

# **TB-HIV CO-ORDINATION, MAHARASHTRA**

## **Need for Co-ordination**

The basic purpose of TB-HIV co-ordination is to ensure optimal synergy between the two programmes for the prevention and control of both diseases. The overall goal is to reduce TB-related morbidity and mortality in people living with HIV/AIDS while preventing further spread of HIV and TB through collaboration between NACP and RNTCP. As the epidemic of HIV is mushrooming it becomes necessary to intensify our efforts in developing strategies for providing supportive services to HIV infected persons. HIV infection has escalated the burden of TB, especially in countries where prevalence of HIV infection and TB infection is high. India also has the world's third highest HIV burden, the prevalence of HIV infection is estimated to be 0.36% of the population, which translate to 2.31 million people living with HIV/AIDS (PLHA). It is estimated that Maharashtra has 1.4 million HIV. Of the 35 districts, 22 districts (63%) have an HIV prevalence of more than 1% among pregnant women.

## **Relationship between TB and HIV**

HIV infection is among the strongest risk factors for progression of latent TB infection to active disease. TB disease is the most common opportunistic infection amongst HIV infected individuals. An individual with dual infection of HIV-TB has more than 60% lifetime risk of developing TB as compared to 10% in TB infected person without HIV infection. The rate of progression of TB is also 30 times more rapid in an HIV infected person. TB accelerates the progression of HIV by causing a six-seven-fold increase in viral load. It shortens the survival period of an HIV infected individual and is a cause of death for one in three cases of AIDS.

In a developing nation like ours, the burden posed by increasing number of HIV/AIDS and TB cases can overwhelm our available services and budget. It is therefore time for both the AIDS and TB programme to jointly make efforts to deal with the dual epidemic of HIV and TB.

## **NATIONAL FRAMEWORK FOR JOINT TB/HIV COLLABORATIVE ACTIVITIES (FEBRUARY, 2008)**

TB-HIV collaborative activities started initially in the year 2001, in the six states with high prevalence of HIV/AIDS including Maharashtra. These TB-HIV collaborative activities have been included as an integral part of NACP III and RNTCP II.

Goal: The goal of the National framework is to further enhance collaboration between RNTCP and NACP, and reducing the burden of TB and HIV in India.

## OBJECTIVES:

1. To establish mechanisms for coordination between RNTCP and NACP at National, State and District levels.
2. To decrease morbidity and mortality due to tuberculosis among persons living with HIV/AIDS.
3. To decrease the impact of HIV in tuberculosis patients and provide access to HIV related care and support to HIV-infected TB patients.

## KEY ACTIVITIES IDENTIFIED UNDER TB/HIV COORDINATION INCLUDE:

1. Establishment of coordination mechanisms at national, state and district level.
2. Service delivery coordination and cross-referrals, through training of the programme officials and the field staff and establishment of linkages between service delivery sites of NACP i.e. ART centres, ICTCs, care and support centres and RNTCP diagnostic and treatment services.
3. Involvement of NGOs working in NACP and RNTCP in TB/HIV collaborative activities.
4. Operational research to improve the implementation of TB/HIV collaborative activities.
5. Implementation of feasible and effective infection control measures

## **1. ESTABLISHMENT OF COLLABORATIVE MECHANISMS AT STATE AND DISTRICT LEVEL**

### **State Level:**

#### **A. State Coordination Committees**

To ensure smooth implementation and regular review of TB/HIV Collaborative activities, State Coordination committees chaired by Principal Health Secretary are to be established at the State level. These coordination committees are to meet on a quarterly basis.

The proposed composition of the State Coordination Committee is as under:

1. Secretary, Health: Chairman
2. Director Health Services: Vice Chairman

3. Director Medical Education and Research: Member
4. Project Director, SACS: Member
5. Additional Project Director, SACS: Member, Secretary
6. State TB Officer: Member
7. Director, STDC: Member
8. Dy. Director, Surveillance, SACS: Member
9. Dy. Director, ICTC, SACS: Member
10. Dy. State TB Officer : Member
11. RNTCP and NACP consultants: Member
12. One representative of NGOs working with RNTCP: Member
13. One representative of NGOs working with NACP: Member

### **Scope of Work of the Committee**

The State TB-HIV Co-ordination Committee will review the performance of the collaborative TB-HIV activities in the state, formulate strategies for strengthening the TB-HIV coordination activities, and provide guidance for the implementation of the National framework for TB-HIV Collaborative activities in the State. In case the Chairman is not available for the meeting, a nominee of the chairperson may preside over the deliberations.

### **TERMS OF REFERENCE:**

1. To ensure co-ordination between NACP and RNTCP in the State
2. To review the status on training of health care providers in TB-HIV and formulate strategies for ensuring that all the health care providers are trained in TB-HIV
3. To review the co-ordination activities between the Integrated Counseling and Testing Centres (ICTC) and the RNTCP diagnostic and treatment services, and guide the strengthening of the ICTC - RNTCP coordination activities (including review of the cross-referral data)
4. To review and further strengthen the participation of NGOs and Private Medical Practitioners implementing NACP / RNTCP in the TB-HIV co-ordination.

5. To review and ensure the participation of institutes/organizations providing care and support to HIV/AIDS patients, in the RNTCP (e.g. Community care centres, ART Centres, etc.)
6. To ensure that appropriate measures are taken to prevent the spread of TB in facilities caring for HIV/AIDS patients
7. To ensure the prevention of spread of HIV infection through safe injection practices in those facilities providing RNTCP treatment services
8. To take decisions for the implementation of TB-HIV activities in the State under the broad policy framework recommended by the Government of India.
9. To ensure optimal coordination in the delivery of DOTS and ART. The committee should hold a meeting once every three months.

## **B. State Technical Working Group (STWG)**

At the State level a TWG comprising of key officials from MSACS (PD and APD) and State TB Cell (STO), along with other officials dealing with TB/HIV collaborative activities and consultants working with both the programmes is formed. The State TWG reviews and streamlines the collaborative activities. In these monthly meetings of TWG, apart from a review of the on-going TB/HIV collaborative activities, the key issues emerging from the district coordination meetings and the cross-referral reports are discussed. Based on the discussions, feedback is sent to the districts on their performance and identified issues. Follow up action taken are monitored and minutes of the meetings forwarded to NACO and CTD. Every quarter at least one district is planned to be jointly visited by officials from STC and MSACS. The observations made in these joint field visits are to be submitted in a report to NACO and CTD, and discussed in the State level review meetings.

## **C. District level**

### **a. District Coordination Committees**

To ensure smooth implementation and regular review of TB/HIV Collaborative activities, Coordination committees are established at the District level. These coordination committees are to meet on a quarterly basis. Minutes of district quarterly meetings should be sent to SACS and State TB Cell.

### **Constitution of the District Coordination Committee**

1. Chairman : District Magistrate/Collector
2. Vice Chairman : CMO/ Medical Superintendent

3. Member Secretary : District AIDS Programme Officer/ District TB Officer
4. Member : Medical Officer/ Microbiologist In charge of ICTC
5. Member : Medical Officer- STD, Civil Hospital
6. Member : Dean, Medical College (if any)
7. Member : City TB Officers (Where applicable);
8. Member: : MS of Hospital providing ART Services (where applicable)
9. Member : ART Centre Medical Officer (where applicable)
10. Member : One Representative of NGO implementing NACP
11. Member : One Representative of NGO implementing RNTCP

#### **Scope of Work of the committee**

District Co-ordination Committee for TB-HIV is to ensure the implementation of TB-HIV collaborative activities in their District and review the performance of the same. In case the Chairman is not available for the meeting, a nominee of the chairperson may preside over the deliberations.

#### **Terms of reference:**

1. To strengthen the collaboration between the RNTCP and NACP in the District.
2. To review the co-ordination activities between the ICTC and RNTCP diagnostic and treatment services, and ART and DOT services, and overall implementation of the National framework for TB-HIV Collaborative activities, and guide the strengthening of these activities in the respective district (including review of the cross-referral data).
3. To facilitate the participation of NGOs and Private Practitioners implementing NACP/RNTCP in the TB-HIV co-ordination activities.
4. To facilitate the participation of institutes and organizations providing care and support to HIV/AIDS patient in the RNTCP (e.g. Community care centre, ART Centre, etc.)
5. To ensure that appropriate measures are taken to prevent the spread of TB infection in facilities caring for HIV-AIDS.
6. To ensure prevention of spread of HIV infection through safe injection practices in those facilities providing RNTCP treatment services.

The committee is supposed to hold one meeting every quarter to review the TB-HIV coordination activities.

### **B. Monthly meeting at the District level**

A monthly meeting of the DTO and the DNO (district nodal officer) is to be held with the participation of key staff from both the programmes. Monthly key staff meetings for RNTCP are conducted at the district level during these meetings an additional session is organized for TB/HIV which is attended by the key district staff of NACP including the DNO/district supervisor. In these monthly meetings a review of the on-going TB/HIV collaborative activities and discussion on key issues emerging from the field is done. Based on the discussions, feedback is sent to the service delivery centres on their performance and on any identified issues. Follow-up action taken should be monitored and minutes of the meetings forwarded to SACS and STC. It is decided to conduct the monthly meeting on 3<sup>rd</sup> of every month all over the state.

### **IV. Annual Review of TB/HIV Collaborative activities at National and State level**

RNTCP conducts regular programme reviews at the State levels. A annual reviews is to be held at the State level by adding an additional day to one of the quarterly RNTCP review meetings and inviting the district Nodal officers for

HIV/AIDS and MSACS/MDACS officials.

#### **2. Service delivery coordination and cross-referrals**

Sentinel surveillance for HIV infection among TB patients in 2007 demonstrated a wide distribution of HIV prevalence across the 15 districts surveyed in the country. CTD and NACO in response have developed an “Intensified TB-HIV package” of services for states with the highest estimated burden of HIV infection. These enhanced services include:

Routine referral of all TB patients with unknown HIV status to ICTC for voluntary HIV counseling and testing,

Provision of co-trimoxazole prophylactic treatment to HIV-infected TB patients from their local primary health centres, and

linkage with ART centres for all TB patients co-infected with HIV

Enhanced monitoring of TB-HIV activities at state and district level

During 2008, Intensified TB-HIV packages of service have been started in 9 HIV high prevalence states including Maharashtra.

The expanded scope of this new approach to TB control in populations with high HIV prevalence also comprises of up scaled interventions including intensified case finding at high HIV settings like ART centers, Community Care Centers (CCCs), NGO led Targeted Intervention sites (TIs). This would help in early diagnosis of HIV/TB patients and provision of care & support including DOTS treatment for TB, CPT prophylaxis and ART.

Though the life of an HIV infected individual appears bleak due to lack of definitive treatment or vaccine, what is encouraging to note is that TB can be cured by treatment with Directly Observed Treatment Short course (DOTS). Treatment with DOTS prolongs and improves the quality of life.

Further the mortality associated with Tb in HIV infected individuals can be reduced with Co-trimoxazole prophylaxis which is a broad spectrum antibiotic that targets a range of gram-positive and gram-negative organisms, fungi, and protozoa. Co-trimoxazole can also be given routinely for the prevention of opportunistic infections in HIV-infected persons; this strategy is called Cotrimoxazole prophylaxis therapy (CPT). CPT is to be given for the entire duration of TB treatment and later from ART centre

Anti-retroviral treatment is highly effective at reducing mortality among HIV-infected TB patients;

ART reduces the risk of death about 80% during the first year. Early ART initiation offers the greatest benefit to patients.

Infrastructure and status of TB-HIV collaborative activities in Maharsashtra :

Total No. of ICTCs	591
Total No. of DMCs	1251
Number of ART centres	42
Number of Community Care Centres	35
Number of DOT centres	33399
Total PLHAs (2006)	4.4 lakh
Estimated HIV/TB co-infection (2007-08)	10000
Total no. of general clients counseled and Tested (2007- 08)	0.6 million

### **3. ADVOCACY, COMMUNICATION AND SOCIAL MOBILIZATION AND INVOLVEMENT OF NGOS WORKING IN NACP AND RNTCP IN TB/HIV COLLABORATIVE ACTIVITIES**

There are a large number of NGOs working with both NACP and RNTCP. These NGOs play an important role in programme implementation by increasing the out reach of the individual programmes and the provision of a package of services to difficult to reach populations like migrant populations, truck drivers, tribal populations, commercial sex workers, etc.

### **3.1 IEC ACTIVITIES**

RNTCP and NACP IEC material is to be displayed at the ICTCs, ART centres, DMCs and other facilities providing care and support to PLWHA and TB patients. Health care providers including counsellors should educate all their HIV-infected clients on the risk of TB, concerning signs and symptoms, and what to do when such signs and symptoms occur. Counselling at ICTCs and ART centres should specifically include counselling on TB. A “10

Point counselling tool on TB” has been developed for use by the counsellors in the ICTCs and ART centres. The tool is made available at all ICTCs and ART Centres, and is routinely being used. Efforts must be made by key RNTCP field staff and all general health care providers to generate awareness amongst all patients about HIV infection and the availability of services for HIV care and support.

### **3.2 SPECTRUM OF ACTIVITIES THAT MAY BE UNDERTAKEN BY NGOS**

1. Dissemination of HIV prevention information through IEC materials prepared by NACP
2. Condom promotion and awareness regarding prevention of HIV
3. Dissemination of information on TB through RNTCP IEC material
4. Referral of persons with HIV risk factors to ICTCs
5. Referring HIV-infected persons to care and support facilities
6. Intensified TB case finding by regular symptom screening
7. Referral of persons with TB symptoms to RNTCP diagnostic facilities
8. Opening of DMC (where appropriate) or establishing a mechanism for sputum collection and transportation to nearest DMC
9. DOTS provision

#### **4. OPERATIONAL RESEARCH TO IMPROVE THE IMPLEMENTATION OF TB/HIV COLLABORATIVE ACTIVITIES**

The priority areas for collaborative operational research with both programmes for TB/HIV include:

1. Piloting mechanisms of provider-initiated routine referral of TB patients for counselling and testing for HIV.
2. Improving access to HIV related care and support for TB patients who are found to be HIV-infected.
3. Estimating TB burden in various setting providing HIV care, like ICTCs, ART centres, and care and support centres.
4. Strengthening referral linkages from ICTCs, Care and Support Centres, and ART centres to RNTCP services.
5. Strengthening referral linkages of HIV-infected TB patients from general health services to ART centres.
6. Reducing mortality of HIV-infected TB patients during and after TB treatment.
7. Evaluating the feasibility, efficacy, and optimal duration of Isoniazid prophylactic therapy for prophylaxis of TB at ART and care and support centres.
8. Development of TB screening guidelines for ART centres and care and support centres.

#### **5. INFECTION CONTROL PRACTICES**

##### **5.1 PREVENT SPREAD OF TB IN FACILITIES CARING FOR HIV-INFECTED PERSONS**

In health care settings frequented by high numbers of HIV-infected persons, measures to reduce airborne tuberculosis transmission should be undertaken. These include simple administrative and environmental measures aimed at generally reducing exposure of HIV-infected patients to *M. tuberculosis*. Administrative measures should first include early recognition, diagnosis and treatment of tuberculosis cases under RNTCP, particularly those with smear positive pulmonary tuberculosis. These steps should also include separation of pulmonary tuberculosis suspects from HIV-infected patients e.g. in patients waiting areas, until a TB diagnosis is

excluded or confirmed and effective TB treatment initiated. Environmental protection should include maximizing natural ventilation.

## **5.2 PREVENT SPREAD OF HIV THROUGH SAFE INJECTION PRACTICES IN FACILITIES PROVIDING RNTCP SERVICES.**

Measures to reduce parenteral HIV transmission include the use of sterilized injection and surgical equipment in medical settings. Steps should be undertaken by concerned authorities (MSACS, State and District administration) to ensure the availability at all times and all facilities, of sterilized disposable needles and syringes and needle destroyers

### **Pediatric TB Management under RNTCP:**

Childhood TB is a reflection of the prevalence of sputum smear-positive pulmonary tuberculosis (PTB) and the extent of transmission of TB infection in the community. Children are likely to suffer from more serious forms of TB and are more likely to die if not treated properly. Reliable data on disease incidence and prevalence is however not available due to the difficulties in diagnosis of pediatric TB under field conditions.

Diagnosis: TB should be suspected among children presenting with fever and / or cough for more than 3 weeks, with or without weight loss or no weight gain; and history of contact with a suspected or diagnosed case of active TB disease within the last 2 years. Diagnosis should be based on a combination of clinical presentation, sputum examination wherever possible, Chest X ray (PA view), Mantoux test (1 TU PPD RT23 with Tween 80, positive if induration >10mm after 48-72 hours) and history of contact. Diagnosis should be made by a Medical Officer and the existing RNTCP case definitions be used for all cases diagnosed. PPD would be supplied by CTD to district headquarters. See. Use of currently available scoring systems is not recommended for the diagnosis of TB among children. Where diagnostic difficulties are faced, the child should be referred to a pediatrician for further management.

Treatment of Pediatric TB: DOTS is the recommended strategy for treatment of TB and all pediatric TB patients should be registered under RNTCP. Intermittent short course chemotherapy given under direct observation should be used in children, as in adults

### **Chemoprophylaxis**

Recent infection with tubercle bacilli is one of the risk factors for disease development. The younger the child, the higher is the risk of breakdown of infection into disease. Therefore, household contacts of smear-positive TB cases, especially those below 6 years of age, must be screened for symptoms of tuberculosis. In case of symptoms being present, the diagnostic algorithm for pediatric TB should be followed and the child should be given a full course of anti TB treatment if s/he is diagnosed as a TB case. For asymptomatic children under 6 years, chemoprophylaxis with isoniazid (5 mg per kg body wt) should be administered daily for a period of six months. This is regardless of the BCG vaccination status.

## Role of BCG Vaccination

Effective treatment of infectious patients under DOTS protects children against all forms of TB. The most effective way to prevent TB is to ensure that sputum smear positive patients are cured. To protect contacts of smear positive cases should be screened and managed as described above.

BCG vaccine is an attenuated strain of tubercle bacilli. After in depth reviews, it was concluded that though BCG may not protect against TB of lung which occurs mostly in adults, it could provide substantial protection against childhood forms of TB such as tubercular meningitis, miliary TB. In India, it is recommended to give BCG vaccination to all children preferably at birth as part of National Immunization Schedule to give the benefit of protection against the childhood forms of TB (refer to National Immunization Schedule)