

## INTRODUCTION

Patients and donors must be enrolled in the OrganMatch in the Organ program, Kidney and Kidney Paired donation (KPD) pathway to be matched.

OrganMatch enrolments may be created from the Laboratory portal or the Transplantation Portal via the registration process. Using the transplantation portal, additional clinical information can be entered so this is the preferred option. Recipients and donors must be enrolled in the Kidney Program – KPD pathway to be included for KPD matching. See OM-027 for Registration in KPD.

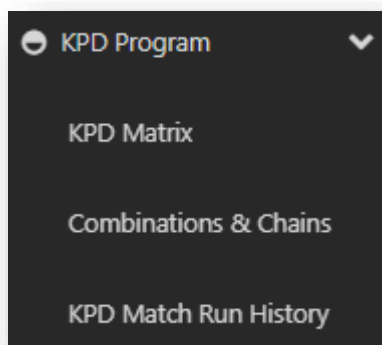
KPD matching occurs in the OrganMatch Laboratory Portal.

## PURPOSE

This document describes the process of KPD matching in OrganMatch.

KPD Program on the navigation pane contains three sections:

- KPD Matrix
- Combinations & Chains
- KPD Match Run History



## 1. KPD MATRIX

The KPD matrix displays recipients and donors enrolled in the KPD transplant pathway. The donors are listed down the page and recipients along the top of the page. Compatibility assessments (Y), or no (X) based on the criteria described in **Error! Bookmark not defined..3**.

The matrix is live and reflects any changes that affect the compatibility of a matched pair immediately. It includes every person who is enrolled in KPD regardless of their readiness, hold or availability status.

The user can click on the cell at the intersection (with the exception of a registered pair) of any pair, and access a match event to add notes, review assessment, block pair from future matching etc.

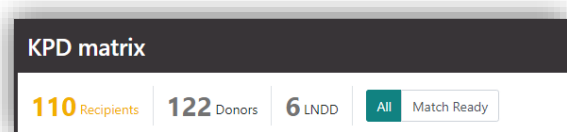
## 1.1 VIEW THE MATRIX

From the navigation pane, click KPD Program, and then click KPD Matrix.

The KPD matrix will load with the current data.

### ALL MATCHES

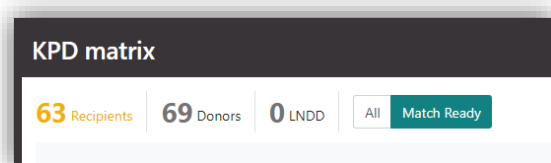
Once a patient and donor is registered on the Kidney -KPD program, the patient and donor will appear in the KPD Matrix. This view will display all patients and donors, irrespective of status or readiness.



### MATCH READY ONLY

The Enrolment status should be active for both the patient and donor, when the patient is ready to be matched. When the Readiness criteria is met and the patient and donor are active, the pair are “Match ready”.

To view the matrix with only match ready recipients and donors, click the **Match Ready** button.



## 1.2 KPD MATRIX AND KEY

KPD matrix

110 Recipients

122 Donors

6 LNDD

All Match Ready

		Recipients																															
	Donor Matches	ahWmLU cGuLDob	AKZIT Tkeabd	AMEHb GEISCH	Aupbwr SsNTwo	bctmrmNFp	baXuzv/ LpKxx	bryxxtq TjErze	bjevZLb FwZU	bUSOVCO PwybnS	bWYf ddtPF	BashMyC MTIsuA	ChLdWzZ ZQhAm	CGFVuzZ eajlO	CSODR qWBIZ	CZQdPK VImojH	DARez nSIO	dBWwyy ENzLtm	DceqZPI gcaewmD	DgkxWJ CREb	eDahH LHCKa	efHwduT UtiBAG	Eftul gKdE	eJltb JnGI	emSvdrH MODIEo	EokNa aOGN	Emx ByoSn	eSalh CbWGou	Fxjglo AqbfFu	DNKcuKD RLHd			
Recipient Matches	48	1	41	1	0	1	39	0	0	2	48	10	0	8	0	47	28	36	0	0	48	0	2	97	1	0	98	34					
amEsAbyxG TgCQhZM	9	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Y	X	X	Y	X			
aMZBk DZIOoV	14	X	X	Y	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Y	X	X	Y	X				
aYkUhgMZV TPkUvh	8	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Y	X	X	Y	X				
bBsNaRT uctTI	49	Y	X	Y	X		X	Y	X	X	Y	Y	X	X	X	X	Y	Y	Y	X	X	X	Y	X	X	Y	X	Y	Y				
BNTxhEau NLPBp	8	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Y	X	X	Y	X				
bRIDhM CcWd	12	X	X	Y	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Y	X	X	Y	X				
BRNGHJL CvaqJjk	8	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Y	X	X	Y	X				
bVDxkX OxusPn	0	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
CBlaDSny wJHYgb	39	Y	-	Y	X		X	Y	X	X	X	Y	X	X	X	X	Y	Y	X	X	X	Y	X	X	B	X	X	Y	Y				
cNFdP HfNmUtC	11	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Y	X	X	Y	X				
DimWNX LonHDp	40	Y	X	X	X		X	X	X	X	B	Y	X	X	Y	X	Y	X	-	X	X	X	Y	X	Y	X	X	Y	X				
DJqNxrR oEUuay	41	Y	X	Y	X		X	Y	X	X	X	Y	X	X	X	X	Y	Y	X	X	X	Y	X	X	Y	X	X	Y	Y				
dQnCe eSUKg	8	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Y	X	X	Y	X				
dsOpaU DUBWIO	9	X	X	X	-		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Y	X	X	Y	X				
eOEyX rPJT	46	Y	X	Y	X		X	Y	X	X	X	Y	X	X	X	X	Y	X	Y	X	X	Y	X	X	Y	X	X	Y	Y				
eWvF hpndFY	46	Y	X	X	X		X	Y	X	X	X	Y	X	X	X	X	Y	Y	Y	X	X	X	Y	X	Y	X	X	Y	X				

The KPD matrix is colour-coded to assist with viewing possible matches.

## KPD Matrix Key

Y

The match is compatible

X

The match is incompatible

B

The eligible recipient/donor pair is blocked

-

This is a Registered Pair

Blank

The status of the Matched Pair cannot be calculated as one (or both) of the match pair is not ready

Red Patient and donor names

The Name in red indicates that the person's co-registered donor or recipient has 0 matches

Find a patient in matrix

Press Ctrl F and enter name. Name will be highlighted in matrix

Hover over the matrix to display more information on the patient and donor

0084213 - 0076880

Eplet Load: -, Total: -

Recipient:  
DAREz nSsO  
O Pos

Donor:  
HLFkpR yXIGrA  
O Pos

### 1.3 MATCHABLE PAIR COMPATIBILITY ASSESSMENTS

Each eligible recipient/donor pair is assigned a compatibility of yes (Y), or no (X) based on an assessment of the:

- donor and recipient's blood group compatibility (see Appendix 1 – ABO compatibility table)
- donor's HLA typing profile and the recipient's unacceptable antigen list
- donor's extended acceptance criteria, and which criteria the recipient is willing to accept

Donor and recipient's HLA typing is required , however does not impact the compatibility assessment in the matrix.

The following table shows the steps OrganMatch runs through to determine the compatibility of each eligible recipient/donor pair. The result of the compatibility assessment displays in the KPD matrix.

	Donor Matches	Recipients									
		ahWYmIU cGuIDob	AKZIT Tkeabd	AMEhLb GEIScH	AuipbwR SsNTvo	bcLmx mNFp	beXvuzw/ LpKkx	bryxXfqc TJErize	bsjEvZUB FwZU	buSOVCQ PwybmS	bWYfj dzLpF
Recipient Matches		48	1	41	1	0	1	39	0	0	2
amEsAbyxG TgCQhZM	9	X	X	X	X		X	X	X	X	X
aMZBk DZIOoV	14	X	X	Y	X		X	X	X	X	X
aYkUhqMZV TPkUvh	8	X	X	X	X		X	X	X	X	X
bBsNaRT uctTi	49	Y	X	Y	X		X	Y	X	X	Y
BNTxhlEau NLPBp	8	X	X	X	X		X	X	X	X	X
bRIDhM CcWd	12	X	X	Y	X		X	X	X	X	X
BRNGHjL CvaqJjk	8	X	X	X	X		X	X	X	X	X

**Table 1: Compatibility Steps**

Step	KPD Eligible Recipient/Donor Pair Compatibility Assessment Steps	
1.	ABO Blood group	<p>Compare donor and recipient ABO:</p> <ul style="list-style-type: none"> <li>If okay, then proceed to next check.</li> <li>If NOT, check ABOi rules</li> <li>Is the recipient willing to accept ABOi?</li> <li>Is the ABO compatible as per the ABOi rules?</li> <li>If the above conditions are not met, update assessment as Not Compatible in the KPD matrix</li> </ul>
2.	Donor HLA and recipient UA	<p>Compare donor HLA and recipient UA:</p> <ul style="list-style-type: none"> <li>If no UA matches found, then proceed to the next check.</li> <li>If an UA match is found, then update assessment to Not Compatible</li> </ul>
3.	Compare the donor extended acceptance criteria with acceptance criteria selected by the recipient	<p>Compare the donor extended acceptance criteria:</p> <ul style="list-style-type: none"> <li>If the donor has extended acceptance criteria that the recipient won't accept, update the assessment as Not Compatible.</li> <li></li> </ul>

## 1.4 RECIPIENT MATCH PROBABILITY

To view the recipient match probability score for each donor, click the Match Ready button.

**KPD matrix**

107 Recipients | 120 Donors | 6 LNDD

All Match Ready

Recipients

The **Recipient Match Probability** displays below the **Recipient Matches** row.

63 Recipients

69 Donors

0 LNDD

All

Match Ready

Recipients

	Donor Matches	HuUFh RqGez	HYhTPJsp xEbZNF	jCsh nTqcSlb	JQTKV UGPOzs	LjZdOo RyqrWK	LSuQOXajf QEUhZK	ItirE RDgCX
Recipient Matches		0	25	25	2	2	34	15
Recipient Match Probability		0.00	0.36	0.36	0.03	0.03	0.49	0.22

The **Recipient Match Probability** is calculated as follows: Recipient match probability (RMP) =  $a / b$ , where,

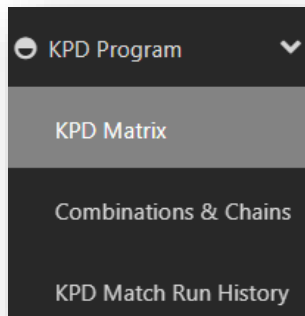
a = the number of donors in the pool who are ready, and not on hold, and who have a match event compatibility of 'Y' for the given recipient

b = total number of donors in the pool who are ready, and not on hold

Example:

There are 13 donors and 12 recipients in the KPD pool who are ready, and not 'on hold'. The first recipient has 3 match events shown with a match event status of Y, so  $a = 3$ ,  $b = 13$   $a/b = 3/13 = 0.23$

## 1.5 LOOK AT A MATCH EVENT



1. The KPD matrix is displayed

KPD matrix

110 Recipients

122 Donors

6 LNDD

All

Match Ready

		Recipients													
	Donor Matches	aHWYmIU cGuLDob	AKZIT TKeabd	AMEHLb GEISCH	AuipbwR SsNTvo	bCLmx mNFp	beXvuzxV LpKkx	brysXfqc TJErize	bsJEvZUB FwZU	buSOVCQ PwybnS	bWYfj dzlPF	BzbHMyCi MTIsqA	CbUdWzX ZJqHArn	CGFYuvZ eajfO	CSODR qWBIZ
Recipient Matches		48	1	41	1	0	1	39	0	0	2	48	10	0	8
amEsAbyxG TgCQhZM	9	X	X	X	X		X	X	X	X	X	X	X	X	X
aMZBk DZIOoV	14	X	X	Y	X		X	X	X	X	X	X	X	X	X
aYkUhqMZV TPKUvh	8	X	X	X	X		X	X	X	X	X	X	X	X	X
bBsNaRT uctTi	49	Y	X	Y	X		X	Y	X	X	Y	Y	X	X	X
BNTxhIEau NLPBp	8	X	X	X	X		X	X	X	X	X	X	X	X	X
bRIDhM CcWd	12	X	X	Y	X		X	X	X	X	X	X	X	X	X
BRNGHJl CvaqJjk	8	X	X	X	X		X	X	X	X	X	X	X	X	X
bVDxkX OxusPn	0	X	X	X	X		X	X	X	X	X	X	X	X	X
CBlaDSny wJHYgb	39	Y	-	Y	X		X	Y	X	X	X	Y	X	X	X
cNFdP HfNmutC	11	X	X	X	X		X	X	X	X	X	X	X	X	X
DlmWNX LOnHDp	40	Y	X	X	X		X	X	X	X	B	Y	X	X	Y
DJqNxrR oEUuay	41	Y	X	Y	X		X	Y	X	X	X	Y	X	X	X

1. Click a cell at the intersection of a donor and recipient to view the match event for the eligible recipient/donor pair. Right click and open match event in a new tab to avoid the matrix requiring reloading when you return to it.



Match event

aMZBk DZlOoV RzCb...

LIVING DIRECTED DONOR

AMEhLb GEiSch TXcY

RECIPIENT

<div>Female</div> <div>48 years 11 months</div> <div>(31/05/1973)</div>	<div>OM ID 0071392</div> <div>OM Lab NZ</div>	<div>Lab Ref GDT8640</div>	<div>Male</div> <div>44 years 5 months</div> <div>(19/12/1977)</div>
---	---	----------------------------	--

Person Profile

> Information

> Match event outcomes

## 1.6 ABOUT KPD MATCH EVENTS

OrganMatch will automatically create a new match event when:

- A person (donor or recipient) is enrolled in the Kidney KPD pathway.
- The match profile of a person (donor or recipient) enrolled in the Kidney KPD pathway is updated

If a match event already exists then a new version of the match event is created. A match event is created for every eligible recipient/donor pair. The match history of a patient can be found in the Match History section for recipient and donor

1. From the **Person details** pane, click the **Match history** section.

2. Filter the list of matched people by selecting values in the filter options fields.




Match history View Notes


Organ Program All	Transplant Pathway All	Algorithm Assessment All	Pair Blocked All
Offer Status All	Offer Response All	Reason All	Transplanted All
From Date dd/mm/yyyy	To Date dd/mm/yyyy	OM Lab All	Matched Person

- Click the list item to view the match event of the matched person.

**Person details**

AMEhLb GEiSch TXcY **RECIPIENT**

 Male  
 45 years 2 months (19/12/1977)

 OM ID 0081980  
 OM Lab NSW

Offer Status All	Offer Response All
From Date dd/mm/yyyy	To Date dd/mm/yyyy

Match Details			Matched Person	
Organ Program	Pathway	Event Date	Name	OM ID
Kidney	KPD	14/03/2023 16:13	sCGmDXUEi LJqIt...	0085997
Kidney	KPD	14/03/2023 14:13	kiALmh TqSiXO	0085536
Kidney	KPD	14/03/2023 09:17	bVDxkX OxusPn	0083992

## 1.7 BLOCK AN AMP (ELIGIBLE RECIPIENT/DONOR PAIR)

Match Pairs can be blocked if required for the following reasons ;

- The age difference is not acceptable

- Location of patient and donor is logistically problematic
- The improvement in matching is not sufficiently better than their own donor , in the case of compatible pairs
- The match has been previously rejected by the transplant unit due to anatomical / clinical reasons.

It is possible to block an AMP (eligible recipient/donor pair).

From the **Match event** pane, click the **Match event outcomes** section. See **Look at a match event**

1. Click **Edit**.

 **Edit**

2. Click **Yes** to block the pair, or **No** to unblock a blocked pair.

Pair Blocked:

Blocked Reason

You need to add a reason for blocking a pair. This is mandatory if you click **Yes**.

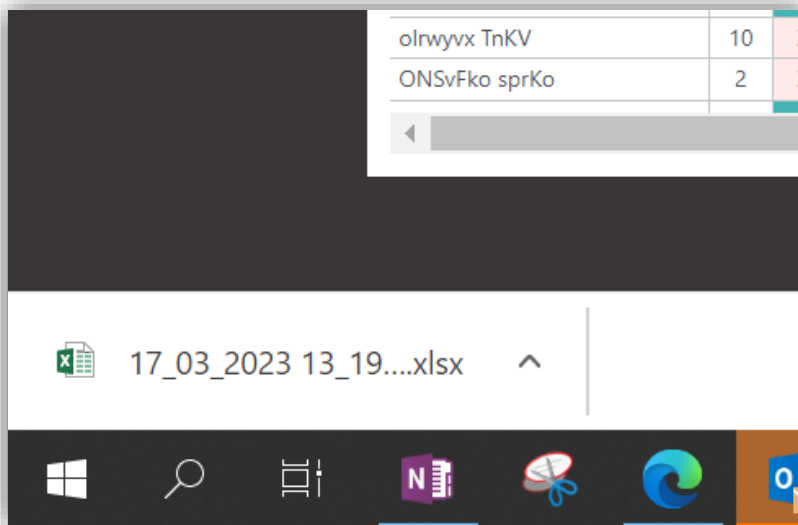
3. Click **Save** or **Cancel** to cancel the action.

## 1.8 EXPORTING THE MATRIX

1. Select KPD Matrix and in the right-hand corner export matrix is visible.



2. Click on **Export Matrix**
3. An excel file of the Matrix will be created. This is visible in the bottom left hand corner. The file can be opened or downloaded from your download documents.



## 2. COMBINATIONS AND CHAINS

### 2.1 CHAINS

When an RP is ready and active, they will be matched by OrganMatch to find compatible pairs (see 1.3 Matchable Pair Compatibility Assessments). If each person in the RP is either giving to (donor) or receiving from (recipient) other RPs to form MPs, a chain of MPs is formed by OrganMatch.

### 2.2 OPEN CHAINS

A chain can be 'open' which means that it begins with a Living Non Directed Donor (LNDD) giving to a recipient. A LNDD is a donor that is registered without a registered patient. When a chain is open, it means that the final chain will result in one donor who cannot give to any KPD recipient. We call this the "End of chain Donor". Open chains always begin with an LNDD and end with the "End of chain donor".

The end of chain donor will be manually enrolled in the TWL pathway and the kidney will be allocated using the TWL matching process where the donor state is seen as the state of the original LNDD, not the state of the end of chain donor.

Open chains can be very long and could have hundreds of pairs potentially. Normally though the number of pairs is limited to a number less than seven. Only one LNDD should be used in a chain.

An open chain will always have:

- No duplications of either a donor or recipient in the chain,
- Only one RP donor per recipient in the chain (recipients can have multiple registered donors, however only one donor can be used in a chain)
- Only one LNDD in the chain for open chains.

## 2.3 CLOSED CHAINS

Chains can also be closed. A closed chain means that there is no LNDD, and within the group of people included, each KPD recipient and (one of) their registered donors is included.

Generally closed chains are much shorter than open chains. A closed chain will always have:

- No duplications of either a donor or recipient in the chain,
- Only one RP donor per recipient in the chain (recipients can have multiple registered donors, however only one donor can be used in a chain),
- For every donor in the chain, a matched recipient from within the chain MPs.

## 2.4 COMBINATIONS

A combination is a group of unique chains. You can create combinations in OrganMatch. When this happens, OrganMatch generates a combination for you based on criteria you set and the people currently in the KPD matrix. It will include:

- All recipients who have a match compatibility of Yes and who are Active.
- All linked donors to those recipients (there can be multiple donors per recipient) who are ready and active.

## 2.5 RANKING COMBINATIONS

OrganMatch will rank the combinations using the following rules:

Combination Ranking	
<b>Number of recipients in the combination</b>	Highest number of recipients first
<b>Average match probability of recipients</b>	Lowest match probability first
<b>Number of matched DRB1</b>	Highest number of matches first
<b>Number of identical blood groups</b>	Highest number with identical blood groups first
<b>Maximum chain length</b>	Lowest chain length first
<b>Average waiting time of recipients in the combination</b>	Longest waiting time first

## 2.6 CREATE NEW COMBINATIONS AND CHAINS

New combinations for people registered in the KPD pathway can be created at any time unless there is an existing published combination.

- When you generate new combinations, the previously generated combinations will be discarded.
- However, you have the options of:
  - locking chains within a combination to ensure these are not lost, and
  - you can opt to retain the chain numbers from previously generated combinations, if the same chain is produced in the new set of combinations.
- A match event is created for each time a recipient/donor pair is considered. The match events are saved, and can be looked in a person's match run history, even if a new set of combinations is created.
- Due to the number of chains and combinations that can be created , the system supports a maximum of 200 x 200 donor recipient pairs , 3 LNND's per run , and a maximum chain length of 7 open chains.
- Capping of created chains will be capped at 1 million .

1. From the navigation pane, click **KPD Program**, and then click **Combinations and Chains**.

Combination run parameters

Generated on  
10/03/2023 11:36

Retain Locked Chains  
No

Max Chain Length  
Open - 2   Closed - 5

Retain Chain Numbers  
No

Combinations

Create New Combinations

View Notes   View All Combinations report   View List of Participants report   View Matrix   Reset Filters

Find Person   Find AMP   Find Chain

6 records found

Rank	Combination No.	No. Of Recipients	Average RMP	DRB1 Matches	No. Pairs With Identical ABO	Max Chain Length	Average Wait Days	Max Recipients/Unit	No. Of Chains	No. Of LNDD	No. Of Locked Chains
1	1	5	0.46	4	3	5	179	2	1	0	0
2	2	4	0.47	2	3	4	549	1	1	0	0
3	3	4	0.49	4	2	4	224	2	1	0	0
4	4	3	0.47	3	2	3	628	1	1	0	0
5	5	3	0.49	3	1	3	194	1	1	0	0
6	6	3	0.52	2	2	3	732	1	1	0	0

<< < 1 > >> 10

2. Click the **Create New Combinations** button in the **Combinations** section.

Combinations

Create New Combinations

3. Select the runtime parameters.

Create New Combinations

Retain locked chains  
Yes No

Max chain length  
Open \* 2 Closed \* 4

Retain Chain numbers  
Yes No

Cancel OK

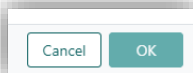
You can set:

**Retain locked chains** – whether or not previously locked chains needed to be included in the new combinations. If this is set to **Yes**, the locked chains will be included in every combination. This must be set if required. If not set to **No**

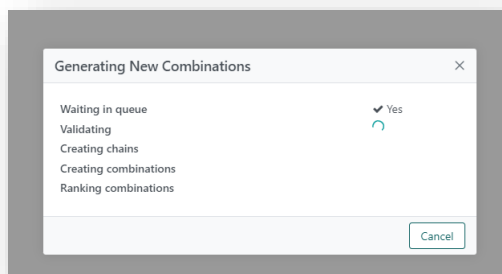
**Maximum chain length** – the maximum chain length for open and closed chains. These parameters must be set. Closed chains don't have a Living Non-directed Donors (LNDD), whereas open chains do have a LNDD.

**Retain Chain numbers** – when combinations are regenerated, if a chain is produced which was also produced when the user created the previous set of combinations, it should be shown with the same chain number as it did in the previous run.

- 
4. Click **OK** or **Cancel**.



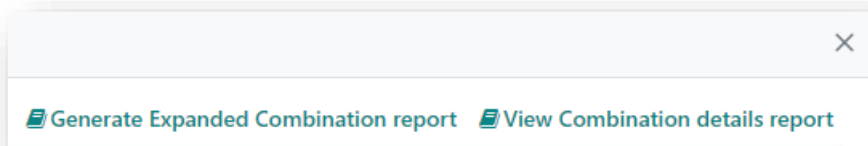
OrganMatch displays progress as it regenerates the sets of combinations.



- 
5. The latest set of combinations is displayed. The parameters you selected in step 3 are displayed, along with the time and date the set of combinations was generated.

[illegible]

- To produce a report of then combination details, click the specific combination from the list, and then click **View Combination details report**.



**Note :** *If there are no locked chains, only single chains will be generated in the first pass at running Chains and Combinations . If a chain has been locked from this first run then subsequent runs will produce combinations of 2 or more chains which include that locked chain.*

*Since the introduction of continuous matching the normal process is to identify any matches for Highly sensitised recipients on the matrix, then search for that match event via the “Find AMP” function in a chain from the chains produced in the Generating New Combinations “run, select the best possible chain that includes that match event and save that chain to KPD Match Run History. The pairs involved in the saved chain would be on hold due to KPD chain in both the KPD enrolment and a TWL enrolment if that exists. The process is then repeated until no more possible chains can be identified and saved.*

*Once a chain is saved the process needs to be repeated to regenerate a new batch of possible chains from the remaining active pairs in the matrix.*

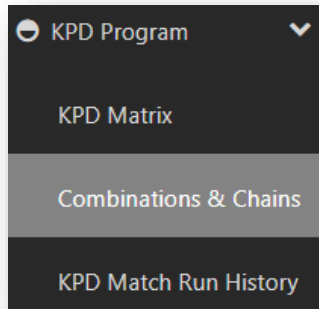


## 2.7 LOOK AT COMBINATIONS AND CHAINS

Once the combinations have been generated you can look at these along with the chains that they are formed from.

### COMBINATION

1. From the navigation pane, click **KPD Program**, and then click **Combinations and Chains**.



2. You will see the **Combination run parameters** that were used to create the latest combinations in the top section.

 A screenshot of the 'Combinations & chains' interface. The title bar at the top says 'Combinations & chains'. Below it, there is a section titled 'Combination run parameters' with a dropdown arrow. Inside this section, a light blue message box says 'A combination has been saved for this run.' Below the message, the following parameters are displayed: 'Generated on' with the date '14/03/2023 11:05', 'Retain Locked Chains' set to 'No', 'Max Chain Length' with 'Open - 2' and 'Closed - 5', and 'Retain Chain Numbers' set to 'No'. Below this is another section titled 'Combinations' with a dropdown arrow. This section contains two search boxes labeled 'Find Person' and 'Find AMP'. At the bottom, there is a table with the following columns: 'Rank', 'Combination No.', 'No. Of Recipients', 'Average RMP', 'DRB1 Matches', and 'No. Pairs With Identical ABO'. Each column has a small upward and downward arrow icon next to it.

- Look at the **View All Combinations report** and the **View List of Participants report** by clicking on the links.

[View Notes](#) [View All Combinations report](#) [View List of Participants report](#) [View Matrix](#) [Reset Filters](#)

- Click **View Matrix** to view a snapshot of the KDP matrix taken when the combinations were formed by . Note that this is a read-only snapshot and may not accurately reflect the current situation.

KPD Matrix Read-Only Snapshot

63 Recipients69 Donors0 LND

																		Recipients													
																		Donor Matches	b6XuzvJ Lxkix	b6jZULB PzZU	bU5OCQ hwyenS	bWYj ddtPF	CGFvuz eajIO	CSORR qWBZ	D6Rz n5CO	DgkMU CREb	eDahH LHCKa	eMZAhdvDf LwzVC			
Recipient Matches		0	1	0	0	2	0	5	27	0	0	0	0	1	0	25	0	25	25	2	2	34	15	0	0	0					
Recipient Match Probability		0.00	0.01	0.00	0.00	0.03	0.00	0.07	0.39	0.00	0.00	0.00	0.00	0.01	0.00	0.36	0.00	0.36	0.36	0.03	0.03	0.49	0.22	0.00	0.00	0.00					
aMZBk DZIOoV	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Y	X	X	X	X	X	X	X	X					
aYkUhgMZV TPkUvh	3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X					
bBsNaRT uctTi	22	X	X	X	X	Y	X	X	Y	X	X	X	X	X	X	Y	X	Y	Y	X	X	Y	Y	X	X	X					
bRIDhM CcWd	4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Y	X	X	X	X	X	X	X	X					
BRNGHJL Cvaqjk	3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Y	X	X	X	X	X	X	X	-					
cNFdP HfNmucC	4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X					
DIqNxrR oEUuay	18	X	X	X	X	X	X	X	Y	X	X	X	X	X	X	Y	X	X	Y	X	X	Y	Y	X	X	X					
dQnCe eSUkg	2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
dsOpau DUBWIO	2	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
eOEyX rPIT	21	X	X	X	X	X	X	X	Y	X	X	X	X	X	X	Y	X	Y	Y	X	Y	Y	X	X	X	X					

Click the browser back button to return to the **Combinations & Chains** screen.

- To look at which chains make up a combination, click a combination in the list.

- Click a combination to look at the chains it was formed from.

## ORGANMATCH KIDNEY PAIRED DONATION (KPD) MATCHING – LABORATORY PORTAL

Combination Details

[Generate Expanded Combination report](#)
[View Combination details report](#)

Combination No. 1

Rank	1	Average RMP	0.46
No. Of Recipients	5	No. Pairs With Identical ABO	3
DRB1 Matches	4	Average Wait Days	182
Max Chain Length	5	No. Of Chains	1
Max Recipients/Unit	2		
No. Of LNDD	0		

Chain No. 9

[Lock Chain](#)
[Unlock Chain](#)

[Generate Chain report](#)

DONOR								RECIPIENT							
Last Name	First Name	Age	Gender	Transplant Hospital	ABO	LNDD	AMP	Last Name	First Name	Age	Gender	Transplant Hospital	ABO	TWL	RMP
KvYtAT	nGhPjs	51	Male	Royal Prince...	A (A2)		0077303 - 0083730	tzHMuDk	EaMADH	28	Female	Royal Prince...	A (A N...	TWL	0.48
pyoAMFhj	wrilco	28	Male	Royal Prince...	A (A1)		0083731 - 0080083	rOkwWln	aCkKynR	38	Female	Royal North ...	A (A N...		0.33
dQnCe	eSUKg	43	Male	Royal North ...	A (A1)		0081107 - 0082368	NBYuOI	FdYEU	27	Female	John Hunter ...	A (A N...	TWL	0.59
sXOb	zigklj	47	Male	John Hunter ...	B		0082881 - 0077787	OBPTXbgVq	pWzOkli	70	Male	Royal Adelai...	O		0.52
trRxTMAsv	TlpgtF	71	Female	Royal Adelai...	A (A1)		0077789 - 0077302	HYhTPJsp	xEbZNF	45	Female	Royal Prince...	O	TWL	0.36

[<<](#)
[<](#)

1

[>](#)
[>>](#)

[Close](#)
[Save](#)

- Click **View Combination details report** to see the information in report form.

Generate Expanded Combination report

View Combination details report

- Below the combinations details, you can see the **chains** of AMPs.

Chain No. 1									
DONOR									
Last Name	First Name	Age	Gender	Transplant Hospital	ABO	LNDD	AMP	Last Name	First Name
aYkUhqMZV	TPkUvh	50	Male	Princess Ale...	A (A1)		0076353 - 0080083	rOkwWIn	aCkKynR
dQnCe	eSUKg	43	Male	Royal North ...	A (A1)		0081107 - 0082368	NBYuOI	FdYEIJ

- Click an AMP row to open the match event for the pair.

Match event

VyKiaJL ZziJRh sKca...

LIVING DIRECTED DONOR

GjodEJa zYVGBIH JRK...

RECIPIENT

Male

51 years 3 months (31/01/1972)

OM ID 0077303

OM Lab NSW

Lab Ref LOD T395

Person Profile

Female

28 years 9 months (19/08/1994)

OM ID 0083730

OM Lab NSW

Lab Ref P0006226 KR

Person Profile

Generate Match Event Report

Publish

Information

Match event outcomes

Histocompatibility assessment

Recipient transplant history

Notes & attachments

Providers

Match parameters

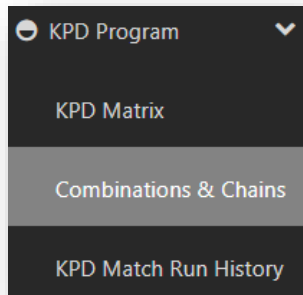
Matching algorithms processed

Click the browser back button to return to the **Combination details** box.

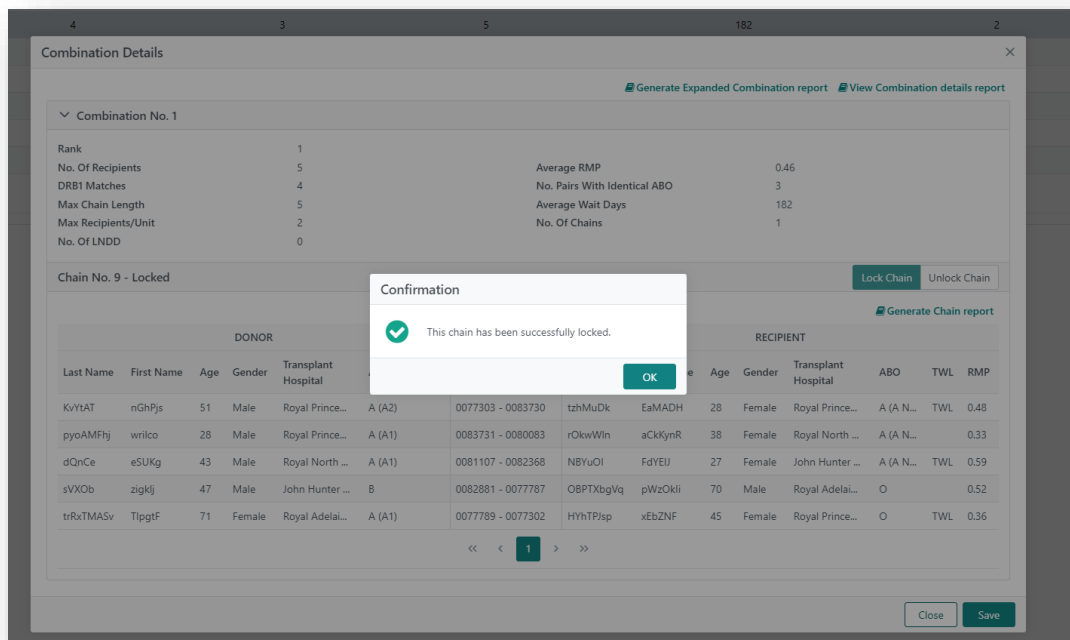
## 2.8 LOCK AND UNLOCK A CHAIN

When any chain of people is locked, if you generate a new combination you have the option to either retain and use the locked chains or to discard them and start again. If you elect to retain locked chains, then every combination generated must use all locked chains.

- From the navigation pane, click **KPD Program**, and then click **Combinations & Chains**. Click a combination to view the chains it is formed from.



- Click **Lock Chain** to lock the chain.



3. Click **OK**.

**Combination Details**

Generate Expanded Combination report View Combination details report

Combination No. 1

Rank	1	Average RMP	0.46
No. Of Recipients	5	No. Pairs With Identical ABO	3
DRB1 Matches	4		
Max Chain Length	5		
Max Recipients/Unit	5		
No. Of LNDD	5		

Chain No. 9 - Locked

### Save Combination

Run Name \*

Comments

Cancel Save

Last Name	First Name	Age	Sex	Donor ID	Recipient ID	ABO	Rhesus	HLA-A	HLA-B	HLA-C	TWL	RMP	
KvYtAT	nGhFjs	47	Male	John Hunter ...	B	0062881 - 0077787	O	OBPTXbgVq	pWzOkil	70	Male	Royal Adela...	0.52
pyoAMFhj	wrlco	71	Female	Royal Adela...	A (A1)	0077789 - 0077302	O	HYHTPlsp	xEbZNF	45	Female	Royal Prince...	0.36

<< < 1 > >>

Close Save

- Click **Save**, add **Run Name** and click **Save**.


Save Combination

Run Name \*

Test run 17/3/2023

Comments

Confirmation



This Combination has been saved and can be accessed from KPD Run History.

Ok

Cancel

Save

This action publishes the chain and is now viewable in KPD Match Run History

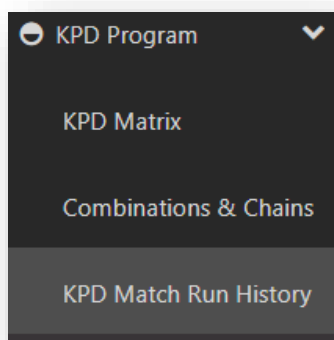
Patient and Donor KPD enrolment status is changed to “On hold” with the reason “Due to KPD Chain” when chain is published

Unlocking a chain must occur , once the transplant surgeries are booked , and the transplants need to be linked via the match event outcome.

### 3. KPD MATCH RUN HISTORY

You can look at details of previously published KPD match runs.

1. From the navigation pane, click **KPD Program**, and then click **KPD Match Run History**.



2. The match run history page is shown:

A screenshot of a table titled "KPD match run history". The table has a header row with columns: "Date Generated", "Date Saved", "No. Of Recipients", "Run Name", and "Comment". Below the header is one data row.

Date Generated	Date Saved	No. Of Recipients	Run Name	Comment
17/05/2023 14:27	17/05/2023 14:42	5	Test run 17/05/2023	

3. Click on a row to look at the details of the run.

## ORGANMATCH KIDNEY PAIRED DONATION (KPD) MATCHING – LABORATORY PORTAL

View KPD Run Details

[Edit](#)
[Bulk Publish Match Events](#)
[Reverse Combination](#)
[View Notes](#)
[View Saved Combination report](#)
[View List of Participants report](#)
[View Matrix](#)
[Archive](#)

KPD run details

Date Generated17/03/2023 14:22
Run NameTest run 17/3/2023
Max Chain LengthOpen2
Comments-

Date Saved17/03/2023 14:42
Closed6

Combination details

Rank1
No. Of Recipients5
DRB1 Matches4
Average Wait Days182
No. Of Chains1

Average RMP0.46
No. Pairs With Identical ABO3
Max Recipients/Unit2
Number of LNDD0

Chain No. 9

DONOR								RECIPIENT							
Last Name	First Name	Age	Gender	Transplant Hospital	ABO	LNDD	AMP	Last Name	First Name	Age	Gender	Transplant Hospital	ABO	TWL	RMP
KvYtAT	nGhPjs	51	Male	Royal Prince...	A (A2)		0077303 - 0083730	tzhMuDk	EaMADH	28	Female	Royal Prince...	A (A N...	TWL	0.48
pyoAMFhj	wrilco	28	Male	Royal Prince...	A (A1)		0083731 - 0080083	rOkwWin	aCkKynR	38	Female	Royal North ...	A (A N...		0.33
dQnCe	eSUKg	43	Male	Royal North ...	A (A1)		0081107 - 0082368	NBYuOI	FdYElJ	27	Female	John Hunter ...	A (A N...	TWL	0.59
sVXOb	zigkij	47	Male	John Hunter ...	B		0082881 - 0077787	OBPTXbgVq	pWzOkii	70	Male	Royal Adelai...	O		0.52
trRxTMASv	TlpgtF	71	Female	Royal Adelai...	A (A1)		0077789 - 0077302	HYhTPJsp	xEbZNF	45	Female	Royal Prince...	O	TWL	0.36

- Click the **Edit** link to change the run name and enter comments.

View KPD Run Details

[Edit](#)
[Bulk Publish Match Events](#)
[Reverse Combination](#)
[View Notes](#)
[View Saved Combination report](#)
[View List of Participants report](#)
[View Matrix](#)
[Archive](#)



5. Click **Save** to save your changes, or **Cancel** to return to the **View KPD Run Details** box without saving changes to the **Run Name** or **Comments** field(s).
6. You can look at the **View Published Combination report**, **View All Combinations report** or the **View List of Participants report** by clicking on the links.

7. You can view a snapshot of the KPD matrix that was taken when the match run was published.

 **View Matrix**

**Note** – this is a read only snapshot and may not accurately reflect the current situation.

KPD Matrix Read-Only Snapshot

63 Recipients

69 Donors

0 LNDD

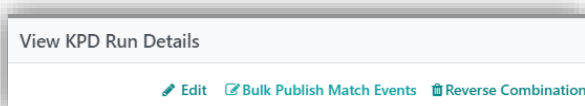
																				Recipients													
																				Donor Matches	baKxazV lpkke	baJf qZUB FwZU	bu5CMCQ PwysnS	bWfJ dZlP	CGFwvZ eajO	CSODR qWIEZ	DfRez nSO	DgkXU CREb	eDnH LhCKa	efHwBUT UHBAG			
Recipient Matches		0	1	0	0	2	0	5	27	0	0	0	0	1	0	25	0	25	25	2	2	34	15	0	0	0	0	0	0	0	0	0	0
Recipient Match Probability		0.00	0.01	0.00	0.00	0.03	0.00	0.07	0.39	0.00	0.00	0.00	0.00	0.01	0.00	0.36	0.00	0.36	0.36	0.03	0.03	0.49	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
aMZBk DZIOoV	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Y	X	X	X	X	X	X	X	X	X	X	X	X	X	
aYkUhgMZV TPkUvh	3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	X	
bBsNaRT uotTi	22	X	X	X	X	Y	X	X	Y	X	X	X	X	X	X	Y	X	Y	Y	X	X	Y	Y	X	X	X	X	X	X	X	X	X	
bRIDHm CcWd	4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Y	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
BRNGHJL CvaqJjk	3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Y	X	X	X	X	X	X	X	X	X	X	X	X	X	-	
cNFdP HfNmucC	4	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	
DlqNxrR oEUuay	18	X	X	X	X	X	X	X	Y	X	X	X	X	X	X	Y	X	Y	X	Y	X	Y	Y	X	X	X	X	X	X	X	X	X	
dQnCe eSUKg	2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
dsOpaU DUBWIO	2	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
eOEyX rPIT	21	X	X	X	X	X	X	X	Y	X	X	X	X	X	X	Y	X	Y	Y	X	Y	Y	X	X	X	X	X	X	X	X	X	X	
eMf fbaeGK	22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

- Click the browser back button to return to the **KPD Match Run History** screen.

### 3.1 REVERSING CHAIN

If chain is broken, and the pairs need to be returned to the pool for matching, Click **Reverse Combination**.

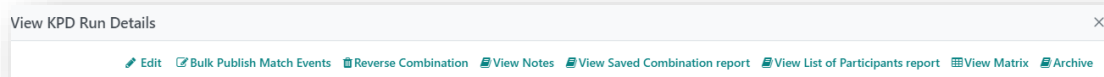
This automatically reverses the KPD enrolments to Active for all the recipients and donors in the chain. If the patient also has a TWL enrolment the status will be returned to its previous state.



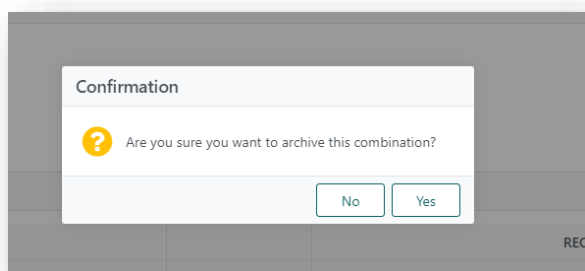
### 3.2 ARCHIVE A CHAIN

A chain can be moved into the history tab in the KPD run history

- Click **Archive**



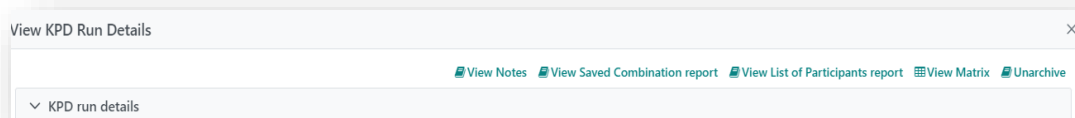
2. You will be asked to confirm



3. Click **Yes**. The combination will be moved to history

Current History				
Date Generated (1)	Date Saved (1)	No Of Recipients (1)	Run Name (1)	Comment (1)
11/05/2023 14:22	11/05/2023 11:09	1	Test run 11/05/2023	

4. To unarchive the Combination, Select **Unarchive** . The combination will return to the Current KPD match run history.



## APPENDIX 1 – ABO COMPATIBILITY TABLE

Donor ABO	Donor Subtype	Recipient ABO	Recipient Subtype
A	A1	A	A1
A	A1	A	A2
A	A1	A	A Intermediate
A	A1	A	A Not defined/tested
A	A2	A	A1
A	A2	A	A2
A	A2	A	A Intermediate
A	A2	A	A Not defined/tested
A	A Intermediate	A	A1
A	A Intermediate	A	A2
A	A Intermediate	A	A Intermediate
A	A Intermediate	A	A Not defined/tested
A	A Not defined/tested	A	A1
A	A Not defined/tested	A	A2
A	A Not defined/tested	A	A Intermediate
A	A Not defined/tested	A	A Not defined/tested
A	A1	AB	A1B
A	A2	AB	A1B
A	A Intermediate	AB	A1B
A	A Not defined/tested	AB	A1B
A	A1	AB	A2B
A	A2	AB	A2B
A	A Intermediate	AB	A2B

<b>A</b>	A Not defined/tested	AB	A2B
<b>A</b>	A1	AB	A Intermediate B
<b>A</b>	A2	AB	A Intermediate B
<b>A</b>	A Intermediate	AB	A Intermediate B
<b>A</b>	A Not defined/tested	AB	A Intermediate B
<b>A</b>	A1	AB	AB Not defined/tested
<b>A</b>	A2	AB	AB Not defined/tested
<b>A</b>	A Intermediate	AB	AB Not defined/tested
<b>A</b>	A Not defined/tested	AB	AB Not defined/tested
<b>AB</b>	A1B	AB	A1B
<b>AB</b>	A1B	AB	A2B
<b>AB</b>	A1B	AB	A Intermediate B
<b>AB</b>	A1B	AB	AB Not defined/tested
<b>AB</b>	A2B	AB	A1B
<b>AB</b>	A2B	AB	A2B
<b>AB</b>	A2B	AB	A Intermediate B
<b>AB</b>	A2B	AB	AB Not defined/tested
<b>AB</b>	A intermediate B	AB	A1B
<b>AB</b>	A intermediate B	AB	A2B
<b>AB</b>	A intermediate B	AB	A Intermediate B
<b>AB</b>	A intermediate B	AB	AB Not defined/tested
<b>AB</b>	AB Not defined/tested	AB	A1B
<b>AB</b>	AB Not defined/tested	AB	A2B
<b>AB</b>	AB Not defined/tested	AB	A Intermediate B

<b>AB</b>	AB Not defined/tested	AB	AB Not defined/tested
<b>B</b>	N/A	B	N/A
<b>B</b>	N/A	AB	A1B
<b>B</b>	N/A	AB	A2B
<b>B</b>	N/A	AB	A Intermediate B
<b>B</b>	N/A	AB	AB Not defined/tested
<b>O</b>	N/A	A	A1
<b>O</b>	N/A	A	A2
<b>O</b>	N/A	A	A Intermediate
<b>O</b>	N/A	A	A Not defined/tested
<b>O</b>	N/A	B	N/A
<b>O</b>	N/A	AB	A1B
<b>O</b>	N/A	AB	A2B
<b>O</b>	N/A	AB	A Intermediate B
<b>O</b>	N/A	AB	AB Not defined/tested
<b>O</b>	N/A	O	N/A

## APPENDIX 2 – ABOI ACCEPTABILITY TABLE

<b>Donor ABO</b>	<b>Donor Subtype</b>	<b>Recipient ABO</b>	<b>Recipient Subtype</b>
<b>A</b>	A1	A	A1
<b>A</b>	A1	A	A2
<b>A</b>	A1	A	A Intermediate
<b>A</b>	A1	A	A Not defined/tested
<b>A</b>	A2	A	A1
<b>A</b>	A2	A	A2
<b>A</b>	A2	A	A Intermediate

ORGANMATCH KIDNEY PAIRED DONATION (KPD) MATCHING – LABORATORY PORTAL

A	A2	A	A Not defined/tested
A	A Intermediate	A	A1
A	A Intermediate	A	A2
A	A Intermediate	A	A Intermediate
A	A Intermediate	A	A Not defined/tested
A	A Not defined/tested	A	A1
A	A Not defined/tested	A	A2
A	A Not defined/tested	A	A Intermediate
A	A Not defined/tested	A	A Not defined/tested
A	A1	AB	A1B
A	A2	AB	A1B
A	A Intermediate	AB	A1B
A	A Not defined/tested	AB	A1B
A	A1	AB	A2B
A	A2	AB	A2B
A	A Intermediate	AB	A2B
A	A Not defined/tested	AB	A2B
A	A1	AB	A Intermediate B
A	A2	AB	A Intermediate B
A	A Intermediate	AB	A Intermediate B
A	A Not defined/tested	AB	A Intermediate B
A	A1	AB	AB Not defined/tested
A	A2	AB	AB Not defined/tested
A	A Intermediate	AB	AB Not defined/tested

ORGANMATCH KIDNEY PAIRED DONATION (KPD) MATCHING – LABORATORY PORTAL

<b>A</b>	A Not defined/tested	AB	AB Not defined/tested
<b>AB</b>	A1B	AB	A1B
<b>AB</b>	A1B	AB	A2B
<b>AB</b>	A1B	AB	A Intermediate B
<b>AB</b>	A1B	AB	AB Not defined/tested
<b>AB</b>	A2B	AB	A1B
<b>AB</b>	A2B	AB	A2B
<b>AB</b>	A2B	AB	A Intermediate B
<b>AB</b>	A2B	AB	AB Not defined/tested
<b>AB</b>	A intermediate B	AB	A1B
<b>AB</b>	A intermediate B	AB	A2B
<b>AB</b>	A intermediate B	AB	A Intermediate B
<b>AB</b>	A intermediate B	AB	AB Not defined/tested
<b>AB</b>	AB Not defined/tested	AB	A1B
<b>AB</b>	AB Not defined/tested	AB	A2B
<b>AB</b>	AB Not defined/tested	AB	A Intermediate B
<b>AB</b>	AB Not defined/tested	AB	AB Not defined/tested
<b>B</b>	N/A	B	N/A
<b>B</b>	N/A	AB	A1B
<b>B</b>	N/A	AB	A2B
<b>B</b>	N/A	AB	A Intermediate B
<b>B</b>	N/A	AB	AB Not defined/tested
<b>O</b>	N/A	A	A1
<b>O</b>	N/A	A	A2
<b>O</b>	N/A	A	A Intermediate



ORGANMATCH KIDNEY PAIRED DONATION (KPD) MATCHING – LABORATORY PORTAL

<b>O</b>	N/A	A	A Not defined/tested
<b>O</b>	N/A	B	N/A
<b>O</b>	N/A	AB	A1B
<b>O</b>	N/A	AB	A2B
<b>O</b>	N/A	AB	A Intermediate B
<b>O</b>	N/A	AB	AB Not defined/tested
<b>O</b>	N/A	O	N/A
<b>A</b>	A1	B	N/A
<b>A</b>	A2	B	N/A
<b>A</b>	A Intermediate	B	N/A
<b>A</b>	A Not defined/tested	B	N/A
<b>A</b>	A1	O	N/A
<b>A</b>	A2	O	N/A
<b>A</b>	A Intermediate	O	N/A
<b>A</b>	A Not defined/tested	O	N/A
<b>B</b>	N/A	A	A1
<b>B</b>	N/A	A	A2
<b>B</b>	N/A	A	A Intermediate
<b>B</b>	N/A	A	A Not defined/tested
<b>B</b>	N/A	O	N/A
<b>AB</b>	A1B	A	A1
<b>AB</b>	A1B	A	A2
<b>AB</b>	A1B	A	A Intermediate
<b>AB</b>	A1B	A	A Not defined/tested
<b>AB</b>	A2B	A	A1

<b>AB</b>	A2B	A	A2
<b>AB</b>	A2B	A	A Intermediate
<b>AB</b>	A2B	A	A Not defined/tested
<b>AB</b>	A Intermediate B	A	A1
<b>AB</b>	A Intermediate B	A	A2
<b>AB</b>	A Intermediate B	A	A Intermediate
<b>AB</b>	A Intermediate B	A	A Not defined/tested
<b>AB</b>	AB Not defined/tested	A	A1
<b>AB</b>	AB Not defined/tested	A	A2
<b>AB</b>	AB Not defined/tested	A	A Intermediate
<b>AB</b>	AB Not defined/tested	A	A Not defined/tested
<b>AB</b>	A1B	B	N/A
<b>AB</b>	A2B	B	N/A
<b>AB</b>	A Intermediate B	B	N/A
<b>AB</b>	AB Not defined/tested	B	N/A
<b>AB</b>	A1B	O	N/A
<b>AB</b>	A2B	O	N/A
<b>AB</b>	A Intermediate B	O	N/A
<b>AB</b>	AB Not defined/tested	O	N/A

## DEFINITIONS

Term/abbreviation	Definition
ARP (ASX Registered pair)	A recipient/donor pair who came into the KPD pathway together. They are not compatible (if they were they would be enrolled in the LDD pathway).
AMP (ASX Matched pair)	A recipient/donor pair who have been assessed as compatible by OrganMatch.
Readiness	Criteria that need to be met for a patient and donor to be matched

## REFERENCED INTERNAL DOCUMENTS

Document number	Source
OM-27 for Registration in KPD	Insert link to Web Page

## CHANGE HISTORY

Version number	Effective date	Summary of change
1	Refer to footer	New version of document

## ELECTRONIC SIGNATURE

Author	NARELLE WATSON
Approver(s)	REEBCCA SCAMMELL