Establishing a training and competency program in the microbiology laboratory

Martin R Evans and Kelly Araujo Silva
American Society for Microbiology, USA

Many countries are currently implementing the WHO Antimicrobial Resistance (AMR) surveillance program which relies upon microbiology laboratories producing accurate patient test results. This in turn, is dependent upon providing testing staff with appropriate training and competency. In many middle or low-income nations, minimal training occurs, documentation is inadequate and competency assessments are often not conducted. Adequate training furthers the knowledge of the organization and develops staff competency which is especially important in situations with insufficient qualified laboratory professionals. Harmonized and comprehensive training programs based on job descriptions are essential and in keeping with Good Laboratory Practice (GLP). Additionally, training and competency are essential components of the Quality Management System and meet the international requirements for ISO 15189 accreditation. Training needs to be test and process specific, thorough, documented and measured to determine if competency has been achieved. Laboratory management is required to establish competency criteria, assess the competence of personnel to perform assigned managerial or technical tasks, provide feedback to persons assessed, schedule retraining based on the assessment outcome and maintain records. Methods to determine competency include one or more of direct observation, monitoring and recording of examination results, review of work records, testing blinded samples, verification of prior PT results, demonstration of problem solving skills and review of accumulative Internal Quality Control (IQC) and External Quality Assurance (EQA) results. This needs to occur for every test and process in the laboratory. Documentation may include using an Excel spreadsheet, suitable software or a Word document. This is also an opportunity to promote standardization in-country throughout the network using the same training templates, policies and SOPs. Indeed, training and competency are the foundation of any laboratory upon which all else is built and vital for improving the laboratory's role in preventive care.

Biography

Martin R Evans is a Clinical Laboratory Director with a PhD in Medical Microbiology and Immunology. He currently serves as a Laboratory Consultant to the Association of Public Health Laboratories (APHL) USA and the American Society for Microbiology (ASM). He was an Associate Director at the NYC Public Health Laboratory and a Clinical Laboratory Director at Quest Diagnostics and SmithKline Beecham Clinical Laboratories. He also held academic positions at Temple University and the University of Zimbabwe, Faculty of Medicine.

martinevans14@msn.com

Notes: