



**RENAL DEPARTMENT
SGH Renal WPI 150 Workplace Instruction**

WPI Criteria	Yes	No
Contains ward/unit/department specific instructions only	✓	
Description of process is straight forward and without variables. NOT a WPI if dependent on various decision-making pathways e.g. if something is A do B and if C do D	✓	
Process is free from complex clinical decision making	✓	
Process is free from medications	✓	
Process is free from high-risk invasive procedures	✓	
Document will be located on the ward/unit/department dedicated intranet page	✓	
Document will be listed in a local register by custodian responsible for facilitating WPI review every 5 years	✓	
Department head will approve the document and nursing co-director or clinical group manager will be the executive sponsor	✓	
<p>If NO to any of the criteria ↓ NOT a WPI – progress to business rule (BR) development</p>		

TISSUE TYPING – BLOOD TESTING FOR THE KIDNEY TRANSPLANT WAITING LIST, LIVING DONOR TRANSPLANTATION AND DONOR SPECIFIC ANTIBODY TESTING- SGH

1. Purpose	The accurate and timely collection of specimens required for the kidney transplant waiting list, live donor kidney transplants and donor specific antibody (DSA) testing.
2. Employees it applies to	Phlebotomists, dialysis nurses, medical staff and any other employees who collect blood samples from patients

3. PROCESS

Tissue typing tests are conducted by the Australian Red Cross Blood Lifeblood tissue typing department in Sydney. Specimens must be sent with the Solid Organ Transplant Request Form via the blood bank to the Australian Red Cross Lifeblood. The request form lists the tubes to be collected for each specific test. Tubes must be clearly labelled with the patient's name, date of birth and the date and time of collection. Hospital labels may be used but samples will not be accepted unless the date and time of collection are recorded on the request form and on each individual tube. Samples should be received within 24 hours of collection. Whole blood samples are to be stored at room temperature, separated blood samples are to be stored at <4°C.

3.1 Patient Registration

Before any samples are sent for the transplant wait list (TWL) or living directed donations (LDD) the patient must be registered in the Organmatch Transplantation Portal. Registration can be undertaken by the SGH transplant coordinator (page #253).

3.2 The Transplant Wait List (TWL)

3.2.1 Initial and verification testing (KR1 & KR2)



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- Blood for these tests may be collected Monday to Thursday of normal working weeks and are not to be sent in directly before a weekend or a public holiday. Verification tissue typing (KR2) is collected at least one day after the initial tissue typing (KR1).
- Specimens required for initial and verification tissue typing (KR1 & KR2):
 - 10 mL ACD
 - 10 mL clotted sample with gel

3.2.2 Maintaining patients on the transplant list

- A monthly clotted sample is required for all patients who are active on the kidney transplant waiting list. Specimens must be received by the Australian Red Cross Blood Lifeblood prior to 18th of each month.
- Specimens required for monthly clotted sample
 - 10 mL clotted sample with gel

3.2.3 Re-entry testing

Re-entry testing is sometimes requested by the Red Cross when the patient is going back on the list after being de-listed.

- Specimens required for re-entry testing:
 - 10 mL ACD
 - 10 mL clotted sample with gel

3.3 LIVING DONOR TRANSPLANTATION

Tissue typing for live donor pairs must be pre-booked with the Australian Red Cross Blood Lifeblood by the transplant coordinators and samples must be received by 8.30am on the scheduled day of the test at the latest. Specimens should be collected the day prior to testing to ensure that they are available on the day of the test. The status of the patient as either a 'Recipient' or a 'Donor' needs to be indicated on the Solid Organ Transplant Request Form and in the case of donor samples, the name of the recipient also needs to be included along with the relationship of the donor to the recipient.

3.3.1 Stage 1 – Virtual crossmatch (VXM)

Recipient: 10 mL ACD
 10 mL clotted sample with gel
Donor: 10 mL ACD

3.3.2 Stage 2 - Flow cytometric crossmatch (FXM)

Recipient: 10 mL ACD
 10 mL clotted sample with gel
Donor: 30 mL ACD

3.3.3 Stage 3 – Final flow crossmatch (FXM)



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Recipient: 10 mL ACD
10 mL clotted sample with gel
Donor: 30 mL ACD

3.3.4 Australian Kidney Exchange (KPD)

Where the patient is required to have samples collected for the Australia and New Zealand Paired Kidney Exchange (ANZKX), the Australian Red Cross Lifeblood laboratory will communicate with the transplant coordinator and specify what samples are required.

3.4 ANTIBODY SCREENING

Post-transplant donor specific antibody (DSA) screening may be selected on the Solid Organ Transplant Request Form along with the indication for the test as either 'Routine' or 'Rejection'. There are also options on the form to request other HLA screening and Angiotensin II Type 1 Receptor (AT1R) screening.

- Specimens required for antibody screening
 - 10 mL clotted sample with gel

4. Cross references	Australian Red Cross Lifeblood Solid Organ Transplant Request Form, found at: https://www.lifeblood.com.au/health-professionals/learn/resource-library?category=91&filetype=All&sort_bef_combine=changed_1_DESC
5. Keywords	Renal, kidney, transplant, tissue typing
6. Document Location	SGSHHS >> Business Rules >> Renal
7. External References	Australian Red Cross Lifeblood NSW Solid Organ Transplant Request Form, found at: file:///C:/Users/53038889/Downloads/New_South_Wales_NSW_Solid_Organ_Transplant_Request_Form%20(16).pdf

Approval for: TISSUE TYPING – BLOOD TESTING FOR THE KIDNEY TRANSPLANT WAITING LIST, LIVING DONOR TRANSPLANTATION AND DONOR SPECIFIC ANTIBODY TESTING- SGH	
Specialty/Department Committee	SGH Renal Transplant
Medical Head of Department	Prof George Mangos, Head of Department - Renal Signature _____ Date: _____
Nurse Manager / Divisional Director / Co-Director	Lorena Matthews, NM Medicine & Cancer Signature _____ Date: _____
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	Signature	Date:
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Revision and Approval History

Revision date	Revision number	Reason	Coordinator/Author	Revision due
May 2015	0		Tania Burns (Renal transplant CNC)	May 2018
Nov 2017	1		Tania Burns (Renal transplant CNC)	Nov 2020
Mar 2021	2		Tania Burns (Renal transplant CNC)	Mar 2024
Mar 2024	3	<input type="checkbox"/> New <input type="checkbox"/> No Changes <input checked="" type="checkbox"/> Minor Review <input type="checkbox"/> Major Review	Tania Burns (Renal transplant CNC)	Mar 2027