



## Essential Actions for Effective TB Infection Control\*

### 1. Include Patients and Community in Advocacy Campaigns

The community should be well-educated about TB infection, prevention and control. Patients should understand that they should know their HIV status, may be eligible for isoniazid preventive therapy (IPT) and have a right to rapid TB diagnosis and treatment. They should know that TB can be spread by coughing and expect health care settings and community services to require persons coughing to cover their mouths when coughing. They should understand that health care workers (HCWs) may wear personal respiratory protection sometimes or that they may be asked to wear a mask to protect others. Safety without stigma should be the goal--a request to wear a mask or provide a sputum outside, or in a well ventilated room should not be stigmatizing but is part of a safer clinic for everyone. Patient and HCW safety may include receiving health care in the community to avoid unnecessary admissions to health care facilities. Information, education, and communication (IEC) campaigns should include themes such as "Our community is TB-Safe" or "Our health facilities are stopping TB."

### 2. Develop an Infection Control Plan

All facilities should have an infection control (IC) plan and a facility person or team responsible for IC. The plan identifies high risk areas for TB transmission and provides information on TB and HIV rates among health care workers and patients. The plan provides area-specific infection control recommendations for the facility including the laboratory which should have its own specialized standard safety procedures.

### 3. Ensure Safe Sputum Collection

Collecting and processing sputum are an essential part of the diagnosis of TB. Sputum

collection can be potentially hazardous for health care workers and other patients-- HCWs should explain to patients that safety without stigma is the goal of good TB infection control and that sputum be collected outside (if feasible) or if necessary, in specially designed rooms with adequate ventilation.

### 4. Promote Cough Etiquette and Cough Hygiene

Every facility should have a poster on TB infection control and cough etiquette in at least the outpatient department waiting area, admissions area, and casualty department. Patients should be instructed to cover their mouths and nose when coughing, with hands, cloth such as handkerchief, clean rag, tissues, or paper masks. All staff are responsible for safety and should work together to help patients adhere to this practice.

### 5. Triage TB suspects for "fast-track" or separation

All patients should be screened upon arrival for chronic cough (i.e. >2-3 weeks), fever, weight loss, night sweats, haemoptysis, or contact with a person with TB. HCWs should explain to all clinic visitors that safety without stigma is the goal and that the screening is part of quality care. Patients should understand that they should know their HIV status, may be eligible for IPT and have a right to rapid TB diagnostic services and treatment. Persons suspected of having TB should be "fast-tracked" for rapid diagnosis and care services or should be asked to wait near an open window or in a comfortable area separate from the general waiting room (outside when possible). Whenever possible, community-based treatment models should be encouraged. Where there are in-patient settings, TB suspects should be placed in a room or area separate from general wards. Patients with known or suspected drug-resistant TB should be

separated from general ward patients and from other TB suspects.

### **6. Assure Rapid Diagnosis and Initiation of Treatment**

Patients suspected of having TB should move to the front of the queue for all services and should undergo prompt evaluation for TB. Sputum collection should be done away from other people. Sputum specimens are sent to a quality-assured laboratory for AFB smear and culture (when possible). Turn-around time for sputum AFB (acid-fast bacillus) smear results should be no more than 24 hours. A patient-tracking system assures that TB suspects who are AFB smear-negative receive additional procedures (e.g. chest x-ray and referral visits) or treatment as quickly as possible. DOTS treatment for TB begins immediately when a diagnosis of TB is made, and a plan for assuring adherence with treatment is developed. All people with HIV who are not TB suspects should be eligible for initiating IPT.

### **7. Improve Room Air Ventilation**

Patient waiting areas should be open and well-ventilated. Windows and doors should remain open when possible, to maximize cross ventilation. Appropriately placed simple fans can assist ventilation. Where weather permits, open-air shelters with a roof to protect patients from sun and rain are recommended. Patients should not wait for services in narrow, poorly ventilated corridors. Hospitals where patients with drug-resistant TB receive care should provide separate patient wards or rooms, preferably with good ventilation. New buildings and renovations should consider TB infection control as integral to the building plans.

### **8. Protect Health Care Workers**

Health care workers should know the symptoms of TB and be given a health assessment including screening for TB and HIV, at least annually. All HCWs are encouraged to know their HIV status and those with HIV

infection should be given the opportunity to minimize exposure to persons with TB, e.g. offered a change of duties. HIV-infected HCWs should be screened for isoniazid preventive therapy as part of basic HIV care and treatment. Health care workers working in high-risk settings for transmission of TB (e.g. bronchoscopy suites) should be provided with appropriate personal respiratory protection.

### **9. Capacity Building**

Training on TB infection control practices should be incorporated into the broader infection control trainings at hospitals and facilities (e.g. hand washing, other respiratory, and bloodborne infection control trainings). Where no such trainings exist, trainings on airborne TB infection control practices should be developed. Infection control practices require a system-wide approach, and health care workers at all levels should receive training and be engaged in improving their own and patient safety.

### **10. Monitor infection control practices**

Supervision of infection control practices should be a part of every supervisory visit. This should include a facility tour to check that IC is being implemented and that all essential supplies for IC are available. At the very least, facilities should have an IC plan. Where feasible, monitoring annual TB cases among HCWs can also provide useful information on transmission of TB in facilities. Surveillance of TB disease among HCWs is another means of evaluation. Additional on-site measures include examining medical records of a sample of TB patients looking at the time interval from admission to suspicion of TB, suspicion of TB to ordering sputum for AFB, time from ordering to collection of sputum, collection of sputum to reporting of results, to initiation of TB treatment and interviewing patients to discuss understanding of infection control, safety and stigma.

*\*These ten essential actions are based on current WHO policy and are issued to help facilities implement IC interventions while waiting for the revised WHO policy on TB IC which will be available by the end of 2008. See <http://www.who.int/tb/en/> [http://www.who.int/topics/hiv\\_aids/en/](http://www.who.int/topics/hiv_aids/en/) or and [http://www.stoptb.org/wg/tb\\_hiv/tbics.asp](http://www.stoptb.org/wg/tb_hiv/tbics.asp) for more information.*

**Developed by the TB Infection Control Subgroup of the Global TB/HIV Working Group in collaboration with the HIV/AIDS and Stop TB Departments at WHO.**