Second Conference of National Tuberculosis Reference Laboratories from Central and East European Countries

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Introduction

Tuberculosis is still a major health problem in the world. Every year about 8.8 million new active cases and nearly 2 million deaths worldwide were registered. One third of the world’s population has latent TB infections, which has high significance in perspective to HIV. Another growing problem is the multi-drug resistance of the bacteria [1].

The basis for a successful therapy and control is an optimal laboratory diagnosis for the detection of the TB bacterium. The heads from nine National Reference Laboratories from Central and East-European countries were invited to the first conference in 2011 to Cluj-Napoca/Romania [2]. The idea was that these laboratories may have or get a voice in the policy of their ministries of health and that they establish a highly effective and quality assured standard of laboratory diagnosis of TB. The first conference gave an impression of the situation of TB in the different invited countries as well as of their national reference laboratories. The participants got the impression, that this first meeting was fruitful as well as a step forward in improvement of laboratory diagnosis of TB in the different countries, but a rapid success is scarcely be expected and many further problems must be discussed. The organizers and the participants of this first conference concluded that it should be followed by a second one.

Congress report

The second conference was organized by INSTAND/WHO Collaborating Centre for Quality Assurance and Standardization in Laboratory Medicine, Dusseldorf/Germany, the Supranational Reference Laboratory (SRL) and National Reference Centre for Mycobacteria Borstel/Germany, and Romanian Tuberculosis National Reference Laboratory Cluj/Romania, and was held from September 24–26, 2012 again in Cluj-Napoca/Romania. After the opening ceremony a report of last year’s meeting consensus paper was given by Sabine Ruesch-Gerdes (Borstel/Germany) followed by Sven Hoffner (Stockholm/Sweden) about Actual Problems of TB in Sight of SRL Stockholm. The clinician Johannes Ortmann (Borstel/Germany) dealt in his talk with the questions of the clinicians to the laboratories and epidemiologists. Finally Sabine Ruesch-Gerdes (Borstel/Germany) reported on Preliminary results of the European National Reference Laboratories in quality assurance.

The following Heads of National TB Reference Laboratories as official representatives gave their country reports:
- Armenia – Hasmic Margaryan
- Bulgaria – Elizabeta Bachiyska
- Poland – Ewa Augustinowicz-Kopéc, Zofia Zwolska
- Moldavia – Valeriu Crudu
- Romania – Daniela Homorodean
- Germany – Sabine Ruesch-Gerdes
- Sweden – Sven Hoffner
- Serbia – Branislava Savic
- Georgia – Natalia Shubladze

Discussion

The reports and discussions were self-controlled accordingly:

- Official status by the MOH
- Laboratory Network
- Link to SRL
- Cooperation civilian and penitentiary system
- Bio-safety in laboratories
- Drug susceptibility testing and reporting
- New rapid techniques and molecular tests, fingerprinting
- Storage of strains and specimens
- National budget for laboratories
The following finding and consensus were documented:

1. **Official status of the laboratories participated:**
   a. A National Reference Laboratory (NRL) with an official status by the MOH exist nearly in all countries
   b. All NRL’s are linked to a Supranational Reference Laboratory

2. **All participants agreed on the following criteria for an NRL**
   a. A permanent functional laboratory
   b. Enough staff to fulfil the criteria for an NRL
   c. Good results in proficiency testing
   d. Proficiency testing should be offered for all or the next level of laboratories
   e. Training programs should be offered
   f. Providing of SOPs for the regional laboratories
   g. Involving in implementation of new techniques
   h. Maintenance of a strain collection
   i. Resistant strains should be send to the NRL for confirmation and testing of 2nd line drugs
   j. Co-operations with an SRL

3. **Network of laboratories**
   A laboratory network is established in nearly all countries, but the co-operation between the civilian and the prison system should be better in future.

4. **Bio-safety**
   Not all laboratories can work under adequate bio-safety conditions and in not all countries an infection control is implemented. Not all countries have enough money for maintenance of the bio-safety cabinets.

5. **Methods**
   a. In many countries new rapid techniques for detection of TB, for differentiation and for the detection of drug resistance, mainly are not implemented. There are no clear recommendations published which technique should be used and on which level of laboratories.
   b. Many laboratories have not enough money for the consumables, mainly for using modern techniques and additionally the question was raised: what can countries do in future without Global Fund money? It is today and in future absolutely necessary and recommended internationally that all suspects for MDR-TB need DST-results.

The organizers and the participants of this meeting think that this second conference was a further significant step forward in the political of the National Reference Laboratories and their technical skills in laboratory diagnosis of TB. A third conference will be planned for 2013 in Belgrade/Serbia.

**References**


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