



## News from Scandiatransplant office

June 2018 – 2

### Introduction

#### Headlines

- STEP – ready for test

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*Update of test server  
June 20, 2018*

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All previous newsletters can be found on the Scandiatransplant web page  
<http://www.scandiatransplant.org/news/newsletters>

#### Content

- 1 STEP – ready for test

### Purpose

By this information letter, we wish to communicate to you about status and progress related to the database, collaboration with groups related to Scandiatransplant and on-going working projects.

We hope that you will read it and share the information with whom it might concern.

Do not hesitate to contact us for further information, ideas, problems and help.

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**Test of  
Kidney Paired  
Donation  
matching program**

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## STEP – ready for test

Today the first test version of the ScandiaTransplant kidney Exchange Programme (STEP) is launched on the following test server <https://sc40.scandiatransplant.org/sctpTest/>

STEP is a Kidney Paired Donation (KPD) program, which is going to be used in situations where a potential living kidney donor is incompatible with or not optimal for the related recipient.

To have the best material for further testing we ask you to start registration of potential pairs in YASWA. The information at this timepoint will ONLY be used for test.

All data registered on the test server <https://sc40.scandiatransplant.org/sctpTest/> will be overwritten each evening at around 18.00 CET with data from production.

Based on this we recommend that you register the information outlined in the next section on production server [www.scandiatx.org](http://www.scandiatx.org).

After this data manipulation and match runs can be done on the test server.

Before the program is launched each center will be contacted and information on pairs that are not applicable for STEP will be deleted.

### What information is needed in YASWA:

- Recipient  
If the recipient is not already registered it must be registered in YASWA with basic information and the HLA type must be updated with 4-digit typing on A, B, C, DRB1, DRB3, DRB4, DRB5, DQA1, DQB1, DPA1 and DPB1.
- HLA antibody data on recipient  
Import of MFI data on the recipient from Fusion software (presented in the [last](#) newsletter) is needed to define if there are any donor specific antibodies (DSA) against the donors enrolled in the program.  
If you need help with setting up the direct Fusion -> YASWA import, please don't hesitate to contact the office.
- Living donor  
The living donor must be registered in YASWA with basic information and 4-digit HLA typing on A, B, C, DRB1, DRB3, DRB4, DRB5, DQA1, DQB1, DPA1 and DPB1.

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**Data needed  
for the match**

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- Linkage  
Donor-recipient linkage must be given in living donor registration

Living kidney donor information Info Back Save Reset

Donor number: 94 Sex: M: Male Country: DK: Denmark

Birth-date: Person number: Age in years at donation:

Surname: Name: First name: First name:

First regist.: AR 25-May-2018 Last Change: IDW 19-Jun-2018

Basic information Preoperative data Infection serology HLA Typing Baseline risc factors Kidney function Donor operation Postoperative data F

Tx-center: AR: Aarhus No basic info:

Local hospital: ABO blood group: B

Relation information

Relation code: SI: Sibling, no haplo spec. STEP Recip.: [X] 19 First name: First name: , Surname: Surname

Other relation:

Scandia number: Recipient person number:

Name:

The linkage will also be displayed in 'All recipients'

Recipient information Info Back Save Reset Print

Scandia Number: 19 Nationality: DK: Denmark Sex: F: Female

Date of Birth: Person Number:

Surname: Surname: First name: First name:

Transplantation History: (0)KI LI; PA; IT; HE; LU;

Survival Status: ALIVE

Waiting list status: Waiting list type: Urgency:

First regist.: 09-Jul-2015 Latest regist.: 30-May-2018

Basic info Clinical data Address/Phone HLA Typing Antibody Screen Test Fusion Acceptable Antibodies Previous Mismatches Death

ABO Blood Group: B Rhesus D: POS

Transplant center: AR: Aarhus Department:

Notes on Patient:

Waiting List

Add new

Waiting List	Date of entry	Termination
[X] KI: Kidney	2015	

STEP-related donors

STEP Donor	DSA	non-DSA	non-bead
94514	B*5701 A*0301	A*0101 DRB1*0301 B*0801 DPA1*0201,DPB1*0501 C*0602 DQA1*0501,DQB1*0201 DPA1*	DPA1*0301,DPB1*0501 C*0701 DPA1*0301...

### HLA compatible match run:

When all recipient and donor information is in place it is possible to run the 'HLA compatible match', on the test server, though the 'STEP' menu

### HLA match run

Recipient Liver Registry Thorax

- Transplantation
- Pediatric liver and multivisceral waiting list
- Urgent waiting list
- Kind requests
- STEP program**
- All Recipients
- Search for suitable kidney recipient

Clicking on 'Add new' will execute the matching algorithm. When the run is completed it will appear on the list with a unique STEP id and date + time of run.

The screenshot shows the 'STEP program' interface. At the top, there is a search bar with the text '[Enter search parameters]'. Below it, there are three input fields: 'STEP Id:', 'Created by:', and 'Creation time:'. To the right of the search bar, there are buttons for 'Search', 'Add new', and 'Reset'. Below the search bar, there is a table with the following columns: 'STEP Id', 'Created by', 'Creation time', and 'Donors x Recips'.

STEP Id	Created by	Creation time	Donors x Recips
1010	IDW	2018-06-19 13:28	4x4
1003	IDW	2018-06-19 11:00	4x4
1002	IDW	2018-06-19 10:10	3x3

By clicking on the line with an HLA compatible match run you will get a list of included patients and possible compatible donors:

The screenshot shows the 'STEP-recipient with donor(s)' interface. At the top, there are input fields for 'STEP Id: 1010', 'Donors x Recips: 4x4', 'Created: IDW', and '2018-06-19 13:28'. Below this, there is a table with the following columns: 'Scandianum...', 'Recipient-info', 'PRA', 'Date of seru...', and 'Compatible donors'. The 'Compatible donors' column is further divided into 'Own donor(s)'.

Scandianum...	Recipient-info	PRA	Date of seru...	Compatible donors	Own donor(s)
50	DK: First name: Surname:	0.968	18-May-2018	375 349	349
05	DK: First name: Surname:	0.908	23-May-2018	1375	514
79	DK: First name: Surname:	0.9555	23-May-2018		233
18	DK: First name: Surname:	0.87	04-May-2018	233, 514	375

Selecting one of these patients, will bring forward DSA, non-DSA and non-bead (=antigens not represented on the Luminex beads) information toward each donor included.

The screenshot shows the 'STEP-recipient with donor(s)' interface in a detailed view. At the top, there are input fields for 'STEP Id: 1010', 'Scandianumber: 50', 'Date of serum-sample: 18-May-2018', and 'ABO blood group: 0'. Below this, there is a table with the following columns: 'Donor', 'Donor-info', 'Compatible', 'DSA', 'non-DSA', 'non-bead', 'Reason', and 'ABO group'.

Donor	Donor-info	Compatible	DSA	non-DSA	non-bead	Reason	ABO group
14	DK: First name:...		B*5701	A*0101 DRB1*0301 B*0801 DPA1*0201,DPB1*0501...	DPB1*0301,DPB1*0501...		B
75	DK: First name:...	X		DQA1*0102,DQB1*0502 DRB1*1202 B*5601 C*0702...	DQA1*0303,DQB1*0502...		0
49	DK: First name:...	X		B*5501 C*0303 DRB1*0101 DRB1*1454 A*1101 DQ...	DQA1*0104,DQB1*0503...		0
33	DK: First name:...		A*6801 A*0201	DQA1*0102,DQB1*0604 C*0304 B*0702 C*0702 DR...	DPB1*0401,DPB1*1101...		A

If it is decided to change compatible (marked with X) or non-compatible conclusion, this can be done by clicking on the line with the specific donor and changing the conclusion in the window that opens up. Reason for change must be given.

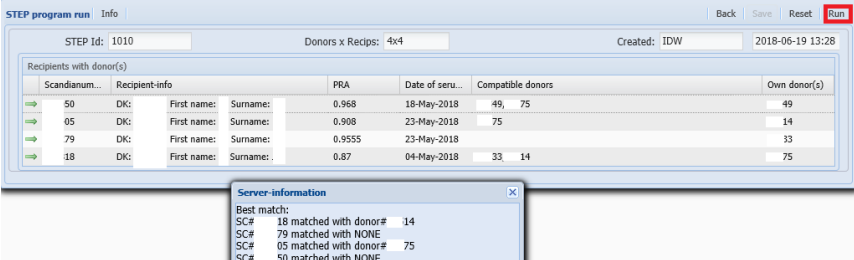
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## Optimization match run

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### Optimization algorithm

After evaluation of the result from the 'HLA compatible match' the next step is to run the 'Optimization algorithm'.



The screenshot shows the 'STEP program run' interface. At the top, it displays 'STEP Id: 1010', 'Donors x Recips: 4x4', and 'Created: IDW 2018-06-19 13:28'. Below this is a table titled 'Recipients with donor(s)'. The table has columns for 'Scandianum...', 'Recipient-info', 'PRA', 'Date of seru...', 'Compatible donors', and 'Own donor(s)'. There are four rows of data, each with a green arrow icon to the left. A 'Server-information' pop-up window is open in the foreground, displaying the following text:

Scandianum...	Recipient-info	PRA	Date of seru...	Compatible donors	Own donor(s)
50	DK: First name: Surname:	0.968	18-May-2018	49, 75	49
05	DK: First name: Surname:	0.908	23-May-2018	75	14
79	DK: First name: Surname:	0.9555	23-May-2018		33
18	DK: First name: Surname:	0.87	04-May-2018	33, 14	75

Server-information  
Best match:  
SC# 18 matched with donor# 14  
SC# 79 matched with NONE  
SC# 05 matched with donor# 75  
SC# 50 matched with NONE

The result of the most optimal 2-way-exchanges, according to what is outlined in STEP guidelines, will be displayed on screen.

If you have any questions or feedback please contact the office.