

## INVITED EDITORIAL

## Expanding the role of Medical Colleges in RNTCP towards End TB strategy: Scope and Challenges

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Tuberculosis (TB) remains a major global public health problem and it has been the leading cause of death due to an infectious agent in the past five years. During the last decade, the global and national efforts have been focused on achieving the targets set by the Millennium Development Goals (MDGs) and the Stop TB Strategy to reduce the burden of tuberculosis disease. In 2016, the Sustainable Development Goals (SDG) framework of goals, targets and indicators were adopted and in line with it End TB Strategy was unanimously endorsed by all WHO member states for the period of 2016 – 2035 (1). Based on these global efforts, India which accounts for about one quarter of world TB cases has formulated the National Strategic Plan (NSP) for TB elimination 2017-2025 to guide the activities of all stakeholders whose work is relevant to TB elimination in India.

### Medical college involvement in RNTCP (2)

Medical colleges play an important role in RNTCP through their involvement in patient management, capacity building, advocacy and operational research. In view of the diagnostic and treatment facilities for extra pulmonary TB, TB HIV coinfection

and drug resistant TB, they have the unique potential to improve the quality of TB services.

The task force mechanism established in 2003 formed the basis of government's policy to involve medical colleges in TB control. This mechanism entrusted the responsibility to medical colleges for effective control of TB and the contributions made by the task force has been impressive. Key policy changes such as ensuring training programmes regarding RNTCP, mandatory provision for infrastructural facilities like designated microscopic centres and DOTS centres at medical colleges, airborne infection control policy and conduct of operational research relevant to programme needs were some of the important contributions made by National Task Force which reflected the collective opinion of all academicians from medical colleges. Eminent faculty members from medical colleges were regularly part of all the Joint Monitoring Mission since 2003 which reviewed the performance and plans of the RNTCP, and recommended steps needed to sustain and further improve the programme

Regarding TB HIV coordination, access to facilities like CD4+/CD8+ count testing and provision of anti-

retroviral therapy for HIV-TB coinfection and cross referrals made between ICTC and DMCs at medical college are some of the contributions made by them. Some Medical colleges with facilities of accredited Intermediate Referral Labs and DOTS Plus sites have contributed to the management of drug resistant TB. The National Task Force (NTF) in 2017 reviewed the progress during 2016, wherein a total of 382 medical colleges were involved in implementation of the programme and 19% of all forms of TB patients in the country including 43% of extra pulmonary TB were notified by them. About 153 CBNAAT (Catridge Based Nucleic Acid Amplification Test) laboratories, 35 culture & drug sensitivity testing labs and 105 drug resistant-TB centres were established in medical colleges for diagnosis and treatment of TB and DR-TB and more than 100 Operational Research and thesis were initiated on TB in the previous reporting year (3).

#### **Scope for Medical College involvement in End TB game (4)**

The Govt. of India's National Strategic Plan (NSP 2012-17) visualized to widen the access and improve the quality of TB services with the support of medical colleges and their hospitals. The current mechanism of National, Zonal and State level structured task forces will be continued and the major activities would remain the same. The main role of the NTF will be to recommend policy suggestion regarding medical colleges' involvement in the RNTCP and monitor the activities of the ZTF. The ZTF will facilitate the establishment, functioning, and monitoring of State Task Forces (STF), and coordinate between the NTF and STF. The STF will facilitate establishment of DMCs and DOT centres, in all the medical colleges in the respective States.

Scope of activities of medical colleges are going to be expanded with increasing diagnostic and treatment services in newer areas of TB control efforts. End TB game in India is built on four strategic pillars of Detect - Treat – Prevent – Build (DTPB approach) (5) to eliminate TB by 2025. In the process of achieving this ambitious target, medical colleges can play a vital role in all stages of DTPB approach.

Detect component of this approach includes finding all drug sensitive-TB and drug resistant-TB cases with an emphasis on reaching TB patients seeking care from private providers and undiagnosed TB in high-risk populations. This can be achieved by scaling up effective private provider engagement approaches,

universal testing for drug resistant TB and systematic screening of high risk populations etc. To meet the additional requirement of laboratories with culture facilities, NSP has plans to engage the medical colleges to expand its microbiology laboratory for RNTCP. The programme will support identify and support these microbiology laboratories through existing human resource and infrastructural norms for culture laboratories. Also, medical colleges are involved with state TB control programme in doing active case finding survey in high risk population of their urban and rural field service areas.

Treat component implies the need to initiate and sustain all patients on appropriate anti-TB treatment at the point of diagnosis with friendly systems and social support and medical colleges have an important role in it. In a study done on patient and health system delays among adult smear-positive Tuberculosis patients diagnosed at medical colleges it was reported that the median health system delay (time interval between the date of presentation to a health facility and the initiation of anti-TB treatment) to be 28 days (6). In another study by Pillai D *et al* (7) reported that the proportion of initial default among the medical colleges in Puducherry to be 15.3% which is very high and health system related reasons were unpleasant experience with the health workers, lack of dissemination of adequate information regarding further course of action to the patients, and non-availability of the laboratory staff which are easily preventable. Thus, medical colleges should prevent such loss of TB cases in the cascade of care by ensuring appropriate communication, health education, referral and feedback system for which notification is vital (8).

The NSP 2017-25 has decentralized the drug resistant (DR) TB services and DR-TB wards will be expanded to more number of medical colleges to support district level DR-TB treatment services. These DR-TB centres in medical colleges will be useful for management of not only MDR-TB but, for DST-guided treatment, newer regimen use and management of complicated cases of drug resistant TB. Existing staff of medical college i.e. medical officer and TB-HV will be utilized for these DR-TB wards for coordination.

With respect to prevent component, NSP proposes to improve the Airborne infection control (AIC) measures by involving medical college faculties along with Air Borne Infection Control Committee to execute AIC measure in all health care settings in the

district. The faculties from medical colleges will be trained at the state level and then support in assessment, recommendations and monitoring of AIC implementation in all health facilities in the districts. Also, the support of medical colleges will be sought for peer education, dissemination of diagnostic and treatment practices and advocacy with professional associations.

Build component refers to building and strengthening enabling policies and empowering institutions where role of medical colleges has already been identified. The Medical College Task Force mechanism will focus more on the clinical aspects related to TB control and also play a greater role in establishment of research and surveillance mechanisms. Selected medical colleges will be designated Centre Of Excellence and promote them to evolve as Centres of Excellence (CoE) for a particular thematic area like paediatric TB, TB-Diabetes, TB-HIV etc. as has been done for AIIMS Delhi for extra-pulmonary TB. Also, faculties of medical colleges will be involved in planning of RNTCP services and subsequent monitoring and evaluation. The department of community medicine will be involved to in monitoring and surveillance of disease including carrying out local surveys. For quality assurance of laboratory services, the department of microbiology will be involved and appropriate capacity enhancement will be done. The Operational Research (OR) mechanism has been strengthened with capacity building workshops, forming uniform protocol development systems and by facilitating online submissions of protocols, review and approval and quicker release of funds for operational research.

### Challenges and way forward:

Issues related to vacancy of RNTCP staff posts in medical colleges, salary constraints, delay or non-release of STF funds for OR are still common and need to be addressed effectively for the sustainability of the model and to deliver the added responsibilities effectively. In overcrowded Government medical colleges ensuring AIC measures is a great challenge. Weaknesses seen in supervision capacity, quality maintenance, planning, monitoring and evaluation needs to be rectified immediately. Enhancing inter-departmental sensitization, holding regular core committee meeting, strengthening feedback of referred cases, advocacy for cough hygiene and etiquette through health education and

need for more contribution in drug resistant TB in addition pulmonary and extra pulmonary cases are some of the felt needs related to medical colleges in the programme (2). The expanded role of medical colleges in TB HIV co infection, external quality assurance of sputum microscopy, surveillance of DR TB, operational research, airborne infection control and in active case finding should be implemented in practice. Based on the lessons learnt and progress made so far, medical colleges can and should play a key role in supporting RNTCP to sustain the momentum gained towards a TB free India by involving all stakeholders.

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