

Vanderbilt study leads to simpler therapy for treating latent tuberculosis

December 9 2011, By Carole Bartoo

Research, led by Timothy Sterling, M.D., professor of Medicine at Vanderbilt University Medical Center, has led to an important change in CDC recommendations in the regimen for prevention of the centuries-old scourge, tuberculosis (TB). Sterling's work is published in the Dec. 8 New England Journal of Medicine (NEJM).

On Friday, Dec. 9, The Centers for Disease Control and Prevention (CDC) announced in the Morbidity and Mortality Weekly Report (MMWR) that the new regimen, which takes one-third the time of current therapy, offers an effective treatment option for many patients at high risk for developing TB. Latent TB infections result from exposure to TB, without the contagion and illness caused by the disease itself.

Up to now, the regimen for latent TB infection was daily doses of a drug called isoniazid (INH). A total of 270 daily doses were taken over the course of nine months to eradicate the bacteria, which can lie dormant in the body for years.

The study of 8,000 patients in four countries over 10 years showed that just twelve doses, given once-weekly, of INH combined with another TB drug called rifapentine was as effective. The shorter, weekly combination therapy was safe and effective, but perhaps the most important finding was the new therapy improved compliance by at least 10 percent.

"This is a game changer. Currently less than half of the people who start



the current therapy complete it. The new combination would require direct observation, but more people would complete treatment," Sterling said.

The CDC said while cases of active TB are at an all-time low, approximately 4 percent of the U.S. population, or 11 million people, have latent TB. Active TB cases, which can be deadly to patients who have a compromised immune system, still occur in Nashville. To prevent a resurgence of active and infectious disease, the Metro Nashville Public Health Department's Division of TB Elimination works with an average of 700 new cases of latent TB per year.

The Metro Nashville Public Health Department was one of the sites for Sterling's study, which was funded by the Centers for Disease Control and Prevention (CDC). Other Vanderbilt investigators included Amy Kerrigan, MSN, R.N., and Alicia Wright, among others.

Sterling says continued research is important. The new treatment is not an option for all patients, and may not work well in nations where TB incidence is higher. Children under 2 were excluded from the study.

Provided by Vanderbilt Medical Center

Citation: Vanderbilt study leads to simpler therapy for treating latent tuberculosis (2011, December 9) retrieved 2 May 2024 from https://medicalxpress.com/news/2011-12-vanderbilt-simpler-therapy-latent-tuberculosis.html

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