3.4 Selection criteria for adult urgent and super-urgent transplantation

3.4.1 Rationale for adult urgent lung allocation scheme

Urgent and super-urgent patients will be suitable transplant candidates in whom survival without transplantation is likely to be less than 90 days.

The objective of the urgent/super-urgent lung allocation scheme is to allow such candidates priority access to the *national* donor organ pool, irrespective of current zonal arrangements.

Prompt allocation of donor organs will be aimed at reducing the high waiting list mortality amongst these critically ill patients, and in those receiving extracorporeal membrane oxygenation (ECMO) or Novalung (iLA), it will minimise the duration of extracorporeal support and the risk of developing complications. However, this should be balanced against maintaining the standard of good post-transplant outcomes. It is imperative, therefore, to carefully consider every individual case in the local MDT: if a consensus on futility is reached, access to appropriate palliative and end of life care should be facilitated instead.

Patients requiring re-transplantation will not have access to the super-urgent/urgent allocation scheme.

3.4.2 Adult urgent lung allocation criteria

A patient who is suitable for acceptance on the transplant waiting list and displays or develops any one of the following characteristics:

3.4.2.1 COPD Patient

- Worsening hypoxia (PaO_2<7.5 kPa) and hypercapnia ($PaCO_2$>6.5 kPa) requiring increasing oxygen demand of >10 L/min despite continuous NIV
- pH persistently <7.30 despite optimal continuous NIV
- Refractory right heart failure despite all pharmacological interventions to support the right ventricle

Comment [U1]: Ask Paul Corris to share the new ISHLT definition of RHF and its references as discussed at ALTP in May 2014

3.4.2.2 CF patient

- Worsening hypoxia (PaO_2<7.5 kPa) and hypercapnia ($PaCO_2$>6.5 kPa) requiring increasing oxygen demand of > 10L/min despite continuous NIV
- pH persistently <7.30 despite optimal continuous NIV
- Refractory right heart failure despite all pharmacological interventions to support the right ventricle
- Ongoing episodes of Massive haemoptysis despite bronchial embolisation

3.4.2.3 IPF Patient

- Persisting hypoxia (PO_2 <8 kPa) despite continuous O_2 at 10 l/min
- Refractory right heart failure despite all pharmacological interventions to support the right ventricle

3.4.2.4 PAH patient

- Worsening refractory right heart failure as defined by increasing fluid retention despite optimal medical management with disease modifying therapy and diuretics
- Requirement for continuous IV inotropic support
- Recent RHC RAP>20mmHg and CI <2.0l/min/m_2 despite optimisation of therapy. RHC data need to be recent, within 3 months of request to add to super urgent list

Many transplant candidates fulfilling the urgency criteria listed above will likely require ongoing inpatient treatment. In principle, Urgent candidates may remain ambulant at home but will require close monitoring as deemed necessary by the local transplant team.

Comment [U2]: Are the group happy to call patients in for a transplant when they are inpatients elsewhere?

We often do this for CF patients, but hitherto tended to assume that other groups requiring inpatient therapy were too sick on that occasion and diverted organs to ambulant candidates!

ANY VIEWS?

3.4.3 Adult super-urgent lung allocation criteria

Super urgent listing may be considered in patients who are deemed suitable for (veno-venous) ECMO or iLA support as a bridge to transplant.

- Only patients assessed by the local transplant team and accepted onto their waiting list PRIOR to their deterioration will be considered for bridging to lung transplantation. No centre is adequately resourced for importing very sick patients on a ventilator with the purpose of assessment for transplantation, a practice which had previously lead to very poor outcomes and is not a treatment that is recommended.
- Patients dependent on IPPV will not be included in the super-urgent scheme. Patients admitted to an ITU who are subsequently referred for lung transplantation need to complete treatment and undergo full rehabilitation before further consideration by the local transplant team.
- Only consider patients for bridging to lung transplantation with a good rehabilitation potential which usually means a relatively short duration of severe illness to minimise the risks of prolonged ITU stay and post-operative complications.
- ALL super urgent candidates will be receiving *in-patient* treatment and will continue to fulfil current transplant acceptance criteria; in particular, they must remain free of major sepsis. The daily review process will also allow consideration of de-listing a patient who has deteriorated to a clinical status out with these guidelines.
- The decision in one centre to place a rapidly deteriorating patient on a short term device (iLA or ECMO) will be on a case by case basis, at the discretion of the individual centre who will have to consider their own finances and impact on cardiothoracic ITU activity in the absence of national commissioning.

3.4.4 MDT decision

- The local transplant MDT should assign every new waiting list registration a priority status (super-urgent *vs* urgent *vs* non-urgent). The MDT decision must be clearly documented and the patient registered accordingly with NHSBT (see item 3.4.5 below). The criteria for urgent and super-urgent category listing will be captured and validated real time by NHSBT at initial registration and this category will be subject to regular audit.

- Patients who are initially assigned non-urgent status can be upgraded onto the urgent list at subsequent reviews should they deteriorate to meet the above criteria and the reverse is true.

- Patients should be removed from the super-urgent or urgent list when the local MDT concludes the patient does not have a reasonable chance of intermediate survival; for example, 50% probability of surviving 3-5 years post-transplant.

3.4.5 Adjudication panel

In addition, a centre can make a request for urgent listing of a patient outside the above criteria to an Urgent Lung Allocation Scheme (ULAS) Adjudication Panel consisting of the CTAG chair and one representative/deputy from each centre.

- Representatives need to be available and responsive.
- Each lung transplant unit Clinical Director will need to provide CTAG chair with names and contact details for their nominated representative and deputy. In the event that both centre representatives are simultaneously absent, the role should be delegated internally and the unit Clinical Director should notify CTAG chair of contact details for this person.
- CTAG chair or deputy will email the Adjudication Panel members with details of the urgent listing request with an instruction to feedback within 24 hours.
- CTAG Chair or deputy will make the final decision based on the majority opinion. The decision does not need to be unanimous.
- Patients will not be placed on the super-urgent waiting list until the Adjudication Panel has approved the request.
- NHSBT will log all cases referred to the Adjudication Panel. The registering centre should fax a letter to the Duty Office indicating they have had confirmation of acceptance from the adjudication panel and a summary of the patient's characteristics which led the adjudication panel to reach this decision. The Duty Office will then store this electronically.

3.4.6 Process for urgent and super-urgent registration

Registration on the urgent or super urgent lung scheme must be made by faxing an urgent lung registration form to the ODT Duty Office. The same form can be used for either urgent or super urgent registration and lists the acceptable criteria under each category. The recipient urgent registration form must be counter-signed by the clinician and sent to the ODT Duty Office by facsimile or if necessary by urgent courier.

Comment [U3]: Will now be one form including all categories and criteria under each category.

Form to be circulated later this week!

If the patient does not meet the criteria, the centre must tick the "other" category box and send an accompanying letter stating that they have approval from the adjudication panel to accept the patient for urgent/super-urgent listing.

If a patient is already registered on the lung waiting list and their clinicians wish to upgraded their status to urgent or super-urgent then the urgent/super-urgent form will need to be filled out and the duty office contacted in the usual way.

The Duty Office will then place the recipient on the relevant scheme and notify all lung transplant centres in the UK by facsimile and paging service. On receipt, the ODT Duty Office will facsimile an anonymized copy of the form to all designated lung transplant centres. If there are any clear errors or missing data, the ODT Duty Office will call the centre immediately for clarification.

Centres wishing to seek clarification of the details of a recipient on the urgent/super urgent lung scheme must notify the ODT Duty Office by facsimile. The clinician from the centre seeking clarification will make direct contact with the registering centre and discuss the case clinician to clinician. In cases where clarification has been sought, the ODT Duty Office will seek confirmation of the patient's status from the registering centre 24 hours after a registration. Where there remains a dispute this should be discussed with the Chairman of the Cardiothoracic Advisory Group /Adjudication Panel.

A summary of recipients on the urgent lung scheme will be sent by facsimile to all designated centres by the ODT Duty Office each day. The summary will show the date and time of registration on the urgent/super-urgent lung scheme.

For patients who remain on the urgent/super urgent list for more than 7 days, Urgent/Super Urgent Lung Recipient Update forms should be submitted each week.

3.4.7 Allocation process/sequence

- At the time of listing, the centre should specify minimum and maximum height limits for donors (ideally define separate ranges for male and female donors) for each super-urgent & urgent patient and will only be offered lungs from donors within this range.
- When a donor offer is confirmed, NHSBT duty office will attempt a match run against the national super- urgent/urgent list.
- Super-urgent patients will be ranked by waiting time only. There will be no prioritisation by blood group in the allocation of organs to super-urgent patients.
- Urgent candidates will be ranked by blood group first followed by waiting time; prioritising blood group identical first followed by compatible second, to help the disadvantaged Blood groups O and B.
- Paediatric patients can be listed on the super-urgent scheme under the same criteria. Prognostication in children is more difficult and we recognise limitations of the adult urgent criteria in the paediatric population. Therefore any exceptions can be referred to the Adjudication Panel.

Comment [U4]: Ie blood group compatible is sufficient

Comment [U5]: Helen's Audit demonstrated long waits for O and B compared with A & AB)

- There will be no ranking by patient age group. However, organs not utilised nationally for super urgent candidates, will subsequently be offered in the following order:

  § *Paediatric donor/small adult donor (ie, height ≤160 cm)*

  1. Paediatric/small adult urgent recipients, nationally.

     Candidates ≤155 cm tall would be eligible for small adult registration.

  2. Adult urgent recipients, nationally

  3. Paediatric non urgent recipients in rotation between GOSH and Newcastle.

  4. Small adult non urgent recipients, nationally based on centre rotation as per current arrangements

  4. Adult non-urgent patients, nationally based on centre rotation as per current arrangement

  § *Adult donor*

  1. Paediatric/small adult urgent recipients, nationally

  2. Adult urgent patients, nationally

  3. Adult non-urgent patients, within the zone the donor originated in

  4. Adult non-urgent patients, nationally based on centre rotation as per current arrangements

Comment [U6]: We agreed this may help increase paediatric transplantation.

We also agreed that height is more important than weight, based on the data presented by Helen in London, July 2013

3.4.8 Review Process

- Prospective data collection for super-urgent and urgent registrations will be implemented by NHSBT on a specific registration form.
- ALL registrations will be validated real time to ensure compliance with agreed criteria and audited 12 monthly to gauge impact on transplant units' surgical activity, post-operative survival and other outcome measures predefined by the audit group.
- Lay member and patient group representatives will be actively engaged in the review process.

M Al-Aloul
August 2014