STEP
Scandia transplant kidney Exchange Programme

Slides first – then followed by illustration in YASWA
Status STEP program – Scandiatransplant office

- Living donor registration, without tx. reg. but with linkage to incompatible recipient -> YASWA production Sept. 5, 2017
- Register antibodies against DRB3,4,5 -> YASWA production Sept. 5, 2017
- Register antibodies at second field resolution -> YASWA production Jan. 24, 2018
- Export/import Luminex MFI raw bead data -> YASWA production June 6, 2018
  Data load is heavy when importing raw data, so additionally we need to work on a new solution for data storage (PostgreSQL).
- Management of bead data, acceptable and not acceptable antigens -> YASWA production June 6, 2018
- Identify donor types not present on Luminex beads -> YASWA production June 6, 2018
- Medical match (identify donor-recipient pairs without DSA (incompatible antigens)) -> YASWA test June 20, 2018
- Compatibility matrix (Tommy Andersson) -> YASWA test June 20, 2018

First version launched June 20, 2018 on test server
- No feedback on solution .......! 8 donor-recipient pairs (Aarhus + Cph.) registered for test
Data needed in YASWA to complete a match run (medical match + compatibility matrix)

1:4 Living donor
- must be registered in YASWA with basic information
- 4-digit HLA typing on HLA-A, B, C, DRB1, DRB3, DRB4, DRB5, DQA1, DQB1, DPA1 and DPB1.

2:4 Recipient
- must be registered in YASWA with basic information
- must be on the kidney waiting list (active/on hold)
- HLA type must be updated/typed with 4-digit typing on HLA-A, B, C, DRB1, DRB3, DRB4, DRB5, DQA1, DQB1, DPA1 and DPB1.

3:4 Linkage
Donor-recipient linkage must be given in living donor registration
Data needed in YASWA to complete a match run (medical match + compatibility matrix)

4:4 HLA antibody data on recipient
- Import of MFI data on the recipient from Fusion software to define if there are any donor specific antibodies (DSA) against the donors enrolled in the program.
- Gothenburg, Tartu, Aarhus are up and running - Stockholm and Uppsala are testing. *Status from the rest of the labs.*?

- Manuals are found on the homepage – please get in touch with the office if you need help
Medical match / HLA compatible match run

• STEP menu
• 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.
• By clicking on the line with an HLA compatible match run you will get a list of included patients and possible compatible donors
• Selecting one of these patients, will bring forward DSA, nonDSA and non-bead (=antigens not represented on the Luminex beads) information towards each donor included.
• 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.
Compatibility matrix / optimization algorithm

- After evaluation of the result from the ‘Medical match’ the next step is to run the ‘compatibility matrix’.
- The result of the most optimal 2-way-exchanges, according to what is outlined in STEP guidelines, will be displayed on screen.

2-way loop

- Donor A
- Patient A
- Donor B
- Patient B