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Fourteen years experience in conducting the National External Quality Assessment [NEQAS] programme for Bacteriology in Sri Lanka

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The National External Quality Assessment [NEQAS] programme for Bacteriology in Sri Lanka was started in 1997 at the Quality Control section of the Department of Bacteriology, Medical Research Institute, Colombo. The objectives of this programme are to evaluate, compare and improve the quality of diagnostic microbiology, stimulate the use of Internal Quality Control (IQC), propagate standardized techniques with particular reference to a uniform disc susceptibility testing method, select a uniform and restricted list of culture media and reagents, and to identify the competent laboratories in the state and private sectors.

In our NEQAS programme, three pure bacterial cultures stabbed in Tryptic Soy Agar [TSA] are sent quarterly in small screw-capped bottles. The bottles are securely packed and sent by post along with the report form and the instruction sheet. For each culture, the source of the specimen is mentioned and participants are instructed to identify the culture and perform the Antibiotic Sensitivity Testing (ABST). The results should be sent back within two weeks and are analysed and scored. The correct answers of the previous survey are sent to participants along with the next QC package.

Since the beginning of the programme in 1997 up to date (2011), the number of participants have increased from 13 to 54, mostly due to the voluntary participation of laboratories interested in joining a recognized NEQAS programme to upgrade their laboratory test quality. The participation of government hospitals increased by 70% and of private hospitals by 73%. Performance of participants in terms of correct identification of cultures has increased from 63% to 85% while accurate ABST results improved from 45% to 74%. A marked increase in both parameters (8% and 7% for identification and ABST, respectively) was seen after 2009. Reasons for this could include the appointment of medical microbiologists to peripheral hospitals, four workshops and three hospital visits by NEQAS and adoption of the ABST method described by the Clinical and Laboratory Standards Institute (CLSI) by many laboratories. It is observed that participation of government hospitals in the North and East of Sri Lanka has increased by 80%. This is probably due to the alleviation of the crisis situation prevailing in the country after the end of the civil war in May 2009.

The results reveal that the monitoring and guidance given by the NEQAS programme have led to a greater motivation and improved diagnostic skills and is appreciated by the participating laboratories.

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