

Abstract

# Evaluation of Drug Resistant Tuberculosis (DR-TB) Surveillance System in Balochistan Province, 2016

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## Abstract

**Background:** Eight million people are infected and 3 million die due to TB every year. Pakistan ranks 5th amongst 22 High burden countries with TB and 4th among 27 DR-TB high burden countries and accounting for about 81% of all estimated TB cases worldwide. Pakistan contributes about 65% of TB burden in Eastern Mediterranean Region. In Balochistan patients are filtered from chest and medicine OPDs of tertiary care hospitals and from Basic Management Units (BMU) of districts, sputum of eligible DR-TB patient is sent by transportation mechanism. Diagnosis of DR-TB requires Gene-Xpert testing, available at 04 Programmatic Management Drug Testing (PMDT) sites.

**Objective:** An evaluation of MDR-TB surveillance system was conducted to identify strengths and weaknesses of surveillance system and make recommendations for improvements.

**Methods:** Evaluation was performed during March-July 2017 for year 2016. Qualitative and quantitative assessment of system attributes utilizing the Updated CDC Guidelines for Evaluating Public Health Surveillance Systems, 2001 was conducted. A desk review of all available departmental reports and literature was undertaken. Stakeholders were identified, and interviews were held using a semi-structured questionnaire.

**Results:** Case Definition is simple and uniform. System is less flexible but able to integrate with other systems. Data quality is good as 95% forms found complete. Reporting is based on clinical Signs and symptoms and confirmation with gene expert, DST and culture. Acceptability is good, has good coordination with other health systems. Timeliness is good as reporting is within 24-48 hours. System is stable and secure because of timely response. Representativeness is good as 80% public and private sectors are involved. Sensitivity and PVP calculated was 73.4% and 100% respectively for year 2016.

**Conclusions:** System is working effectively at PMDT sites, but Response of private sectors is poor. Recommendations were to sensitize private doctors and paramedics around the province about DR-TB. To increase public private collaboration.

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