

# Complying with ISO15189

## Measurement uncertainty



Estimating measurement uncertainty in clinical testing laboratories – workshop

Thursday 30 November 2017

LGC, Queens Road, Teddington  
Middlesex, TW11 0LY

### **LGC presents a workshop focusing on the practical estimation of measurement uncertainty in clinical testing laboratories**

Clinical testing laboratories maintaining or seeking accreditation to ISO15189 are required to evaluate the uncertainty associated with their measurement results.

An estimation of the uncertainty provides a quantitative indication of the quality of the result. However, this evaluation can be a complex and challenging process, especially where measurement procedures consist of many steps and require a range of equipment and reagents.

To help clinical laboratory analysts and quality managers with this evaluation LGC will be providing a one-day practical workshop covering the basic principles of measurement uncertainty. This workshop will focus on quantitative methods, and will include practical sessions on how to evaluate the measurement uncertainty using the “top-down” approach. This approach makes use of information on the performance of whole measurement procedures, such as data obtained from validation studies, quality control activities and external quality assessments.



## Who should attend

This workshop is aimed at laboratory analysts, quality managers and laboratory managers who need to understand how the uncertainty of a measurement is estimated.

The workshop will focus on quantitative methods and will use the “top-down” approach to produce an estimate of measurement uncertainty fit for the analytical purpose.

## Workshop programme

The workshop will include introductory sessions on the subject of measurement uncertainty and will aim to provide practical tools for the estimation of uncertainty for quantitative methods.

The number of participants for this workshop is limited to 10.

- *Start 9.00 am*
- What is measurement uncertainty and why is it important to estimate it
- Key rules for uncertainty evaluation
- Evaluating uncertainty using validation or quality control data
- Evaluating precision (laboratory intermediate precision) and its contribution to the method uncertainty
- *Workshop: estimate contribution of method precision to measurement uncertainty*
- Estimating bias and its uncertainty
- *Workshop: contribution of bias to total uncertainty*
- Completing the uncertainty budget
- Final discussion
- *Close 5.00pm*

## Fees

**1 day workshop: £195 +VAT**

Workshop fee includes refreshments and lunch

## Book your place

To book your place on this workshop, or for further information:

Email: [training@lgcgroup.com](mailto:training@lgcgroup.com)

Call: +44 (0)20 8943 7631

## About LGC

LGC is an international science-based company and market leader in analytical, forensic and diagnostic services, and reference standards. As the UK's National Measurement Laboratory and Designated Institute (DI) for chemical and bio-measurement, we deliver world-class science and have extensive knowledge of the development and validation of analytical measurements, and the production and certification of reference materials. Since 1997 we have delivered a programme of training courses on analytical quality which support organisations in making valid and reliable chemical and bioanalytical measurements. For more information visit [www.lgcgroup.com/training](http://www.lgcgroup.com/training)

## Workshop venue

The workshop will be held at LGC's headquarters in Teddington, South West London. The venue is conveniently located for travel by car (easily accessible from the M3, M4 and M25), rail (30 minutes direct from London Waterloo) or air (30 minutes by taxi from Heathrow airport).

