



Microbiology Division

External Quality Assessment Unit

BACKGROUND

The NICD EQA Unit continues to produce external quality assessment programmes for the National Health Laboratory Service and subscribing private laboratories. The Unit also produced, for the sixth consecutive year, an internationally refereed bacteriology EQA programme to 71 national public health laboratories in the African Regional Office (AFRO) and 4 laboratories in the Eastern Mediterranean Regional Office (EMRO) of the World Health Organization. The Unit is involved in training workshops and laboratory site visits, both national and international.

ACTIVITIES, HIGHLIGHTS AND ACHIEVEMENTS

EQA PROGRAMMES

EQA programmes were provided in the disciplines of bacteriology (111 laboratories), tuberculosis microscopy (287 laboratories), tuberculosis culture (29 laboratories), syphilis RPR serology (230 laboratories) and syphilis TPHA serology (41 laboratories). Management of EQA programmes involves technical preparation and quality control of material, documentation and shipping, and evaluation and reporting of laboratory responses.

In association with the WHO division for Epidemic Preparedness and Response (WHO/EPR, Lyons office), the NICD EQA Unit's EQA programmes in bacteriology, malaria and TB microscopy are run with the assistance of NICD consultants and staff in several units of the NICD Microbiology Division. This is done under contractual agreements with WHO/EPR/Lyons. The results of this programme inform the WHO Regional Office for Africa (AFRO), the WHO and pathogen-specific projects of the WHO concerning laboratory capacity of national public health laboratories of all countries in the AFRO region. The NICD EQA Unit is an advisor and external referee to the EMRO region of the WHO in the WHO/EMRO regional EQA programme.

From January the EQA Unit, in collaboration with GlaxoSmithKline and Contract Laboratory Services, Wits Health Consortium, provided a proficiency testing programme in bacteriology to nine laboratories that are part of the GSK malaria vaccine trial programme.

The NICD EQA Unit hosted the annual review of the NICD/WHO EQA Programme, in collaboration with WHO/EPR/Lyons and WHO/AFRO, in September.

A workshop on national external quality assessment schemes (NEQAS), was held at NICD in late February for 12 delegates from Mali, Niger, Rwanda, Senegal, Uganda and Zambia. The purpose of the workshop was to familiarise participants with principles and requirements for establishing and managing NEQAS and culture collections; to train participants in preparation of EQA specimens for proficiency testing of microscopic and cultural diagnosis of bacterial meningitis and microscopic diagnosis of malaria; to train participants in safe packing of diagnostic specimens for road and air transportation according to International Air Transport Association (IATA) standards; and to facilitate participants in drafting plans for introduction of NEQAS in their own countries.



Participants from African countries attending a practical session of the Workshop on National External Quality Assessment Schemes, 26th February to 2nd March 2007.



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A training workshop was held in November at the Ethiopian Health and Nutrition Research Institute's bacteriology laboratories (EHNRI). The training workshop was organized to improve laboratory diagnosis of bacterial meningitis at the sites that will take part in surveillance activities. Technologists from each of the following sites participated in the workshop: EHNRI, Black Lion, Gondar, Jimma and Yekatit 12. Physicians from these sites attended a joint briefing with laboratory workers. The training session was facilitated by Drs Bikithemba Mhlanga, Daniel Benti and Thomas Aisu of WHO/AFRO, Ms Vivian Fensham (EQA Unit, NICD), Linda de Gouveia (RMPRU, NICD) and the staff of the Ethiopian Health and Nutrition Research Institute.



A practical session at the Ethiopian Health and Nutrition Research Institute.

Staff members accompanied NMSU staff on site visits to various NHLS and private laboratories that participate in the National EQA programmes. Marshagne Smith and Susan Meiring went to Bethlehem and Manapo laboratories; Peggy Botes accompanied Vanessa Quan to Lancet laboratories; and Vivian Fensham accompanied Vanessa Quan to Port Elizabeth, Grahamstown and Uitenhage.

NATIONAL STOCK CULTURE COLLECTION

The NSCC continued to provide reference strains from recognised culture collections to NHLS laboratories for quality control purposes. 727 reference strains were supplied to NHLS bacteriology laboratories for quality control of antimicrobial susceptibility and other laboratory procedures. 29 new strains from the American Type Culture Collection were purchased both for the NHLS Microscan users and for NICD. An isolate of each of the new cultures was retained within the NSCC collection. 10 samples of extracted DNA from ATCC were purchased for the STIRC unit. There is now a total of 238 bacteriology and 45 yeast/mould strains in the culture collection.

COLLABORATIONS

International Health Regulations Coordination Programme, WHO Lyon Office for National Epidemic Preparedness and Response (Dr S Cognat)

Division of Health Systems and Services Development, WHO-Regional Office for Africa, Brazzaville-Congo (Dr J-B Ndiokubwayo)

CAPACITY BUILDING

STAFF TRAINING

Marshagne Smith attended a training course in 'export basics' conducted by Safcor Panalpina. Rebecca Landsberg and Peggy Botes both attended a first aid course. Rebecca Landsberg attended a laboratory safety course. Dangerous Goods Management held a dangerous goods awareness course; Marshagne Smith, Rebecca Landsberg and Peggy Botes were participants.