NRL Science of Quality

QUALITY ASSURANCE

The complete package of quality assurance solutions designed to ensure the accuracy and precision of tests and testing processes

Laboratory based quality assurance (QA) is a mechanism to ensure accuracy and precision in testing, ensuring the correct result is always issued. QA may be described as an integrated system of documented activities designed to deliver consistency, traceability and continual improvement of the system. Integral to any laboratory quality management system is participation in programmes that monitor this system and its effectiveness.

NRL provides comprehensive quality programmes for a range of infectious diseases for laboratories around the world to participate in, as a means to ensure the quality of their tests and testing processes.

NRL External Quality Assessment Schemes

The design and analysis of NRL's External Quality Assessment Schemes (EQAS) draw upon NRL's extensive experience and scientific methods to ensure maximum scope for error detection. NRL EQAS incorporates panels that consist of a combination of positive and negative samples representative of what would typically be received by a testing laboratory. NRL EQAS are intended to assess the integrity of the entire testing process from receipt of sample through to final interpretation of patient result. On completion of testing, participants report their results online via OASYS-an internet based application. These data are statistically analysed and a final report is compiled. The final report enables participants to assess their results and allows comparison with their peers using the same test kits. **NRL EQAS are accredited to ISO 17043.**

NRL Quality Control

NRL Quality Control (QC) is an independent and peer-group based programme that allows participants to monitor the precision and accuracy of tests' results on a daily basis. Using specifically selected QC samples, participants are connected to a global network of laboratories through NRL's web-based QConnect. When using NRL QConnect, participants can enter their data into the NRL EDCNet software program that facilitates on-line and real time data collection and analysis. This allows the monitoring of results to assure tests are in control and assays are operating in accordance with performance specifications. Through this, measurement of uncertainty reports can also be provided as a convenient and easy way to meet regulatory requirements.

NRL Specificity Monitoring

NRL Specificity Monitoring is a programme designed specifically for blood screening laboratories enabling the identification of problematic test kit batches and problems within a laboratory's testing system. For assays that are used for large numbers of samples, such as blood donor testing, the rate of false reactivity (specificity) of a test kit can be monitored. False reactivity in blood screening test kits is usually very small (<1%), however the accumulated data can be used to assess a test kit's ongoing performance and highlight changes which can have both financial and operational impact. Through specificity monitoring, blood wastage can be reduced ensuring adequate blood supply.

NRL Quality Assurance

- Maximises the quality and efficiency of tests and testing processes, resulting in increased productivity and reduced costs
- Simplifies the collection of data. As large numbers of laboratories participate in NRL QA programmes, participants are empowered in their decision making utilising statistically significant data
- Is globally recognised and accredited, reflecting NRL's consistent and dedicated approach to the Science of Quality

If you would like further information about purchasing QC products and/or enrolling in EQAS or Specificity Monitoring please visit our website: **www.nrl.gov.au** email: **info@nrl.gov.au** or phone: **+61 03 94181111**

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