TUBERCULOSIS

TB IS ONE OF THE TOP TEN KILLERS GLOBALLY AND THE LEADING KILLER OF HIV-POSITIVE PEOPLE[11]

Phumeza Tisile is a young South African woman, one of the too few people fully cured of extensively drug-resistant tuberculosis (XDR-TB), a strain of TB that is resistant to at least four commonly used anti-TB drugs. Her path to surviving XDR-TB was long and arduous. The University of Cape Town student endured three and a half years of treatment, hundreds of painful drug injections and about 30,000 pills. She initially lost her hearing, a side effect of one of the standard drugs still used to treat drug-resistant TB.

Phumeza is, however, a TB success story. XDR-TB kills about two-thirds of those diagnosed. There is no approved, highly-effective and safe treatment. Instead, healthcare providers are forced to use an assortment of often poorly active and highly toxic antibiotics which can wreak havoc on the body if used for the length of time treatment requires.

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Story shared with the MPP by *Mel Spigelman, President and CEO, TB Alliance*

including **1 MILLION CHILDREN**

10 MILLION FELL ILL WITH **TB IN 2017**

2017
87% OF NEW TB CASES OCCURRED IN THE **30 HIGH TB BURDEN COUNTRIES***

1.6 MILLION DIED
including 230,000 children

ENDING THE TB EPIDEMIC BY 2030 IS AMONGST THE HEALTH TARGETS OF THE SUSTAINABLE DEVELOPMENT GOALS.
TO MEET THIS TARGET, FASTER-ACTING, BETTER THERAPIES TO TREAT TB ARE URGENT, PARTICULARLY FOR MDR-TB[11].

[11] World Health Organization, Fact Sheet (website accessed on 28 February 2019)

* Which are all low- and middle-income countries

TUBERCULOSIS

THE MPP'S ROLE IN IMPROVING TUBERCULOSIS TREATMENT ACCESS

The MPP works to improve access to new treatments for both MDR and drug-susceptible TB. We also aim to facilitate the development of new regimens by licensing TB drugs that are still under development.

"TB is the leading cause of infectious disease mortality but there is still a significant gap in research and development investments. The dearth of new treatments for patients diagnosed with MDR or drug-susceptible TB is a significant barrier to ending the pandemic by 2030, a health target of the SDGs. In the past year, we have not progressed as much as we would have wanted, and we want to work more closely with the pharmaceutical industry, drug developers, governments and the civil society to address this critical public health challenge – but not everyone is in agreement with us that public health licensing is the answer."

Charles Gore

Executive Director of the MPP

sutezolid

In 2017, the MPP signed a licence with Johns Hopkins University to facilitate the clinical development of sutezolid, a TB drug candidate considered a promising investigational treatment. This antibiotic, if further developed in combination with other drugs, has the potential to more effectively treat patients living with drug-sensitive and drug-resistant TB.

Phase I trials revealed that the compound has action mechanisms similar to those of linezolid. Despite positive early study results published in 2014, there has been no further development of the treatment.

Other targeted products

The MPP 2018 prioritisation report selected bedaquiline (BDQ), delamanid (DLM) and pretomanid as key compounds that, if successfully developed, could improve standard of care for people living in developing countries.

BDQ was first registered by the USFDA in 2012 to treat patients with MDR-TB. In 2017, it was added to the WHO EML.

DLM received approval in Europe and Japan in 2014 and was added to the WHO EML in 2017. In 2017, the MPP signed a MoU with DLM patent holder Otsuka to accelerate the development and manufacturing of paediatric formulations containing DLM for MDR-TB.

Pretomanid is being developed as part of two regimens (the BPaMZ regimen consisting of bedaquiline (B), pretomanid (Pa), moxifloxacin (M) and pyrazinamide (Z) and the BPaL regimen consisting of bedaquiline (B), pretomanid (Pa) and linezolid (L)).