

# Multidrug-resistant tuberculosis (MDR-TB)

Multidrug-resistant TB (MDR-TB) is a severe form of drug-resistant TB with bacillary resistance to two important first-line anti-TB drugs, isoniazid and rifampicin.

## How does drug resistance develop?

Drug resistance develops when drug-resistant mutants are selected out by inadequate or inappropriate treatment.



## Who are at risk of MDR-TB?

Risk factors include:

- 1 Close contacts with MDR-TB patients
- 2 Previous TB treatment, especially with a history of treatment non-adherence
- 3 Inadequate TB treatment regimen

## Treatment of MDR-TB

MDR-TB treatment requires prolonged use of second-line drugs that are often more expensive and less well tolerated than first-line drugs. Thus, MDR-TB treatment may require more frequent monitoring than drug-susceptible TB, especially during the initial treatment phase. Although it is more difficult to treat MDR-TB than drug-susceptible TB, the majority is still curable.

## Prevention



- 1 **Proper treatment regimen:** TB disease should be managed by experienced doctors
- 2 **Prompt diagnosis of initial drug resistance:** Identify high-risk patients for rapid drug susceptibility testing, and properly save sputum for examination
- 3 **Treatment adherence:** Directly Observed Treatment is the most reliable approach that can ensure patients take drugs as prescribed.