- 4 Udwadia Z, Vendoti D. Totally drug-resistant tuberculosis (TDR-TB) in India: every dark cloud has a silver lining. *J Epidemiol Community Health* 2013; **67**: 471–472.
- Srivastava S, Pasipanodya JG, Meek C, *et al.* Multidrug-resistant tuberculosis not due to noncompliance but to between-patient pharmacokinetic variability. *J Infect Dis* 2011; 204: 1951–1959.

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From the authors:

We wish to thank S. Srivastava and colleagues for their correspondence in response to our article [1], which raised three major issues deserving further discussion.

First, the importance of considering totally drug-resistant (TDR) tuberculosis (TB) (a term that the World Health Organization no longer recommends the use of, in favour of the term: resistance beyond extensively drug-resistant (XDR)-TB) cases as being curable [1].

No case is incurable by definition; we need to re-enforce the message that, although difficult-to-treat, XDR-TB cases can have concrete chances of winning their battle against the disease. This message is even more convincing now that we have much improved diagnostic tools *e.g.* GenXpert [2] and new drugs, *e.g.* delamanid, bedaquiline and PA-824 [3, 4].

Secondly, we fully agree that the present evidence on the extent of drug susceptibility testing, as of today, still provides suboptimal predictions for the *in vivo* effect of second-line anti-TB drugs and further research is needed. In addition, the real impact of the cocktail of anti-TB drugs prescribed on an individual basis is not fully clear. It is difficult, in fact, to attribute cause and effect to each specific drug and the design of prospective clinical trials is also difficult when dealing with XDR-TB and other complicated multidrug-resistant cases.

Thirdly, in our opinion S. Srivastava and colleagues are right to suggest that therapeutic drug monitoring represents the future for improving the quality of second-line anti-TB drugs prescription.

Any contribution in this direction will represent a significant step forward in improving patient management, optimising doses, minimising adverse events and, consequently, maximising the drugs' effect.



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Totally drug-resistant TB, drug susceptibility testing and therapeutic drug monitoring http://ow.ly/ksmfx

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Received: Feb 15 2013 | Accepted: Feb 15 2013

Conflict of interest: None declared.

References

- Migliori GB, Sotgiu G, Gandhi NR, et al. Drug resistance beyond extensively drug-resistant tuberculosis: individual patient data meta-analysis. Eur Respir J 2013; 42: 169–179.
- Weyer K, Mirzayev F, Migliori GB, et al. Rapid molecular TB diagnosis: evidence, policy making and global implementation of Xpert MTB/RIF. Eur Respir J 2013; 42: 252–271.
- Diel R, Loddenkemper R, Zellweger JP, et al. Old ideas to innovate TB control: preventive treatment to achieve elimination. Eur Respir J 2013 [In press DOI: 10.1183/09031936.00205512].
- 4 Skripconoka V, Danilovits M, Pehme L, et al. Delamanid improves outcomes and reduces mortality for multidrugresistant tuberculosis. Eur Respir J 2013; 41: 1393–1400.

Eur Respir J 2013; 42: 292 | DOI: 10.1183/09031936.00028913 | Copyright ©ERS 2013