

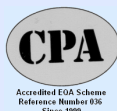
# THE CURRENT STATUS OF UK NEQAS FOR HISTOCOMPATIBILITY AND IMMUNOGENETICS



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## WELSH TRANSPLANTATION AND IMMUNOGENETICS LABORATORY UK NATIONAL EXTERNAL QUALITY ASSESSMENT SERVICE FOR HISTOCOMPATIBILITY & IMMUNOGENETICS



### External quality assessment

External quality assessment (EQA) - proficiency testing (EPT) - involves using inter-laboratory comparisons to determine laboratory performance. Continuing confidence in a laboratory's satisfactory performance is essential for their users and accreditation bodies.

### UK NEQAS for H&I

The UK National External Quality Assessment Service for Histocompatibility and Immunogenetics (UK NEQAS for H&I) have provided a range of EQA schemes for all relevant laboratories in the UK and overseas since 1975.

This non-profit making Service is advised by 13 professionals, is accredited by Clinical Pathology Accreditation (UK) Ltd. and complies with EFI EPT Standards for Providers.

### Participating laboratories

In 2011 there were 256 laboratories from 39 countries participating in 14 UK NEQAS for H&I schemes.

### Schemes

These cover: full HLA phenotyping and genotyping with 2 levels of resolution; specific class II, B27, B\*57:01, HFE and ABO testing by DNA methods; donor/recipient cross-matching by cytotoxicity and flow cytometry; HLA antibody detection and specification and clinical interpretation for HFE genotype and hereditary haemochromatosis – see Table.

### Assessment of performance

Assessment is generally based on 75% consensus findings.

Satisfactory performance may expect all results reported in a year to agree with consensus findings (schemes involving specific typing), allow a single

### 2012 UK NEQAS for H&I – Schemes

Scheme no.	Title
1A	HLA Phenotyping
1B	HLA-B27 Testing
2A	Cytotoxic Crossmatching
2B	Crossmatching by Flow Cytometry
3	HLA Antibody Specificity Analysis
4A1	DNA HLA Typing at 1 <sup>st</sup> Field Resolution
4A2	DNA HLA Typing to 2 <sup>nd</sup> Field Resolution
4B	ABO Grouping by DNA-based Methods
5A	HFE Typing
5B	Interpretative: HFE Genotype and Hereditary Haemochromatosis
6	“HLA” Antibody Detection
7	HLA-B*57:01 Typing for Drug Hypersensitivity
8*	HLA and Disease Typing for HLA-DR/DQ/DP only Educational Scheme

\* Pilot scheme

sample error (full phenotyping and genotyping), or expect a percentage of results (75-85% depending on the scheme) in agreement with consensus findings (cross-matching, antibody detection and specification).

The HFE and haemochromatosis scheme (5B) uses penalty point accrual with a un/satisfactory threshold.

### Scheme relevance

These 13 EQA schemes cover all routine services offered by clinical H&I laboratories in support of solid organ and blood stem cell transplantation, blood transfusion, typing as an aid to disease diagnosis and susceptibility and HLA-related pharmacogenetics.

An additional, essentially gratis, ‘Educational Scheme’ provides material with potentially challenging alleles/specificities.

### Satisfactory performance

In 2011, for assessed schemes, there was an overall 91.5% satisfactory performance rate.