

# Australian and New Zealand Paired Kidney Exchange Program

Protocol 2: Process of the ANZKX Program



# Process of the Australian and New Zealand Paired Kidney Exchange (ANZKX) Program

No	What	Relevant document
1	<p><b>Initial discussion with patient</b></p> <ul style="list-style-type: none"> <li>Recipient is identified to have a medically suitable, but incompatible donor.</li> <li>Recipient and donor are given information about the ANZKX Program.</li> <li>The local Nephrologist is in the best position to judge whether or not the pair should consider enrolling in the ANZKX Program.</li> </ul>	<ul style="list-style-type: none"> <li>FAQs</li> <li>Information for donors and recipients</li> </ul>
2	<p><b>Provide full information about the ANZKX Program</b></p> <ul style="list-style-type: none"> <li>Donor and recipient receive full information about the advantages and disadvantages of all of the living donor options available to them and agree to participate in the ANZKX Program after considerations of these options.</li> <li>An informed consent discussion list is available to ensure that a consistent consent process has been followed, and that participants' information has been provided in each hospital.</li> </ul>	<ul style="list-style-type: none"> <li>Informed Consent</li> <li>Discussions Checklist</li> <li>Bridge Donor Information</li> </ul>
3	<p><b>Agreement to Participate and Ministerial Approval</b></p> <p>All donors and recipients are required to sign Agreement to Participate forms to register in ANZKX Program.</p> <ul style="list-style-type: none"> <li>VIC &amp; QLD do not require Ministerial approval - <b>go to 3.1</b></li> <li>NSW, ACT, TAS &amp; WA require Ministerial approval <b>after</b> consenting to participate in ANZKX Program - <b>go to 3.1 then 3.2</b> <ul style="list-style-type: none"> <li>— ACT participants require signed approvals from ACT &amp; NSW (MoH).</li> </ul> </li> <li>NT &amp; SA participants require Ministerial approval <b>before</b> consenting to participate in the ANZKX Program - <b>go to 3.2 then 3.1</b> <ul style="list-style-type: none"> <li>— NT participants require signed approvals from NT &amp; SA (MoH).</li> </ul> </li> <li>New Zealand participants <b>do not</b> require Ministerial or Ministry of Health (MoH) approval.</li> </ul>	
3.1	<p><b>Agreement to Participate form signed</b></p> <ul style="list-style-type: none"> <li>Signed agreements are obtained for the donor/recipient pair to participate in the ANZKX Program and are uploaded to the KPD Enrolment section of the OrganMatch via the Transplantation Portal.</li> <li>The donor is also required to sign the Donor Declaration form.</li> </ul>	<ul style="list-style-type: none"> <li>Donor/ Recipient Agreement to Participate</li> <li>Donor Declaration Form</li> </ul>

3.2	<p><b>Ministerial approval</b></p> <p>Documentation seeking Minister or delegate approval for ANZKX to be completed:</p> <ul style="list-style-type: none"> <li>• The Transplant Centre to complete Section 1 of the Ministerial Approval Form and email to the ANZKX Program Coordinator.</li> <li>• The ANZKX Program Coordinator will forward Ministerial Approval request with signed agreements to participate a (not applicable in SA) to the relevant State/Territory Health Department.</li> <li>• Once the Chief Health Officer (CHO)/Minister for Health (MfH) has signed and returned the form, the ANZKX Program Coordinator emails the signed approval form to the Local Transplant Centre and uploads the form onto the KPD enrolment section in OrganMatch via the transplantation portal,</li> </ul>	<ul style="list-style-type: none"> <li>• Ministerial Approval Form</li> <li>• Donor and Recipient Agreements to Participate</li> </ul>
4	<p><b>Medical evaluation</b></p> <ul style="list-style-type: none"> <li>• Prior to activating a donor/recipient pair in the ANZKX Program both the donor and the recipient must be determined to be medically suitable for the transplantation procedure.</li> <li>• Guidelines for assessing donor medical suitability including medical, surgical and psychological assessment are outlined in the ANZKX Living Donor Evaluation Guidelines.</li> <li>• Guidelines for the donor CT Angiogram are provided in the Donor CTA Protocol.</li> </ul>	<ul style="list-style-type: none"> <li>• Living Donor Evaluation Guidelines</li> <li>• Donor CTA Protocol</li> <li>• Bridge Donor Information</li> </ul>
5	<p><b>Enrolment of donor/recipient pairs into the KPD section of OrganMatch via the transplantation portal</b></p> <ul style="list-style-type: none"> <li>• Donor/recipient pairs are enrolled into the KPD section of OrganMatch via the transplantation portal by their Transplant Centre.</li> <li>• A set of medical information and investigations of recipients and donors must be completed and entered into the KPD section of the Medical Information in OrganMatch to activate pairs in ANZKX.</li> <li>• The specific recipient consent form in relation to the acceptance of Hepatitis B core antibody (anti-HBc) positive donors must be obtained and uploaded onto KPD enrolment section in OrganMatch.</li> <li>• A CD-ROM, USB (or electronic image transfer) including the CT report, of the identified donor CT angiogram must be forwarded to the ANZKX Coordination Centre prior to activation on the registry.</li> </ul>	<ul style="list-style-type: none"> <li>• Registered authorised users to access OrganMatch</li> <li>• HBc positive donors</li> <li>• Recipient Consent form</li> </ul>
6	<p><b>Immunology data entered into OrganMatch</b></p> <ul style="list-style-type: none"> <li>• Donor/recipient immunology data (containing donor HLA type and recipient HLA type, sensitisation history and acceptable mismatches) are entered into OrganMatch by the relevant Australian or New Zealand Tissue Typing Laboratory.</li> <li>• The ANZKX Tissue Typing Coordinator (ATTC) will liaise with the ANZKX Program Coordinator and local labs to ensure timely laboratory testing.</li> </ul>	<ul style="list-style-type: none"> <li>• Tissue Typing Laboratory (TTL) Guidelines</li> </ul>

7	<p><b>Confirmation of donor/recipient pair information</b></p> <p>ANZKX Program Coordinator confirms that the referring transplant centre has fully evaluated the enrolled recipient/donor pairs:</p> <ul style="list-style-type: none"> <li>• Donor medical work-up is complete.</li> <li>• The donor/recipient information is complete.</li> <li>• CD-ROM, USB (or electronic image transfer) and report of donor CT angiogram has been received.</li> </ul>	
8	<p><b>Maintenance of active donor/recipient pair data</b></p> <p>The ANZKX Program Coordinator verifies with Transplant Centres that:</p> <ul style="list-style-type: none"> <li>• All active registered donor recipient pairs are suitable for matching.</li> <li>• Acceptance of ABOi and HBcAb positive donors as registered in OrganMatch is confirmed.</li> <li>• Donors who are blood group A have been subtyped.</li> <li>• Donor virology and review has been completed within the last 12 months.</li> <li>• Donor cancer screening is up to date.</li> </ul>	
9	<p><b>Matching</b></p> <ul style="list-style-type: none"> <li>• ANZKX Tissue Typing Coordinator performs matching continuously throughout the year.</li> </ul>	
10	<p><b>Review matched pairs</b></p> <ul style="list-style-type: none"> <li>• The ANZKX Coordination Centre reviews matched donor-recipient pairs with the ANZKX Tissue Typing Coordinator and the relevant Australian or New Zealand Tissue Typing Officers.</li> <li>• Recipients who have not been matched remain active on the transplant waiting list.</li> <li>• Recipients on the transplant waiting list are temporarily placed on hold in OrganMatch if a match is identified.</li> <li>• ATTC provides the report of the matching and individual HLA antibody reviews of matched recipients to the ANZKX Program Director and Coordinator.</li> </ul>	
10.1	<p><b>Match offers</b></p> <ul style="list-style-type: none"> <li>• ANZKX Program Director or Deputy Director notifies the transplant unit of proposed match via email.</li> <li>• Details of match including immunological data and donor clinical information will be made available for transplant unit to view via OrganMatch.</li> <li>• Transplant units are requested to accept or refuse an offer with regards to medical/immunological factors within 48 hours.</li> <li>• Acceptable matches, go to 11.</li> </ul>	

11	<p><b>Transplant teams notified of matched pairs required for immunological cross matching</b></p> <p>ANZKX Program Director</p> <ul style="list-style-type: none"> <li>Notifies transplant teams and Australian/New Zealand Tissue Typing Laboratories of accepted pairs.</li> </ul> <p>ANZKX Coordination Centre</p> <ul style="list-style-type: none"> <li>Facilitates donor-specific ABO-titre, if indicated.</li> </ul> <p>ANZKX Tissue Typing Coordinator/Australian and New Zealand Tissue Typing Laboratories</p> <ul style="list-style-type: none"> <li>Coordinate flow cross-matching of identified matched pairs between all laboratories.</li> <li>Cross-matches are performed within 2 weeks.</li> </ul> <p>Transplant Centre</p> <ul style="list-style-type: none"> <li>Recalls donors for cross-matching (XM booking to be made within 5 days of notification) and serology for blood borne viruses. Donor repeats donor declaration form.</li> </ul>	
12	<p><b>Transplant teams notified of matched pairs required for surgical cross matching</b></p> <ul style="list-style-type: none"> <li>ANZKX Program Director notifies transplant teams of identified matched pairs.</li> <li>ANZKX Coordination Centre sends CD-ROM, USB (or electronic transfer) of donor imaging, CT report, de-identified donor medical information and Surgical Checklist (SC) to respective liaison transplant surgeons.</li> <li>Liaison surgeons discuss viability of exchange and potential surgery date, and return completed SC to ANZKX Coordination Centre within 4 working days.</li> <li>If exchange is not accepted, ANZKX Coordination Centre needs to be advised immediately through return of signed SC, noting reason for non-viability of exchange.</li> <li>Negotiation of acceptable theatre date begins. Priority given to the transplant unit with the most pairs involved in an exchange.</li> </ul> <p><b>Note: For ABOi transplant, coordination of surgery dates must occur in consultation with nephrology/haematology department.</b></p>	<ul style="list-style-type: none"> <li>Surgical Checklist</li> <li>Bridge Donor Information</li> </ul>
13	<p><b>Transplant teams notified of authorised pairs for the exchange.</b></p> <ul style="list-style-type: none"> <li>ANZKX Program Director notifies transplant teams of the donor/recipient pairs selected for the exchange.</li> <li>De-identified donor information will be able to be viewed in OrganMatch.</li> </ul>	<ul style="list-style-type: none"> <li>Match Pair Report</li> </ul>
14	<p><b>Review of crossmatches</b></p> <ul style="list-style-type: none"> <li>The ANZKX Coordination Centre reviews cross-matches with the ANZKX Tissue Typing Coordinator, and the relevant Australian and New Zealand Tissue Typing Laboratories.</li> <li>ATTC confirms acceptable exchanges following additional immunological review and provides appropriate XM reports to the ANZKX Coordination Centre.</li> </ul>	

	<ul style="list-style-type: none"> <li>• ATTC confirms with the relevant Australian and New Zealand Tissue Typing Officers re- activation of recipients with positive cross-match and the other recipients in the same loop/chain (innocent bystanders) on the OrganMatch list.</li> </ul>	
15	<p><b>Logistics for exchange</b></p> <p>ANZKX Program Coordinator:</p> <ul style="list-style-type: none"> <li>• Confirms date of transplants acceptable to Transplant Centres and donor/recipient pairs.</li> <li>• Informs the relevant Australian and New Zealand Tissue Typing Officers regarding the accepted date of transplants.</li> <li>• Identifies responsible person at each site that will oversee coordination of surgical timelines.</li> <li>• Identifies the transplant surgeon on site who will assist with donor kidney packaging (if required).</li> <li>• Sends a preliminary transport itinerary to transplant teams to assist with operative scheduling.</li> </ul> <p>ANZKX Tissue Typing Coordinator:</p> <ul style="list-style-type: none"> <li>• Reminds state labs and transplant centres to action the collection of recipient HLA serum for repeat Luminex single antigen bead (SAB) testing if &gt;1 months since crossmatch was performed.</li> </ul>	
16	<p><b>Transport and packaging resources available</b></p> <ul style="list-style-type: none"> <li>• ANZKX Program Coordinator sends ANZKX transport container and packaging material (ANZKX Transport Pack) as required.</li> <li>• The Transplant Centre ensures ANZKX Transport Pack is available and checks surgical schedules are in place.</li> </ul>	
17	<p><b>4 – 2 weeks prior to surgery:</b></p> <p><b>ANZKX Tissue Typing Coordinator</b></p> <p><b>Recipient Luminex SAB testing is performed if &gt;1 months since XM</b></p> <ul style="list-style-type: none"> <li>• There may be a delay of several weeks between initial cross-match and surgery, increasing the risk of an adverse immunological outcome. In this instance current serum is retested by Luminex SAB. If any change in Luminex profile a XM will be required.</li> <li>• If NO change in Luminex profile a repeat XM is not required. However, it is advisable that the relevant Australian or New Zealand Tissue Typing Laboratory verifies with the recipient centre whether a repeat crossmatch is required (this may depend on local hospital policy).</li> <li>• ANZKX Program Coordinator</li> <li>• Emails transplant unit to confirm surgical preferences with emphasis on confirming donor nephrectomy side</li> </ul>	<ul style="list-style-type: none"> <li>• Surgical Checklist</li> </ul>

18	<p><b>Consent for surgery, Donor Nucleic Acid Testing (NAT) and COVID-19 testing</b></p> <ul style="list-style-type: none"> <li>• The Transplant Centre is responsible for obtaining consent from donors and recipients for the actual surgery as per hospital policy and ensuring that NAT has been performed.</li> <li>• The Transplant Centre will organise collection of donor blood samples for NAT at the required pre-surgery interval (Day-9, or as close to this as possible).</li> <li>• The results should be available at least 5 days prior to the surgical date.</li> <li>• The ANZKX Coordination Centre will de-identify the NAT result as applicable and forward to recipient centre.</li> <li>• The transplant centre will organise COVID-19 testing as per ANZKX Protocol and send to the ANZKX Coordination Centre.</li> <li>• If NAT and COVID-19 results are negative, go to 19.</li> <li>• If NAT or COVID-19 swab results are positive, surgeries will be deferred.</li> </ul>	<ul style="list-style-type: none"> <li>• Protocol for Donor Nucleic Acid Testing (NAT)</li> <li>• ANZKX Coronavirus Disease 2019 (COVID-19) testing protocol</li> </ul>
19	<p><b>Confirm Day of Exchange details</b></p> <p>7 – 2 days prior to surgery the ANZKX Program Coordinator confirms with each centre:</p> <ul style="list-style-type: none"> <li>• ANZKX Transport Packs have been received.</li> <li>• Anaesthetic start times and anticipated pick-up times for organs.</li> <li>• Donor Blood request forms for “PKE-store cells” &amp; Living Kidney Donation reports have been received.</li> <li>• Copies of de-identified Donor NAT and Blood Group results are available.</li> <li>• Name of recipient transplant surgeon who will be present in theatre to assist with packaging (if applicable).</li> <li>• Flight itineraries for organs (as applicable).</li> <li>• Transport Plan, NECZ numbers &amp; Consignment Notes for organ transport have been received.</li> <li>• Couriers responsible for pickup and delivery.</li> <li>• Hospital pickup and delivery points and designated contacts at each hospital.</li> <li>• Back-up itinerary and emergency contact details.</li> </ul>	<ul style="list-style-type: none"> <li>• Day of Exchange Details</li> <li>• Transport Itinerary &amp; Contingency Plan</li> </ul>
20	<p><b>1 day prior to surgery</b></p> <p>1 day prior to surgery the ANZKX Program Coordinator will:</p> <ul style="list-style-type: none"> <li>• Check all items in step 19 are confirmed.</li> <li>• Confirm with transplant centres that donor-recipient pairs are fit for surgery (not affected by acute illness, consent not withdrawn).</li> <li>• If non-simultaneous donor surgical start times are planned then donor-recipient pair must be reviewed the day prior to surgery to ensure they are fit (not affected by acute illness, consent not withdrawn). In this setting they should also be admitted the day prior to surgery.</li> </ul>	

21	<p><b>Day of surgery</b></p> <ul style="list-style-type: none"> <li>• Transplant Centre to confirm, in separate consultations, donor and recipient medical and emotional suitability to participate.</li> <li>• If donor and/or recipient withdraw, the Transplant Centre to immediately notify the ANZKX Program Coordinator and other Transplant Centre.</li> <li>• The Transplant Centre to notify the ANZKX Program Coordinator immediately of any last minute issue regarding consent, packaging, transport and surgery.</li> <li>• For donor surgery, ensure Donor blood samples, hard copies of de-identified Blood Group and NAT results and completed sections 1 and 2 of the Living Kidney Donation Report accompany the kidney.</li> <li>• For recipient surgery, ensure the kidney received is cross-checked and correct for the recipient prior to implantation.</li> </ul>	<ul style="list-style-type: none"> <li>• Living Kidney Donation Report</li> </ul>
22	<p><b>After transplantation</b></p> <p>The Surgical Team to complete section 3 of the Living Kidney Donation Report and forward to ANZKX Program Coordinator within two working days of procedure.</p>	<ul style="list-style-type: none"> <li>• Living Kidney Donation Report</li> </ul>
23	<p><b>Post-Transplant Notifications</b></p> <p>The ANZKX Program Coordinator:</p> <ul style="list-style-type: none"> <li>• Completes OrganMatch renal transplant notification form and emails to the ANZKX Tissue Typing Coordinator and the relevant Australian/New Zealand labs)</li> <li>• Notifies ANZDATA of exchange by uploading form in the Secure Depot of the ANZDATA portal</li> <li>• Can request feedback regarding any recipient donor issues.</li> </ul>	
24	<p><b>1 Month Post Transplant</b></p> <p>The ANZKX Program Coordinator:</p> <ul style="list-style-type: none"> <li>• Will send 1 month post-transplant data form to surgical units for completion.</li> </ul>	



VERSION CONTROL			
Version	Date	Author	Comments
V 1.0	Jul 2019		AKX transitioned to ANZKX.
V 2.0	Feb 2021	ANZKX Team	Match run structure changed to continuous matching.
V 3.0	Nov 2021	ANZKX Team	MMEEx transition to OrganMatch and added text regarding donors to repeat donor declaration at time of offer.
V 4.0	May 2023	ANZKX Team	Addition of Bridge Donor information.

