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Comment on: The potential use of rifabutin for treatment of patients diagnosed with rifampicin-resistant tuberculosis

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Sir,

We read the paper by Whitfield et al.1 with great interest. The article highlights the important implications for treatment regimen and duration that rifampicin-resistant tuberculosis (RR-TB) presents. The authors point out the possible uses for rifabutin in these cases in relation to rpoB polymorphisms and their associated phenotypic drug susceptibility results. The authors state that 16.6% of the Belgian population and an estimated 33.2% of the South African population with RR-TB could benefit from the inclusion of rifabutin in their treatment regimen. Data on treatment outcomes were only mentioned for the Belgian patients who received rifabutin, although data about the context and the duration of rifabutin treatment were not given.

We certainly welcome any exploration of the potential use of rifabutin for the treatment of patients diagnosed with RR-TB. We support the idea of further evaluation of rifabutin for RR-TB patients because evidence is still lacking.2 However, we favour a more comprehensive approach to evaluating the potential use of rifabutin in such a treatment regimen than just the general suggestion by Whitfield et al.1 to evaluate rifabutin in a randomized controlled trial. We therefore would like to advance the scientific debate by giving three options for further follow-up.

First, we suggest studying the hypothesis that rifabutin can serve as a complete replacement for rifampicin in cases of RR-TB. In this situation rifabutin can be given for 6 months, after which treatment is considered complete. A strict follow-up should then be done, similar to that in the REMox trial.3

Second, if rifabutin is thought to be less active than rifampicin, a short-course treatment MDR-TB regimen, such as 4 months of kanamycin, moxifloxacin, prothionamide, clofazimine, pyrazinamide, high-dose isoniazid and ethambutol followed by 5 months of moxifloxacin, clofazimine, pyrazinamide and ethambutol,4 should be chosen. In this regimen ethambutol can be replaced with rifabutin, and the treatment outcome should be evaluated against standard of care. To prevent a drug–drug interaction with moxifloxacin, the latter could be replaced with levofloxacin to balance the study arms.5 Although levofloxacin has not yet been studied in the short-course regimen, this would be of additional scientific value.

Third, if one cannot ascertain the potential value of rifabutin beforehand, the last option would be to compare rifabutin with placebo in addition to standard of care.

In conclusion, Whitfield et al.1 are right to point out the potential use of rifabutin for treatment of patients diagnosed with RR-TB. We have added some suggestions on how to study the role of rifabutin in this context.

Transparency declarations
None to declare.

References