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Global TB Network

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Published in:

Jornal brasileiro de pneumologia : publicacao oficial da Sociedade Brasileira de Pneumologia e Tisiologia

DOI:

[10.1590/S1806-37562018000000279](https://doi.org/10.1590/S1806-37562018000000279)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version

Publisher's PDF, also known as Version of record

Publication date:

2018

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Silva, D. R., Rendon, A., Alffenaar, J.-W., Chakaya, J. M., Sotgiu, G., Esposito, S., & Migliori, G. B. (2018). Global TB Network: Working together to eliminate tuberculosis. *Jornal brasileiro de pneumologia : publicacao oficial da Sociedade Brasileira de Pneumologia e Tisiologia*, 44(5), 347-349. <https://doi.org/10.1590/S1806-37562018000000279>

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Global TB Network: working together to eliminate tuberculosis

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Giovanni Battista Migliori^{8,g}

In spite of the global efforts of the World Health Organization (WHO) and partners to reduce the incidence of tuberculosis (about 2% per year) and its mortality (about 3% per year), the disease is still a global killer and has primary public health importance, with an estimate of 10.4 million cases in 2016.⁽¹⁾

The End TB Strategy and its vision (zero tuberculosis-related deaths, cases, and suffering) underlies the possibility to eliminate tuberculosis as a public health priority in countries with a low incidence of tuberculosis.⁽²⁻⁴⁾ Pillar 2 of the End TB Strategy clearly emphasizes the importance of collaboration at different levels. This international collaboration represents the last of the eight core areas to pursue tuberculosis elimination.⁽⁴⁾

Translating that into simple words, international collaboration comprises all of the interactions involving clinicians, laboratory staff, public health officers, national tuberculosis programs, other programs (HIV/AIDS programs and diabetes programs in some countries), Ministries of Health (as well as Ministries of Justice for jails/prisons, Ministries of Interior for the migration-related issues, Ministries of Transportation, etc), private sector, pharmaceutical sector, civil society, representatives of the affected communities, and international organizations, among others.^(4,5)

As of today, several TB Networks exist: the Stop TB Partnership⁽⁶⁾ has a long tradition in supporting advocacy. In addition, one of the best examples is the Brazilian *Rede TB*, which shows that the best research efforts, even in a large country as is Brazil, can collaborate to solve country-specific priorities and involve national tuberculosis programs and authorities in the plan.⁽⁷⁻¹¹⁾ However, as of today, no global tuberculosis network is operational enough to put together all of the abovementioned actors in order to support the fight against tuberculosis.

To respond to this need, the Global TB Network* (GTN) will be launched at the second Conference of the World Association for Infectious Diseases and Immunological Disorders (WAidid),⁽¹²⁾ which will take place in the city of Milan, Italy, from October 18-20 of 2018, involving an international group of experts and covering a wide range of perspectives.

The goal of the GTN is to pursue tuberculosis elimination with a global effort proactively, building on existing collaborations in the area of research, advocacy, and training. Its core objectives are to foster and conduct research on key unmet therapeutic and diagnostic needs in the field of tuberculosis elimination, leveraging on multidisciplinary, multisectoral approaches and supportive interventions (i.e., training and advocacy activities) within the framework of the WHO End TB Strategy. Preliminary plans propose to focus on latent tuberculosis infection, multidrug- and extensively drug-resistant tuberculosis rapid diagnosis, and other neglected areas (pediatric tuberculosis, extrapulmonary tuberculosis, rehabilitation of tuberculosis sequelae, infection control, etc.)

The GTN represents the structured evolution of pre-existing global tuberculosis networks, including the international linezolid, carbapenems and bedaquiline study groups and the International Severe Cases and Rehabilitation Study Group, which produced over 40 articles in the last five years in impact-factor, peer-reviewed journals, as well as various series on tuberculosis in different journals in collaboration with scientific societies, such as the European Respiratory Society, *Sociedade Brasileira de Pneumologia e Tisiologia*, and the *Asociación Latinoamericana del Tórax*.⁽¹³⁻¹⁸⁾

This new global network aims at collaborating with existing organizations, associations, institutions, and partners that are committed to fight against tuberculosis by complementing and boosting (and not duplicating) the existing initiatives.

The GTN is hosted by WAidid,⁽¹²⁾ founded in July of 2014 in order to advance the scientific research in the field of infectious diseases and immunology and to disseminate information on the related pathologies. WAidid is the response to the previous lack of a network that links associations and scientific societies focused on infections, vaccines, and immunology. WAidid, whose membership is free of charge, represents the bridge for a global multidisciplinary approach to infections (including tuberculosis) operating across all age groups.

The GTN is composed of three pillars:

1. Faculdade de Medicina, Universidade Federal do Rio Grande do Sul, Porto Alegre (RS) Brasil.
 2. Centro de Investigación, Prevención y Tratamiento de Infecciones Respiratorias, Hospital Universitario, Universidad de Monterrey, Monterrey, México.
 3. Department of Clinical Pharmacy and Pharmacology, University Medical Center Groningen, University of Groningen, Groningen, the Netherlands.
 4. Union Headquarters, International Union Against Tuberculosis and Lung Disease, Paris, France.
 5. Department of Medicine, Therapeutics, Dermatology and Psychiatry, Kenyatta University, Nairobi, Kenya.
 6. Sezione di Epidemiologia Clinica e Statistica Medica, Dipartimento di Scienze Mediche, Chirurgiche e Sperimentali, University degli Studi di Sassari, Sassari, Italia.
 7. Sezione di Pediatria generale e specialistica, Dipartimento di Scienze Chirurgiche e Biomediche, Università degli Studi di Perugia, Perugia, Italia.
 8. Istituti Clinici Scientifici Maugeri, Istituto di Ricovero e Cura a Carattere Scientifico – IRCCS – Trastate, Italia.
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g. <http://orcid.org/0000-0002-2597-574X>

Pillar 1 includes the Technical Committees covering the main areas relevant to tuberculosis and nontuberculous mycobacteriosis management (Tuberculosis Prevention/Latent Tuberculosis Infection; Tuberculosis Diagnosis; Tuberculosis Treatment; Tuberculosis Pharmacology; Pediatric Tuberculosis; Migrants/Vulnerable Populations; Nontuberculous Mycobacteriosis; Tuberculosis Infection Control; Impact Evaluation, Strategies & Global Health; Clinical Support to Patients (Tuberculosis Consilium); Clinical Trials; Tuberculosis and Surgery; Basic Science; and Epidemiology, Statistics and Methodology).

Pillar 2 includes representatives from each association/organization active in tuberculosis control interested in participating in the GTN.

Pillar 3 includes the private and pharmaceutical sectors.

Several global projects have already started, including an online clinical service aimed at supporting the correct management of difficult-to-treat tuberculosis cases and of individuals with latent tuberculosis infection, as well as the rational introduction of new drugs; a project monitoring adverse events of new antituberculosis drugs; one study on tuberculosis and surgery; and one study on tuberculosis sequelae and rehabilitation.

We hope this initiative will contribute to reaching the ambitious goals of the End TB Strategy.

***Global TB Network provisional Steering Committee:**

Chair: Giovanni Battista Migliori

Secretary General: Denise Rossato Silva

Other Members: Jan-Willem Alffenaar, Jeremiah Muhwa Chakaya, Adrian Rendon, Daniela M. Cirillo, James Chalmers, Sergey Borisov, Erlina Buran, Isabel Saraiva, Masae Kawamura (Observer)

Global TB Network Secretariat

Secretariat in Tradate (Italy): Rosella Centis, Lia D'Ambrosio, Dina Visca, Antonio Spanevello

Secretariat in Milano (Italy): Elisabetta Di Felice

Global TB Network Chairs of Committees

TB Pharmacology Committee: Jan-Willem Alffenaar

Epidemiology, Statistics and Methodology Committee: Giovanni Sotgiu

TB Prevention/LTBI Committee: Delia Goletti

TB Diagnosis Committee: Daniela Maria Cirillo

TB Treatment Committee: Marcela Muñoz Torrico

Paediatric TB Committee: Ben Marais

Migrants/Vulnerable Populations Committee: Claudia Dobler

NTM Committee: James Chalmers

TB Infection Control Committee: Edward Nardell

Impact Evaluation, Strategies & Global Health Committee: Alberto Garcia Basteiro

Clinical Support to Patients (TB Consilium): Marina Tadolini

Clinical Trials Committee: Emanuele Pontali

TB and Surgery Committee: Alessandro Mariani

Basic Science Committee: Tom H.M. Ottenhoff

World Association for Infectious Diseases and Immunological Disorders (WAidid): President: Susanna Esposito

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