

## Newer Initiatives Towards the End TB game –The Puducherry Scenario

**Running Title:** Newer Initiatives to End TB

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### Abstract:

India is determined to eliminate TB by 2025 despite being a high burden country. Revised National Tuberculosis Control Programme (RNTCP) is being strengthened with newer initiatives to achieve the elimination status. The National strategic plan 2017-2025 has laid down a framework to achieve the target indicators in line with the World Health Organization's, 'The End TB Strategy'. This article reports the newer initiatives in RNTCP that have percolated down to the Union Territory of Puducherry in this short span of time.

**Key words:** Newer initiatives, Tuberculosis, End TB, Puducherry

### Introduction

The World Health Organization (WHO) declared tuberculosis (TB) as a global public health emergency in the year 1993 and ending a period of prolonged global neglect.[1] Subsequently, the launch of DOTS (Directly Observed Treatment Short course) strategy, Millennium Development Goals (MDGs) incorporating the TB related indicators, Stop TB strategy 2006-2015, adoption of World Health Assembly resolution pertaining to the prevention and control of multi-drug resistant and extensive drug resistant TB, and finally, the End TB strategy in line with the framework of Sustainable Development Goals (SDGs) with indicators to end the TB epidemic by 2035 and 2030 respectively, have all given

momentum to the global TB care and control activities. India has been engaged in TB control activities for over 50 years and it is now better prepared with the National Strategic Plan 2017-2025 to eliminate TB by 2025 despite being a high burden country with 27% of the world's new TB cases.[2]

Puducherry Union Territory has been successfully implementing the Revised National Tuberculosis Control Programme (RNTCP) in its four districts namely Puducherry, Karaikal, Mahe and Yanam, with seven TB units and 27 designated microscopic centres (DMCs) which include primary health centres (PHCs) and nine medical colleges. Recently, new initiatives in RNTCP were rolled out in Puducherry to strengthen the programme

towards elimination of TB. These include the following:

### **Direct Benefit Transfers (DBT) of incentives to the diagnosed patients:**

TB control programme in India has tried to adopt a holistic approach to treatment and patient care since its inception. Studies have reported that providing financial incentives and nutritional support can increase adherence and treatment success rates.[3] To meet these twin objectives of adherence and treatment support, the programme has launched a “Direct Benefit Transfers (DBT)” scheme to financially aid TB patients.[4]

Furthermore, the Prime Minister’s Jan Dhan Yojana has increased the rural access to banking services, thereby facilitating DBT initiatives under social welfare schemes. A cash incentive of INR 500 per month is being provided for every TB patient for the entire course of treatment through Direct Benefit Transfers to address the financial and nutritional hardship faced by patients and their families due to TB and to reduce the catastrophic health costs.. This transfer is being done on a bi-monthly basis.

### **Implementation of Universal Drug Sensitivity and Testing (DST)**

The End TB strategy highlights integrated patient-centered care and prevention as its first pillar. ‘Rapid molecular diagnostics’ introduced in 2009 and scaled up in 2012 has ensured that Line Probe Assay and Cartridge Based Nucleic Acid Amplification Test (CBNAAT) are available throughout the country. The program is currently scaling up its policy of Universal DST whereby all cases diagnosed with TB will receive a minimum of Rifampicin resistance testing, using high sensitivity tools like the CBNAAT.[5]

In Puducherry, very recently, all newly diagnosed TB cases are being subjected to Line Probe Assay for identifying the drug sensitivity pattern; and all the sputum negative presumptive TB cases with or without radiological findings are being subjected to CBNAAT for confirmation of diagnosis and identifying sensitivity to Rifampicin.

### **Active case finding (ACF) for TB:**

The RNTCP programme is making special efforts for reaching the unreached population through a provider initiated, Active Case Finding (ACF) campaign since January 2017. ACF is focused on clinically, socially and occupationally vulnerable populations such as prison inmates, slums, tribal areas with the primary objective of early detection TB cases by actively finding cases and to initiate treatment promptly.[6] This opportunity is also utilized to create awareness about the signs and symptoms, diagnosis and treatment among the general population.

In Puducherry, a mobile medical van with CBNAAT facility is provided to the programme to facilitate ACF activity. ACF has been initiated in Puducherry with the support of medical colleges. One of the private medical colleges has included this activity as a regular annual programme wherein ACF is done in their field practice areas for a period of one month when an adequate number of undergraduate, post graduate students and faculty are available during a particular posting. Screening involves sputum examination of presumptive cases, subjecting them to Chest X-ray and finally CBNAAT for confirmation. Another government college has screened the prison inmates for TB which was supported by State Programme office. Further, the State TB office plans to intensify the ACF activity in the union territory, making use of the available resources.

### **Provision of Tablet Computers to the key workers for real time data entry in NIKSHAY portal**

The programme has developed a case-based, web-based TB surveillance system, 'NIKSHAY' to facilitate notification of TB patients and to register all the patients as beneficiaries based on their demographic information with help of their certified providers. An alpha-numeric beneficiary-ID is generated for each beneficiary, which can be used to avail the services at every point. TB diagnostic test reports and monthly prescriptions can be updated in this system to assist TB case management system.[5]

To facilitate real time data entry, the TB health workers (TBHV) and RNTCP Lab technicians are provided with a tablet computer with a unique user-ID and password. This has enabled the key workers to enter the data in real time, monitor treatment and follow-up patients referred by them. At present the NIKSHAY ID is being generated for all presumptive TB cases to estimate the burden of TB and also to refer the patients to their respective PHC to control for pre-treatment loss to follow-up.

### **Application for drugs and vaccine distribution management system**

The RNTCP with support of C-DAC (Centre for Development of Advanced Computing) has developed a web-based application "Nikshay Aushadhi" which is available at all the levels of the programme. This application has been customized as per the needs of the programme and it will further strengthen the logistics and supply chain management by ensuring real time monitoring, recording and reporting of anti-tubercular drugs and other commodities.[5] RNTCP, Puducherry has been able to utilize this application for its drug and vaccine indenting since 2018.

### **Involvement of Chemist and druggist in notification and holding of TB patients**

The RNTCP is currently facilitating involvement of private labs and chemists in TB control. To improve the quality of care, surveillance is being strengthened by periodic prescription audits, drug sales surveys, chemist surveillance through Schedule H1, and laboratory surveillance including private laboratories. A Government of India notification prohibits the over-the-counter sale of all anti-tubercular drugs. In order to involve private providers (doctors, chemists, stockists) in disease notification and management, they have been given access to the daily Fixed Dose Combination (FDC) regimen from the programme. Incentives are being provided to cover their cost of stocking, distributing and dispensing the FDC. RNTCP, Puducherry has already line-listed the available chemists/stockists and issued circulars regarding their role in implementing the programme effectively.

### **Involvement of Private Practitioners in management of TB cases**

Private practitioners are considered as assets to the government effort in reaching all TB patients for care and control. The approach is to first capture all TB patients by attracting TB notification from private providers and then work to improve the quality of care provided by them.[4] Sensitization and motivation of private providers either through continuing medical education (CMEs), personal communication, peer pressure or professional associations is being done by the programme. All key providers including private doctors (both allopathy and AYUSH), chemists and laboratories are being mapped and the referral linkages are being strengthened. This will result in early and accurate diagnosis of TB and timely initiation of treatment, improved

access to TB care, lessen drop-outs and increased patient satisfaction.

All private practitioners in Puducherry have been mapped with the help of STS and STLS. A dedicated mobile number is available to facilitate the notification by private practitioners. Those practitioners who wish to continue to treat the case have free access to the FDC drugs and are eligible for the incentives as per the RNTCP norms (for notification and management of a drug-sensitive patient over 6-9 months, a private provider will be eligible to receive INR 2750/-, for notification and correct management of a drug-resistant case over 24 months, a private provider will be eligible to receive INR 6750/-).[5]

### **Introduction of shorter regimen for Multi-Drug Resistant (MDR)TB and use of Bedaquilline in indicated patients**

In 2018, a shorter regimen for MDR TB, which is a standardized seven drug regimen, with treatment duration of 9-12 months, was rolled out across the country. This regimen is indicated conditionally in MDR TB or rifampicin-resistant TB, and is regardless of patient age or HIV status.[5] The requisite drugs are being supplied to the states. Puducherry has already received the drugs; patients are being put on this shorter regimen. Similarly, Bedaquilline which was introduced in 2016 in 5 states under conditional access programme is also available for use at Puducherry.

### **Conclusion**

The new initiatives for TB control are expected to be transformational in the end TB efforts of India. Puducherry has commenced the implementation of these new initiatives in full swing. Sustained and coordinated efforts of all stake holders will be required for proper implementation of this new strategy. Let us strive to sustain

the fight against TB until we see the end of it.

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