

HLA DONOR DISCREPANCY MONITORING – 2012

Donor HLA Discrepancy Monitoring provides a mechanism to monitor concordance rates in donor HLA types submitted to Organ Donation and Transplantation (ODT).

BACKGROUND INFORMATION

The donor HLA type is submitted to the Duty Office from the donor offer laboratory on an ODT form, 'National Transplant Database HLA Report (TT1)'. This form is now provided in an electronic format and is completed by typing the HLA type onto the form. In some laboratories the ODT form has been replicated in the local laboratory system and the HLA type automatically downloads from the laboratory system into the fields required, reducing the risk of transcription errors in donor HLA types.

Pre-allocation

All deceased donor HLA types received by the Duty Office undergo automated consistency checks when entered onto the national database. This procedure occurs before a 'matching run' is initiated and checks according to 5 basic rules:

1. There is consistency between HLA Broad/ split antigens/ alleles and valid WHO nomenclature is used
2. No more than 2 antigens/alleles can be reported at a single locus
3. Bw4/Bw6 antigen associations must be consistent with HLA-B locus antigens/alleles
4. DR51/51N/52/53/53N antigen associations must be consistent with HLA-DR locus antigens/alleles
5. DRB3/4/5 allele associations must be consistent with HLA-DR locus antigens/alleles and DR51/51N/52/53/53N antigens.

If a donor HLA type fails this consistency check, the Duty Officer contacts the laboratory, giving details of the reason for failure. The HLA type is then reviewed and resolved by the laboratory prior to initiation of the matching run.

Anomalies detected by this automatic consistency checking are classified as 'Pre-allocation' and do not impact on allocation.

Post allocation

Discrepancies in the HLA type may be identified after the organs have been allocated. It is possible that the laboratory may revise the HLA type after the original offer fax has been sent and contact the Duty Office with a 'Revised HLA type'. If organs are shipped, a discrepancy may be detected if the donor is re-typed at the laboratory associated with the recipient transplant centre.

Investigation and reporting

All anomalies/discrepancies are reported to the laboratory concerned and are investigated by the Scientific Support Staff. Laboratories respond giving reasons for the anomalies/discrepancies and measures taken to minimise the risk of future occurrences. Reports are prepared for The Donation & Transplantation Clinical Audit, Risk And Effectiveness Group (CARE). These reports are also reviewed by the 'Donor Discrepancy Monitoring Group' which meets three times a year.

This group is chaired by the ODT Scientific Advisor and the membership includes the Steering Committee for the UK National External Quality Assessment Scheme (NEQAS) for Histocompatibility & Immunogenetics (H&I). This ensures that all cases are reviewed externally by experts in H&I.

Summary of Anomalies/Discrepancies

A summary of the results of the monitoring from 2010-12 is shown in **Table 1**. Anomalies were detected prior to allocation in 1.1% of offer types in 2012, compared to 0.6% (2011) and 0.8% (2010) and discrepancies after organ allocation in 0.6% donor types in 2012, compared to 1.3%% in 2011 and 1.6% in 2010. The reasons given for the anomalies/discrepancies 27/1622 donor offer types in 2012 are summarized in **Table 2**.

Pre-allocation (n=18)

These anomalies were identified by the automated consistency checks and corrected before allocation. The majority, 14/18 (78%), resulted from clerical errors in the laboratory.

Post-allocation (n=9)

The majority of the discrepancies post allocation also resulted from clerical errors in the laboratory, 6/9 (67%). Discrepancies identified post-allocation have the potential to impact on the allocation and transplant processes.

Table 2 Anomalies/Discrepancies in Donor HLA types, 2012					
Reason	Prior to allocation		Post allocation		Overall (%)
	n=	%	n=	%	
Clerical	14	78%	6	67%	20 (74%)
Technical/ Interpretation/ Nomenclature	4	22%	3	33%	7 (26%)
ODT Data Entry	0		0		0
Total	18		9		27

Summary and Action

The results of monitoring show that the level of discrepant donor HLA types reported to ODT and used for allocation purposes is 0.6%. This paper will be circulated to the Directors of all Transplant Units and H&I Laboratories, so that all are aware of this discrepancy rate.

Dr S Fuggle
Scientific Advisor

May 2013