

# RESIST-TB

*Research Excellence to Stop TB Resistance*

## RESIST-TB ANNUAL REPORT FOR 2019

RESIST-TB is an organization of concerned patients, physicians, research scientists and stakeholders. Its mission is to promote and conduct clinical research to cure and prevent drug-resistant tuberculosis. RESIST-TB is committed to addressing the substantial existing gaps in knowledge and to helping provide access to effective curative and preventive treatment for drug-resistant tuberculosis (DR-TB). Efforts in 2019 were sponsored by the World Health Organization, 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 2019 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, presenting a symposium at the World Conference on Lung Health and publishing a series of articles on the state of the art in MDR-TB;

And

(2) Increasing public policy and awareness by gathering data on DR-TB treatments globally through the creation, deployment, and analysis of an online survey;

Details about these activities are provided below.

## SCIENTIFIC ADVOCACY

### RESIST-TB WEBSITE AND eNEWSLETTER

The RESIST-TB website ([www.resisttb.org](http://www.resisttb.org)) remains active in order to accurately reflect advances in DR-TB clinical trials and disseminate news, developments and publications. In 2019, our website had 116,086 website visits from viewers all over the world. Our website is updated weekly and our newsletter is received by 416 subscribers. In our monthly eNewsletter, we highlight information about new DR-TB related publications, news updates, and events. Topics covered in our news articles included DR-TB trial status updates, announcements of publications, symposia, and webinars of interest in addition to global headlines related to DRTB.

### ADVOCACY PUBLICATIONS

In 2019, a number of RESIST-TB sponsored and co-authored articles were published:

- **The MDR-TB Epidemic – a status report.** Horsburgh CR, Mitnick CD, Lange C. *Int J Tuberc Lung Dis* 2019;23:121-2

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- **Progress in global rollout of new multidrug-resistant tuberculosis treatments.** Held K, McAnaw S, Chiang C-Y, Trebucq A, Horsburgh CR. *Int J Tuberc Lung Dis* 2019;23:996-9.
- **Management of drug-resistant tuberculosis.** Lange C, Dheda K, Chesov D, Mandalakas AM, Udawadia Z, Horsburgh CR Jr. *Lancet* 2019;394:953-966.

### CLINICAL TRIALS PROGRESS REPORT

RESIST-TB continues to be a critical source for up-to-date information on clinical trials for MDR-TB. The Clinical Trials Progress Report gathers information on clinical trials that are underway and/or in development, including study names, description, status, study enrollment size, and links to more information on all MDR-TB trials planned or in progress. There are currently 22 clinical trials being regularly monitored on our website. Of the 22 trials included in the Clinical Trials Progress Report, 14% are Phase 1, 41% are Phase 2, and 41% are Phase 3; 68% are currently enrolling participants and 43% have completed enrollment and follow up, or data analysis is ongoing. This resource is updated on a monthly basis with downloadable versions available in PDF format [here](#).

### WEBINAR SERIES

In 2015 RESIST-TB initiated a webinar series in collaboration with the CDC TBTC MDR/XDR-TB Working Group. 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 newly identified but unpublished advances in MDR-TB care and treatment. Webinars hosted as part of this series during 2019 are listed below:

- **Introduction of ICN/Curry Center Nursing Guide for Managing Side Effects to Drug-Resistant TB Treatment**, presented by Carrie Tudor – January 16, 2019
- **Improved endpoints for MDR-TB treatment**, presented by Valerie Schwoebel and Christophe Lange – July 11, 2019

A collection of previous webinars hosted and/or sponsored by RESIST-TB, including slides, can be found on our website [here](#).

### STATE-OF-THE-ART SERIES ON MDR-TB

In 2019, RESIST-TB finished compiling the State-of-the-Art Series on MDR-TB for publication in the IJTL. An editorial written by Steering Committee members, guest editors of the IJTL, Robert Horsburgh, Carole Mitnick and Christoph Lange will accompany the series. The series consists of the following six articles:

1. [Health care gaps in the the global burden of drug-resistant tuberculosis](#)—Cox, V.; Cox, H.; Pai, M.; Stillo, J.; Citro, B.; Brigden, G. Volume 23, Number 2, 1 February 2019.

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2. [Treatment as prevention and other interventions to reduce transmission of multi-drug resistant tuberculosis](#)—Nathavitharana R. R.; Lederer, P.; Tierney, D. B.; Nardell, E. Volume 23, Number 4, 1 April 2019.
3. [What will it take to eliminate drug-resistant tuberculosis?](#)— Kendall E. A.; Sahu, S.; Pai, M.; Fox, G. J.; Varaine, F.; Cox, H.; Cegielski, J. P.; Mabote, L.; Vassall, A.; Dowdy, D. W. Volume 23, Number 5, 1 May 2019.
4. [Management of patients with multi-drug resistant tuberculosis](#)—C. Lange, R. E. Aarnoutse, J. W. C. Alffenaar, G. Bothamley, F. Brinkmann, J. Costa, D. Chesov, R. van. Volume 23, Number 6, 1 June 2019.
5. [Tackling drug-resistant tuberculosis: we need a critical synergy of product and process innovations](#)—E. A. Talbot, M. Pai. Volume 23, Number 7, 1 July 2019.
6. [Palliative care and symptom relief for people affected by multi-drug resistant tuberculosis](#)—Krakauer, E. L.; Dheda, K.; Kalsdorf, B.; Kuksa, L.; Nadkarni, A.; Nhung, N. V.; Selwyn, P.; Shin, S.; Skrahina, A.; Jaramillo, E. Volume 23, Number 8, 1 August 2019.

## **PUBLIC POLICY AND AWARENESS**

### UNION WORLD CONFERENCE ON LUNG HEALTH

RESIST-TB continues to strive to ensure that DR-TB remains a focus at scientific meetings and conferences. RESIST-TB sponsored a symposium at the 50th Union Meeting held in The Hyderabad International Convention Centre (HICC) in Hyderabad, India in October 2019. This symposium focused on the following subjects:

- Review of the spectrum of OR strategies for all-oral treatment of MDR-TB and XDR-TB in selected global sites.
  - Variability of regimens
  - Interactions with anti-retrovirals
  - Methods for capturing adverse events
- Challenges to implementation and generalizability of results

The following presentations were made:

- **Bedaquiline- and delamanid-containing all oral shortened regimen in Peru**; Speaker: Edwin Herrera-Flores (Peru)
- **Successful outcomes for patients switched from kanamycin to linezolid in a modified oral short regimen for MDR-TB in Niger**; Speaker: Alberto Piubello (Italy)
- **RISE-TZ, (r)emoved (i)njectable modified (s)hort-course regimens for (e)xpert MDR-TB: programmatic feasibility and clinical effectiveness in Tanzania**; Speaker: Stellah Mpagama (Tanzania)
- **BEAT-Tuberculosis: a strategy trial of a six-month oral regimen for MDR-TB and XDR-TB in South Africa**; Speakers: Francesca Conradie (South Africa) Katerina Selibas (South Africa)

### DRUG-RESISTANT TUBERCULOSIS WORKING GROUP

In addition, RESIST-TB sponsors the Drug-Resistant Tuberculosis Working Group (DR-TB

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WG) within the IUATLD; the WG is currently co-chaired by Bob Horsburgh, Arnaud Trebucq and C-Y Chiang. The group met for their third Annual Meeting at the 50th Union World Conference on Lung Health held in Hyderabad, India from 30 October 2019 to 2 November 2019. At the Annual meeting, the WG reviewed annual progress in the diagnosis, treatment and prevention of MDR-TB; collaborated with DR-STAT to review the progress in rolling-out new drugs and regimens for MDR-TB; and identified best practices and research gaps in MDR-TB prevention, diagnosis and treatment. In order to assess MDR-TB treatment options available in WG countries in 2017, 2018, and 2019, an internet-based survey was designed and implemented, and the results were presented.

Results of 2019 SURVEY of Roll-out of the 9-month regimen, Bedaquiline and Delamanid: RESIST-TB, in collaboration with the WG, created a nine-question survey using the online survey software and questionnaire, SurveyMonkey. All members of the IUATLD registered in the Tuberculosis Section were invited to participate. A total of 99 DR-TB working group members responded to all or part of the survey. These respondents represented 45 countries across 6 continents and included health professionals from a variety of roles. Responses were received from the African Region, Eastern Mediterranean Region the European Region the Region of the Americas, the South-East Asian Region, and the Western Pacific Region. These results indicated that roll-out of the new drugs and regimens is variable but that most regions are making substantial progress. The summary of the three surveys revealed substantial improvement over the 3-year period and is currently in press.

## **LEADERSHIP**

Isaac Chikwanha and Erica Lessem stepped down from their positions on the RESIST-TB Steering Committee in 2019. We would like to extend our sincere thanks to both for their valuable contributions to RESIST-TB and the organization's cause. Lindsay McKenna has replaced Erica and a search is underway to replace Isaac.

## **RESIST-TB GOALS FOR 2020 - AND BEYOND**

RESIST-TB continues to advance our strategic plan, updated in 2017, focused on accelerating the identification and uptake of effective, scalable regimens for MDR-TB; advocating for clinical trials of preventive therapy for MDR-TB; and optimizing communication between stakeholders in the MDR-TB community. These strategic goals are posted on the RESIST-TB website [here](#).

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 2020 include:

- RESIST-TB has submitted a manuscript outlining the results of the three WG surveys to The International Journal of Tuberculosis and Lung Disease; it has been accepted for publication and is expected to be published in early 2020.
- In partnership with The IUATLD DR-TB WG, RESIST-TB plans to perform a survey in 2020 to assess the availability of rapid second-line drug susceptibility testing, an essential service for continued progress in the roll-out of these treatments.

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- In partnership with The IUATLD DR-TB WG, RESIST-TB will present a webinar on the results of this survey in 2020.
- RESIST-TB will continue to host the bi-monthly webinar series. Webinar topics scheduled for the beginning of 2020 include, “Approaches for improving inference from observational multi-drug resistant tuberculosis (MDR-TB) treatment cohorts” by Molly Franke, ScD and Carly Rodriguez, MPH. Subsequent webinars are planned on the NiX-TB, endTB and Opti-Q studies as results become available.
- RESIST-TB is organizing an effort to develop criteria that could be used to incorporate observational MDR-TB treatment data into MDR-TB treatment guidelines. An application for funding has been submitted and is pending.
- 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.

RESIST-TB continues to fill 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. Moreover, focusing on the development and demonstration of efficacy of scalable regimens will facilitate rapid translation of these advances into practice. The successful continuation of these activities is recognized as critical to continued improvement in treatment and prevention of MDR-TB and XDR-TB.