April 8, 2020

Canadian Heart Rhythm Society
Société canadienne de rythmologie

CHRS Position Statement Regarding Procedure Prioritization During the COVID-19 Pandemic

Matthew Bennett, MD, Vancouver, BC
Blandine Mondésert, MD, Montreal, QC
Ratika Parkash, MD, Halifax, NS
Eugene Crystal, MD, Toronto, ON
John Sapp, MD, Halifax, NS

The importance of procedure prioritization

The recent COVID-19 pandemic has increased strain on healthcare resources. There is a need to reduce hospital occupancy and preserve essential medical material and equipment in anticipation of an oncoming high volume of patients with COVID-19, as well as concern that patients and care providers will be exposed to risk of contracting COVID-19 at the time of medical procedures.

These factors highlight the importance of procedure prioritization. Medical procedure prioritization is complex and based on many patient-, hospital- and community-specific factors. In a pandemic, many crucial variables — infection rates, risk of inoculation of medical staff and patients at the time of a procedure and the expected time until these risks peak and return to a lower risk — can only be estimated.

The individual mortality reduction associated with a procedure needs to be balanced with the population and individual risk of exposure associated with hospital utilization. Furthermore, medical staff infection may have downstream mortality effects due to the inability to treat subsequent patients. Procedure-associated morbidity reduction must be incorporated into procedural prioritization. Procedures that would otherwise only prevent hospitalization and emergency room visits now would reduce the mortality that may be incurred due to COVID-19 inoculation during a preventable hospital visit. Hospital-specific factors such as the need for medical staff or medical equipment need to be considered.

Guidance on procedure prioritization

This document provides procedural prioritization guidance to clinicians treating patients with common heart rhythm disorders. Although these procedures have been categorized based on the degree of restriction of arrhythmia services, we acknowledge that many factors may impact the clinical decision to perform or postpone a procedure. Unanticipated situations and individual patient exigencies may warrant divergence from these suggestions — this document is intended as a reference that does not supersede, but rather complements, clinical judgement.

We encourage clinicians and researchers to track cardiovascular outcomes relevant to these recommendations. Such efforts may prompt changes to these recommendations or inform future decision making should similar situations arise in the future.

At all times, patient screening for COVID-19 and proper personal protective equipment (PPE) utilization is recommended in accordance with current public health recommendations. It may be helpful to have a local group prioritize patient procedures when there are limited resources and multiple patients needing care.

Procedure*	Moderate restriction in regular services	Severe restriction in regular services
Diagnostic EP study	Patients with syncope who are perceived to be at high risk	Defer
SVT ablation	Drug-refractory SVT leading to incessant arrhythmia	Defer
WPW/AP ablation	• Pre-excited AF, • cardiac arrest, • syncope, or • drug-refractory incessant arrhythmia	AF with: • very rapid pre-excited rate (shortest RR<250 ms), • cardiac arrest, • syncope, or • drug-refractory incessant arrhythmia
PVC ablation	Defer	Defer
Idiopathic VT ablation	Incessant drug-refractory VT	Incessant drug-refractory VT
Scar-related VT ablation	Recurrent or incessant, drug-refractory VT	Incessant, drug-refractory VT
AF ablation, PVI	Defer	Defer
A flutter ablation	Recurrent symptomatic, drug-refractory e.g. heart failure	Defer
AV node ablation	Drug refractory, highly symptomatic atrial arrhythmias	Defer
Cardioversion	Highly symptomatic arrhythmias with drug refractory rapid ventricular rates	Highly symptomatic arrhythmias with drug refractory rapid ventricular rates
Primary prevention ICD implant	Patients with high risk features (e.g. syncope, high-burden symptomatic NSVT)	Defer
Secondary prevention ICD implant	Appropriate	Appropriate
CRTP/D	NYHA III heart failure despite medical therapy in primary or secondary prevention	Patients requiring either: • secondary prevention ICD implant or • emergency pacing

Procedure*	Moderate restriction in regular services	Severe restriction in regular services
Pacemaker implant	• Symptomatic Mobitz II Second Degree AV block (or worse) or • high-grade AV block or worse or • severe symptomatic sinus node dysfunction	• Life-threatening AV block or • life-threatening sinus node dysfunction
Pacemaker/CRT-P gen change/ revision**	Patients at ERI who are: • pacemaker-dependent*** or • CRT dependent	Patients who are approaching end-of-service who are pacemaker dependent***
ICD/CRT-D gen change	Patients who are at ERI who are: • pacing or • CRT dependent or • who have had prior appropriate tachy therapy or • for whom implant is for secondary prophylaxis or • device malfunction	Patients who are approaching end of service who are: • pacing/CRT-dependent • recent appropriate tachy therapy
Lead replacement/ revision**	Leads at high risk for loss of function in patients who: • are pacing-dependent, or • have secondary prophylaxis ICD	Leads at high risk for loss of function in patients who: • are pacing-dependent or • have secondary prophylaxis ICD
Lead extraction	Appropriate for device infection	Appropriate for device infection with: • endocarditis, or • intracardiac prosthetic device
ILR implant	Patients with syncope perceived to be at high risk	Defer
Tilt-table testing	Defer	Defer
LAA closure	Defer	Defer

* We assume that all patients meet published guidelines regarding procedural appropriateness.

** The urgency of device system revision refers to revising the component of the device system associated with a significant morbidity or mortality benefit or when deferring the revision will make the component non-revisable.

*** Patients are deemed to be pacemaker dependent if hemodynamically significant bradyarrhythmias are likely to occur in the absence of a pacemaker.

CHRS Device Committee

- Dr. Jason Andrade
- Dr. Derek Exner
- Dr. Clarence Khoo
- Dr. Ratika Parkash
- Dr. Francois Philippon
- Dr. Calum Redpath
- Dr. Raymond Yee

CHRS Ablation Committee

- Dr. Laurent Macle
- Dr. Gary Amit
- Dr. Vijay Chauhan
- Dr. Eugene Crystal
- Dr. Marc Dyell
- Dr. Benedict Glover
- Dr. Girish Nair
- Dr. Ratika Parkash
- Steve Klassen