Heart Status Listing Revision
November 9 2021

Working Group Membership

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Process

In 2019/2020, the CCTN executive tabled a proposal to critically review the Canadian status listing criteria for adult and pediatric with the aim of revising to align with current practice and best available scientific evidence. The scope was purposeful in maintaining the current numerical listing 1,2,3,3.5, and 4 for operational and logistical compliance.

Spring 2020 — 1st Panel Meeting. Outline and Plan

July 2020 — 2nd Panel Meeting

- Presentation of Environmental Scan of UK, French, Australia, Eurotransplant, US (UNOS) listing systems
- Panel divided into 3 groups to hold independent meetings for listing proposals focusing on
    - Status 4 criteria
    - Mechanical circulatory support
    - Restrictive Cardiomyopathy
    - Multiorgan transplants
- Evidence based where possible/available
- Adult congenital heart disease was not addressed as was felt to require its own separate and broader review requiring input from many different specialties

Sept 2020 — 3rd Panel Meeting

- Review of group proposals and amalgamation into master list

Sept - April 2021 — Multiple iterations of online voting following a process similar to the CCS guidelines

- Online voting administered by CCS affiliate staff
- Categories: Strongly Agree, Somewhat Agree (changes required), Disagree (explained)
- Criteria for acceptance was >75% Strongly Agree/Agree
- Results of each voting cycle reviewed by CCTN executive and contents of revoting discussed and rewritten

April 29 2021 — Final Panel meeting endorsing the new criteria

May – Sept 2021 — Discussed at each heart transplant center with minor revisions

November 9 2021 — Ratified by general membership at the CCTN annual general meeting

National Prioritization – Interprovincial organ sharing eligible

STATUS 4

Patients supported with (and non-separable/unable to wean from) biventricular temporary mechanical circulatory support (ie. ECMO, centrimag bivads, impella/tandem heart/protek Duo in a configuration providing **biventricular** support)

Patients supported with (and non-separable/unable to wean from) temporary right ventricular mechanical circulatory support.

Patients dependent on temporary LV mechanical circulatory support (excluding IABP), unable to wean to inotrope/vasoactive medical therapy, and not a candidate for durable LVAD therapy

Patients with total artificial heart that is non-dischargeable from hospital for device and/or medical reasons or complications

Hospitalized durable LVAD patients with LVAD complications meeting status 4 criteria

**see 2017 CCTN Criteria for Status Eligibility in LVAD complications document for definitions*

Mechanically ventilated on high dose single (milrinone ≥ 0.5mcg/kg/min OR dobutamine ≥ 10mcg/kg/min) or ≥2 inotropes/vasoactives and not a durable LVAD candidate

Approved Status 4 exception requests

Patients should be recertified every 7 days as a Status 4 by a qualified physician if still medically appropriate

Considerations:

Patients should have a period of stabilization and ideally recovery of end organ function prior to listing activation

STATUS S: cPRA >80% (unchanged)

Based on the 2018 Canadian Blood Services Heart Transplant Advisory Committee interprovincial sharing policy, sensitized patients in the new system will be categorized based on hemodynamic status effectively eliminating the category 4S:

Status 1S, Status 2S, Status 3S, Status 3.5S

Hemodynamic status will factor into ranking rules as outlined in the HTAC policy document. This system will come into effect with the launch of the high status heart matching and allocation initiative using the CTR, anticipated to go live by August 2021.

Local Allocation

STATUS 3.5

High dose single (milrinone ≥0.5mcg/kg/min OR dobutamine ≥ 10mcg/kg/min) or multiple inotropes/vasoactives in patients requiring ICU/CCU admission who are NOT candidates for durable LVAD

Temporary surgical paracorporeal LVAD not meeting status 4 criteria

Temporary percutaneous LVAD excluding IABP (ie. tandem heart, impella) not meeting status 4 criteria

Refractory life-threatening arrhythmias requiring continuous intravenous antiarrhythmic drug therapy and not amenable to, or failed, VT ablation.

STATUS 3

Patients on inotropes/continuous IV vasodilators in hospital not meeting above criteria

Combined heart/lung transplant candidates

Combined heart/liver transplant candidates

Durable LVAD complications (VAD related infection, arrhythmia, bleeding, right heart failure, and/or thrombosis) not meeting status 4 criteria, requiring hospitalization OR intravenous therapies.

Non-hospitalized patients with total artificial heart

Cyanotic congenital heart disease with resting saturation <65%.

Congenital heart disease – arterial-shunt-dependent

Adult-sized complex congenital heart disease with increasing dysrhythmic or systemic ventricular declin

STATUS 2

Stable durable LVAD patients

Hospitalized patients for cardiac reasons in non-LVAD patients

Outpatients on continuous IV inotropic therapy

Adult with cyanotic congenital heart disease: resting O2 saturation 65-75% or prolonged desaturation to less than 60% with modest activity (i.e. walking)

Adult with fontan palliation with protein losing enteropathy

Combined Heart/Kidney transplant candidates (simultaneous or consecutive)

Restrictive cardiomyopathy for which LVAD is either contraindicated or associated with poor outcome and would usually not be suggested

Cardiac amyloidosis (given the patient is eligible for transplant and therefore would have no or minimal extra cardiac involvement)

HCM with severe HF symptoms not secondary to LVOT obstruction that would be amenable to surgical or alcohol ablation AND for whom LVAD would not be an option

STATUS 1

All other out of hospital patients