Performance of Xpert MTB/RIF in Induced Sputum Samples at Detecting Mycobacterium Tuberculosis

To the Editor—In the 1 April 2014 issue of Clinical Infectious Diseases, Sohn et al [1] evaluated the performance of the Xpert MTB/RIF assay at a pulmonary referral center in Montreal, a city with low tuberculosis incidence. The investigators found that the overall sensitivity of the test was 46%, compared with mycobacterial cultures. The article and the accompanying editorial question whether the poor performance of Xpert MTB/RIF is due to the use of induced sputum specimens, instead of expectorated specimens or concentrated specimens. In his editorial, Dr Max Salfinger recommends additional studies to assess the validity of using unconcentrated induced sputum [2].

I would like to point the authors and the readers to an article published in Lancet Respiratory Medicine [3]. This study evaluated the performance of expectorated sputum following instructions by a healthcare worker or induced sputum in patients suspected of tuberculosis who have smear-negative or smear-scarce sputum samples. The primary endpoint was starting tuberculosis therapy within 8 weeks of enrollment, and one of the secondary endpoints was case detection by diagnostic method: culture yield, smear microscopy, and Xpert MTB/RIF. The performance of Xpert MTB/RIF was comparable between groups with expectorated sputum and induced sputum (13/89 [15%] vs 20/138 [14%]; $P = .98$). Although the study was conducted in South Africa, an area with high tuberculosis incidence, the patient group selected for the study is comparable to the patient group evaluated in Montreal in terms of preponderance of smear-negative disease. Hence at least from one study, there is reassurance that induced sputum performs comparably to expectorated samples when tested by Xpert MTB/RIF assay.

Note

Potential conflicts of interest. Author certifies no potential conflicts of interest.

The author has submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Conflicts that the editors consider relevant to the content of the manuscript have been disclosed.
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References


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