

The President's Emergency Plan for AIDS Relief (PEPFAR)

**PMTCT/Pediatric HIV Technical Working Group
Recommendations for Integration of
Tuberculosis Screening into PMTCT/Pediatric
HIV Programs**

July 2012

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In 2010, there were an estimated 8.8 million tuberculosis (TB) cases worldwide and 1.4 million TB-related deaths, of which 3.2 million cases and 500,000 deaths were among women and 180,000 deaths were among HIV-infected women. In sub-Saharan Africa, TB is the leading cause of death among people living with HIV, and parental deaths due to TB have resulted in almost 10 million orphan children worldwide as of 2009¹⁻². Over the last decade, the number of women living with HIV has increased significantly, and women are now estimated to represent more than half of all those infected. This feminization of the HIV epidemic has led to an increased TB incidence among women in their childbearing years, and an increased risk of TB- and HIV-related morbidity and mortality for mothers and their children.³⁻⁴ In fact, TB is reported to cause up to 15% of all maternal mortality in high HIV prevalence settings.⁵

TB during pregnancy is also associated with an increased risk of adverse outcomes for the infant, including increased risk of premature birth, low birth weight, and perinatal death. Recent studies have shown that HIV-infected pregnant women are at increased risk of transmitting both TB and HIV to their infants³⁻⁴. In addition, TB is known to be an important cause of childhood morbidity and mortality worldwide, although the true burden of disease in children remains uncertain due to diagnostic challenges and limited surveillance data. The growing evidence regarding the burden and detrimental effects of TB among women and children, especially among those living with HIV, highlights the need for improving TB/HIV activities in Prevention of Mother-to-Child HIV Transmission (PMTCT) and maternal, newborn, and child health (MNCH) settings.

Screening for TB among pregnant women and children living with HIV using an evidence-based clinical algorithm is the first step in the prevention, diagnosis, and treatment of TB. The 2010 World Health Organization (WHO) guidelines on intensified TB case finding and isoniazid preventive therapy (IPT) for people living with HIV and the 2011 PEPFAR PMTCT/MNCH/Pediatric HIV Integration Guidance delineate this approach⁶⁻⁷. Implementation of TB intensified case finding (ICF) and appropriate TB treatment, coupled with early initiation of antiretroviral therapy (ART), appropriate use of IPT, and TB infection control in PMTCT and MNCH settings, has been shown to be the most effective strategy for reducing TB/HIV-related morbidity and mortality among HIV-infected pregnant women and their infants.

However, despite international guidelines, TB/HIV activities have not been integrated into most PMTCT settings. The PMTCT/Pediatric HIV Technical Working Group recommends that the TB/HIV activities outlined below, especially intensified TB case finding, be implemented in all PMTCT programs and included in all PMTCT acceleration plans. The following highlights specific international recommendations for integration of TB screening in PMTCT and pediatric care settings⁶⁻⁷:

- All pregnant women with HIV should be screened for TB at each encounter using the WHO-recommended symptom-based algorithm (including specific questions related to current cough, fever, night sweats, or weight loss) or national TB symptom screening algorithms for people living with HIV.
- A pregnant woman with HIV with any one of the symptoms in the WHO algorithm should be evaluated for active TB disease (using a combination of clinical signs, chest x-ray, sputum microscopy, culture, and internationally-approved molecular diagnostics) in accordance with national guidelines.
- If the woman is diagnosed with TB disease, anti-TB therapy should be initiated immediately.
- If active TB disease is ruled out, IPT should be provided in accordance with national guidelines. WHO strongly recommends that HIV-infected pregnant women not be excluded from IPT, and that sound clinical judgment should be used regarding the best time for IPT initiation.
- Pregnant women who are not infected with HIV but who have signs and/or symptoms suggestive of TB should be evaluated for TB per national and international guidelines. If TB disease is confirmed, anti-TB therapy should be initiated immediately and household members should be evaluated for TB per national guidelines.

- Infants and children living with HIV should routinely be screened for TB as a part of standard clinical care. HIV-infected children who are older than 12 months of age and are not found to have active TB should be given IPT for 6 months, in accordance with WHO guidelines.
- Regardless of HIV status, infants who are born to mothers with TB disease or who have a history of contact with a TB case should be evaluated for TB disease. If active TB is not identified, the infant should be given IPT for 6 months in accordance with international guidelines. In addition, given the difficulty of identifying TB disease in children, the infant should be continuously monitored for the development of signs and symptoms of active TB disease. Linkages and referral mechanisms should be established between HIV and TB programs to ensure that pregnant women and infants identified as persons with possible TB are properly evaluated for TB and those found to have TB disease receive appropriate anti-TB treatment and follow-up per national policy/international guidelines.
- Mechanisms should be put in place to document, monitor, and evaluate TB screening, diagnostic, and treatment activities as well as outcomes among pregnant women and children.
- TB infection control activities should be implemented in PMTCT settings in accordance with international guidelines.

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