Perspective

Three Important Obligations of Private Practitioners Can Help Bring Down the Scourge of Tuberculosis in India

Janmejaya Samal, Ranjit Kumar Dehury
Catholic Health Association of India, Chhattisgarh, 1Department of Healthcare Management, Goa Institute of Management, Panaji, Goa, India

INTRODUCTION

Tuberculosis (TB) is a global public health crisis, and India alone contributes 27.3% of global TB burden as per the global TB report 2016. TB continues to be a devastating health crisis in India with more than 300,000 deaths, 2.84 million new cases along with an economic damage of $23 billion (£14.9 billion; €20.3 billion) each year.[1] Despite the achievement of India’s flagship TB control program, the country still struggles with the devastating crisis of TB. One of the recent studies conducted in 30 districts of India revealed that around half (54%) of the TB patients sought medical care at public health facilities and the other half (46%) sought medical care from private health sector.[2] Given the magnitude of this situation, urgent attention is required to involve the private sector for TB care in India. Among others, three important obligations by the private practitioners (PPs) require very urgent attention to bring down the scourge of TB in Indian communities: adherence to standards of TB care, TB notification, and support for ban on serodiagnosis.

ADHERENCE TO STANDARDS OF TUBERCULOSIS CARE BY PRIVATE PRACTITIONERS

Different studies reveal the nature of treatment and prescription practices among a wide range of PPs treating TB patients. In a study in 1991 about the prescribing behavior of PPs, 100 doctors reported to have provided 80 different prescriptions.[3] A similar study undertaken in Mumbai and rural Pune published in 1998, reported 105 PPs giving 79 diverse prescriptions,[4] and in a study in 2010 at P. D. Hinduja National Hospital and Medical Research Centre, Mumbai, 106 doctors wrote 63 different prescriptions.[5] With this backdrop, to bring uniformity in TB care, a standard guideline has been developed which is known as standards of TB care in India (STCI). The guideline ensures that all the TB cases receive the same quality of TB care based on the best possible evidence available. Despite the introduction of STCI guidelines, TB treatment in private sector remains substandard. A recent study from Pune, India revealed that of the 249 PPs interviewed, 63% (158) of the practitioners’ responses were consistent with the International Standards for Tuberculosis Care (ISTC) diagnostic criteria and 34% (84) of practitioners’ responses were consistent with the ISTC treatment criteria.

This indicates that the PPs need to be sensitized about the standards of TB care which would help them provide quality diagnostics and treatment services universally and help bring down the scourge of TB in India.

Usually, medical graduates do not focus on clinical guidelines during their medical training as they mostly refer to textual content to acquire the degree; however, they should refer these guidelines to keep themselves updated during their clinical practice. Unfortunately, in most instances, this does not happen owing to busy schedule of clinicians, and clinicians follow their own empirical approach or textual knowledge in treating TB cases which may not always be a fruitful approach in case of TB. For this, many state governments have come forward and made continuing medical education compulsory for the promotion of doctors in health system, and this is the same in case of medical academicians as well. However, unless the doctors themselves understand the importance of the same, it would be a futile and a namesake approach only. This is not the case in India alone; it happens in many TB burden countries such as Uganda and Pakistan as well. What is imperative here is that the practitioners should come forward and adhere to STCI guidelines so that we can think of bringing down the incidence of TB in India thereby preventing

Address for correspondence: Dr. Janmejaya Samal, C/O Mr. Bijaya Ketan Samal, Pansapalli, Bangarada, Via-Gangapur, Ganjam – 761 123, Odisha, India. E-mail: janmejaya_samal@yahoo.com

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the conversion of drug-sensitive TB cases to drug-resistant TB cases.

**Tuberculosis Notification by Private Health Facilities**

TB is a notifiable disease in India as per the government order dated May 7, 2012 and all healthcare providers who have diagnosed a case of TB through microbiological testing or clinically diagnosed and/or treated TB are required to report to the District Nodal Officer for notification. The main objective of making TB as a notifiable disease is to establish a surveillance system, to extend supportive mechanism for TB treatment adherence and standardized practices in the private sector. However, TB notification by the private sector is a big challenge in India owing to multiple factors. In India, TB notification among the PPs is a paradox; PPs know about TB notification, and they know it is mandatory to do. However, many do not notify. A recent study in 2015 among the PPs in Kerala revealed that 88% (n = 169) of the PPs were aware of mandatory TB notification. It was further observed that general practitioners were more aware of TB notification than the specialist practitioners (98% vs. 84%). The study identified three important barriers to TB notification: (1) provider misconception, (2) lack of cohesion and coordination between public and private sectors, and (3) patient confidentiality, stigma, and discrimination.[9] These barriers can be addressed through continuous and consistent dialogue with the PPs and with linkage between private and public sector.[10] Recently, the new amendment in TB notification came in June 2015 which is more comprehensive and includes public sector involvement for follow-up of the cases notified by the private sector. The above study also observed that almost two-third of the PPs are not in favor of punitive action against failure to notify at private sector;[10] however, some strict legal enforcement can be mulled over if notification rate is poor. Mimicking the instances of other public health legislations, such as preconception and prenatal diagnostic test (PCPNDT), would be worthwhile for consideration in the case of poor TB notification. Government of India has introduced its own online portal for TB notification (http://nikshay.gov.in). Given the true professional spirit, notifying a notifiable disease is not at all a cumbersome procedure. Notification can be done easily by generating a user ID and password with the help of any simple Android application-based phone or with a computer. Precisely speaking, awareness is not a major issue among PPs rather it requires a change in mindset to do the notification and help the society to get over the scourge of TB.[7]

**Support the Ban on Serodiagnosis by Private Practitioners**

Serological tests are the kind of tests that are performed to detect the active TB based on the antibodies elicited by antigens of *Mycobacterium tuberculosis* recognized by the humoral immune response system. Most of these serological tests use enzyme-linked immunosorbent assay (ELISA) formats while others use rapid tests such as immune-chromatographic and lateral flow analysis. Thus, the faster and rapid delivery of results by these serological tests makes them attractive compared to sputum-based diagnostic tests. However, one of the systematic reviews carried out on the commercial serological tests revealed that the results are inconsistent and are of low quality.[8] Despite Government of India’s ban on serodiagnosis, these tests are being widely used by the private sector in India. Furthermore, none of the international guidelines support the use of serological tests for the diagnosis of active TB. But a rampant usage of these tests by the private sector is being observed in developing countries including India and 16 of 21 other high-burden countries in the world.[9] It is estimated that 1.5 million serological tests are being performed in India alone every year by the private sector for the diagnosis of active TB. The cost has been estimated at US $15 million (825 million INR) per year.[9] According to the reports of a cost-effectiveness modeling study, serological tests, if used in the place of sputum microscopy, would increase the costs of TB control program in India approximately by 4-fold and result in 102,000 fewer disability-adjusted life years averted and 121,000 more false-positive diagnoses and 32,000 more secondary infections.[10] In 2011, WHO issued a policy statement that serological tests provide inconsistent and imprecise estimates of sensitivity and specificity. Further, there is no evidence that these commercial serological tests improve patient outcomes, and high proportions of false-positive and false-negative results adversely impact patient safety.[11] As per the findings of different systematic reviews and meta-analyses, no serological test can really match the performance of sputum microscopy; thus, the usage of these tests at private sector should be strongly discouraged and the PPs should personally avert themselves from relying on these tests for the diagnosis of active TB cases. Most importantly, these tests do more harm than benefit to the patient community by providing false-positive or false-negative results. Following the steps taken by Indian Academy of Pediatrics which strongly discourages the usage of serological tests, other professional bodies should also come forward to discourage the usage of serological tests for the diagnosis of active TB in India. In addition, the cartridge-based nucleic acid amplification test (CB-NAAT) is the preferred first diagnostic test in children and people living with HIV, as recommended in STCI guideline. The advent of this diagnostic tool has increased the specificity and sensitivity of rapid TB diagnosis from sputum and is particularly helpful in pediatric cases.

**Way Ahead**

Irrational use of drugs, overreliance on chest X-ray, usage of serological tests, and nonadherence to standard treatment protocols are still common place in India. To overcome such a situation, Government of India has come up with its ambitious “National strategic plan 2012–2017” to include the private sector for universal access to quality diagnostic and treatment...
services; however, the same will be possible if only the private sector comes together and avoids irrational practices in TB diagnosis and treatment. While on one hand, the private sector and the PPs would be of great help providing information on notification and treatment success rate, on the other hand, the civil society can play a major role in bringing about a behavior change in the community and other services such as sputum collection and transportation for diagnosis and provide DOTS for treatment.

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There are no conflicts of interest.

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