

## Correspondence

### Extensively drug-resistant tuberculosis in India

Sir,

The paper by Sharma and colleagues<sup>1</sup> on the prevalence of extensively drug-resistant tuberculosis (XDR-TB) in a hospital study is an important contribution to India's TB control programme. Metaphorically, the detection of XDR-TB is like diagnosing a difficult-to-treat cancer. The smallness of the lesion should not mislead us about the sinister nature of the signal and the urgency for quick action. The statement that "XDR-TB was rare among patients"<sup>1</sup> should not be interpreted to mean that the problem is small. It has been growing; the time to act decisively is already past.

The study covered 211 subjects with MDR-TB over 7 years (1997-2003) and found 5 (2.4%) with XDR-TB. The prevalence would have been zero at one time. It would have been helpful to know the year in which the first case was detected so that the trend over time could be understood. The inclusion of subjects prior to that year would inflate the denominator and dilute the prevalence. The webpage of the national tuberculosis control programme shows how lightly XDR-TB has been taken by it<sup>2</sup>. It recognizes only 1 person with XDR-TB in India [prevalence 1.5% among multi-drug resistant tuberculosis (MDR-TB) patients] -- detected in Chennai either in 2005 or earlier<sup>2</sup>. Thus, both these pieces of information are 4-6 years old, and do not reflect the current frequency. India is said to have the largest burden of TB in the world (16% of world population carrying 20% of world TB) in spite of formal national TB control efforts during the last 47 long years. A point-prevalence as low as 1 per cent XDR-TB (among MDR-TB patients) may actually mean a few hundreds of new cases annually.

This paper<sup>1</sup> cites published data on XDR-TB in Delhi, Mumbai and Lucknow. Among HIV-infected persons with MDR-TB in Delhi, 4 (33.3%) among 12

had XDR-TB<sup>3</sup>. In the Ranbaxy Science Foundation Round Table Conference on "challenges of drug-resistant tuberculosis, with particular reference to extensive drug resistance" on December 13, 2008, information on XDR-TB in Thiruvananthapuram and Vellore was also presented (unpublished). The detection of XDR-TB in many centres with microbiology expertise shows, in the analogy of cancer, that 'lesions' are already widespread. Has India reached the point when XDR-TB can no longer be controlled?

The challenges posed by XDR-TB in India are many, including those of clinical treatment and of TB control<sup>4</sup>. The high cost and low cure rate of treatment and near-100 per cent case fatality of XDR-TB are well-known. The implications for TB control are less well appreciated. By the very nature of investigations that use sputum samples, all detected XDR-TB cases have pulmonary TB which is the infectious stage. Any secondary infection will, of necessity, be with XDR organisms, perpetuating the problem into the future generations. Therefore, carefully crafted precautions must be applied on every person with XDR-TB to prevent secondary spread. Moreover, real-time detection of XDR-TB is essential for applying such precautions. The Revised National TB Control Programme is not designed for either early detection or individual-based interventions for preventing spread of TB, either MDR or XDR. Imaginative and innovative interventions were needed when the programme was challenged with the problem of MDR-TB in the 1980s. It had addressed the clinical treatment of MDR-TB without developing a public health response to reduce its spread. The same error should not be repeated with XDR-TB.

No consistent decline in the burden of TB cases or reduction of incidence of primary infection

nationally has been documented in India. For all these reasons the programme is in urgent need of a comprehensive and independent evaluation and re-design, as was done last in 1990, when our national economy was not as strong as it is today.

The responsibility to improve the design of TB control rests with the national government at its highest level. In fact it is a political choice and imperative. The managers of the Revised National TB Control Programme and its supervisory ministry (of health and family welfare) may believe that they are responsible for running the programme, not re-designing it. The political party in power and the national government, respectively, are ultimately the source of the force and finance needed for addressing the problems of the slow progress of TB control in general, and the challenges of MDR-TB and XDR-TB in particular.

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### References

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