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CORRESPONDENCE

Drug-resistant pulmonary tuberculosis

To the Editor:

I read with great interest the recent paper by SCHABERG *et al.* [1] concerning the increase in the rate of drug-resistant pulmonary tuberculosis in Berlin. The paper stresses the importance of correct treatment of tuberculosis for the prevention of multidrug-resistant tuberculosis (MDR-TB), particularly among immigrants or patients belonging to high risk groups.

Because of the extreme importance of prevention of MDR-TB, I disagree with the conclusions of the authors on one important point, which is the retreatment regimen in previously treated patients. As these patients have a high risk of harbouring resistant microorganisms, the prescription of a four drug regimen could end with treatment with only two active drugs, *i.e.* ethambutol and pyrazinamide, which are obviously not active enough to cure tuberculosis, at least within the usual duration of treatment. Furthermore, if the patient happens to be non-compliant with therapy, there is a possibility of developing further resistance during the initial retreatment. Therefore, I support the proposal made by the International Union Against Tuberculosis and by the World Health Organization (WHO) of starting the retreatment regimen with at least five drugs [2, 3] until the sensitivity of the microorganism is known, in order to ensure at least three active drugs in the initial phase of treatment.

References

1. Schaberg T, Gloger G, Reichert B, Mauch H, Lode H. Drug-resistant pulmonary tuberculosis in Berlin, Germany, 1987–1993. *Eur Respir J* 1995; 8: 278–284.
2. Committee on treatment of the International Union against Tuberculosis and Lung Disease. Antituberculosis regimen of chemotherapy. *Bull IUATLD* 1988; 63: 60–64.
3. World Health Organization. Guidelines for tuberculosis treatment in adults and children in national tuberculosis programmes. 1991.

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REPLY

From the authors:

We thank Zellweger for his favourable remarks regarding our recent publication [1], and appreciate the opportunity to reply to his comments. Zellweger stresses the fact that the regimen for retreatment of relapsed tuberculosis should include at least three active drugs in the initial phase of therapy. Based on the hypothesis that a four drug regimen might not be sufficient in case of multidrug-resistant tuberculosis (MDR-TB), he recommends a five drug regimen for retreatment for patients at risk of MDR-TB.

Although this opinion is in accordance with general recommendations made by the International Union Against Tuberculosis (IUATL) and the World Health Organization (WHO), we believe that it might be possible to differentiate the choice of initial retreatment strategies based on data regarding: 1) the epidemic situation of resistance; 2) the type of pretreatment; and 3) factors related to the individual patient.

We will illustrate this by three examples. Firstly, in accordance with the recommendation made by ISEMAN [2] we used a four drug regimen in patients from areas with resistance rates of 2–10% and a five drug regimen in patients from areas with resistance rates above 10%. Secondly, since in patients with relapses after completing a regimen containing isoniazid and rifampicin primary susceptible organisms usually remain susceptible, and we used a four drug regimen in the case of retreatment as suggested by the American Thoracic Society [3]. Thirdly, in patients with human immunodeficiency virus (HIV) infection or acquired immune deficiency syndrome (AIDS) coming from areas where high multidrug resistance rates are endemic, we used a five to six drug regimen based on the local pattern of resistance [4]. Finally, we would like to stress the point that in any case of treatment failure (no sputum conversion within 5–6 months) and proven resistance, the therapy has to be adjusted according to the latest available susceptibility testing results.

In summary, we agree with Zellweger that the decision about retreatment strategies in patients with relapsed tuberculosis must be made extremely carefully and with great responsibility to avoid any further development of drug-resistant *M. tuberculosis* organisms.

References

1. Schaberg T, Gloger G, Reichert B, Mauch H, Lode H. Drug-resistant pulmonary tuberculosis in Berlin, Germany 1987–1993. *Eur Respir J* 1995; 8: 278–284.
2. Iseman MD. Treatment of multidrug-resistant tuberculosis. *N Engl J Med* 1993 329: 784–791.
3. American Thoracic Society. Treatment of tuberculosis and tuberculosis infection in adults and children. *Am J Respir Crit Care Med* 1994; 149; 1359–1374.
4. Frieden TR, Sterling T, Pablos-Mendez A, Kilburn JO, Cauthen GM, Dooley SW. The emergence of drug-resistant tuberculosis in New York City. *N Engl J Med* 1993; 328: 521–526.

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