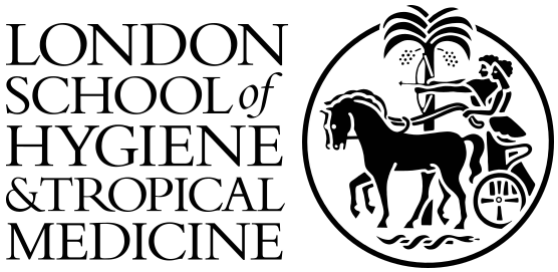

Short course treatment for MDR TB: jumping the gun?

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Multidrug-resistant (MDR)-TB is threatening TB control worldwide. The conventional treatment lasts 20–24 months, is often toxic and half of the treated patients have poor outcomes. WHO has recently recommended a shorter regimen with treatment duration of 9–12 months, aiming for higher effectiveness, tolerability, adherence and completion rates.[1] This shorter regimen is recommended for patients with pulmonary TB who have not been previously exposed to second-line drugs for more than 1 month and have no confirmed or suspected resistance to drugs in the regimen, except high-dose isoniazid. Recommendations were based on the promising results of large observational cohorts in Asia and Africa.

In *Thorax*, Yanina Balabanova and colleagues assessed the proportion of adult smear-positive pulmonary MDR-TB cases who might have been eligible for the shorter regimen. The patients were initially recruited in 2007 and 2009 and followed up till 2012 in four eastern European countries, who participated in the European Union-funded TB-PAN-NET (Pan-European network for the study and clinical management of drug resistant tuberculosis) project.[2] Given the drug sensitivity test results and the history of previous treatment with second-line drugs in this group of patients, the authors concluded that only 4.2% of the patients would have been eligible for the shorter WHO regimen. The results of this study were similar to other European and Latin American cohorts.[3]

The WHO European region has one of the highest burdens of MDR-TB in the world with alarmingly high MDR-TB incidence rates and the highest proportions of MDR-TB among new and previously treated cases.[4] While the potential benefits of the shorter regimen on individual patients and healthcare systems cannot be underestimated, the effect might be minimal or even negative, given the lower treatment success rate and/or the high proportion of ineligible patients for the shorter course.

As the authors state, the results of this study should be confirmed by similar evaluations in recent national surveillance projects. These might enable appropriate extrapolations for the region. Given the high prevalence of resistance to pyrazinamide and increasing rates of resistance to second-line drugs in the European region, there are concerns that a limited number of patients would fulfil the eligibility criteria for the shorter WHO regimen.

The WHO guidelines highlight the need to exclude resistance to fluoroquinolones and injectables before starting treatment and promote rapid second-line molecular tests.[1] However, these tests are available only in central and regional-level laboratories, and therefore the use of the shorter regimen in practice may be limited to a few treatment centres with good access to diagnostics. Policy-makers are currently reluctant to implement a guidance with conditional recommendation and very low certainty in evidence, and are waiting for the definitive results of the STREAM 1 trial, an ongoing randomised controlled trial, directly comparing the efficacy and safety of the regimens.[5]

The increasing prevalence of MDR-TB and limited access to drug susceptibility testing make the pursuit for short, safe, affordable and injection-free regimens extremely important. The 9–12 month regimen is only a first step in the right direction. With few new and repurposed drugs registered, some drugs in development and a number of randomised controlled trials ongoing, hopefully definitive evidence for optimal MDR-TB treatment regimens will emerge in the near future. To establish that such regimens are fit for purpose in different geographical regions remains important if we are to avoid further development of antimicrobial resistance and poor outcome in the context of TB.

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Notes