### MINUTES

Present: Steven Tsui (ST) CHAIR – Papworth  
Paul Aurora (PA) GOSH  
Michael Burch (MB) GOSH  
John Dark (JD) Newcastle  
Nagarajan Muthialu (NM) GOSH  
Zdenka Reinhardt (ZR) Newcastle  
Sally Rushton (SR) NHSBT

In Attendance Lucy Newman (LN) NHSBT

Apologies: Asif Hasan (AH) GOSH  
Helen Spencer (HS) GOSH

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<thead>
<tr>
<th>Item</th>
<th>Minutes and actions points</th>
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<tr>
<td>Item 1</td>
<td>There were no previous minutes to approve. ST took the opportunity to welcome the working group members to the teleconference</td>
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<th>Item 2</th>
<th>Clinical justification of using age for donor organ allocation</th>
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<td>During 2016 when Solid Organ Allocation Policies were reviewed by TPRC, CTAG was asked to consider the clinical justification for allocation of cardiothoracic organs by age.</td>
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<td>At present the cut off between a paediatric patient and an adult patient is 16 years.</td>
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<td>There have also been concerns about unequal waiting list burden and waiting times between patients at the 2 paediatric cardiothoracic transplant centres</td>
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<td>Mr Tsui convened this working group to facilitate full discussion outside of the CTAG wider group meetings in order to qualify the age criteria and to discuss allocation of cardiothoracic donor organs between the paediatric transplant centres</td>
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<th>Item 2a</th>
<th>Heart</th>
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<td>Currently, donor hearts are allocated by an age cut off rather than size and weight of the donor. On review, very few larger paediatric hearts have been used in the adult community; it is more common that a small adult heart is transplanted into a larger paediatric patient.</td>
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<td>If the age criteria were removed, the balance may be altered resulting in more donor hearts being transplanted across the two age groups. There is no evidence that a paediatric heart will develop better physiologically when implanted into a paediatric patient. An oversized small adult heart implanted into a larger paediatric patient appears to normalise in size over time as the recipient develops and grows.</td>
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<td>The group reached a general consensus that it would be more appropriate to use size and weight for allocation of hearts on the non-urgent heart allocation</td>
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scheme, but that the age criteria should remain in place with the super urgent heart allocation scheme. Electronic listing of recipients should include acceptable height and weight range of donors which would improve the efficiency of organ offering.

- **Non urgent heart allocation scheme** – to go back to CTAG wider group and suggest removing age cut off for donor heart offers, focusing instead on height and weight of patients. If a team feels that there is a case where this rule should not be applied they would have to justify the use of age as criteria in the individual case.

- **Super urgent heart allocation scheme** – to go back to CTAG wider group and suggest that the age criteria remains in place, in addition to including height and weight as additional matching criteria.

**Item 2b Lung**

- Until recently it was unusual to list a paediatric lung patient under the age of four years, but with clinical developments and advances this is beginning to change. The majority of paediatric lung transplant patients on the list are between the ages of 12 and 14, and removing the age cut off for donor lung allocation may mean that donor lungs from small teenagers may be allocated to adult patients requiring small lungs and disadvantage teenage recipients.

- There is evidence that trimmed lobes do less well than smaller lungs, so a closer size match is preferred.

- In the USA, donors and recipients are considered in three age cohorts. ST will provide details of the age groups after the meeting for consideration.

- Larger donor lungs trimmed to fit smaller recipients has proven successful and will reduce the need to use paediatric lungs in small adults. However, not all surgeons are prepared to trim donor lungs and a greater understanding of why this is must be established.

- ST requested that a form of words needs to be prepared for TPRC to justify why the age criteria should remain in place for the allocation of donor lungs. JD will take the lead on the growth data and HS or PA will draft the document to talk to the next POAWG.

**Item 3 Allocation between GOSH and Newcastle**

- Paediatric organs are offered on an rotational basis alternating between Newcastle and GOSH with the centre who accepted the most recent organ offered becoming second in the sequence on the next occasion. There was concern that differing waiting list size between the two paediatric centres means that such an alternating offering may not be equitable. Newcastle currently has four paediatric patients on their lung waiting list whilst GOSH has 26.

- Three years ago, centres agreed that the size of their organ allocation zone (i.e. organ supply) should be determined by the proportion of patients that they listed for transplant in the previous 2 years, thus reflecting the demand. The figures are reviewed on an annual basis to ensure that zonal boundaries can be adjusted annually if required in line with changes in clinical activities.

- It was agreed that the assignment of allocation zone according to proportion of patients listed for transplant would be an equitable way to allocate donor organs between the two paediatric centres.

- ST will liaise with SR to put a proposal together regarding the allocation zones.

- SR and ST are invited to attend the CQUIN meeting being held at GOSH if draft proposals are ready for further discussion. MB will cc them into
### Item 4  Paediatric donors: Paediatric VS Small Adults

- There is no evidence that a paediatric heart will develop better physiologically when implanted into a paediatric patient; a small adult heart implanted into a larger paediatric patient will normalise in terms of size over time as the recipient develops and grows. In effect, a paediatric patient would have a similar potential outcome whether a paediatric heart for an adult heart were used.
- Of some concern within the group was the fact that almost 50% of the adult donors are active smokers.
- There is an assumption that paediatric lungs may have growth potential when implanted into paediatric recipient making them potentially better than trimmed adult lungs or lobes.
- With the current allocation scheme, small adults would only be offered donor lungs from a paediatric donor after they have been turned down by both paediatric centres. In the last 5 years, only one bilateral donor lungs were transplanted into a recipient listed as a small adult. Therefore, paediatric recipients have not been disadvantaged by this arrangement.
- If the age criteria are removed, it is likely that more paediatric donor lungs would be used in adult recipients.
- The Working Group is keen to retain the use of age as the cut off for donor lung allocation to protect the offering of paediatric lungs to paediatric patients. However, evidence would be required to justify this recommendation to TPRC.

### Item 5  Super urgent lung allocation scheme – non-bridge paediatric patients

- There is some anxiety that paediatric patients may not become sick enough for the super urgent lung allocation list so they may be denied organs.
- NHS England does not fund bridge to lung transplant and so, centres are unlikely to perform too many ECMO BTT for lungs.
- The super urgent heart allocation scheme was introduced on 26th October 2016 and has not been overly subscribed. For example, as of today, there are no patients listed under the SUHAS.
- The situation will be monitored after implementation. If the scheme was found to be favour certain patients or centres disproportionately, adjustments will have to be made.

### Item 6  Fast track European Offers

- Fast track offers from the EEA are made to solid organ transplantation units on a first come first serve basis with a 45 minute offer time.
- The UK centres are in competition with EEA countries to accept organs. In Newcastle, specialist nurses are able to accept organs on behalf of patient. However, this is done by a member of the transplant team in GOSH. As a result the response from GOSH will often be later than Newcastle.
- At present if Newcastle accepts an organ where GOSH has a patient in more urgent need, when possible, Newcastle will pass the organ to GOSH and vice versa.
- SR confirmed that this shouldn’t cause any statistical issues with data collected. Less than 5 fast tracked organs per year are received in the UK, if this yields additional organs, paediatric cardiothoracic teams should take advantage where possible.
- Policy of fist come first served will remain
- Policy addendum: to include a clause stating that the first accepting UK centre may pass the organ to another UK centre by mutual agreement.
- SR will bring amendments to the next CTAG meeting for approval.

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<th>Item 7</th>
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<tr>
<th>Item 8</th>
<th>Date of next meeting</th>
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