Cooperation between HIV and TB services in the Republic of Tajikistan: Scope.

Ruhšona Ašurova – divisional manager, preventive treatment, National AIDS Centre, Ministry of Health of the Republic of Tajikistan

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Objectives of TB control programme:

- Prevent worsening of TB epidemiological situation, reduce case rate, disability, mortality and spread of infection.
- Prevent development of drug-resistant forms of TB.
- Achieve cure rate of 85% among newly detected infectious forms of pulmonary TB.
- Achieve detection rate of 70% of assessed cases of infectious forms of pulmonary TB to reduce transmission of infection.
Importance of joint HIV-TB strategy

- TB is the main opportunistic infection and the leading cause of death among HIV-infected persons.
- HIV infection hastens the development of TB in persons recently infected with MTB and increases the risk of reactivation of latent TB infection.
- The spread of TB in the HIV-infected population aggravates the TB epidemiological situation among the general population.
Objective of the joint HIV-TB strategy

It is essential to reduce the TB and HIV burden in coinfected patients.

Objectives:

- Establish mechanisms for cooperation between TB and HIV/AIDS control programmes.
- Reduce TB burden among people living with HIV/AIDS.
- Reduce HIV burden among TB patients.
Reducing TB burden among PLHIV

- Strengthen TB detection.
- Preventive treatment with isoniazid.
- TB control in medical facilities in congregate settings
Reducing HIV burden among TB patients

- Voluntary HIV counselling and testing (VCT).
- HIV prevention techniques (more information on HIV and HIV/TB issues).
- Co-trimoxazole prophylaxis introduced.
- DOTS (ART) and TB patient support.
Current HIV/TB situation in the Republic of Tajikistan (1)

- TB coordinating body reporting to MoH set up in 2002
- National Coordinating Committee (NCC) thematic working group on HIV and TB set up in 2005
- To upgrade skills of TB/HIV specialists, training provided to medical workers from the TB service, laboratories, AIDS specialists and persons involved in the management of HIV/TB patients, and VCT organized throughout the country.
- Plan drawn up to provide logistical and HR support for joint actions to monitor and prevent TB/HIV.
Technical working groups organized at national, regional and district level in 2008.

Preparations for a plan of action to enhance cooperation between TB and AIDS services, including by expanding initiatives for early detection of TB among PLHIV.

Issues also raised regarding support for cooperation with institutional harm reduction and TB reduction programmes (VCT of TB patients among injecting drug users and detainees).

Functioning system of monitoring and evaluation, including epidemiological surveillance of TB/HIV.
Cooperation between TB service and AIDS centres

- 66 TB/HIV coordinators trained from among physicians at all TB clinics, AIDS centres and primary health-care facilities; VCT for HIV and TB; supply of drugs; guidelines on TB/HIV.

- Common database on TB patients with HIV coinfection being established at city, district, regional and national TB control centres and regional AIDS centres.

- Monthly collation of data between TB and AIDS services.

- Whenever a case of HIV is detected, TB centres must apply a strict code of confidentiality. Only specially authorized persons can release information about HIV status.
Laws and regulations enacted by the Tajik Government

- Joint Decree of the Ministry of Health and the Ministry of Justice of Tajikistan No. 346/86 of 3 July 2007 on interministerial cooperation in introducing the DOTS strategy and medical services for detainees in penitentiaries of the Ministry of Justice of Tajikistan.
- Government Decision No. 171 of 1 April 2008 on the procedure for medical examinations to detect infection by the human immunodeficiency virus and the registration, medical observation and preventive monitoring of persons infected with HIV.
- Order No.7 of 26 January 2009, as amended, on strengthening measures to ensure monitoring of infection and epidemiological safety at correctional institutions of the Ministry of Justice of Tajikistan forming part of the Tajik penitentiary system.
Laws and regulations enacted by the Tajik Government

- National Programme to prevent the HIV/AIDS epidemic in Tajikistan, 2007-2010: Goal 6 “Prevent opportunistic diseases among PLHIV, including TB”.
- Order No. 7 of the Corrections Department of the Tajik Ministry of Justice dated 25 January 2010 on a pilot needle-exchange project for IDUs in Tajik penitentiaries.

Pilot opioid replacement therapy programme (methadone) launched at 3 sites in 2010.
Normative documents on coinfection

- Preparation and ratification of Guidelines on the management of coinfected patients (Dushanbe, 2005).
- National protocol on the care, support and treatment of HIV-infected persons.
- Strategic plan for joint action to prevent and monitor TB/HIV coinfection in Tajikistan in the period 2008-2012 (3 September 2008).
- Preparation and ratification of National protocol on management of dual infection.
- Review and introduction of guidelines on managing patients with dual infection into the undergraduate and postgraduate curriculum for TB specialists.
Legal basis for implementation of DOTS:

- Joint Decree of the Ministry of Health and the Ministry of Justice of Tajikistan No. 346/86 of 3 July 2007 on interministerial cooperation in introducing the DOTS strategy and medical services for detainees in penitentiaries of the Ministry of Justice of Tajikistan.
- Order No. 5 of the Corrections Department of the Tajik Ministry of Justice dated 26 January 2009 on the establishment of a working group and unified system for recording and reporting of TB patients in correctional institutions of the Ministry of Justice of Tajikistan.
- Agreement between the Corrections Department of the Ministry of Justice of Tajikistan and Caritas Luxembourg dated 15 May 2005 on introducing the DOTS strategy at correctional institutions of the Ministry of Justice of Tajikistan.
During the period 1991 to 1 January 2010 inclusive the Republic of Tajikistan officially recorded 1853 cases of HIV infection: 1482 men and 371 women.

1056 persons on the outpatient register, 209 of whom are coinfected.

247 HIV-infected persons have died. In 116 cases (47%) the cause of death was TB.

424 PLHIV are receiving ART, of whom 92 are coinfected with HIV/TB (21.6% of persons in treatment).

52 PLHIV (14.05%) were in combination therapy in 2009 (7.89% in 2007).
Modes of HIV transmission in Tajikistan, January 2010

- Injection: 54.2%
- Sexual: 27.2%
- Unknown: 16.6%
- Vertical: 0.8%
- Vertical - 1.1%
HIV epidemiological situation in Tajikistan
Pattern of the epidemic and recent trends

- IDUs form the basis of the epidemic (54.2%)
- The epidemic affects young people of working age (80.5% of cases aged 20-39)
- The rate of HIV infection among women has tended to increase (from 14% in 2000 to 20% in 2009).
- The proportion of persons infected through sexual contact is increasing (from 8.2% in 2003 to 27.2% in 2009).
- Sexual partners of IDUs and migrant workers form a potentially vulnerable group.
TB epidemiological situation in Tajikistan

- 7481 TB cases recorded in Tajikistan in 2009 including 5868 new cases; 7961 cases recorded in 2008 including 6080 new cases.

- Case rate - 80.9 (1200 in penitentiaries) per 100 000 of population (2009).

- Mortality - 6.4 (210.5 in penitentiaries) per 100 000 of population (2009).

- Prevalence of MDR TB among new cases and relapsing patients - 17.8% and 57.6% (in penitentiaries, 25% and 77.1% respectively).

- "Failure rate" rate in prisons - 31%.

- HIV prevalence among new TB cases - 4%.

- Effective cure rate - 81% (2008), detection rate among non-drug-resistant infectious forms of TB - 38% (2009).
Number of HIV-infected patients screened for TB in the period 2006-2009, National AIDS Centre

- **Number of PLHIV screened for TB**
  - 2006: 98
  - 2007: 140
  - 2008: 483
  - 2009: 450

- **Number of confirmed HIV cases among TB patients**
  - 2006: 17
  - 2007: 39
  - 2008: 31
  - 2009: 28
Number of HIV tests among TB patients, 2006-2009, National AIDS Centre

- **2006**: 1008
- **2007**: 1383
- **2008**: 2545
- **2009**: 3944

- **Number of TB patients screened for HIV**
- **Number of confirmed HIV cases among TB patients**
Procedure for detecting TB in HIV-infected persons

- Detection of TB in HIV-infected persons performed by physicians at AIDS centres or communicable disease units at the city or district health centres where the patient is registered, or by physicians at primary health-care facilities responsible for treating HIV-infected persons.

- On being placed on a register, HIV-infected persons are informed by specialists at AIDS centres that at the appearance of any symptoms they should immediately go to a local AIDS centre, the communicable disease unit at their place of registration, or a physician at a primary health-care facility.
Procedure for detecting TB in HIV-infected persons

- Where TB is suspected, HIV-infected persons are referred to a TB specialist at an AIDS centre and are examined at their local medical facility (communicable disease clinic or health centre). Bacterioscopic examination of patients' sputum for AFB, chest X-ray and other tests are performed.
Use of Mantoux text in HIV-infected persons

- An organism infected with HIV will not respond to a TB test, so the Mantoux skin test cannot be used in HIV-infected persons as a screening test to carry out further TB investigations.

- A negative or inconclusive Mantoux skin test for TB in HIV-infected persons, including children and adolescents, does not rule out possible MTB infection, nor does it preclude the presence of active TB.

- All HIV-infected children and adolescents should have a scheduled annual chest X-ray (more frequently where indicated) to detect TB early.
## Algorithm for detecting pulmonary TB in HIV-infected persons

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Frequency and Conditions</th>
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| Chest X-ray for children, adolescents and adults Persons over 14 can be fluorographed | - On confirmation of HIV+ status and once a year thereafter  
- On first visit to physician in any given year, regardless of reason for visit, if most recent radiological examination was performed more than one year previously |
| Sputum smear examination for MTB (three smears) Chest X-ray after three negative sputum smear examinations | On visit to physician with suspected clinical symptoms of TB (including any persistent cough) |
| TB screening for HIV-infected persons in contact with pulmonary or extrapulmonary TB patients, regardless of whether bacteria appear in patient's sputum | - Chest X-ray, tomography if necessary  
- 3-time bacterioscopy of sputum in the event of persistent coughing. If negative, mycobacterial culture from sputum specimen  
- Full blood test  
- Other investigations as indicated |
Registration of TB cases among HIV-infected persons.  Registration at TB control centres

- TB is diagnosed in HIV-infected persons by TB specialists and confirmed by a decision of the central medical board at a TB control centre. Following a TB diagnosis, patients are registered at TB clinics.

- HIV-infected persons with TB released from penitentiary institutions are also registered at local TB control centres. Information about patients released from penitentiaries, including place of residence, are forwarded to the local TB control centre by the penitentiary. The TB control centre subsequently contacts the patients and organizes further monitoring and treatment.

- TB cases are recorded in the local TB register (standard form TB 03) using the method of classification ratified under the official TB order currently in force.
The approach used in treating TB in HIV-infected persons is not substantially different from the treatment method used for persons not infected with HIV, although there are some specific points of difference.

ART and treatment of opportunistic infections in patients with TB/HIV coinfection is as indicated and decisions are taken by infectious disease specialists and TB specialists.
Specific aspects of TB treatment for HIV-infected persons

- Where MTB remains susceptible to TB drugs, the standard treatment regimens recommended by WHO are used.

- Treatment times for TB/HIV patients should be considerably longer (+ 6 months following elimination of MTB).

- Appropriate treatment regimens are used where MDR TB develops.

- Use of thiocetazone contraindicated.
Principles of ART similar to those of TB therapy

- Combination therapy – the use of three drugs from different categories.
- Standard treatment regimens.
- Monitoring to ensure TB drugs are taken.
- Uninterrupted drug supply.
- Monitoring of treatment results
## Use of ART in treatment of TB/HIV

<table>
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<tr>
<th>Situation</th>
<th>Recommendations</th>
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<tr>
<td>Pulmonary or extrapulmonary TB</td>
<td>Initiate TB treatment</td>
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<tr>
<td>CD4⁺ &lt; 50/µl</td>
<td>Initiate ART if patient can tolerate TB treatment</td>
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<tr>
<td>Pulmonary TB</td>
<td>Initiate TB treatment</td>
</tr>
<tr>
<td>CD4⁺ 50 - 200</td>
<td>Initiate HAART after 2 months</td>
</tr>
<tr>
<td>Pulmonary TB</td>
<td>Initiate TB treatment</td>
</tr>
<tr>
<td>CD4⁺ &gt; 200</td>
<td>Monitor CD4 level</td>
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If CD4⁺ cell testing is not possible, the following criteria are used in deciding whether to initiate HAART:
- Stage III and IV HIV infection regardless of lymphocyte count
- Stage II with total lymphocyte count < 1200/µl
Prevention of TB among HIV-infected persons

- Screening (radiological examination and tuberculin diagnosis).
- Limit potential for infection.
- Effective treatment of TB patients.
- Control infection.
- Preventive treatment of TB.

**Objectives:**
1. Build the capacity of national TB programmes
2. Improve case detection and treatment outcomes by strengthening the DOTS strategy, including involvement by primary medical facilities in TB control
3. Effective advocacy, communications and social mobilization to control TB
5. Management of drug-resistant TB.
7. Operational research into the needs of vulnerable populations (migrant workers) and strengthening the health system to control TB.
Implementation of the DOTS strategy in Tajikistan.

The purpose of DOTS centres is to coordinate the effective implementation of all TB initiatives and programmes at local level:

- Launch the strategy in the civilian population in 2002.

- Cover the entire civilian population by 2007 (66 centres).

- Launch the strategy in prisons in 2005.

- Cover the entire prison population by 2008 (9 centres providing 80% coverage)

- Drugs are supplied continuously by the Global Fund to Fight AIDS, Tuberculosis and Malaria
Initiative to treat MDR TB
(Green Light Committee)

- Ensuring supplies to national clinical TB hospitals, training health workers, 5 meals a day (GF).
- 2 pilot schemes in Dushanbe and Rudaki: June 2009, 50 patients.
- Scaling up of pilot sites to include prisons (+2): November 2009, prison settings, 138 patients.
UNDP GFATM input in implementation of the national programme in the penitentiary system

- Medical service of the Corrections Department of the Tajik Ministry of Justice provided with a fixed X-ray machine and a mobile photofluorographic unit.
- 40 officers of the Corrections Department trained in infection control techniques and the epidemiology and management of TB cases.
- 29 medical workers from the Corrections Department given an introductory course in DOTS.
- 3 medical workers trained in management of MDR TB
- 16 medical workers trained in sputum smear microscopy techniques
- Financial and technical support for projects and educational initiatives, etc.
Better conditions of detention for TB patients in the penitentiary system

- 10 new facilities constructed for TB patients
- 5 sputum smear examination laboratories and sputum collection rooms refurbished and upgraded
- 6 bath house/shower unit/canteen facilities constructed to improve hygiene.
- 255 TB beds provided.
- 255 sets of bedding provided.
- 1020 sets of tableware and kitchen utensils provided.
Current problems

- TB programmes underfunded by Tajik Government, poor control of MTB by medical facilities.
- HIV/AIDS programme insufficiently integrated into the general health system.
- Poor cooperation between TB/HIV programmes.
- Shortage of qualified staff in the general health system and the Corrections Department of the Tajik Ministry of Justice.
- Penitentiary system poorly integrated into the civilian health system.
- Need to review and update TB/HIV prevention guidelines.
- No social support services at TB facilities.
- No information/education materials on TB/HIV and HIV/TB prepared for dissemination, either among PLHIV or TB patients.
Current problems

- No integrated electronic TB database for all medical services of the Corrections Department.
- Low detection rate.
- Poor integration into system of primary health-care facilities.
- Inadequate monitoring of TB patient treatment by health workers at primary health-care facilities.
- No personal protective equipment as per health and epidemiological surveillance regulations and occupational health regulations.
- Poor implementation of infection control measures to prevent intrahospital HIV/TB infection.
- Failure to introduce PEP treatment for HIV infection in workplaces.
Solutions

- Update and replicate national guidelines.
- Introduce social support services at TB facilities and review motivation of social workers to achieve high-quality indicators when implementing TB/HIV coinfection programmes.
- Develop, replicate and disseminate information/education materials in sufficient quantities.
- All HIV testing services should be provided with personal protective equipment as a matter of course.
- Improve interaction between prison officers and health workers in AIDS and TB services to ensure early detection and timely treatment of HIV/TB.
- Train specialists at penitentiary facilities to manage patients with coinfections.
- Strengthen integrated patient management, early diagnosis and continuous monitoring of treatment of coinfections.
- Train nonmedical staff in the basics of the DOTS strategy and extensively involve them in TB/HIV efforts.
Thank you for your attention