

Memo from Tissue Typers Meeting, Aarhus, Friday 28th January 2010

1. Follow-up from the meeting in Lund:

All laboratories have now implemented DQ typing of deceased donors

2. Activities and resources: Might bench-marking provide valuable insight for ourselves?

The possibility of using bench-marking as a method to define laboratory of best performance were discussed. The purpose were thought to identify routines, compare work load, prices etc. The consensus was that the laboratories were to different currently for bench-marking to be of practical value.

3. Handling of newer therapy modalities in the HLA laboratory: Positive cross-match & immunoadsorption, ABO-incompatibility, therapeutic biological.

Not all laboratories deals with these high-risk transplantations, but the laboratories involved agrees that interference of therapeutic biologicals (Rituximab) with cytotoxic and flowcytometric crossmatch techniques does cause problems in interpretation and false positive results.

Standardisation of flowcytometric crossmatch was discussed, and Pernille Koefoed-Nielsen from Århus presented a proposal for standardization using commercially available beads as calibrator.

4. Survey of the clinical interpretation of results of antibody screenings.

All laboratories completed the survey and Jussi Merenmies, Helsinki, presented the results.

All laboratories uses solid phase HLA antibody screening and all have implemented the Luminex as platform. In addition, Gothenburg and Uppsala use flow-PRA . The cut-off for positive results were set between 500-2000 MFI, which was the same as the cut-off limit for unacceptable DSA. All laboratories but Oslo, Copenhagen and Aarhus use solid phase methods to determine PRA%. All laboratories use the solid phase method for determination of HLA antibody specificities, but only Malmø and Uppsala determines the PRA% as virtual or calculated PRA %. The use of solid phase antibody detection in the post-transplant period varied, but most laboratories perform the test at least when an antibody-mediated rejection is suspected. DSA determined by solid

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phase resulted in a variation in impact on clinical decision making between the laboratories.

Bodil Graugaard, Aarhus, had several practical considerations to the laboratories using CDC antibody screening; frequency of testing, number of sera tested at a time, number of lab. technicians, source and condition of B cells used for the panel.

5. **Exchange of current as well as peak serum from immunized patients on the heart waiting list**

(Dan Hauzenberger, Karolinska)

It was decided that the laboratories should always keep a sample of current serum from immunized patients on the heart waiting list. Recipient center must inform all laboratories within 3 months after receipt if they should not discard a serum regarded as peak serum.

6. **Implementation of the new HLA nomenclature: implications for typing of organ donors?**

The Scandiatransplant IT system is ready to implement the new HLA nomenclature.

All laboratories agreed on not to change the nomenclature at the moment when searching for recipients in the system.

7. **STAMP: Status, compliance, HLA-Cw immunization, typing for match (split-level versus DNA-based, HLA-Cw?, HLA-DQ?), higher priority to STAMP recipients and evaluation of transplantability (Torbjørn Leivestad)**

Torbjørn gave a status on the STAMP program. So far 6 kidneys have been exchanged and transplanted as priority 5, among the patient who have been transplanted there has been no immunological problems in the post-transplant period. Slides regarding STAMP will soon be available on the Scandiatransplant website (www.scandiatransplant.org). Torbjørn also demonstrated the donor frequency calculator used in Eurotransplant (www.etrl.org/FreqDonors/Default.aspx).

The following was suggested: a) STAMP priority should be changed from priority 5 to 3, b) implementation of DQ typing and matching, c) Matching of donors and recipients on split level, d) all laboratories should add antibody specificity in Scandiatransplant. Only a), b) and d) could be agreed on. Furthermore, it was agreed to suggest to the representatives meeting that the STAMP program should continue.

8. Dragan Bucin, Lund presented 3 cases with highly immunized heart transplant patients, treated with pre-transplant immunoadsorption resulting in a negative CDC crossmatch and post-transplant immunoadsorption and Daclizumab. Furthermore, he presented results from 41 kidney transplant patients transplanted against DSA, positive crossmatch and without pre-transplant desensibilisation. Increased num-

bers of late-onset graft functions and antibody-mediated rejections were reported, but with acceptable short term graft survival.

9. Compliance of donor centers to the ScandiaTransplant exchange rules: searching, shipping and solicitation

All searches are logged and in case of an exchange obligation, the ScandiaTransplant office checks if the organ was shipped. If not, the donor center is contacted for an explanation.

Frank Petersen from ScandiaTransplant demonstrated that it is possible to compile lists for patients on the waiting list with missing antibody screentests. These lists has the date of last antibody screen test, giving the laboratories the possibility to print these lists and send them to the clinical departments as reminders.

10. Monitoring of residual immunocompetence in the immunosuppressed patient: A role for tissue typers?

The role of ImmuKnow was discussed.

Uppsala has used the analysis on a routine basis for 3 years. They reported a good correlation between low ATP concentration found with the ImmuKnow assay and infections.

Gothenburg uses the assay for children and Helsinki for selected patients - both children and adults.

11. Integration of local IT systems and the SCTP-registry: means and measures (Frank Pedersen)

Frank reminded the laboratories of the possibility to ship files of antibody screening results for updating recipient status and demonstrated the new IT system and webpage YASWA – “yet another ScandiaTransplant web application”.

12. Next meeting will take place in Gothenburg Friday 28th of January 2011