It is a requirement of external accreditation bodies that laboratories participate in an external quality control scheme if there is one in existence (1). For specialist workloads such as toxicology, this can be difficult owing to the variety of drugs and chemicals that may be taken accidentally or in overdose situations.

The United Kingdom National External Quality Assessment Scheme (UKNEQAS) Steering Committee for Drugs offers such a scheme in Clinical Toxicology to aid those laboratories routinely undertaking specialist analytical procedures.

Following a review of the scheme returns, the Steering Committee noted that the performance of some laboratories needed to be markedly improved. It was therefore decided to develop a method of analysing and scoring the returns made by scheme participants to attempt to improve the quality of results being generated and used for clinical treatment and patient management.

A scoring system was developed to aid in the assessment of the returns made to the organisers, as follows:

- A maximum of 5 marks for drug identification irrespective of the number of analytes or matrices
- A maximum of 5 marks for drug quantitation judged against the consensus mean
- A maximum of 5 marks for other useful information to outline the scope of the analysis performed
- A maximum of 5 marks for data interpretation
- A maximum of 10 penalty marks for missed critical analytes, or for incorrect or misleading reports

The initial application of the scoring approach resulted in a bi-modal distribution of analytical laboratories participating in the scheme.

The number of scheme participants declined by around 5 per year following the inception of the scoring scheme.

Eventually the scheme led to a significant improvement in the performance of those laboratories still enrolled.

The UKNEQAS Toxicology Cases Scheme has provided a mechanism for laboratories to fulfil their obligation with respect to requirements for external accreditation in this specialist area. It has also been demonstrated that the scheme provides an educational, not punitive, mechanism for laboratories to improve the quality of their analytical and interpretive results.

Two obvious questions are raised by the data presented, namely:

1) Why has the number of participants fallen over time, and are these laboratories still performing this work outside of the scheme?

2) What will be the impact on the scheme following the introduction of compulsory external accreditation for all laboratories.

REFERENCES


* Members of UKNEQAS Steering Committee for Drug Assays:

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