

ORAL ABSTRACT: FEASIBILITY OF USING DETERMINE-TB LAM TEST IN HIV INFECTED ADULTS IN PROGRAMMATIC CONDITIONS

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Background:

We assessed the feasibility and described the operational aspects of using the Determine-TB LAM (LAM) test for diagnosis of tuberculosis (TB) in adult HIV infected patients.

Methods:

This multi-centric study was conducted in Malawi and Mozambique from 2014 to 2016. LAM was used as a rule in screening tool for hospitalized adult HIV infected patients (Malawi) and for ambulatory patients with CD4 <100 / μ l (Mozambique), and as an additional diagnostic tool for adult HIV infected TB suspects with CD4 <200 / μ l (Malawi and Mozambique). Standard questionnaires were used to assess user acceptability of LAM; electronic databases used to calculate reader agreement between LAM users, and health centre registers to calculate workload. Supervision notes, minutes of meetings, training reports, and personal observations were used to assess training required, patient flow changes after LAM introduction, strengths and challenges of using the LAM test.

Results:

Training of LAM users was performed in approximately 1.5 hours in Malawi and 4 hours in Mozambique. All users found the test easy to perform. Reader agreement for test interpretation was excellent: 98.9%, kappa=0.97, and 98.3%, kappa=0.94 for Malawi and Mozambique respectively. Time to results when LAM was performed in the consultation room was 2 to 7 times lower than when performed in the laboratory. LAM positive patients were started on TB treatment on same day. Introduction of LAM did not require additional space or staff. Strength of LAM was that overall, 98.7% and 99.6% of patients received a LAM result compared to 69.5% and 67.2% receiving a sputum result, and 31.7% and 46.0% receiving a chest X ray result in Malawi and Mozambique respectively. A challenge in Mozambique was the need for CD4 prior to the LAM test to identify LAM eligible patients.

Conclusion:

Using the LAM test to diagnose TB among hospitalized or severely immune-suppressed ambulatory HIV patients was feasible, well accepted, and required minimal training. The LAM was a useful additional test for TB in this group because of the ease of providing the urine sample and the rapidity of the results which allowed immediate TB treatment for LAM positive patients.