

# The use of short regimens for treatment of multidrug-resistant tuberculosis

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The current WHO guidelines on treatment regimens for MDR-TB recommend an intensive phase of treatment of 8 months and a total duration of treatment of 20 months for most patients. The results from an observational study in Bangladesh showed much better rates of treatment success using regimens having a duration of 12 months or less compared with those usually achieved when the longer regimens are used. Since current evidence for safety and efficacy of this short "Bangladesh" regimen is limited, this regimen is currently being evaluated in the multicenter STREAM study, which will last four-years and will involve at least 400 patients in four different countries.

In addition, two new drugs, bedaquiline and delamanid, are presently in Phase IIb and III trials for the treatment of multidrug-resistant MDR-TB, and a series of Phase II and III trials of shortened treatment of drug-susceptible TB including repurposed drugs (e.g. fluoroquinolones) or new dosages of known drugs (e.g. rifamycins, rifapentine) are presently on-going. Furthermore, other new drugs of different classes like nitroimidazoles (PA-824), oxazolidinone (sutezolid, AZD 5847, tedazolid, radezolid), ethylenediamine (SQ109) are either currently tested in Phase II trials or have substantial activity against *Mycobacterium tuberculosis*.

In conclusion, shorter and new treatment regimen for both drug susceptible as well as drug resistant tuberculosis are on the horizon and will be discussed.



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