HEART ALLOCATION GUIDLINE

Discussion & adoption of heart guidelines:

1. After much discussion and deliberation, it was unanimously decided that the Recipient Criteria for heart transplant (Set by UNOS) be accepted and adopted with the exclusion of the Status 1:E and Status7 subdivision, for recipient selection.

   Distribution of cadaver heart will be based on:

i) Severity of disease i.e. Supra Urgent Status (Status1A (a,b,c,d) & Status 1:B)
ii) Chronologically
iii) Donor hospital gets priority if eligible recipient present on hospital waiting list as per ZTCC Guidelines.

Supra urgent status will be granted to the patient in question only when the status of the patient has been discussed (by all the HSC members) and a majority voting in favour of status change has been taken, promptly.

In case of 2 supra urgent recipient listed simultaneously, both of whom are eligible to receive the single available cadaver heart, one of the two recipients who was registered earlier than the other, will be given priority for cadaver heart transplant.

2. Multiple registrations of recipients:
   It was decided that multiple registrations and listings of recipients at various hospitals will not be allowed. It has to be decided by the patient where he would like his treatment to be carried out.
   At whatever date (Irrespective of hospital) the patient registers initially, that particular date of registration will be considered for the city waiting list ranking. If the patient so wishes to change his hospital of treatment, he is required to give in writing (special form to be drafted and circulated to all concerned hospitals) to the hospital of his previous registration that he requires his name to be removed from that waiting list in order to be listed anew at the current hospital of his choice. Only after submitting proof of being de-listed from the previous hospital, will he be registered at the new hospital and then only will ZTCC Mumbai update the change in hospital name, etc.

3. If a cadaver heart which is offered but rejected by the treating dr, then the recipient should not be penalized by being shifted to the bottom of the city waiting list. The patient has the right to maintain his ranking unless he is placed in the supra urgent

category wherein his priority status changes and supercedes the others on the waiting list.

4. Donor information required are:
   i) Heart donors : 2D ECHO, Chest X-ray, catheter coronary angiography
   ii) Lung Donors: Bronchoscopy, CT Chest, Blood gases

HEART ALLOCATION:

SUPRA URGENT HEART TRANSPLANTATION RECIPIENT:

STATUS 1A: This patient is the Highest Priority to receive a heart for Transplantation.

(a) : Patients who require Mechanical Circulatory Support **(MCS)** with one of these devices.

1. TAH. {TOTAL ARTIFICIAL HEART}
2. LVAD or RVAD. {Left Ventricular Assist Device or Right Ventricular Assist Device}
3. IABP. {Intra-Aortic Balloon Pump}
4. ECMO. {Extra Corporeal Membrane Oxygenation}

(b**):** MECHANICAL CIRCULATORY SUPPORT (Left Ventricular Assist Device or Right Ventricular Device) > 30 days WITH DEVICE RELATED COMPLICATION like infection, thrombosis, other…

if there are no complications and the time is greater than 30 days; then that patient becomes status 1(B).

(c**):** Patient on Mechanical Ventilation.

(d**):** Patient in Critical Care Unit (on Inotropic Support) with Swan Ganz (Pulmonary artery) catheter introduced to measure for filling pressures to optimize Cardiac Output.

(e**):** Any EXCEPTIONAL and EXTENUATING Circumstances when the life expectancy of the patient is predicted to be less than 7 days. This will keep the patient in Status I A i.e. High Priority for more 1 week. This may be renewed if the patient is still alive after 1 week, by mutual agreement.

STATUS 1 (B): This Patient is the second Highest Priority to receive a heart for Transplantation.

Patients, who are on Mechanical Circulatory Support for more than 30 days after they are ready for Transplantation after Device Implantation.

Patients who are on Inotropes but who are not in Critical Care Unit. They may be stable at home or in the Hospital in the non-intensive situation.

STATUS 2: These are stable but symptomatic patients, in NYHA Class III or IV; on Maximal Medical Treatment with Oral medications.

STATUS 7: This is an inactive patient. Patient is made temporarily inactive for Medical reasons.

Amendment 2019

Effective from 16 October 2019.

Heart Super-urgent Listing criteria as follows:

1) Patients on Centrimag Temporary LVAD/Temporary RVAD
2) Patients on ECMO

Lung Supra Urgent Listing criteria as follows:

1) Patients on ECMO support
2) Respiratory failure on BIPAP.
3) Patients on NOVA Lung.

Amendment 2021

<u>CRITERIA FOR LABELING CARDIAC DONOR AS EXTENDED CRITERIA</u>

- Abnormal LVEF ranging between 35 to 50%.
  Note: LVEF < 35% could be considered for allocation to recipients on the supra-urgent list after discussion with the Heart-Lung subcommittee if the recipient team is willing.
- Any regional LV wall motion abnormalities noted on echocardiogram
- More than or equal to moderate valvular regurgitation
- More than mild valvular stenosis
- H/o cardiac arrhythmias including Atrial fibrillation, atrial tachycardia or ventricular tachycardias
- Previous cardiac surgeries including ASD repair, VSD repair, valvular repair/replacements etc
- Bicuspid aortic valve
- Severe Left ventricular hypertrophy (IVS > 15 mm)
- Repeated cardiac arrests (more than once)
- Age >= 40 yrs without a coronary angiogram
- Age >= 55 yrs even with a normal coronary angiogram
- H/o ischemic stroke (irrespective of age)

INDICATIONS FOR DONOR CORONARY ANGIOGRAM: If the donor meets any of the following criteria, the heart-lung sub-committee must request for a donor coronary angiogram.

- Age >= 40 yrs with a history of Diabetes mellitus or ischemic stroke or smoking or family history of premature IHD
- Age > 45 yrs irrespective of any other comorbid risk factors
- Significant LV regional wall motion abnormalities noted on echocardiogram (irrespective of donor age or comorbid risk factors)
- Significant ECG changes suggestive of ischemia (irrespective of donor age or comorbid risk factors)