



## CORRESPONDENCE

## Outcomes of patients treated with individualised anti-tuberculosis regimens in a tertiary care centre in India

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Although standardised tuberculosis (TB) treatment in India is delivered by the public sector through the Revised National Tuberculosis Control Programme (RNTCP), more than half of the country's TB patients are treated privately.<sup>1</sup> The RNTCP reports the number of notifications from the private sector, but treatment outcomes are not reported.

The private sector in the southern Indian state of Kerala follows the standards of TB care in India (STCI).<sup>2,3</sup> The Amrita Institute of Medical Sciences (AIMS), a private tertiary care hospital in Kerala, ensures 100% TB notification, as reported previously.<sup>4</sup> We were curious to know what happened to the TB patients diagnosed in this hospital.

We followed a cohort of 54 patients (all new TB cases), notified by AIMS to the RNTCP in the first quarter of 2016. Details of their subsequent visits were checked in the hospital health management information system. A telephone interview was conducted with all patients around 6–8 months into their treatment. New TB patients who were cured or had completed a treatment regimen of  $\geq 6$  months, without loss to follow-up (LTFU) and with resolution of symptoms, were considered to have had a successful treatment outcome.

Of the 54 cases notified, 16 were put on RNTCP Category 1 treatment, and the remainder received an individualised anti-tuberculosis regimen following STCI recommendations.<sup>3</sup> Of the patients initiated on the RNTCP regimen, the success rate was 75% among pulmonary TB (PTB) and 87.5% among extra-pulmonary TB (EPTB) patients. Among the patients initiated on an individualised regimen, the success rate was 70.4% among PTB and 76.1% among EPTB cases. Two deaths were reported in patients with PTB in both the RNTCP regimen and the individualised regimen. No failure was observed in either group. Details for 8/38 (21%) patients undergoing an individualised anti-tuberculosis regimen could not be obtained; these were included in the LTFU outcomes.

The results of the study could not be generalised due to a high selection bias, as most cases diagnosed

in a tertiary care centre such as AIMS would have severe disease. As there could also be doctor or patient bias, or, due to disease severity, bias due to the selection of the RNTCP or individualised regimens, the two groups could not be compared. The small sample size was also a limitation. It is significant that approximately 70% of patients undergoing an individualised anti-tuberculosis regimen at a tertiary care private hospital in Kerala successfully completed treatment. The treatment success figures are conservative; the actual numbers could be higher, as we could not obtain information for nearly 20% of cases, whom we subsequently included in the LTFU category.

These findings demonstrate a need for urgent action to implement a TB patient tracing system in the private sector to ensure that treatment is given in accordance with standards of TB care. The study demonstrates that it is possible to follow up notified TB cases from the private sector and report their outcomes. This may act as a prompt to create models for the private sector that would engage social responsibility toward ending TB while maintaining profitable customer care services. Such models could feature minimum direct involvement from government field staff, maintenance of patient confidentiality and the extension of information communication technology for adherence monitoring to those patients undergoing anti-tuberculosis treatment in the private sector.

## References

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