endTB

Clinical trial results

High-quality evidence on new, all-oral, shortened MDR-TB regimens

Trial registration number: ClinicalTrials.gov ID: NCT02754765

An MDR-TB patient interacting with the registrar during her follow-up visit to endTB clinical trial site in Pune, India. © Siddharth Singh

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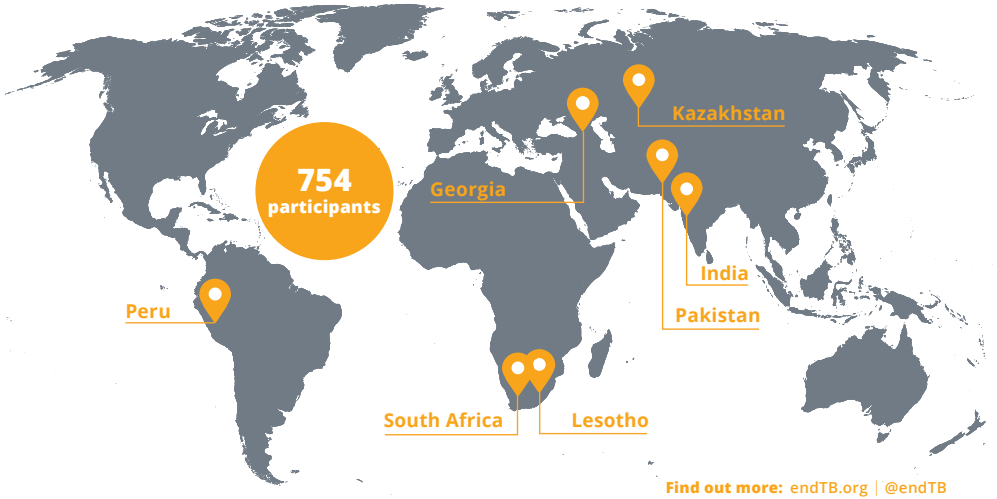
What is the endTB trial?

Multidrug-resistant tuberculosis (MDR-TB) is a form of tuberculosis that is particularly difficult to treat due to resistance to the two most powerful first-line antibiotics.

Each year, there are approximately 500,000 new cases of MDR-TB worldwide - but only a tiny fraction is successfully treated. The endTB trial, led by Médecins Sans Frontières (MSF), Partners In Health (PIH) and Interactive Research and Development (IRD), and funded by Unitaid, is a randomized, controlled trial designed to provide high-quality evidence on new, all-oral, shortened drug regimens.

endTB trial site



Find out more: endTB.org | @endTB

Study treatment regimens

Trial Regimens	Bedaquiline	Delamanid	Clofazimine	Linezolid	Quinolone	Pyrazinamide	Non-inferiority established
endTB 1 - BLMZ	Bdq			Lzd	Mfx	Z	Yes
endTB 2 - BLLCZ	Bdq		Cfz	Lzd	Lfx	Z	Yes*
endTB 3 - BDLLZ	Bdq	Dlm		Lzd	Lfx	Z	Yes
endTB 4 - DLLCZ		Dlm	Cfz	Lzd	Lfx	Z	No
endTB 5 - DMCZ		Dlm	Cfz		Mfx	Z	Inconclusive**
Control Arm	Standard of care, composed according to WHO Guidelines						

endTB 1 to 5 = 9 months - Control Arm = 18-24 months.
Mfx = moxifloxacin; Lfx = levofloxacin.
*superiority was also established; **non-inferiority was established in mITT (modified intent to treat) population but not in PP (per protocol) population.

endTB results

Demonstrate robust evidence for 3 all-oral, shortened regimens (endTB1 [BLMZ], endTB2 [BLLCZ], endTB3 [BDLLZ]) that are non-inferior to (not worst than) the control regimen (standard of care); one regimen (endTB2) is superior (more effective).

Promote person-centered care by providing alternatives to respond to patient and provider preferences, drug intolerance and contraindications, drug-drug interactions, drug resistance and drug availability. Notably, endTB5 [DMCZ] is an alternative for MDR/RR-TB patients who cannot take bedaquiline and/or linezolid wich are both part of nearly every currently recommended regimen.

Offer 9-month, effective, all-oral treatment options for all age groups - adults, adolescents, children (all drugs in endTB1, endTB2, endTB3, endTB5 have pediatric formulations, endorsements for use in children) - and pregnant people.

Show excellent results in a population with severe disease and an important prevalence of comorbidities (HIV, diabetes, hepatitis B/C).

- **The standard of care control performed very well**, providing greater confidence in the efficacy of the new regimens.
- **Mortality and recurrent TB were uncommon**. Safety results were variable with more linezolid-related events and permanent drug stoppage in control arm. More liver toxicity was observed in the experimental arms.
- **endTB trial data will be shared for prompt review by a WHO Guideline Development Group.**

Impact

Results from endTB, together with those of the TB-PRACTECAL trial, also sponsored by MSF, will have a lasting impact on MDR-TB treatment. For the first time ever, there is a suite of 5 all-oral regimens* that are effective in 9 months or less and which are non-inferior to a contemporary standard-of-care control. If recommended by WHO, they can be used in nearly all cases of MDR-TB, including children, adolescents, adults, and pregnant people, a irst in MDR-TB care. All can be composed with a formulary of only 8 drugs. Two of the non-inferior regimens cost under $400, and a third costs under $600, for the full course of treatment. The landscape of MDR-TB treatment—and the evidence underlying it—could be completely transformed.

*This includes BPaLM, 6-month regimen recommended by WHO since 2022.

Are you interested in further learning from the endTB project data?

The endTB data sharing initiative (eDSI) aims to give ethical, equitable and transparent access to endTB data for a range of users who share the common goal of increasing knowledge and disseminating information to improve care for MDR-TB patients.

The endTB data is a unique set of data on MDR-TB:

- **more than 3,700 participants** across our **3 prospective studies**
- **18 countries across 4 continents**, all WHO Regions
- **standardized patient monitoring and outcome assignment**; standardized procedures, data collection, and reporting
- **longitudinal recording of participant characteristics**, regimen composition, adverse events, and treatment response
- **quality control/assurance** including internal & external monitoring for the clinical trials

Please scan this QR code to sign up and be notified when new endTB data becomes available

endTB-Q trial to follow...

The endTB-Q clinical trial, co-funded by Unitaid and by MSF/PIH, is a Phase III, randomized, controlled, open-label, non-inferiority, multi-country trial evaluating the efficacy and safety of a new, all-oral, shortened regimen for fluoroquinolone-resistant MDR-TB. Experimental treatment duration is 6 or 9 months, assigned according to extent of disease at baseline and on-treatment response. **Results are expected in mid-2025**.

Check out our website:
endTB.org

For more information, contact us at:
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