Wednesday Morning Review and Q&A

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TST - boosting
Under what circumstances would you boost a patient more than once? Is there a time limit – i.e. if they haven’t been tested for LTBI more than 5 years, 10 years, for example.

- Boosting is usually done in someone who needs serial testing
  - Healthcare workers
  - Nursing home residents
  - Prison inmates
- We do not routinely boost everyone.

LTBI - Vitamin B6
Why was the slide for Vitamin B6 skipped over in the LTBI TX presentation? Is Vit B6 no longer indicated with INH?

- Vit B6 should be administered together with INH for patients with
  - Conditions that can predispose to neuropathy
    - diabetes, uremia, alcoholism, malnutrition, and HIV infection
  - Pregnancy and to infants of breastfeeding mothers receiving INH

LTBI - INH + Rifapentine
Even though the RX of INH and Rifapentine is not published. Is it being used as a treatment for LTBI at this time?

- Recent NEJM publication - South Africa.
LTBI- Rifapentine

- The outcome of the PREVENT TB trial represents a major advance in TB treatment.
- The new regimen is simpler — reducing the required treatment from 270 daily doses over 9 months to 12 once-weekly doses over 3 months.
- The study results suggest that we may soon be able to treat latent TB infection more easily, which would prevent more cases and slow the spread of TB disease.
- The trial results are applicable only to countries with low-to-medium TB incidence. Additional research will likely be needed before the new regimen can be recommended in countries with a high incidence of TB.
- CDC recently convened an expert consultation to review the data and begin working on new treatment guidelines for the use of the new regimen in the U.S. These guidelines are expected later this year.

Prior LTBI → New Contact

If a person gives a history of treatment of LTBI and is exposed to an infectious patient. Do you recommend anything more than symptom review?

- CXR.
- If a patient was treated with INH, but the new index case is INH resistant → Consider Rif.
**LTBI- MDR TB Contact**

What is treatment for LTBI of MDR patient contact:
- Individualized based on drug susceptibility testing (DST) of index case.
- Usually choose 2 drugs the organism is sensitive to. (PZA + FQ)
- Duration 6 - 12 months,
- DOPT (directly observed preventive therapy)
- Monitor for hepatotoxicity
- Follow for 2 years.

**To bronch or not to bronch (1)**

Which is a better diagnostic tool. Bronchoscopy or sputum?
- For TB - if able to cough up adequate specimen - sputum is good for smear/cx/NAAT
- Pulmonary may request AFB smear neg X 3 → bronch
- Aid in diagnosis (TB or not TB)

**To bronch or not to bronch (2)**

Is there a difference between bronchial aspirate, fluid, or wash?
- BAL = Bronchoalveolar lavage
  - Sampling of cells and secretions in alveolar or bronchial air space
  - lymphocytosis
- Wash → saline into larger airways → suck it back up → sample
- Aspirate – mediastinal lymph node biopsy
METHODS: We randomly assigned South African adults with HIV infection and a positive tuberculin skin test who were not taking antiretroviral therapy to receive rifapentine (900 mg) plus isoniazid (300 mg) weekly for 12 weeks, rifampin (600 mg) plus isoniazid (900 mg) twice weekly for 12 weeks, isoniazid (900 mg) daily for 6 months, isoniazid (900 mg) daily for 6 months (continuous isoniazid) or isoniazid (300 mg) daily for 6 months (control group). The primary end point was tuberculosis-free survival.

RESULTS: The 1148 patients had a median age of 30 years and a median CD4 cell count of 484 per cubic millimeter. Incidence rates of active tuberculosis or death were 3.1 per 100 person-years in the rifapentine-isoniazid group, 2.9 per 100 person-years in the rifampin-isoniazid group, and 2.7 per 100 person-years in the continuous-isoniazid group, as compared with 3.6 per 100 person-years in the control group (P>0.05 for all comparisons). Serious adverse events were more common in the continuous-isoniazid group (18.4 per 100 person-years) than in the other treatment groups (8.7 to 15.4 per 100 person-years). Two of 58 isolates of Mycobacterium tuberculosis (3.4%) were found to have multidrug resistance.

CONCLUSIONS: On the basis of the expected rates of tuberculosis in this population of HIV-infected adults, all secondary prophylactic regimens were effective. Neither a 3-month course of intermittent rifapentine or rifampin nor continuous isoniazid was superior to 6 months of isoniazid. (Funded by the National Institute of Allergy and Infectious Diseases and others; ClinicalTrials.gov number, NCT00057122.)