

### Exploring the reforms in tuberculosis control program in India

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#### Abstract

The Global Tuberculosis Report – 2013 has revealed that in the year 2012, 11.6 million new cases of tuberculosis (TB) have been reported worldwide, of which India contributed to more than 25% of cases. Owing to the universal distribution, significant impact on the quality of life, and high associated fatality rates, TB in today's world is the biggest public health disease of an infectious nature. Since the launch of the Revised National TB Control Program (RNTCP), the program has been scaled-up and modified in different domains diagnostics, treatment, involvement of medical college and private sector, along with some innovative measures. To conclude, RNTCP is the most flexible program in the country and with the recent modifications in the program it has become even more accessible and user-friendly, thus progressing steadily towards achieving universal access to TB care.

**Key words:** Tuberculosis, Revised National Tuberculosis Control Program, public health, diagnosis, India

### Hindistan'daki yeni tüberküloz kontrol programı

#### Özet

Küresel Tüberküloz Raporu-2013, 2012 yılında dünya genelinde 11.6 milyon yeni tüberküloz (TB) olgusunun raporlandığını -ki bu olguların %25'inden fazlasında Hindistan'ın payı bulunuyordu- gözler önüne serdi. Yaygın görülüşü, yaşam kalitesi üzerindeki anlamlı etkisi ve yüksek fatalite hızları ile ilişkisi nedeniyle TB günümüzde dünyanın enfeksiyon kaynaklı en büyük halk sağlığı sorunudur. Revize Ulusal TB Kontrol Programı (RUTKP) ilan edildikten bu yana büyüdü, tanı, ve tedavinin çeşitli alanları ile ilgili olarak modifiye edildi, tıp fakülteleri ve özel sektör sürece katıldı. Sonuç olarak RUTKP ülkedeki en esnek programdır ve programdaki güncel düzenlemelerle birlikte daha ulaşılabilir ve kullanıcı dostu hale gelmiştir. Bu nedenle programdaki ilerleme, evrensel TB bakımına erişinceye dek sürekli dir.

**Anahtar Kelimeler:** Tüberküloz, Revize Ulusal Tüberküloz Kontrol Programı, halk sağlığı, tanı, Hindistan

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*Received date: 18.11.2013, Accepted date: 28.04.2014*

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## **Introduction**

The Global Tuberculosis Report - 2013 has revealed that in the year 2012, 11.6 million new cases of tuberculosis (TB) have been reported worldwide, of which India contributed to more than 25% of cases.<sup>1</sup> Similar trends have been observed even for multi-drug resistant (MDR) TB cases.<sup>1</sup> Owing to the universal distribution, significant impact on the quality of life, and high associated fatality rates, TB in today's world is the biggest public health disease of an infectious nature.<sup>1</sup>

Since the launch of the Revised National TB Control Program (RNTCP), the program has been scaled-up and modified in different domains based on the disease distribution / determinants; infield experience; WHO recommendations; and the successful implementation of different strategies in high burden countries.<sup>2,3</sup> The program has been revised in almost all aspects such as;

1. Diagnostics – Enforcing ban on serological tests;<sup>4</sup> upgrading to line probe assay / cartridge-based nucleic acid amplification test for diagnosing drug resistant TB;<sup>5,6</sup> establishing newer reference laboratories; providing infrastructure support to existing diagnostic laboratories;<sup>2</sup> fostering use of fluorescent microscopy in medical colleges;<sup>7</sup> formulating standard guidelines for culture & drug sensitivity testing (C & DST);<sup>8</sup> and encouraging accreditation of more and more institutes for C & DST.<sup>8</sup>

2. Treatment – Ensuring un-interrupted supply of quality assured drugs;<sup>2,9</sup> withdrawing category-III treatment regimen on account of poor effectiveness;<sup>2</sup> developing more weight-band options for ensuring exact intake of drugs for both pediatric and MDR-TB cases;<sup>10</sup> dispensing pestle and mortars at the directly observed treatment (DOT) center; augmenting the chemoprophylaxis dose of isoniazid from 5mg/kg body weight to 10mg/kg body weight;<sup>2</sup> and developing guidelines for storage of second line anti-TB drugs.<sup>11</sup>

3. Medical Colleges – Directing all medical colleges to constitute medical college core committee;<sup>10</sup> facilitating operational research/thesis by providing monetary support;<sup>11</sup> conducting continuous medical education/training sessions for staff and students;<sup>10</sup> encouraging different departments to ensure maximum exposure of undergraduate students to multiple aspects of program;<sup>10</sup> and persuading each medical college to adopt one district to plan and implement TB related awareness/notification activities.<sup>10,12</sup>

4. Private sector – Building strong linkages with the private sector been looked upon as the most crucial component in reducing the burden of the disease as almost 70% of the patients opt private health sector for their complaints.<sup>13</sup> RNTCP has proposed different schemes to encourage the involvement of private sector and implemented strategic steps to ensure timely release of financial aid to the private partner.<sup>10</sup> In addition, the program managers have developed association with different stakeholders (doctor/pharmacist associations), and is also dedicated to conduct sensitization sessions for the medical practitioners.<sup>2,9,10</sup>

5. Recent innovations – A range of recent developments have occurred in the program such as assigning TB as a notifiable disease;<sup>14</sup> developing standards for TB care in India;<sup>15</sup> introducing country-wide case-based web-based monitoring;<sup>12</sup> expanding TB-Diabetes Mellitus collaborative activities in 100 districts of country every year;<sup>16</sup> performing timely revision in the financial norms to facilitate more and more participation of private sector;<sup>10</sup> roping-in school teachers and students in creating awareness;<sup>10</sup> implementing airborne infection control guidelines in health care establishments;<sup>17</sup> conducting regular sensitization sessions for all health care providers;<sup>10</sup> capacity building of the existing infrastructure;<sup>10</sup> developing standardized checklist for supervision and monitoring;<sup>11</sup> and exploring legal provisions to restrict over-the-counter sale of anti-TB drugs.

In response to the modifications done in the program, it has been revealed

that the country has achieved the target of 70% detection rate and 85% cure rate among the diagnosed TB cases.<sup>18</sup> In addition, more than 1900 Non-Government Organizations (NGOs) and more than 10,000 private practitioners have enrolled themselves in the public-private mix projects.<sup>18</sup> The program has even successfully launched the web-based case reporting system and the ban on serological test has also been well accepted among the practitioners.<sup>12</sup> From the health care personnel point of view, the revised program has definitely improved the treatment outcomes and even they are hopeful and motivated enough to advocate for the RNTCP treatment regimen.<sup>3</sup> In addition, they have been well supported financially and administratively by the program managers.<sup>3,11</sup> Furthermore, the health team workers have been repeatedly sensitized to upgrade their knowledge and skills. Overall, provisions have been incorporated in the program so that health workers are empowered to perform their duties to the optimum level.<sup>3,18</sup>

To conclude, RNTCP is the most flexible program in the country and with the recent modifications in the program it has become even more accessible and user-friendly, thus progressing steadily towards achieving universal access to TB care.

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