MULTIDRUG-RESISTANT TUBERCULOSIS (MDR-TB)

2016 UPDATE

GLOBAL BURDEN

In 2015, there were an estimated 480 000 new cases of multidrug-resistant TB (MDR-TB) and an additional 100 000 people with rifampicin-resistant TB (RR-TB) who were also newly eligible for MDR-TB treatment.

Drug resistance surveillance data show that 3.9% of new and 21% of previously treated TB cases were estimated to have had rifampicin- or multidrug-resistant tuberculosis (MDR/RR-TB) in 2015. As in 2014, MDR-TB accounts for 3.3% of new TB cases.

MDR/RR-TB caused 250 000 deaths in 2015. Most cases and deaths occurred in Asia.

About 9.5% of MDR-TB cases have additional drug-resistance, extensively drug-resistant TB (XDR-TB). To date, 117 countries worldwide have reported at least one XDR-TB case.

In 2015, 30% of TB patients notified globally were tested for MDR/RR-TB, up from 22% in 2014. This improvement is partly due to the continued expansion in the use of rapid molecular tests.

In spite of increased testing, the number of MDR/RR-TB cases detected in 2015 only reached 132 000, a slight increase over 2014 (up from 122 000 cases).

ENROLLMENT ON MDR-TB TREATMENT

A total of 125 000 patients were enrolled on MDR-TB treatment in 2015 (up from 111 000 cases in 2014). This however represents only about 22% of incident MDR/RR-TB cases in 2015. The gap between detected MDR/RR-TB cases and enrolments on treatment appears to have narrowed globally over time. Over 7000 XDR-TB patients were started on treatment in 2015.

TREATMENT OUTCOMES

Only 52% of the MDR/RR-TB patients who started treatment in 2013 were successfully treated, while 17% of patients died and in 9% of patients their treatment failed (22% were lost to follow up or not evaluated). The treatment success rate in XDR-TB patients was only 26%.

WHAT ARE MDR/RR-TB AND XDR-TB?

Anti-TB medicines have been used for decades, and resistance to them is widespread. Disease strains that are resistant to at least one anti-TB medicine have been documented in every country surveyed.

Rifampicin-resistant tuberculosis is caused by bacteria that do not respond to rifampicin, one of the most powerful anti-TB medicines. These patients require MDR-TB treatment.

Multidrug-resistant tuberculosis (MDR-TB) is caused by bacteria that do not respond to, at least, isoniazid and rifampicin, the two most powerful anti-TB medicines.

Patients with rifampicin-resistant or multidrug-resistant tuberculosis (MDR/RR-TB) require treatment with second-line treatment regimens, which are more complex than those used to treat patients without drug-resistant TB.

Extensively drug-resistant TB (XDR-TB) is a form of multidrug-resistant tuberculosis that responds to even fewer available medicines, including the most effective second-line anti-TB medicines.
Five priority actions to address the global MDR-TB crisis

1. PREVENT THE DEVELOPMENT OF DRUG RESISTANCE THROUGH HIGH QUALITY TREATMENT OF DRUG-SUSCEPTIBLE TB
   Prevent MDR/RR-TB as a first priority.

2. EXPAND RAPID TESTING AND DETECTION OF DRUG-RESISTANT TB CASES
   Scale up rapid testing and detection of all MDR/RR-TB cases.

3. PROVIDE IMMEDIATE ACCESS TO EFFECTIVE TREATMENT AND PROPER CARE
   Ensure prompt access to appropriate MDR-TB care, including adequate supplies of quality drugs and scaled-up country capacity to deliver services.

4. PREVENT TRANSMISSION THROUGH INFECTION CONTROL
   Implement appropriate TB infection control measures and quickly enroll diagnosed patients on effective treatment to minimize the risk of disease transmission.

5. INCREASE POLITICAL COMMITMENT WITH FINANCING
   Underpin and sustain the MDR-TB response through high-level political commitment, strong leadership across multiple governmental sectors, ever-broadening partnerships, and adequate financing for care and research.

NEW REGIMENS FOR MDR/RR-TB

At least 23 countries in Africa and Asia have introduced shorter MDR-TB regimens, which have achieved high treatment success rates (87–90%) under operational research conditions. WHO now recommends a standardised shorter MDR-TB regimen for selected MDR/RR-TB patients who do not have resistance to fluoroquinolones or second-line injectable agents.

Additionally, at least 70 countries had started using bedaquiline and 39 countries had used delamanid by the end of 2015.

NEW POLICIES FOR MDR-TB TREATMENT

In May 2016, WHO released new guidelines on (i) line probe assays for the rapid diagnosis of resistance to fluoroquinolones and second-line injectable agents and (ii) on the treatment of MDR/RR-TB. These recommendations will help countries to implement policies based on the best available evidence and to improve MDR-TB treatment coverage and success rates.


The WHO GLOBAL TB PROGRAMME together with WHO regional and country offices: develops policies, strategies and standards; supports the efforts of WHO Member States; measures progress towards TB targets and assesses national programme performance, financing and impact; promotes research; and facilitates partnerships, advocacy and communication. More information: www.who.int/tb