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**ESTABLISHING A RAPID ISOLATION METHOD**

**FOR**

*Mycobacterium tuberculosis*

A PROJECT REPORT PRESENTED BY

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Tuberculosis has become one of the three main killer diseases in the world. Patients with active respiratory disease are the source of infection to others. According to the World Health Organization the shortage of laboratory capacity to provide culture and drug susceptibility based on conventional technologies demonstrates the need for rapid introduction of new diagnostic tools. In this study, three culture media were compared with respect to time taken for detection and risk of contamination. From the results it can be stated that both Lowenstein-Jensen medium and Middlebrook media behave the same with regard to time taken for isolation of *Mycobacterium tuberculosis* contamination rates.

Microscopic observation of drug susceptibility (MODS) gives rapid results when compared to the solid culture methods (mean duration of time 19 days and 9 days respectively) and a lower contamination rate than the solid cultures. However, subjectivity of reading is a practical limitation of the method. It can be concluded that with proper expertise MODS method can be implemented in resource limited settings in order to obtain rapid results in the laboratory diagnosis of tuberculosis.