

New diagnostics tool, the Xpert Ultra assay, improves detection of mycobacterium tuberculosis

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Researchers have demonstrated a new, improved version of the Xpert MTB/RIF assay, a test for Rifampicin-resistance (RIF-R). The Xpert "Ultra" assay overcomes the shortcomings of the current Xpert assay to significantly improve tuberculosis detection, especially in patients with pauci-bacillary disease. The new Xpert Ultra assay also provides a more reliable detection of Rifampicin resistance (RIF-R). The research is published this week in *mBio*, an open-access journal of the American Society for Microbiology.

The Xpert MTB/RIF (Xpert) assay, the first point-of-care assay for tuberculosis (TB), was endorsed by World Health Organization in December 2010. Although it shows high overall sensitivity and specificity, it has several limitations, such as yielding both false positive and false negative results for the prediction of RIF-R in pauci-bacillary samples. This study shows that the new Ultra assay format, which includes new gene target amplifications and improves previously amplified targets, overcomes many of the known shortcomings of the Xpert assay, and should significantly improve TB detection.

Provided by American Society for Microbiology

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