Introduction to the validity and reliability of diagnostic tests – a biostatistics module

Course overview

This one-day course provides an overview of the important design and statistical analysis issues involved in setting up and evaluating studies for determining validity and reliability. Delegates will learn about these methods both in the context of laboratory or clinical diagnostic tests, and also psychological and psychiatric diagnostic scales.

Who should attend? Is it right for me?

This one-day module is aimed at those working in a medical field as a PhD student. It is suitable for those who have no previous experience of data analysis, as well as those seeking to refresh their skills.

What will delegates learn?

By the end of this course delegates will:

- Understand the important issues related to the design of studies for testing a new diagnostic test or scale against a known ‘gold standard’
- Know how to estimate and interpret measures of sensitivity, specificity and predictive value
- Understand the appropriate methods to use when measuring binary and continuous/interval scales and measures.

What does the course cover?

- Measurement of agreement/accuracy
- Estimating sample size in the design of studies
- ROC curve analysis
- Bland and Altman technique.

To find out more

Contact Sarah Donegan at sarah.donegan@liverpool.ac.uk or on +44 (0) 151 794 9721. Alternatively, visit the department’s website at https://www.liverpool.ac.uk/translational-medicine/departmentsandgroups/biostatistics/coursesandworkshops/