Experience with Tuberculosis on a College Campus – 2006

- December 2006: Six cases of active pulmonary tuberculosis identified in foreign born students attending a mid sized university in Alabama.

Tracking the Progress
Local University – 2007

- Local university developed a screening program for identification of TB infection and TB disease in foreign born or at risk population.
- Advisory Committee for Tuberculosis convened a panel of experts and university officials to develop guidelines for Alabama colleges and universities.
Tracking Progress—Local University—2007

- Female foreign born student who had attended the local university transferred to another part of Alabama developed active pulmonary TB.
- Female foreign born student identified with LTBI in 2006, declined INH preventive therapy, transferred to New Hampshire, developed active pulmonary TB.

Tracking Progress—Local University—2008

- One male foreign born student identified in screening process as having completed treatment for active pulmonary TB in India.
- Two female foreign born student declined INH during the 2006 university outbreak, developed active pulmonary TB completed treated by the local health department.
- Two female and one male foreign born student identified in screening process as under treatment for active pulmonary TB in country of origin completed treatment at the local health department.

Tracking Progress—Local University—2009

- Male foreign born student screened in 2007 and declined INH. Developed active pulmonary tuberculosis. Treated at the local health department.
Summary 2007 – 2009

- Proactive screening identified three patients who were under treatment for tuberculosis in their country of origin and completed treatment in Alabama.
- Four patients identified in screening as having LTBI in 2006 and 2007 declined INH. These patients subsequently developed active pulmonary tuberculosis.

Reducing TB in Colleges and Universities

- State Health Officer disseminated recommendations to colleges and universities in March, 2009.
- Collaboration with local university served as a model for the development of the guidelines.

Overview of Recommendations for Tuberculosis Screening in Students Attending Alabama Four Year Colleges and Universities
Recommended Guidelines

- All students will be evaluated using a TB risk assessment questionnaire.
- Students with TB risk factors identified on the risk assessment form will undergo TB screening interview to evaluate for signs and symptoms of active TB.

Recommended Guidelines

- Students deemed to be at high risk for TB will have a Mantoux TB skin test or IGRA following standard procedure.
- IGRA is preferred in patients with a history of BCG vaccination.

Recommended Guidelines

- Student health facility or clinician must notify the ADPH TB Manager of individuals with signs and symptoms of TB regardless of skin test/IGRA status.
- Individuals with a known previous history of positive TB skin test/IGRA should have a chest x-ray to rule out active pulmonary tuberculosis.
**Recommended Guidelines**

- Students from the United States or other low risk areas for tuberculosis should not be routinely screened for TB.
- Low risk students entering health care professions or working in facilities which place them at risk for exposure to TB should be screened prior to potential exposure.

**Recommended Guidelines**

- Students with positive TB skin tests/IGRAs must have a chest x-ray performed to evaluate for active pulmonary tuberculosis.
- Abnormal chest films must be provided to the local health department for further assessment of suspect tuberculosis.

**Recommended Guidelines**

- School administration should establish mechanisms to provide medication for latent TB infection.
- Administration should encourage individuals with positive TB skin tests/IGRAs and negative chest x-rays to take medication for LTBI if no contraindications exists.
- No restrictions should be placed on attending class, work, or campus activities for persons with LTBI.
Challenges

- Experience indicates that cultural differences are a significant factor in achieving compliance for LTBI.
- Despite screening and education, four students from our local university developed active tuberculosis at a later date.
- These four patients experienced symptoms of tuberculosis for several weeks prior to seeking treatment.

What are the Answers to the Challenges?

- How can we improve patient acceptance and completion of preventive therapy for tuberculosis?
- For those who decline preventive therapy, how can we better educate patients to seek prompt medical care at the onset of signs and symptoms of tuberculosis?
- What other measures can reduce the number of cases of active pulmonary tuberculosis in the foreign born college and university population?

Implementation of Guidelines

- Implementation is a process requiring education about the importance of targeted testing
- Educate about cultural competency using guidelines developed for countries of origin for international students
- Seek input from International Student Programs to identify additional cultural barriers
Implementation of Guidelines

- Have international student mentors to speak to peers regarding preventive therapy
- Conduct a highly visible and important educational sessions with incoming students including participation from university administration, student health providers, and health department TB control program

Partners in the Ongoing Effort to Reduce Tuberculosis in Colleges and Universities in Alabama

- The Alabama Department of Public Health
- The Tuberculosis Medical Advisory Council of Alabama
- The University of Alabama School of Medicine
- The University of North Alabama
- Auburn University