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 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.