



Dear colleagues,

In this issue of the ETRL newsletter we will thoroughly discuss the introduction of the vPRA as a first step towards virtual crossmatching within ET. You can also find the preliminary program of the extra mural meeting in March 2017. During this meeting, we will focus on the histocompatibility related aspects of CORE, the successor of ENIS, so we invite all of you to join. We hope this newsletter is useful to you and wish you a merry Christmas and a happy new year!

### First steps towards virtual cross-matching

Currently, a serum exchange program is in place to perform prospective allocation crossmatches in the donor centers for immunized patients. This prevents unnecessary shipment of organs to antibody incompatible patients. However, once the antibody profile and unacceptable antigens of an immunized patient are defined and registered properly, this should be sufficient to prevent shipment of organs carrying unacceptable antigens for the immunized patient. This is the principle of the so-called virtual crossmatch. Using unacceptable antigens as basis of a virtual crossmatch will eliminate the necessity of sending around serum and performing allocation crossmatches in the donor centers in the future. A first step towards virtual crossmatching will be the introduction of the vPRA as a measure of immunization as discussed below.

### What HLA antibody information can be registered?

In ENIS (and in the future CORE), both HLA antibodies and unacceptable antigens can be entered. The difference between the two is that in the HLA antibody field all HLA antibodies can be registered, being considered relevant for transplantation or not. This field will neither be taken into consideration for the calculation of the vPRA, or the chance of receiving an organ, nor for the allocation. The unacceptable antigen field

is for HLA antibody specificities that are deemed relevant for transplantation, but may also include repeat mismatches considered unacceptable for the patient involved. The unacceptable antigen field is used for vPRA calculation, the chance of receiving an organ calculation, as well as for allocation.

### Introduction of vPRA – entering unacceptable antigens for immunized patients

Whereas the calculation of the virtual PRA (vPRA) was already available from the ETRL website, Eurotransplant has now incorporated this new vPRA calculation into ENIS. The vPRA is based on the unacceptable antigens entered into ENIS and is calculated on basis of the HLA type of the actual Eurotransplant donors from the last 5 years. Together with the blood group, this information is a reliable predictor of the chance of finding a compatible donor within the Eurotransplant area. From the first new release of ENIS in 2017, the vPRA will be calculated for all patients on the waiting list and will be the only way to indicate that a patient is sensitized.

Currently, the %PRA is used to define whether a patient is immunized, with >5% PRA being regarded as immunized. From a recent analysis by the ETRL it was clear that from all patients presently listed as immunized (current PRA >5%, excluding patients in the AM program), 16.4% did not have any unacceptable antigens defined. We strongly urge that all tissue

### EPT shipment dates 2017

In case one of these dates interferes with some special events, please inform us as soon as possible.

Shipping date	Typing dispatch (n)	Deadline typing/xm report	screening dispatch (n)	Crossmatch	Deadline screening report
07-02-2017	3	21-02-2017	12	EPT screening A, B, C	04-07-2017
28-03-2017	3	11-04-2017		EPT screening D, E, F	
09-05-2017	3	23-05-2017		EPT screening G, H, I	
12-09-2017	3	26-09-2017		EPT screening J, K, L	

typing centers check the status of the unacceptable antigens for all their immunized patients and make sure that unacceptable antigens are entered. In the absence of any unacceptable antigens, patients will be listed as non-immunized from February 2017 onwards, which will result in unnecessary positive cross-matches at the donor centers. Tissue typing centers can contact the ETRL should they wish to receive an overview of their immunized patients lacking unacceptable antigens.

## Review of positive donor center cross-matches

In line with the introduction of the vPRA, it will be important to review positive allocation crossmatches in donor centers. A positive donor center crossmatch could be due to various reasons, for example the lack of information on autoantibodies, or no or insufficient unacceptable antigens entered for the patient involved. A system will be put into place in which the ETRL will gather information on all positive allocation crossmatches.

Tissue typing centers from whom a patient experienced a positive allocation crossmatch will be contacted to provide an explanation for the positive crossmatch. Tissue typing centers from whom many patients have positive allocation crossmatches due to insufficient registration of unacceptable antigens will have to provide a plan to improve the registration of unacceptable antigens. A proper definition of unacceptable mismatches is essential for the future introduction of virtual crossmatching within Eurotransplant

## Extra mural meeting Leipzig

The next extra mural meeting will be held on the 17<sup>th</sup> of March 2017 in Leipzig. We have prepared an interesting preliminary program for this meeting, in which we will focus on CORE, and discuss what the tissue typers' wishes and demands are for this new system. For future meetings, we welcome suggestions of relevant subjects to discuss. These can be sent to us by email: [etrl@eurotransplant.org](mailto:etrl@eurotransplant.org).



## Patient based EPT dates

Information/form sent	Deadline
28-03-2017	11-04-2017
09-05-2017	23-05-2017
12-09-2017	26-09-2017

The location of the upcoming extra mural meeting will be: Haus 1, Liebigstraße 14, 04103 in Leipzig.

Preliminary program extra mural meeting 2017:

- Update on EPT results  
*Yvonne Zoet (ETRL)*
- Patient-based EPT results 2016  
*Sebastiaan Heidt (ETRL)*
- News from the TTAC  
*Frans Claas (ETRL)*
- Immunology data in CORE  
*Wouter Zanen (Eurotransplant)*
- Twenty-years of follow-up after liver transplantation: What can we learn from the past?  
*Prof. Dr. Daniel Seehofer (Leipzig)*

## AM patients must be typed at the split antigen level

In order to correctly assign both acceptable and unacceptable antigens, it is a requirement for all patients that are put forward to enter the AM program to be typed for HLA at the split antigen level. Patients not typed at this level will not be taken into consideration by the ETRL.

## Outdated screening

The time for an antibody screening of a sensitized patient to become outdated has recently been changed from 150 to 180 days. If an antibody screening has become outdated, the status of the patient will become Not Transplantable (NT). In case an allocation crossmatch needs to be performed, the donor center must perform the crossmatch, even if the available serum is older than 180 days. The date of the serum application must always be entered into the crossmatch application.