Tuberculosis in Pregnancy

1. **Screening for Latent Tuberculosis Infection (LTBI)**

**WHO to screen?**
Those at high risk for contracting TB and converting from latent to active TB

- Known HIV infection
- Close contact with individuals known or suspected to have TB
- Medical risk factors known to increase the risk of active disease if they have LTBI
  - Pregestational diabetes
  - Lupus
  - Cancer
  - Alcoholism
  - Drug addiction
  - Conditions requiring prolonged high dose corticosteroid therapy and other immuno-suppressants (Such as anti TNF-alpha treatment)
  - Gastrectomy
  - Jeunoileal bypass
- Birth in or emigration for high-prevalent countries
  - Latin America
  - Caribbean
  - Asia
  - Africa
  - Eastern Europe
  - Russia
- Homelessness
- Medically underserved
- Works or lives in high risk settings
  - Correctional institution
  - Nursing home
  - Long-term care facility
- Health care workers working with people at high risk for TB

**WHEN to screen:** Initiation of Prenatal Care

**HOW to Screen**
Interferon Gamma Release Assay (IGRA) (Blood testing)
Quantaferon-TB Gold

Results: Positive, Negative or Indeterminate
Approximately 5-8% of Quanterferon–TB Gold tests are indeterminate and should be repeated
Cost for Quanteferon-TB Gold
- Charge to patient $180
- Many of patients who should be screened will be unlikely to pay.
- Up to 8% will require repeat testing for indeterminate result
**WHAT TO DO** if results are positive

1. Treatment for latent TB is done at the local health departments. It is not anticipated that the OB services here will initiate, maintain or monitor therapy.
2. Treatment for active TB is initiated through referral to infectious disease service

Information about drug therapy options is provided for OB to understand the drugs and be aware of possible complications of the drugs and for documentation purposes.

From CDC.gov Website

**INH dosing**

- **Daily dosing:** 5 mg/kg to a maximum of 300 mg x 9 months
- **Twice weekly:** 15 mg/kg to a maximum of 900 mg/week x 9 months

**Pyrodoxine (Vitamin B6):** 10-25 mg/day throughout the treatment

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<tr>
<th>Drugs</th>
<th>Duration</th>
<th>Interval</th>
<th>Comments</th>
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| Isoniazid    | 9 months | Daily    | Preferred treatment for:
  - Persons living with HIV
  - Children aged 2-11
  - Pregnant Women (with pyridoxine/vitamin B6 supplements) |
|              |          | Twice weekly* | Preferred treatment for:
  - Pregnant Women (with pyridoxine/vitamin B6 supplements) |
| Isoniazid    | 6 months | Daily    |                                                                                                              |
|              |          | Twice weekly* |                                                                                                              |
The following antituberculosis drugs are contraindicated in pregnant women: Streptomycin, Kanamycin, Amikacin, Capreomycin, Fluoroquinolones

**Drug-Resistant TB**

Pregnant women who are being treated for drug-resistant TB should receive counseling concerning the risk to the fetus because of the known and unknown risks of second-line antituberculosis drugs.

**Breastfeeding**

Breastfeeding should not be discouraged for women being treated with the first-line antituberculosis drugs because the concentrations of these drugs in breast milk are too small to produce toxicity in the nursing newborn. For the same reason, drugs in breast milk are not an effective treatment for TB disease or latent TB infection in a nursing infant. Breastfeeding women taking INH should also take pyridoxine (vitamin B6) supplementation.
II. Active Disease

IF Symptoms of Pulmonary TB
   Cough of >2 weeks duration, unexplained weight loss of more than 10% of body weight, night sweats

PLUS High risk factors (See above)

1. Order IGRA (Quantiferon-X TB)

   \[\text{PA Chest x-ray to evaluate for pulmonary or pleural disease}\]

   \[\text{Normal chest x-ray or chest x-ray with calcified nodules only}\]

   \[\text{If IGRA is Negative, do not begin INH prophylaxis and evaluate further for non TB causes of symptoms}\]

   \[\text{If IGRA is Positive, while doing other evaluations for symptoms, begin INH prophylaxis}\]

   \[\text{Chest x-ray suggestive of prior healed TB infection, cavitary disease or pleural disease}\]

   \[\text{Refer to Infectious Disease Services}\]
References


2. Centers for Disease Control and Prevention CDC.gov website pages related to tuberculosis diagnosis and treatment


Background Reading on TB in Pregnancy


These algorithms are designed to assist the primary care provider in the clinical management of a variety of problems that occur during pregnancy. They should not be interpreted as a standard of care, but instead represent guidelines for management. Variation in practices should take into account such factors as characteristics of the individual patient, health resources, and regional experience with diagnostic and therapeutic modalities.

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