

IQC in Microbiological Testing

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Microbiological results are used to help appraise safety, quality and legal compliance of materials. The need for users of laboratory services to have confidence in the reliability of results and the importance for laboratories to be able to demonstrate the reliability of their results has never been greater.

Whilst regular participation in external proficiency testing schemes can contribute, integral to demonstrating day to day control of methods and to assure the reliability of results is the establishment and operation of robust IQC programmes.

There are a number of approaches that commonly form the basis of microbiological IQC programmes. These include media QC checks to verify performance; controls run in parallel with methods, verifying performance of proprietary test kits/biochemical galleries and regular method efficacy checks. The frequency of these checks is influenced by a number of factors including the level of risk the lab will accept, requirements of the local Accreditation Body (if seeking accreditation to ISO17025), customer requirements, and frequency of performing the test.

Inherent with any IQC programme associated with microbiological testing is the use of control cultures, thus selection of cultures, how, when and where they are stored and handled does need careful consideration, as the implications and consequences of cross contamination of work within a laboratory are only to apparent.

This presentation will give an overview of common approaches to IQC in microbiology testing and will provide general guidance on factors to consider to help laboratories operate robust IQC to support their testing activities, and where relevant prepare for accreditation.