

Editorial

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## Mycobacterium tuberculosis and Phenotypic Drugs Susceptibility Tests

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In this editorial, phenotypic drugs susceptibility test methods in *Mycobacterium tuberculosis* were discussed.

Determination of resistance patterns of *Mycobacterium tuberculosis* is an important step for management of tuberculosis patients [1]. Rapid automated systems (BACTEC MGIT 960 and BACTEC 460 TB) are available, too. Although they are rapid, their high cost and requiring radioactive substance are important disadvantages. Proportion method is the proposed reference method and it can be done on Middlebrook 7H10 and 11 agar and Lowenstein-Jensen medium. But the test applied on these media requires 4 weeks to obtain results [2]. Rapid and low cost methods that circumvent mentioned disadvantages have been defined recently. These methods include colorimetric redox indicator (CRI) methods (e.g. resazurin microplate and tube assay), nitrate reductase test (NRA), MTT, XTT, malachite green, microscopically

observed drug susceptibiliy (MODS) and crystal violet decolorization tests (not published yet). CRI, NRA and MODS gained great concern and recommended by WHO. Susceptibility results obtained between 7 and 14 days by mentioned methods [3]. In conclusion, the first step is the determination of resistance pattern for effective treatment and controlling of tuberculosis.

## References

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