

7th Union Europe Conference on Lung Health, 22–24 June 2016, Bratislava (Slovakia): a delegate report

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The Europe Region of the International Union against Tuberculosis and Lung Disease (The Union) held its 7th Union Europe Conference on Lung Health on 22–24 June 2016 in Bratislava, Slovakia. The conference Patron, the President of the Slovak Republic, Mr. Andrej Kiska, attended the Opening Ceremony and delivered the opening speech. The opening lecture was given by Dr. Mario Raviglione, Director of the Global Tuberculosis Programme of the WHO; he presented the new strategy to fight TB with the aim of ending TB as an epidemic by 2030/35. Dr. Zsuzsanna Jakab, Regional Director for Europe of the World Health Organization (WHO); Dr. E. Jane Carter, President of the Union; Prof. Ivan Solovic, President of the Union Europe Region; Prof. Stanislav Spanik, State Secretary of the Ministry of Health (Slovak Republic); also delivered their opening addresses at the Opening Ceremony.

This Conference was held at a particularly significant and challenging time, as the Millennium Development Goals era ends and a new development agenda takes hold, guided by the Sustainable Development Goals. The WHO's new "End TB partnership Europe" will introduce a new mind-shift concept. The conference theme "Know—Share—Act in the Fight against TB and Lung Diseases" reflected the changing field of activity of global public health, and the new era of action within the framework of the Sustainable Development Goals. This was highlighted in the presentations of all keynote speakers (<https://www.unionconference2016bratislava.org/keynote-speakers/>): Marieke J. van der Werf, Head of the

Disease Programme Tuberculosis at the European Centre for Disease Prevention and Control, "Prevention and control of tuberculosis in the European Union: Where do we come from, where are we, and where are we going?"; Giovanni Battista Migliori, European Respiratory Society Secretary General, "The ERS/WHO/UNION ER survey on management practices on refugees in European Region"; Lee B. Reichman, Founding Executive Director of the Rutgers Global Tuberculosis Institute, "The Tuberculosis Taboo"; Knut Lönnroth, Associate Professor of Social Medicine at the University of Gothenburg, "From stopping to ending and eliminating TB—what does it mean and how can it be done"; Timothy R. Aksamit, Associate Professor in the Pulmonary Disease and Critical Care Medicine Division of Mayo Clinic in Rochester, MN, USA, "TB or non-TB (NTM)"; Martin van den Boom, Technical Officer at World Health Organization Regional Office for Europe and Viorel Soltan, Director at Center For Health Policies and Studies, "Jointly tackling tuberculosis and strengthening health systems in the WHO European Region: possible contributions of a multi-partner project approach".

TB poses an intolerable burden of ill health across the countries of Europe with nearly 330,000 women, men and children falling ill every year as a result of the disease and 36,000 of them dying of it. Drug-resistant TB is a major challenge in the region. The European Region has the highest percentage of drug-resistant TB in the world and treatment success rates are the lowest. Over the next 35 years, 2.1 million people could die from drug-resistant TB in Europe at a total economic cost of USD 1.1 trillion. Only

62% of multi-drug resistant tuberculosis (MDR-TB) patients are found and half of them successfully cured. This calls for a considerable scaling up of access to safe, rational and efficient new TB drugs, as well as innovations on rapid diagnosis and care centered on the needs of patients. This is what the global End TB Strategy and the Tuberculosis Action Plan for WHO European Region 2016–2020 are aiming at. The investment required to eliminate TB in Europe is a fraction of the potential costs. Inaction is not an option. There is an urgent need to scale up investment in TB research and development of new tools and approaches to fight TB and MDR-TB.

Over 600 delegates were registered for the conference, including governmental representatives, scientific experts, opinion leaders, and a broad spectrum of health professionals. Plenary sessions, symposia, poster sessions, and workshops led by world experts, dedicated to the broad issue of TB as a serious infectious disease, to the fight to combat tobacco use and to lung diseases such as chronic obstructive pulmonary disease, pulmonary fibrosis and breathing sleep disorders, provided a wide range of opportunities for delegates to hear about new developments, present their work, meet with colleagues and explore new partnerships.

The following most interesting and important topics were presented and discussed (<https://www.unionconference2016bratislava.org/program-download/>):

- Transforming and optimizing patient centered model of TB care in countries of Former Soviet Union (FSU). The FSU countries had inherited the Soviet Semashko system of health care but, despite its achievements in ensuring universal coverage, many of those in positions of power expressed discontent with what they saw as its poor quality, inefficiency and lack of responsiveness. They called for change, but were less clear about how to bring it about, especially at a time of severe fiscal constraints and lack of personnel trained in concepts of modern medicine. Problems and achievements of FSU countries (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan) in the transition paths have been reported and discussed;
- Prevention diagnosis and treatment of MDR-TB in children and adolescents. Key messages: the burden of MDR-TB in children, the number of children being treated, and the gaps in delivering both treatment and prevention to children are unknown.

Children can act as sentinels for MDR-TB, helping countries improve diagnosis and treatment while identifying gaps in knowledge. Timely detection and proper treatment of the disease in adults are crucial for protecting children from infection. When children are treated with regimens tailored to the susceptibility profile of their strain or of the strain of the most likely source case, they have excellent outcomes. Better treatment of TB in children requires new tests and diagnostic tools and more and better drugs that are available in pediatric formulations;

- Management of latent tuberculosis infection (LTBI). LTBI, defined as a state of persistent immune response to prior-acquired mycobacterium tuberculosis antigens without evidence of clinically manifested active TB, affects about one-third of the world's population (1). Approximately 10% of people with LTBI will develop active TB disease in their lifetime, with the majority developing it within the first 5 years after initial infection (2). It is indicative that the large-scale epidemiological studies on LTBI have not been conducted for a long time. Currently available treatments have an efficacy ranging from 60% to 90%. Systematic testing and treatment of LTBI in at-risk populations is a critical component of WHO's eight-point framework adapted from the end TB strategy to target pre-elimination and, ultimately, elimination in low incidence countries. The issues on new WHO guidelines implementation were presented and discussed;
- The current treatment for MDR-TB is long, complex, and associated with severe and life-threatening side effects and poor outcomes. For the first time in nearly 50 years, there have been two new drugs registered for use in MDR-TB treatment. Bedaquiline (trade name Sirturo, Janssen Pharmaceutica), a diarylquinoline (3), and delamanid (trade name Delyba, Otsuka Pharmaceutical), a nitromidazole (4), have received conditional stringent regulatory approval and have WHO interim policy guidance for their use (5,6). These two new drugs, some repurposed drugs (linezolid (Zyvox, Pfizer), clofazimine (Lamprene, Novartis), carbopenems: imipenem (Tienam, Merck, meropenem (Meronem, Astra Zeneca) and new short MDR-TB regimen offer a real opportunity to improve the outcomes of M/XDR-TB patients (7). It is important that

the existing clinical experience in using these drugs and regimen is shared, such that their routine-use programmatic conditions is scaled up, ensuring maximum benefit for patients and countries battling the MDR-TB crisis;

- Digital health in support of patients and professionals. The potential of information and communication technologies (ICT) to combat TB still remains largely untapped. Many countries and partners have embarked on pilot projects to study how electronic health (eHealth) and mobile health (mHealth) can be used in the fight against TB. WHO is in the process of collating evidence and best practices to help guide countries on how to maximize the impact of these technologies for people with TB. Interesting that imaging digital technologies can be employed in TB screening, it can be important area for future research and development (8,9);
- Isoniazid (INH) mono-resistant TB. Although MDR-TB poses the substantial risk to patients, resistance to isoniazid (INH) alone is also important. INH is the most potent anti-TB drug (10). INH is the basis of treatment for latent TB infection. In many countries due to the massive (and only) use of X-pert for TB and MDR-TB diagnostics INH-resistant TB patients are often considered as drug susceptible. Treatment of INH-resistant TB using standardized first line chemotherapy has been associated with increased risk of treatment failure and further acquired resistance; including MDR (11). The exact magnitude of INH-resistant TB and associated risk factors is not well known.

This year, the conference also played host to the European TB Parliamentary Summit which brought together political representatives from across Europe with the aim of accelerating progress against TB in all its manifests and push for a pan-European response to the disease. Stephan Albani from Germany and George Khechinashvili from Georgia led the work of bringing the European Summit together, with support from the TB Europe Coalition and the Global TB Caucus Secretariat. The Parliamentarians held their meetings in Bratislava between 24–26 June.

A pre-conference tobacco control workshop was held on June 20–21. Brussels-based NGO Smoke Free Partnership (SFP) ran the 2-day capacity building session on tobacco tax for Ministries of Finance and Health and civil society representatives from central and eastern

European countries. SFP are Union grantees under the Bloomberg Initiative to Reduce Tobacco Use—The Union was a co-host of the workshop. SFP are working to support European tobacco control policy initiatives on tax and illicit trade, particularly in low and middle income countries, as well as across the EU generally, to bring them in line with the World Health Organization's Framework Convention on Tobacco Control (WHO FCTC). The purpose of the workshop was to build knowledge and collaboration to empower countries to work together on implementing strong tobacco taxation rules within their own jurisdictions and at EU level.

Delegates and the public were also invited to join an inaugural event “Run for healthy lungs”—an evening charitable run on of 22 June 2016. The aim of this event was to highlight the serious social and medical problems still posed by TB and lung diseases today. Profits will support the Children's Tuberculosis Institute in Dolný Smokovec, Slovakia (<https://www.unionconference2016bratislava.org/social-program/>).

At any level of the Union conferences, recently I was in Cape Town, December, 2015 (World Conference), and in Bratislava June, 2016 (European Conference), participation of radiologists barely noticeable or even unnoticed, imaging issues have never been presented and discussed at a level of separate session(s). Many specialists (respiratory clinicians, surgeons, critical care physicians, microbiologists, public health specialists) actively participated, except radiologists. In my experience the initiative to organize any workshop, symposium etc. is self-responsibility of the participants. I do hope to see session on medical imaging aspects of TB and MDR-TB at the next Union conference.

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Footnote

Conflicts of Interest: The author has no conflicts of interest to declare.

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