various clinical team members (e.g. nurse, pharmacist) with physician access.

ii. If follow-up evaluation suggests the need for diagnostic testing or in-person evaluation, minimize health care team involvement to those deemed absolutely essential.

c) Non-urgent visits

Two categories of scheduled follow-up are proposed:

i. **High priority:** In-person assessment and diagnostic testing is advised after triage. We propose that patients are re-contacted to establish any change in status within 4-8 weeks if they have not been assessed in-person, informed by local practice. If necessary, a repeat remote follow-up visit may be scheduled by the consulting service to ensure stability and safety to continue waiting.

ii. **Elective priority:** Follow-up testing with either in person or virtual follow-up can be deferred until resumption of normal clinical activity. Consultation and related testing will be significantly delayed. The patient and referring physician should be informed and encouraged to report worsening of clinical symptoms. The process for communication of change in clinical status should be clearly communicated.

d) Documentation

All virtual consultations should be documented with date and time via written communication to the referring physician. We suggest the following additional language could be considered for inclusion in the documentation:

i. “The patient has been informed of this plan in the context of the COVID-19 pandemic”

ii. For high-priority cases, the patient “has been provided with instructions to facilitate direct contact with the consulting service” and “if in-person evaluation is not completed within 4-8 weeks, the patient will be contacted to outline next steps”

iii. For low-priority cases, “the patient has been instructed to follow up with the referring physician’s office if there is a change in condition while awaiting assessment.”. The consultant will not proactively follow up with the patient but will await resolution of the COVID-19 pandemic, or notification from the referring physician or patient.

3. The referral process, Triage and waitlist management: Diagnostic testing

a) Inpatient and urgent outpatient diagnostic testing referrals should undergo a process of skilled review with physician oversight. Once the request has been deemed urgent, testing processes should align with local procedures with appropriate precautions.

b) It is imperative that certain core diagnostic services remain active, recognizing that local processes will result in restricted access for all forms of testing. Local and regional access to the following is advised:

   i. **Must be available for urgent and emergent care:** ECG, transthoracic echocardiography, coronary CT angiography (alternative: nuclear perfusion scan)

   ii. **Restricted availability:** Exercise testing, Holter monitoring, event recorder, nuclear cardiology, cardiac MRI, endomyocardial biopsy, coronary angiography

   iii. **Exceptional circumstances:** cardiac positron emission testing (PET), right heart catheterization

   iv. **Suspended:** 24-hour ambulatory blood pressure monitoring

c) Non-urgent requisitions should be reviewed by a physician, or a skilled designate, to assign a testing category.

   i. If the test is potentially urgent and the requisition does not specify a time frame, the ordering physician should be contacted to clarify target timeline for testing. Direct physician to physician communication in this situation is advised.

   ii. If the test is deemed non-urgent, a standardized communication should be distributed to the ordering physician, documenting that the test will be significantly delayed during the COVID-19 pandemic. The communication should outline the process for the requesting physician to contact the testing service if the delay is not acceptable. Local processes should ensure testing is warranted if extended delays occur (likely).

d) The COVID-19 crisis will result in a significant backlog of diagnostic tests. It is strongly recommended that physicians and diagnostic laboratories ensure that all testing to be performed is warranted and informed by CCS Guidelines and Choosing Wisely recommendations (see resources below). Referring providers should be encouraged to provide sufficient information to allow accurate triage. Surveillance testing should adhere to recommended frequency guidance, which may involve consideration of test postponement. This will reduce waitlists and ensure that high-priority testing is completed.

4. The referral Process, triage and waitlist management: Therapeutic procedures

a) This area poses the greatest immediate risk to patients and concern to physicians. Significant delays in revascularization, valve intervention, device implantation, ablation and related cardiac surgical procedures are known to increase patient risk of mortality and major morbidity [1-4].

Recommended wait times have been established for most procedures by the CCS or the related affiliate society. In addition, recent guidance from the CCS and affiliates has been provided regarding the nature of urgent and emergent cases during this period of restricted activity.

b) The following guidance applies to procedures that have been deferred indefinitely during the pandemic. These patients require the most active and intensive virtual reassessment, with new policies developed based on established waitlist management processes. Physicians should partner with hospital and regional health authority managers to develop a system for timely reassessment of patients, based on the following principles:

   i. All patients scheduled for elective procedures that have been deferred should be contacted by a physician or skilled delegate (typically a triage coordinator with a nursing background). The patients should be provided with a repeat contact timeline, based on the established urgency. In general, patient contact every 2-8 weeks, based on local waitlist and urgency systems, is advised.

   ii. The patient, primary care physician and all relevant referring physicians should be provided with clear instructions on how to communicate any change in clinical status that may warrant reassessment of urgency to the relevant booking office.

   iii. New cases added to the existing waitlist should follow current practice and adhere to the reassessment processes outlined above.

   iv. Following reevaluation, time- and date-stamped written documentation should be provided to the referring physician, detailing the assessment and plan. Consider including the patient in the written communication.

   v. If reassessment determines that the patient should be considered urgent, local processes for vetting and booking should be activated.

   vi. For as long as local resources permit, therapeutic procedures should be maintained for urgent and emergent patients. Collaboration with an alternate designated site should be considered in the event of severe local restrictions.

5. Resumption-of-service policies

As COVID-19 wanes and access restrictions ease, hospitals, clinics and diagnostic services will return to normal. At this time, a phased-in approach to resume activities is anticipated. For currently constrained services, a resumption process should be planned. This includes a principles-based approach to determine which services expand first, how to resolve internal limited resource allocation disputes and development of a plan to address deferred consultation, diagnostic and therapeutic services. Accurate identification of referrals, diagnostic testing and procedural backlogs will be important. Human resources issues will need to be considered. Short- and long-term effects of the COVID pandemic on patient outcomes warrants further study.

CLINICAL VISITS

Continue acceptance and timely triage of new referrals

New referrals

Physician or clinically skilled designate reviews referral to determine urgency of consultation

Notify patient and referring provider of decision and clarify stability to inform urgency

Obtain complete contact information for patient (e-mail address &/or (cell) phone number) to facilitate privacy-compliant telephone or virtual care

Urgent

Assess with telephone or virtual care to inform need for diagnostic testing and in-person evaluation*

Non-urgent

Classify as "High priority" or "Elective priority" (see "Follow-up visits" for descriptions

**See CCS Rapid Response Team guidance on ambulatory and community-based care.*

Conduct using telephone or virtual interactions, with very few exceptions

Follow-up visits

High priority

- In-person assessment and diagnostic testing post-pandemic
- Assess patient in person or re-contact to establish any change in status within 4-8 weeks
- Schedule repeat remote follow-up visit by consulting service to ensure stability and safety to continue waiting (if necessary)

Elective priority

- Follow-up testing can be deferred until post-pandemic
- Inform patient and referring physician
- Determine process for communicating change in clinical status

DOCUMENTATION

Document all virtual consultations in writing for the referring physician

For all cases: "patient has been informed of this plan in the context of the COVID-19 pandemic"

High-priority cases

- patient "has been provided with instructions to allow them to directly contact the consulting service" and
- "if in-person evaluation not completed within 4-8 weeks, patient will be contacted to outline next steps"

Low-priority cases

- patient "has been instructed to follow up through the referring physician's office if there is a change in condition while awaiting assessment"
- "the consultant will not proactively follow up with the patient but will await resolution of the COVID-19 pandemic, or notification from the referring physician or patient"

DIAGNOSTIC TESTING

Maintain core diagnostic services

Inpatient and urgent outpatient diagnostic testing referrals undergo skilled review with physician oversight

Urgent

Must be available for urgent/emergent care

- ECG
- Transthoracic echocardiography
- Coronary CT angiography*

Restricted availability

- Exercise testing
- Holter monitoring
- Event recorder
- Nuclear cardiology
- Cardiac MRI
- Endomyocardial biopsy
- Coronary angiography

Exceptional circumstances

- Cardiac PET
- Right heart catheterization

Suspended

- 24hr ambulatory blood pressure monitoring

May be urgent

- Contact ordering physician to clarify target timeline for testing
- Direct physician-to-physician communication is advised

Non-urgent

Send standardized communication to ordering physician documenting:

- that test will be significantly delayed during the pandemic
- process for requesting physician to contact testing service if delay not acceptable

*Alternative: nuclear profusion study

7. Additional resources

COVID-19: Recommendations for Public, Recommendations for Physicians. Choosing Wisely

COVID-19: A remote assessment in primary care (infographic) *The BMJ*, British Medical Association

Virtual Care Playbook for Canadian Physicians. Canadian Medical Association, Canadian College of Family Physicians, Royal College of Physicians and Surgeons of Canada

CCS COVID-19 Rapid Response Team guidance documents

- Is it COVID or is it Heart Failure? Management of Ambulatory Heart Failure Patients
- Reducing in-hospital spread and the optimal use of resources for the care of hospitalized cardiovascular patients during the COVID-19 pandemic
- Community-based Care of the Cardiovascular Patient During the COVID-19 Pandemic
- Hospital-based care and cardiac procedure use during the COVID-19 crisis
- Ambulatory management and diagnostic testing during the COVID-19 crisis

Cardiac surgery in Canada during the COVID-19 pandemic: A guidance statement from the Canadian Society of Cardiac Surgeons. Canadian Journal of Cardiology (in press)

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