In nut shell, the direct TTC assay and direct MODS assay may be used for the effective and accurate detection of isoniazid and rifampicin resistance directly from ZN smear positive sputum samples preferably from mucopurulent sputum specimens. These alternative methods seem to have the potential to provide rapid detection of resistance to isoniazid and rifampicin when compared to indirect LJ PM (technically exacting, cumbersome and time devouring) and could be implemented in laboratories with limited resources. But, MODS assay is relatively costly; require use of inverted microscope, increased contamination and cross contamination rates. On the other hand, the direct TTC assay seems to be an economical alternative method (simple to perform, do not require any special instrumentation, easy to interpret the results, low contamination and cross contamination rates) for the rapid and accurate detection of INH and RIF resistance (with a higher sensitivity and specificity) from direct AFB smear positive sputum specimens obtained from both newly diagnosed and previously treated TB patients when compared to direct MODS assay and Indirect LJ PM.