

Super-urgent/ Urgent Heart Recipient Registration

Directions for completion

- 1 This is a single copy, four-page form.
- 2 Please ensure all sections are completed in full.
- 3 **Do not use this form to register non-urgent cases** as all patients registered through this form will be registered as super-urgent or urgent. To register non-urgent heart patients use ODT Online or return a completed Heart/Lung Recipient Registration form (FRM4847) to ODT Hub: Information Services, NHS Blood and Transplant.
- 4 If completing by hand, please use BLOCK CAPITALS. When complete, please email all pages of this form to odthub.operations@nhsbt.nhs.uk and odthuboperations.shiftmanagers@nhsbt.nhs.uk and then call 0117 975 7580 to confirm that the information has been sent. The original should be retained for your files.
- 5 If using the electronic version of the form please open a blank form, complete details, then click "Make Read Only" before selecting the "Submit Form" button which will automatically generate an email to odthub.operations@nhsbt.nhs.uk and odthuboperations.shiftmanagers@nhsbt.nhs.uk with the form attached. Send the email, then call 0117 975 7580 to confirm that the information has been sent. Save the original form for your record.

HEART DISEASE

Primary disease

10 - Coronary heart disease
13 - Valvular heart disease
14 - Congenital heart disease
41 - Dilated cardiomyopathy - idiopathic
42 - Dilated cardiomyopathy - familial
43 - Dilated cardiomyopathy - myocarditis
44 - Dilated cardiomyopathy - alcohol
45 - Dilated cardiomyopathy - post partum
46 - Dilated cardiomyopathy - adriamycin
49 - Dilated cardiomyopathy - other, please specify
50 - Hypertrophic cardiomyopathy
51 - Restrictive cardiomyopathy
19 - Other heart disease - please specify

Retransplantation

31 - Acute rejection
32 - Coronary occlusive disease
35 - Non-specific graft failure
38 - Allograft vascular disease

General

98 - Other, please specify
99 - Unknown

ETHNIC GROUP

Recipient ethnicity

White

10-White - Welsh/English/ Scottish/Northern Irish/British
11-White - Irish
12-White - Gypsy or Irish Traveller
18-White - any other White background
19-White - unknown

Asian/Asian British

20-Asian/Asian British - Indian
21-Asian/Asian British - Pakistani
22-Asian/Asian British - Bangladeshi
23-Asian/Asian British - Chinese
28-Asian/Asian British - any other Asian background
29-Asian/Asian British - Unknown

Black/African/Caribbean/Black British

30-Black/African/Caribbean/Black British - African
31-Black/African/Caribbean/Black British - Caribbean
38-Black/African/Caribbean/Black British - any other Black/African/Caribbean background
39-Black/African/Caribbean/Black British - Unknown

Mixed/Multiple ethnic groups

60-Mixed/Multiple ethnic groups - White and Black Caribbean
61-Mixed/Multiple ethnic groups - White and Black African
62-Mixed/Multiple ethnic groups - White and Asian
68-Mixed/Multiple ethnic groups - any other Mixed/Multiple ethnic background

Other ethnic groups

70-Other ethnic group - Arab
78-Other ethnic group - any other ethnic group
99-Unknown

INDICATION FOR SUPER-URGENT/URGENT HEART REGISTRATION

SUPER-URGENT PATIENTS

- 11 - Category 11 - Adult or Small Adult patient on temporary ventricular assist device (VAD) or veno-arterial extra-corporeal membrane oxygenation (VA-ECMO) support. This includes Paediatric patients that are given Adult status.
- 12 - Category 12 - Agreed by CTAG (Heart) Adjudication Panel and evidence of agreement emailed to NHSBT, and either:
- on intra-aortic balloon pump (IABP)
 - at imminent risk of dying or irreversible complications. Meets criteria for urgent listing but is not suitable for long-term VAD and/or other exceptional circumstances
 - Paediatric patient on VA-ECMO where agreed by other paediatric transplant centre and the CTAG Chair or deputy.
 - Adult congenital heart disease patient with single ventricle physiology, meeting **ALL** of the following criteria (requires confirmation email from CTAG Chair/Deputy):
 - Inotrope-dependent, on maximally tolerated doses.
 - Ineligible or high-risk anatomy for temporary MCS (Ineligible or too high-risk for EXCOR Revive/Fontan venous cannula MCS).
 - ICU admission requiring >1 inotrope with signs of (a) hypoperfusion secondary to cardiogenic shock (lactate >2) and (b) worsening renal (oliguria $<1.0\text{L}/24$ hours, $\text{eGFR}<40$), or (c) liver dysfunction (bilirubin $>2\times$ upper limit of normal ($40\mu\text{mol/L}$) or transaminases $>2\times$ upper limit).
 - Normal renal size on imaging with $\text{eGFR}>40$ in the last 3 months.
 - Liver size and function deemed acceptable for heart-only transplantation by combined heart/liver MDT.

URGENT ADULT PATIENTS

- 21 - Category 21 - Adult inpatient with advanced heart failure requiring continuous inotrope therapy and/or IABP support **AND** with a cardiac index of $<2.0\text{L}/\text{min}/\text{m}^2$ **AND** at least one of the following sub-categories:
- cardiogenic shock: blood lactate $>2.0\text{mmol/L}$ **AND** clinical evidence of hypoperfusion
 - cardiorenal or hepatic indication: $\text{eGFR} <40\text{ml}/\text{min}/1.73\text{m}^2$ **AND/OR** bilirubin $>2\times$ upper limit of normal ($40\mu\text{mol/L}$)
 - adverse pulmonary haemodynamics: transpulmonary gradient (TPG) $>12\text{mmHg}$ **AND/OR** pulmonary vascular resistance (PVR) $>4\text{WU}$ at baseline, despite conventional medical therapy, leading to the use of inotropes and resulting in improvement in TPG and PVR, in patients where durable LVAD therapy is not preferred.
- 22 - Category 22 - Adult long-term VAD or total artificial heart (TAH) patient, agreed by CTAG (Heart) Adjudication Panel and evidence of agreement emailed to NHSBT, with one of the following complications:
- right ventricular failure dependent on inotropes
 - recurrent systemic infection related to VAD/TAH
 - other VAD/TAH issues including recurrent or refractory VAD/TAH thrombosis.
- 23 - Category 23 - Exceptionally sick adult patient - high risk of dying or having an irreversible complication but does not meet urgent listing criteria. Agreed by CTAG (Heart) Adjudication Panel and evidence of agreement emailed to NHSBT.
- 31 - Category 31 - Adult congenital heart disease (ACHD) arrhythmia patients - Refractory arrhythmia (>1 hospital admission over last 3 months with haemodynamic instability or associated with kidney or liver dysfunction).
- 32 - Category 32 - ACHD patients with no option for conventional escalation of therapy - Inpatients unsuitable for inotropes and/or VAD with one of the following:
- bilirubin and transaminases $>2\times$ normal
 - deteriorating renal function ($\text{eGFR} <50\text{ml}/\text{min}/1.73\text{m}^2$, or 20% reduction from baseline)
 - requirement for dialysis/CVVH for fluid or electrolyte management
 - recurrent admissions (>3 in preceding 3 months) with episodes of right heart failure or protein losing enteropathy requiring ascites drainage.

URGENT PAEDIATRIC PATIENTS

For any urgent listing there must be agreement between the two paediatric centres. This should involve the clinical leads or in their absence an appointed deputy. If there is disagreement this should be noted at the time of discussion with the chair of CTAG.

- 51 - Category 51 - Paediatric with short-term mechanical circulatory support device (MCSD): Mechanical circulatory support for acute haemodynamic decompensation using a short-term right, left or bi-ventricular device (including Berlin Heart), implanted as a specific bridge-to-transplantation.
- 52 - Category 52 - Paediatric with MCSD with device-related complications: Mechanical circulatory support with objective medical evidence of significant device-related complications such as thrombo-embolism, device infection, mechanical failure and/or life-threatening ventricular arrhythmias. Panel reactive antibody sensitisation does not qualify for urgent registration in this criterion.
- 54 - Category 54 - Paediatric with VA-ECMO: Mechanical circulatory support using extra-corporeal membrane oxygenation as a specific bridge-to-transplantation (not approved for super-urgent listing).
- 55 - Category 55 - Paediatric >15kg on high-dose inotropes: Patients >15kg on continuous central infusion of a high dose intravenous inotrope.
- 56 - Category 56 - Paediatric ≤15kg on ventilation and inotropes: Patients ≤15kg who are ventilated and on inotropes.
- 59 - Category 59 - Paediatric, Other: Paediatric patients outside the criteria listed above, but for whom the patient's transplant physicians believe urgent listing is justified using acceptable medical criteria not included above. Approval for listing under this category is as follows:
 - a) For paediatric patients whereby a maximum acceptable donor size has been specified to be <160 cm in height and <60kg in weight, their eligibility for registering under this category must be discussed and agreed by the other paediatric transplant centre and the CTAG Chair or deputy and evidence of agreement emailed to NHSBT.
 - b) For paediatric patients whereby a maximum acceptable donor size has been specified to be ≥160 cm in height or ≥60kg in weight, their eligibility for registering under this category must be discussed and agreed by the other paediatric transplant centre and the CTAG (Heart) Adjudication panel via the Chair or deputy and evidence of agreement emailed to NHSBT.

Super-urgent/Urgent Heart Recipient Registration

Section 1

We have a SUPER-URGENT/URGENT Heart Recipient to register with you

Which scheme do you wish to register this recipient on? *Urgent = U* *Super-urgent = S* Does this recipient also require lungs? *No = 1* *Yes = 2*

The following patients require approval from the CTAG Adjudication Panel in order for the registration to be processed:

- Urgent heart-lung registrations
- Urgent heart-liver registrations
- Super-urgent category 12 registrations
- Urgent adult registrations under category 22 or 23
- Urgent paediatric registrations under category 59
- Small adult registrations weighing 30-40kg
- Urgent or super-urgent re-transplant registrations

Does the patient meet any of these criteria? (not entered on NTxD) *No = 1* *Yes = 2* Was approval given? (not entered onto NTxD) *Not applicable = 1* *Yes = 2*

Date approval given (not entered onto NTxD)

Please ensure approval from CTAG Adjudication Panel is sent with this form to avoid delays in registration

RECIPIENT DETAILS

Section 2

Centre code Transplant centre ODT Recipient number *(NHSBT to complete)*

Date of birth

Sex *Male = 1* *Female = 2*

Blood group including, where known, subtypes of A ABO *Neg = N* *Pos = P* *Unknown = U*

VIROLOGY *Negative = 1* *Positive = 2* *Not tested = 7* *Unknown = 9* CMV (IgG) status HCV status HIV status

HbSAg status If HbSAg positive, HbCAb *Negative = 1* *Positive = 2*

Other virus status If other virus, please specify

Adult and paediatric patients meeting the following criteria will NOT be eligible:

- Patients from countries outside Group 1
- Patients within 24 hours of cardiopulmonary bypass
- Patients who have had an identifiable new neurological event, have impaired consciousness and a likely permanent and significant neurological deficit
- Patients with acute uncontrolled sepsis

In addition, adult patients meeting the following criteria will NOT be eligible:

- Patients with eGFR < 30ml/min/m² before or without renal replacement therapy
- Patients who are mechanically ventilated

REGISTRATION DETAILS

Section 3

Has this patient received any previous heart transplants? *No = 1* *Yes = 2* *Unknown = 9*

Specify donor ABO criteria *Compatible = 2* *Any = 3* Specification of 'Any' donor ABO (code 3) is only permitted for paediatric patients registered at paediatric transplant centres and may result in offers of hearts from incompatible blood group donors.

Code the recipient's primary disease or reason for retransplantation (See codes inside cover) **3** If code 19, 49 or 98, please specify

Is this a congenital disease? *No = 1* *Yes = 2*

PHYSICAL CHARACTERISTICS

	Recipient	Donor minimum	Donor maximum
Height	<input type="text"/> <input type="text"/> <input type="text"/> cm	<input type="text"/> <input type="text"/> <input type="text"/> cm	<input type="text"/> <input type="text"/> <input type="text"/> cm
Weight	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> kg	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> kg	<input type="text"/> <input type="text"/> <input type="text"/> . <input type="text"/> kg

For all patients, specify the acceptable donor minimum and maximum height range and/or donor minimum and maximum weight range – registrations will only be accepted if at least one of these ranges is provided.

If an adult with weight > 30kg and ≤40kg,

Do you wish to register this patient as a small adult? *No = 1* *Yes = 2* A small adult is defined as being a patient weighing 30kg or less, though a centre may register a small adult weighing 40kg or less when there are specific reasons to justify inclusion in this priority group and if agreed by the CTAG (Heart) Adjudication Panel.

Do you want to register a paediatric patient on the urgent or super-urgent adult list? *No = 1* *Yes = 2* If "Yes" is selected then the patient will be treated as an adult in the adult donor and paediatric donor heart allocation sequences and will not get priority access to paediatric donor hearts. This is at the centre's discretion and the patient should meet urgent or super-urgent adult listing criteria

Your centre code should be quoted on all pages

Super-urgent/Urgent Heart Recipient Registration

Centre code Transplant centre ODT Recipient number (NHSBT to complete)

INDICATION FOR REGISTRATION	Section 4
<p>For ALL patients specify the CATEGORY for super-urgent/urgent registration (See codes inside cover) <input type="text"/> <input type="text"/></p> <p>SUPER-URGENT PATIENTS</p> <p>If Category 11: Adult or Small Adult on temporary VAD or VA-ECMO support, specify which Temporary VAD = 1 VA-ECMO = 2 <input type="text"/></p> <p>If Category 12: Other super-urgent patients / paediatric super-urgent patients, Specify which On IABP support = 1 Imminent risk of dying/irreversible complications = 2 Paediatric on VA-ECMO = 3 Single ventricle physiology adult congenital heart disease = 4 <input type="text"/></p> <p>Agreed by CTAG (Heart) Adjudication Panel and evidence of agreement emailed to NHSBT No = 1 Yes = 2 <input type="text"/></p> <p>URGENT ADULT PATIENTS</p> <p>If Category 21: Adult inpatient requiring inotrope therapy and/or IABP support,</p> <p>On intravenous inotropes No = 1 Yes = 2 <input type="text"/></p> <p>On IABP support No = 1 Yes = 2 <input type="text"/></p> <p>Cardiogenic shock (blood lactate >2.0mmol/L and clinical evidence of hypoperfusion) No = 1 Yes = 2 <input type="text"/></p> <p>Cardiorenal or hepatic indication (eGFR <40ml/min/1.73m² and/or bilirubin >2x upper limit of normal) No = 1 Yes = 2 <input type="text"/></p> <p>Adverse pulmonary haemodynamics (TPG>12mmHg and/or PVR >4WU at baseline despite conventional medical therapy, leading to the use of inotropes and resulting in improvement in TPG and PVR, in patients where durable LVAD therapy is not preferred) No = 1 Yes = 2 <input type="text"/></p> <p>If Category 22: Long-term VAD or TAH patient with complications, Specify complication Right ventricular failure dependent on inotropes = 1 Recurrent systemic infection related to VAD/TAH = 2 Other VAD/TAH issues including recurrent or refractory VAD/TAH thrombosis = 3 <input type="text"/></p> <p>Agreed by CTAG (Heart) Adjudication Panel and evidence of agreement emailed to NHSBT No = 1 Yes = 2 <input type="text"/></p> <p>If Category 23: Exceptionally sick patient - high risk of dying or having an irreversible complication but does not meet urgent listing criteria, Agreed by CTAG (Heart) Adjudication Panel and evidence of agreement emailed to NHSBT No = 1 Yes = 2 <input type="text"/></p> <p>If Category 31: ACHD arrhythmia patients,</p> <p>AST <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> U/L</p> <p>ALT <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> U/L</p> <p>Number of hospital admissions over last 3 months <input type="text"/> <input type="text"/></p> <p>If Category 32: ACHD patients with no option for conventional escalation of therapy, Specify justification Bilirubin and transaminases > 2x normal = 1 Deteriorating renal function = 2 Requirement for dialysis/ CVVH for fluid or electrolyte management = 3 Recurrent admissions with episodes of right heart failure or protein losing enteropathy requiring ascites drainage = 4 <input type="text"/> ml/min/1.73m²</p> <p>If code 2, eGFR <input type="text"/> <input type="text"/></p> <p>If code 3, specify treatment Dialysis = 1 CVVH = 2 <input type="text"/></p> <p>If code 4, no. of hospital admissions over last 3 months <input type="text"/> <input type="text"/> No. of episodes of ascites drainage <input type="text"/> <input type="text"/></p> <p>URGENT PAEDIATRIC PATIENTS</p> <p>If Category 59: Paediatric patients who do not meet urgent listing criteria but for whom the patient's transplant physicians believe urgent listing is justified,</p> <p>a) If maximum acceptable donor size specified to be <160 cm in height and <60kg in weight Agreed by the other paediatric transplant centre and the CTAG Chair or deputy and evidence of agreement emailed to NHSBT No = 1 Yes = 2 <input type="text"/></p> <p>b) If maximum acceptable donor size specified to be ≥160 cm in height or ≥60kg in weight Agreed by the other paediatric transplant centre and the CTAG (Heart) Adjudication panel via the Chair or deputy and evidence of agreement emailed to NHSBT No = 1 Yes = 2 <input type="text"/></p>	

