Newsletter

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Dear colleagues,

In this summer issue of the newsletter we have a detailed report on the future input of histocompatibility data in CORE, as has been discussed at the latest extra mural meeting in Leipzig. Furthermore, information is provided on the AM program, as well as the program of the tissue typers session during the Eurotransplant Jubilee Congress in Noordwijk, 4-6 October 2017.

Report extra mural Meeting

The annual extra mural meeting was held in Leipzig on the 17th of March this year. Besides the information on CORE already included in this newsletter, a report on the issues discussed, as well as Power Point presentations for further reference can be found on the ETRL website (http://etrl.eurotransplant.org/cms/index.php?page=extramuralmeeting). The next extra mural meeting will be held in Cologne.

Summary CORE presentation extra mural meeting

This is a short summary of the presentation of Wouter Zanen (CORE project leader), which he presented at the extra mural meeting in Leipzig. A few insights that came after this meeting or decisions that were made afterwards have been added.

Introduction
CORE will be introduced in a stepwise fashion by starting with a single center (Nijmegen, June 2017), rolling out to more kidney-only centers starting fall of 2017. With the kidney application, all recipient immunological screens will be delivered. Next, centers that perform other organ transplants as well will be added, starting with pancreas, followed by liver, intestine, heart and lung centers.

You are kindly requested to make an account for the user-forums (userforum.eurotransplant.org). If you would like to be invited to the user-forum or need to reactivate your invitation, send an e-mail to core@eurotransplant.org.

HLA data
At the meeting, two possible reporting formats for HLA data were discussed, namely LOINC and HML. There was a clear consensus that with upcoming changes (such as epitope matching) HML would offer a more flexible and more detailed structure to transfer and store HLA data. Therefore, HML was selected as the future proof option for which Eurotransplant should model its new system. The actual electronic transmission of HLA data to Eurotransplant can be done in several ways:
- HL7 FHIR (or HL7v2)
- Rest
- File Upload with a CSV file

A short survey on the electronic exchange of histocompatibility data is available to the Eurotransplant tissue typers, which can be found here: https://goo.gl/forms/cTkSI4kIiSILjSgF3

Some issues had already been discussed in a previous extra TTAC meeting (2015):
- An HLA typing result can contain a maximum of two antigens per locus. Homozygous antigens will be represented as two identical antigens. One only needs to register the highest resolution (allele, split or broad).
- Eurotransplant only needs to receive the latest result (latest sample date / typing date), this result should be the HLA typing that needs to be reduced to the match phenotype.
- Eurotransplant will deduct the reduced match and full match phenotype, which is then automatically used for matching.
An updated HLA table ihas been drafted by the ETRL.

HLA antibody data
For HLA antibody data, the HML structure does not suffice. For now, Eurotransplant will use a simpler structure to store HLA antibody data, as well as unacceptable and acceptable antigens. Wouter, with the help of Eric Spierings and Bouke Hepkema, will contact the NMDP Bioinformatics group that maintains the HML standard to enquire whether HLA antibody information can be included.

Unacceptable antigens
Currently, HLA antigens of the patient cannot be entered in the unacceptable field. Patients with an uncommon HLA type may have allele-specific HLA antibodies to the common allele. Most organ offers matched for this (common) allele will result in a positive cross match. The uncommon HLA antigen of the patients can be deleted in ENIS to prevent such organ offers (ET manual). It was decided to allow registration of alleles in the unacceptable antigens field. In the above situation, the recipient should be typed by DNA (second field) and unacceptable alleles should be determined.

vPRA
The term vPRA turns out to be a confusing to physicians and legislators and should therefore be renamed. Suggestions were made (afterwards it has been decided to go with calculated PRA or cPRA as it is already an “international standard”).

Minimal Match Criteria AM program

Within the AM program, a minimal match grade is adhered to for the majority of patients. These so called Minimal Match Criteria consist of sharing of either two HLA-DR or one HLA-B and one HLA-DR antigen with the patient. Once the chance of receiving an organ is 0.1% or lower, the Minimal Match Criteria are abandoned to allow patient with a very low chance on an organ to still receive an organ offer. Until recently, the chance of receiving an organ within the AM program was calculated without taking into consideration the minimal match criteria.
Since applying the Minimal Match Criteria influence the actual chance on an organ offer, the calculation on the chance of receiving an organ offer now takes into account sharing either of two HLA-DR or one HLA-B and one HLA-DR antigen with the patient. On this new calculation, again the chance of 0.1% or lower on receiving an organ through the AM program results in abandoning the Minimal Match Criteria. Chapter 10 of the ET manual has been adapted accordingly.

Removing unacceptable antigens for AM patients

Please be advised that upon removing unacceptable antigens from the immunological profile of an AM patient, the eligibility of the patient to participate in the AM program will be reassessed by the ETRL. If the patient no longer fulfils the criteria for the AM program, the patient will be retracted from the program. In that case the Tissue Typing Center of this patient will be informed by the ETRL.

Tissue Typers session during Eurotransplant Jubilee Congress

This year, Eurotransplant celebrates its 50th anniversary with a Jubilee Congress in the Hotels van Oranje in Noordwijk from 4-6 October. On October 5th here will be a Tissue Typers session with the following program:

- Relevance of pretransplant Luminex antibodies in German routine practice (Malte Ziemann)
- TEMPLATE: the Flemish Epitope Mismatch Project (Maarten Naesens)
- Towards a quick high-resolution donor HLA typing (Gottfried Fischer)

In addition, an epitope session will be held with Eric Spierings, Sebastiaan Heidt and Frans Claas as speakers.

Donor HLA typing at split level

As described in chapter 10 of the ET manual, donor HLA typing must be performed at the split antigen level (except HLA-B14). It is important to realise that for selection of immunized patients the donor split level HLA typing data is used to exclude patients with donor-specific HLA antibodies.

Time of transferring HLA data

For donor HLA typing, it is requested to send the data only once the full HLA typing is known (HLA-A, -B, -C, -DR and -DQ). This prevents new match rounds having to be performed due to missing HLA data. Additionally, the optimal time for a donor HLA typing to be sent to Eurotransplant is around the time that the donor number becomes available, which is especially important for the allocation to immunized patients awaiting a thoracic organ.