An Analysis With Serious Flaws

TO THE EDITOR—Pasipanodya and Gumbo address an important question in their article: Is directly observed therapy (DOT) superior to self-administered treatment (SAT) for tuberculosis? [1] Unfortunately, however, their analysis contains some serious flaws.

Two of the distinct studies that the authors include from Cape Town are actually from the same trial [2, 3]. Therefore, there is double counting of some of the patients. The randomized trial reported from India is not a comparison of DOT and SAT but rather of a strategy of treating patients with 1 of 2 regimens administered by DOT with another, different regimen given as SAT [4]. This study should not have been included in the meta-analysis.

The inclusion of data is inconsistent and not well described. For example, the randomized trial reported from Pakistan is a comparison of 3 arms: health-worker DOT, family-member DOT, and SAT [5]. Pasipanodya and Gumbo combine the health-worker and family-member DOT arms for the analysis of default (Figure 2), but only include patients in the family-member DOT arm for the analysis of microbiologic failure (Figure 3) [1].

The observational study by Ormerod et al is prone to particular bias as the authors themselves noted: “In the UK, . . . DOT is only recommended for those who are thought to be non-compliant, or in whom non-compliance has been demonstrated” [6]. The same bias may also be present in other included observational studies.

Contrary to what is stated in the Methods section, under "Definitions" [1], not all DOT in the selected studies was administered by trained health personnel. Only the Indian trial, which should not have been included in the analysis, reports relapse outcomes. Failure at the end of treatment is an inadequate measure of treatment success alone as it takes no account of relapse, in addition to which the higher rates of default found in the SAT groups are likely to mean that some microbiological failures and relapse would have been missed.

Methods of administering DOT vary considerably as the data from the selected studies illustrate; a proper assessment of the efficacy of DOT needs to take this into account. The authors’ conclusion that “resources should be shifted to other causes of poor microbiologic outcomes” [1] cannot be justified on the basis of these findings.

Note

Potential conflicts of interest. Both authors: No reported conflicts.

Both authors have submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Conflicts that the editors consider relevant to the content of the manuscript have been disclosed.

Andrew J. Nunn and Patrick P. J. Phillips
MRC Clinical Trials Unit, London, United Kingdom
References


Correspondence: Andrew Nunn, MSc, MRC, Clinical Trials Unit, Aviation House, 125 Kingsway, London WC2B 6NH, UK (ajn@ctu.mrc.ac.uk).

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