TB Update for Civil Surgeons

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Topics

1. Discuss overseas screening and the importance of civil surgeons in TB elimination
2. Review the new I-693 Technical Instructions for TB screening
3. Who, when and how to refer patients to Public Health for TB follow-up
Objectives

After this course, you will be able to:

1. Describe the role of the civil surgeon in TB elimination
2. Complete the I-693 correctly
3. Explain when and how to refer patients to the Denver Metro TB Clinic
4. Describe when and how to treat latent TB
How often will active TB be detected?

Denver Health screened 7,573 “change of status” immigrants over 20 mo. ‘87-88.

- 75% less than 35 years of age
- 42% PPD-positive
- 10% of PPD+ with any CXR abnormality
- 1.7% of abnormal CXR were active TB

Blum, Chest 1993;103:1770
Treatment of Latent TB and Outcomes: DH Immigrant Screening (1)

- Treatment of LTBI recommended for 1,029
- Treatment for $>6$ mo. completed in 716 (70%)
- No INH hepatitis, 2 stopped due to side effects
Treatment of Latent TB and Outcomes: DH Immigrant Screening (2)

- 4 cases of active TB developed over 3 years
  - All had LTBI and normal CXR on screening
  - 3 pulmonary (one fatal), one lymphatic

- Case rate of 2 per 1,000 over 3 years
27 y/o female

- born in India, immigrated 1 year ago
- 16 weeks pregnant
- Asymptomatic
- Has a history of BCG as a child and no other PMHx
- No PPD is done
3 yrs later … 30 y/o female

- Pneumonia - improved on levofloxacin
- No AFBs
- No PPD
After treatment with levofloxacin
2 years later … 32 y/o female from India

- Immigrated to the U.S. 6 years ago

- She is 12 weeks pregnant and presents with a 2 week history of a productive cough, fever and chills

- After failing to respond to azithromycin (Z-pac) twice and 1 month of symptoms she gets a CXR
AFB smear (+)
Risk Factors for Infection:

1. Persons born/resided where TB is common (includes travel > 3 months to an endemic area)

   Central and South America, Africa, Eastern Europe, Asia and the Pacific Islands
Diagnosing TB in Primary Care Clinics (2)

Others at Risk for Infection:

- Elderly U.S. born (>70)
- Health Care Workers
- Persons who live/work in high-risk congregate settings (jail, nursing home, homeless shelters)
- Substance abusers (IV drugs or alcohol)
- Children exposed to high-risk adults
  (US born children of foreign-born parents)
Diagnosing TB in Primary Care Clinics (3)

Risk Factors for Progression:

- HIV
- Immunosuppression (transplants, TNF-alpha inhibitors)
- Recent close contact to active TB
- Fibrotic CXR changes consistent w/ prior TB

- Diabetes
- Chronic renal failure
- Silicosis
- Leukemia / lymphoma
- Head/neck cancer
- Wt loss > 10%, gastric bypass surgery
Diagnosing TB in Primary Care Clinics (4)

- Test people with risk for infection, risk for progression, and especially those with both
- TST is most widely available
- QuantiFERON and T-SPOT.TB are newer blood tests for diagnosing LTBI
- A positive on any should prompt a CXR and careful symptom review to exclude active disease
Recommended Treatment for Latent TB Infection

- INH daily for 9 months preferred for both HIV (-) and HIV (+)
  - adults 5 mg / kg, max 300 mg
  - children 10-20 mg / kg, max 300 mg
- Vit B6 25mg daily
Lab Work

- Not routinely indicated
- Baseline hepatic test & after one month if:
  - Initial work-up suggests possible liver disorder
  - Pregnant or immediate post-partum
  - HIV positive
  - Taking other meds with potential for liver toxicity
Monthly Monitoring

1. Signs/Symptoms of Active TB
2. Possible Side Effects of INH
   - toxicity/hepatitis
   - lab work as needed
3. Establish rapport with patient and emphasize:
   - benefits of meds
   - importance of adherence
Summary

- Use a risk assessment and CXR to decide when to collect sputum
- Sputum smears and TST alone do not rule out active TB
- Avoid using fluoroquinolones
- Call the TB clinic (or local health dept) early and often with suspect cases
- Prevent TB by evaluating and treating at risk patients with latent TB infection
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