

British Transplantation Society / UK Transplant

Arrangements for Paired / Pooled Living Kidney Donation

Summary

Donor and recipient assessment - as per national guidelines & unit protocol

Donor and recipient registration with UK Transplant - when work-up complete

The matching process - UK Transplant carry out 'matching runs' at regular intervals and identify suitable pairs in conjunction with the University of Glasgow

Crossmatch tests - compatibility of pairs confirmed by crossmatch tests and results notified to UK Transplant (ideally within one week)

Suspension of patients from deceased donor transplant list - by UK Transplant

Approval process via local Independent Assessor & HTA panel

Transport of kidneys arranged - units liaise with UK Transplant

Final crossmatch tests – according to agreed protocol

Simultaneous transplant operations – with direct telephone contact and anonymity of pairs

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Arrangements for Paired / Pooled Living Kidney Donation

Donor and recipient assessment

The donor and recipient must be assessed using a protocol based upon British Transplantation Society / Renal Association guidelines (UK Guidelines for Living Donor Kidney Transplantation available at www.bts.org.uk/Forms/Guidelines_complete_Oct05.pdf).

It is recommended that the donor and recipient should be assessed and looked after by different clinicians.

If they are found to be biologically incompatible, for example incompatible blood group or a positive crossmatch, then they can be considered for paired / pooled donation. This option should be discussed with the donor and recipient and verbal and written information given outlining the advantages and disadvantages of this approach. A patient information leaflet will be available from UK Transplant.

In addition, the clinician responsible for the donor should ensure that the donor and recipient have been given and have read and understood the HTA leaflet, Information about living-donor transplants¹.

As part of the counselling it would be appropriate to emphasise that confidentiality of the donor would be respected. However, when such innovative procedures are taking place it is very difficult to avoid press interest (whatever efforts are made to preserve confidentiality) and the donor would need to be warned about that potential.

The HTA and UKT have relevant media policies that are continuously under review. General media implications or a specific case can be discussed by contacting the press office of the Human Tissue Authority on 0207 211 3400 or UK Transplant on 0117 975 7475 or 7477 or pressoffice@uktransplant.nhs.uk.

Donor and recipient registration with UK Transplant

When the clinical evaluations of both donor and recipient are complete, the donor and recipient details must be registered with UK Transplant. This is done using the appropriate forms ('Pooled Donation – Recipient Registration' (KPDR) and 'Pooled Donation – Living Kidney Donor Registration' (K-LIV-PPD)), which are available by emailing forms@uktransplant.nhs.uk. More than one donor may be registered with a potential recipient, subject to each donor's work-up being complete.

Registering a recipient for paired donation does not preclude them from being simultaneously listed for deceased donor transplant.

¹ [http://www.hta.gov.uk/_db/_documents/Living-donor_transplants_leaflet_\(amended_final\).pdf](http://www.hta.gov.uk/_db/_documents/Living-donor_transplants_leaflet_(amended_final).pdf)

The matching process

UK Transplant will carry out 'matching runs' at intervals determined by the rate of registration on to the paired/pooled donation list. Details of the matching process are provided in Appendix A and can also be found at

http://www.uktransplant.org.uk/ukt/about_transplants/organ_allocation/organ_allocation.jsp.

Two weeks prior to a run, waiting list reports will be sent to each centre to be checked and any amendments notified to UKT.

UK Transplant will inform transplant units and the HTA of the results of each matching run and facilitate contact between clinicians responsible for potential paired donations. Transplant arrangements will proceed at the discretion of the clinicians and patients concerned.

A number of 'matching runs' may be required to find a suitable pairing for an individual recipient and their incompatible donor, but it cannot be guaranteed that a suitable compatible pair will ever be found.

Crossmatch tests

Crossmatch tests should be organised between identified potential donors and recipients following the protocol of the implanting unit and laboratory. Both tests should be carried out as soon as practicable and the results reported to UK Transplant. Ideally these tests should be performed and results reported to UKT within one week of offer.

Suspension of recipients from deceased donor transplant list

If the results of both crossmatch tests show that the transplant can proceed, both recipients will be suspended by UKT from the deceased donor transplant list. Centres should advise the patients of this change. Any patient who is offered a deceased donor kidney prior to a suitable paired donation being identified should have the option to accept the deceased donor kidney.

Approval process via local Independent Assessor (IA) and HTA panel

A written referral is required from the clinician responsible for the donor to an accredited IA only when a suitable matching pair has been identified. The referral can be written by a living donor coordinator, provided the name of the registered medical practitioner who has explained the procedure and the risks involved is specified.

An example of a referral letter and a checklist of what is required is provided in the HTA document '*Guidance for transplant teams and Independent Assessors*' which can be downloaded from

http://www.hta.gov.uk/transplantation/organ_donation/independent_assessors.cfm

The guidance document also provides details of the information that needs to be included in the referral letter.

The written referral should then be sent to the IA with copies of evidence of the relationship between the couple being referred and form HTA IT (DC) where a translator has been used. The referral should also include email contact details of the clinician responsible for the donor and the living donor co-ordinator. This is to ensure that both the donor clinician and living donor coordinator can be informed of the HTA's decision.

Each incompatible donor and recipient couple will be seen together and separately by their local IA. The IA then completes an online report of the interviews and sends it to the HTA. This report contains the IA's recommendation as to whether they believe, based on all of the available evidence, that the donation should proceed. A letter confirming this has been done is sent to the clinician responsible for the donor. Upon submission of the IA's report to the HTA, a reference number is automatically generated and can be used to track the progress of the approval.

A HTA panel will consider the reports of the two couples in each matching pair with the details sent from UKT confirming who will be donating to whom. If the HTA panel is in agreement, an approval using the HTA reference number is issued to the IA, UKT, the living donor coordinator and the clinician responsible for the donor.

Once HTA approval is obtained, a date for surgery can be agreed. UK Transplant must be informed of the proposed date. After approval is given, the living donor transplant must go ahead within six months, otherwise a further appointment will be required with an IA for assessment and an updated report from the IA to the HTA will be required.

Transport of kidneys arranged

Transplanting units should liaise in advance with the UK Transplant Duty Office about arrangements for the operations, so that the Duty Office can organise prompt transfer of donated kidneys to the recipients' transplanting centres as required.

Final crossmatch tests

Units should arrange for final crossmatch tests according to an agreed protocol.

Simultaneous transplant operations

In planning the operation the donor should be asked their wishes should their kidney be removed but not transplanted in the intended recipient for whatever reason.

Retrieval surgery would usually take place in the unit that performed the work-up, with kidneys being transported to the recipient transplant unit for implantation. Alternative arrangements can be made with the agreement of all those concerned.

The retrieval surgery for the donors must take place simultaneously, with the clinicians responsible for the induction of anaesthesia in direct telephone contact at that time.

Once the donor and recipient operations have been performed, the clinician responsible for the recipient completes the HTA (B) form, which is sent to UKT, and the transplant team informs the IA.

Anonymity of pairs should be preserved. Post surgery any communication between donors and recipients can be negotiated by recipient coordinators, respecting wishes of both parties, in the way that sometimes occurs between families of deceased donors and organ recipients.

The HTA's '*Guidance for transplant teams and Independent Assessors*' can be downloaded from:

http://www.hta.gov.uk/transplantation/organ_donation/independent_assessors.cfm

Appendix A The national matching scheme for paired donation

THE MATCHING PROCESS

All incompatible couples wishing to pursue the option of paired donation must be registered with UK Transplant for the national matching scheme. 'Matching runs' will be carried out at intervals determined by the rate at which incompatible couples join the paired donation list. There are three key stages in the matching process to identify suitable pairs for transplant.

Firstly, all matching pairs must be identified. Secondly, all possible combinations of these pairs must be determined. The final stage is then to identify the optimal combination of matching pairs from all of those possible. It is important to consider not only which couples are involved but also the nature of the exchanges involved (ie who donates to whom).

A number of criteria have been agreed to identify the most appropriate combination of matching pairs. These are local exchange, sensitisation, HLA match, age difference between two donors in a matching pair (donor-donor age difference) and blood group match.

THE NATIONAL MATCHING SCHEME

A scoring system has been agreed to identify the most suitable combination of matching pairs using the five criteria above. It provides a compromise between the competing objectives of the matching scheme. A score is calculated for each of the two potential transplants in a matching pair. For each possible combination of matching pairs a total score is then calculated and the highest scoring combination identifies the set of proposed transplants.

Scores for individual possible transplants are as follows:

Location points

20 points – if the couple who are a match are at the same centre or at another centre within the same area as defined below

0 points – if the matching couple are in another area

Area	Centres
London & Cambridge	Guy's, St George's, Royal London, Royal Free, West London Renal & Transplant Centre, Cambridge
South, West & Wales (SW2)	Bristol, Cardiff, Oxford, Plymouth, Portsmouth
Trent & Midlands	Leicester, Nottingham, Sheffield, Birmingham, Coventry
North of England	Leeds, Liverpool, Manchester, Newcastle
Scotland & NI	Edinburgh, Glasgow, Belfast

Sensitisation points

0-50 points based on calculated sensitisation (%) divided by 2.

Using a pool of 10,000 donors, sensitisation levels (%) will be calculated by UK Transplant by determining the percentage of blood group identical donors to which the recipient is sensitised (ie the percentage of blood group identical donors having antigens which are declared unacceptable for the recipient).

HLA mismatch points

These are based on HLA mismatch levels developed for the 2006 deceased donor kidney allocation scheme:

HLA mismatch level of possible transplant		Points
1	000 mismatch (mm)	15
2	[0 DR and 0/1 B] mm	10
3	[0 DR and 2 B] or [1 DR and 0/1 B] mm	5
4	[1 DR and 2 B] or [2 DR] mm	0

Note – HLA mismatch requirements for an individual recipient can be specified at time of registration.

Donor-donor age difference points

3 points - if donor-donor age difference \leq 20 years

0 points - if age difference $>$ 20 years

Note - maximum donor age acceptable for an individual recipient can be specified at time of registration.

Final discriminator

If required, the sum of the age differences between the two donors in each pair in a combination of matching pairs will act as a final discriminator between combinations.

Blood group matching

All blood group compatible matches will be considered with the exception that blood group O donors will only be matched with blood group O recipients. This will minimise the disadvantage to group O patients.