Research Excellence to Stop TB Resistance

RESIST-TB ANNUAL REPORT FOR 2023

RESIST-TB is an organization of concerned patients, physicians, research scientists and stakeholders. Its mission is to facilitate and promote clinical research to cure and prevent drugresistant tuberculosis (DR-TB). RESIST-TB is committed to addressing the substantial existing gaps in knowledge and to helping provide access to effective curative and preventive treatment for DR-TB. Efforts have been supported by the Stop TB Partnership, the International Union Against Tuberculosis and Lung Disease, Treatment Action Group, Partners In Health, the U. S. Centers for Disease Control & Prevention, Vital Strategies and Médecins Sans Frontières.

Our 2023 activities centered on:

(1) DR-TB scientific advocacy through dissemination of information through our website, including promoting and arranging a series of webinars and an eNewsletter, publicizing weekly news articles, organizing a symposium at the International Union Against Tuberculosis and Lung Disease's annual World Conference on Lung Health (Paris) and contributing to published literature on DR-TB testing and treatment.

And

(2) Driving public policy change by producing data demonstrating gaps in care for DR-TBglobally and disseminating new developments and best practices in DR-TB treatment.

Details are provided below.

SCIENTIFIC ADVOCACY

RESIST-TB WEBSITE AND ENEWSLETTER

The RESIST-TB website (www.resisttb.org) remains active to share advances in DR-TB clinical trials and disseminate news, developments, and publications. Our website is updated weekly and our newsletter is distributed to 558 subscribers. In our monthly eNewsletter, we highlight information about new DR-TB-treatment related publications, provide news updates, and inform readers about upcoming events. Featured news articles covered DR-TB clinical trial results, developments in the use of drugs and susceptibility testing, publication announcements, symposia, advocacy initiatives, and webinars of interest in addition to global headlines related to DR-TB.

CLINICAL TRIALS PROGRESS REPORT

RESIST-TB continues to be a critical source for up-to-date information on clinical trials for DR-TB. The Clinical Trials Progress Report gathers and maintains updated information on DR-TB clinical trials that are underway and/or in development, including study names, description, status, study enrollment size, and links to more information. We currently track 35 clinical

Research Excellence to Stop TB Resistance

trials: 17% are Phase 1, 40% are Phase 2, 31% are Phase 3, and 11% are Phase 4; 6% are not yet recruiting, 17% are currently enrolling participants, and 6% have completed enrollment and follow up, or data analysis is ongoing, and 51% have been completed with results. This resource is updated on a monthly basis with downloadable versions available in PDF and Microsoft Powerpoint. The <u>Clinical Trials Progress Report</u> page is the most visited page on RESIST-TB's website, aside from the homepage.

2023 also saw the publication of a joint RESIST-TB/Union effort, <u>Clinical implications of molecular drug resistance testing for Mycobacterium tuberculosis: a 2023 TBnet/RESIST-TB consensus statement</u>. After an extensive literature search, a multidisciplinary team of clinicians, microbiologists, and laboratory scientists reached consesus on critical questions about molecular prediction of susceptibility or resistance in *M. tuberculosis*. The consensus document aims to assist clinicians with management of TB patients by providing guidance on design of treatment regimen and optimising outcomes.

Lancet Infect Dis. 2023 Apr;23(4):e122-e137. doi: 10.1016/S1473-3099(22)00875-1. Epub 2023 Feb 28.

Domínguez J(1), Boeree MJ(2), Cambau E(3), Chesov D(4), Conradie F(5), Cox V(6), Dheda K(7), Dudnyk A(8), Farhat MR(9), Gagneux S(10), Grobusch MP(11), Gröschel MI(12), Guglielmetti L(13), Kontsevaya I(14), Lange B(15), van Leth F(16), Lienhardt C(17), Mandalakas AM(18), Maurer FP(19), Merker M(20), Miotto P(21), Molina-Moya B(22), Morel F(13), Niemann S(23), Veziris N(13), Whitelaw A(24), Horsburgh CR Jr(25), Lange C(18); TBnet and RESIST-TB networks.

RESIST TB also published a report on Word TB day, an update on the <u>Progress in the Fight Against DR-TB</u> which included a summary of progress towards shorter and less toxic treatment for all persons with MDR-TB. Six major clinical trials with important implications for DR-TB were completed and published in the past year, the MDR-END trial, the NeXT trial, the TREAT-TB (India) trial, the ZeNiX trial, the TB-PRACTECAL trial and the STREAM Stage 2 trial. Additional highlighted resources included <u>the 8th edition of MSF Drugs Under the Microscope</u>, <u>TAG TB Pipeline Report</u>, and the <u>1/4/6 x 24 campaign</u>. It also covered recent WHO releases: the updated <u>Module 4</u> of its consolidated guidelines on tuberculosis: Drug- resistant tuberculosis treatment and updated Module 5: Management of tuberculosis in children and adolescents.

INCREASING AWARENESS TO CHANGE PUBLIC POLICY

In 2023, RESIST-TB surveyed members of the IUATLD about their rexperiences with clinical committees or "consilia" that consult on clinical care for persons with DR-TB. These bodies date back to the early years of treatment of DR-TB in high-TB-burden countries, when clinical expertise was limited and concentrated in a few specialty centers. RESIST-TB has created a report summarizing the findings from the 175 responses received from 45 countries. Figure 1 and Table 1 from the report capture the variability in when such consultations are used/required and the delays they entail.

Research Excellence to Stop TB Resistance

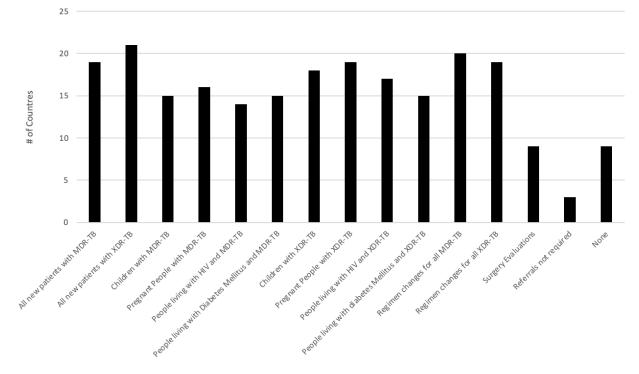


Figure 1. Circumstances where a country's consilium's advice must be sought

Table 1. Interval between request for guidance and response on new patient treatment from consilia, by WHO Region

Time to response

WHO Region	1-2 weeks	2-3 weeks	4 weeks
African Region	6 (20.7)	2 (6.9)	
Eastern Mediterranean Region	1 (3.4)	1 (3.4)	1 (3.4)
Europe Region	6 (20.7)		1 (3.4)
Region of the Americas	3 (10.3)	1 (3.4)	
South-East Asia Region	2 (6.9)		
Western Pacific Region	5 (17.2)		

WEBINAR SERIES

Since 2015, RESIST-TB has hosted a webinar series on recent developments in DR-TB. This webinar series serves as a forum for updates on pressing issues in the field of MDR-TB through presentations on recent publications. The webinar series also helps fill a critical and otherwise unmet gap in disseminating new, unpublished advances in MDR-TB care and treatment.

Research Excellence to Stop TB Resistance

Webinars hosted as part of this series during 2023 are listed below. Slides and on-demand recordings can be found here:

• STREAM Stage 2 Efficacy, Safety, Site Perspective Results, Presentations by Ruth Goodall, Sarah Meredith, and Dr. Gopalan Narendran on January 19th, 2023

Description: This webinar presented results of STREAM Stage 2 Clinical Trial along with a conversation regarding efficacy, safety, and a site perspective.

• MSF's DR-TB Drugs Under the Microscope, Presentations by Christophe Perrin and Leena Menghaney on March 9th, 2023

Description: This webinar included presentations on on pricing elements and intellectual property/licensing for DR-TB medicines.

 The TB Pipeline Report and 1/4/6x24 Campaign, Presentations by Lindsay McKenna and David Branigan on April 25th, 2023

Description: Presenters discussed tracking research and advancing access to the benefits of scientific progress

Time For \$5 Campaign - A Call On Cepheid To Drop The Price Of GeneXpert To \$5,
Presentation by Stijn Deborggraev on December 7th, 2023

Description: Stijn Deborggraev presented the work being done through the Time for \$5 Campaign. The Time for \$5 Campaign advocates for accessibility and affordability of GeneXpert tests within low and middle-income countries. This campaign calls on Cepheid and Danaher to prioritize "people over profits" by reducing the price of GeneXpert tests to \$5.

RESIST-TB LEADERSHIP

In 2023, Anna Mandalakas, MD, PhD, joined the RESIST-TB Steering Committee (full list is here). Anna is a Professor of Pediatrics and Tropical Medicine at Baylor College of Medicine where she serves as Chief of the Division on Global and Immigrant Health and directs the Global Tuberculosis Program of Texas Children's Hospital. Since joining Baylor College of Medicine in 2012, Anna has collaborated with colleagues to develop research capacity and enhance the care and treatment of TB and TB/HIV affected children and adolescents living in over a dozen countries home to Baylor initiatives. We are delighted to have Dr. Mandalakas on the Steering Committee and look forward to her contributions in the near future.

RESIST-TB GOALS FOR 2024 AND BEYOND

Research Excellence to Stop TB Resistance

In 2023, RESIST-TB updated our strategic plan for the years 2024-29 with the following goals:

- Goal I. Accelerate implementation of effective, scalable regimens for DR-TB treatment
 - Objective 1: Develop and disseminate profiles of which patients are not benefitting from current DR-TB treatment regimens
 - Objective 2: Collect data documenting success in getting new regimens into programmatic use
 - Objective 3: Advocate for increased access to new drugs and regimens for programmatic use
- Goal II. Advocate for acceleration of preventive therapy for DR-TB
 - Objective 1: Facilitate and promote implementation of MDR-TB preventive therapy
 - Objective 2: Provide information for clinicians and programs on how to use these new preventive regimens
 - o Objective 3: Promote access to new MDR-TB preventive therapy regimens
- Goal III. Promote dissemination of new DR-TB diagnostic modalities
 - Objective 1: Advocate for rapid roll-out of new TB diagnostic strategies (including those not based on sputum) that can reveal rifampicin and isoniazid resistance at the time of TB diagnosis
 - Objective 2: Advocate for broad and timely availability of drug susceptibility testing for second-line drugs
- Goal IV. Optimize communication between stakeholders in the DR-TB community
 - Objective 1: Advance dialogue about strategies for accelerating DR-TB treatment roll-out
 - Objective 2: Identify and promote opportunities for increasing communication between patients, program managers, researchers, regulatory agencies and health ministries about new DR-TB regimens and drugs
 - o Objective 3: Maintain role as independent broker on DR-TB issues

In the coming year, RESIST-TB will continue to provide leadership in scientific advocacy, MDR-TB clinical trials design and preparation, and public policy development. Activities planned for 2024:

- RESIST-TB will continue its webinar series. The first 2024 webinar, was RESIST-TB's first Book Club. The Book Club featured Vidya Krishnan, author of The Phantom Plague, and Maria Smilios, author of The Black Angels.
- RESIST-TB is currently organizing a survey to determine if access to drug susceptibility testing for the second-line drugs has improved since our 2022 survey.
- RESIST-TB will continue to provide up-to-date information about MDR-TB clinical trials through the RESIST-TB eNewsletter and Clinical Trials Progress Report posted to our website.

Research Excellence to Stop TB Resistance

RESIST-TB fills an important unmet need for innovation, information dissemination and advocacy. By addressing research and implementation gaps in the treatment and prevention of MDR-TB, we draw attention to areas still in need of research. We also undertake important research projects that are not currently being addressed by the global TB community. Our focus remains the development and demonstration of efficacy of scalable, nontoxic regimens and facilitation of rapid translation of these advances into practice. The successful continuation of these activities is critical to continued improvement in treatment and prevention of MDR-TB and XDR-TB.