

Photo credit: John-Michael Maas for TB Alliance



BENEFIT Kids

Better Evidence & Formulations for Improved MDR-TB Treatment for Children

The TB-CHAMP trial: Preventing MDR-TB in children

TB-CHAMP is the first randomised-controlled clinical trial seeking to find a solution to prevent MDR-TB in children.

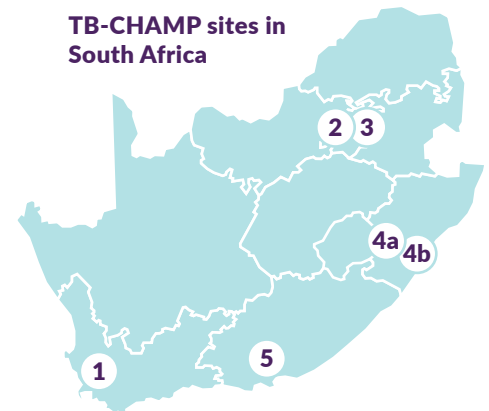
BACKGROUND

- Multidrug-resistant (MDR) tuberculosis (TB) is a form of TB that does not respond to two of the most important anti-TB drugs: isoniazid and rifampicin.
- As many as two million children are infected with MDR strains of TB bacteria and are at risk of developing MDR-TB disease.
- The current lack of high-quality evidence about which preventive treatment works best for preventing MDR-TB in children limits the uptake of much-needed treatments.

METHODS

- TB-CHAMP was a trial which investigated the efficacy and safety of levofloxacin for children and adolescents to prevent TB.
- We recruited nearly one thousand healthy children who had been exposed to an adult with MDR-TB in their household at five sites in South Africa.
- We randomised each child to receive the antibiotic levofloxacin or a placebo.
- Each child carefully took their medication every day for 6 months.
- We regularly checked in with children while they were on treatment and then followed up for a further 12 months.

TB-CHAMP sites in South Africa



- 1 Desmond Tutu TB Centre,**
Department of Paediatrics and Child Health, Stellenbosch University
- 2 Perinatal HIV Research Unit,**
Klerksdorp, Wits Health Consortium
- 3 Wits Reproductive Health and HIV Institute,** Shandukani Research Centre, Wits Health Consortium
- 4 Tuberculosis & HIV Investigative Network,** **a** Pietermaritzburg and **b** Durban, KwaZulu Natal
- 5 Isango Lethemba TB Research Unit,**
Port Elizabeth, Wits Health Consortium

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RESULTS

› **Prevention:** The results show that levofloxacin helped prevent TB in children/adolescents with household MDR-TB exposure

› **Safety: Levofloxacin was very safe.** There were very few adverse events overall and they were generally not caused by levofloxacin. There was no evidence of levofloxacin potentially causing joint pain or tendonitis.



469 children were given a **placebo**, with **12 developing TB.**



453 children were given **levofloxacin**, with **5 developing TB.**



There was a **56% reduction** of TB disease in children given levofloxacin.

IMPACT

› In December 2023, an advisory committee of the World Health Organization will consider new guidelines for MDR-TB preventive treatments.

› The results from the TB-CHAMP trial will provide critical data to help make new recommendations for children and adolescents.



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