

Abstract

Drug Resistant Tuberculosis: An Emerging Public Health Threat in Yemen, 2014-2016

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Abstract

Background: Drug-resistant tuberculosis (DR-TB) is a serious obstacle for successful TB control. The 2010–2011 Yemen DR-TB Survey showed an overall Multi DR-TB (MDR-TB) prevalence of 2.9% that was 1.4% in newly- and 14.4% in previously-treated patients. DR-TB Surveillance system was introduced in Yemen in December 2013 to improve detection and management of DR-TB.

Objective: To describe the pattern, drug sensitivity and treatment outcome of DR-TB.

Methods: Data on DR-TB cases from 2014 to 2016 was obtained from National Tuberculosis Control Program (NTCP). The NTCP modified WHO case definitions for treatment outcome was used where treatment success defined as completing treatment according to program protocol with at least five consecutive negative smears from samples collected at least 30 days apart in the final 12 months of treatment.

Results: Out of 32,528 TB patients diagnosed during 2014 -2016, 115 (4/1000) were DR-TB. The highest number was reported from Aden (40%) and lowest from Taiz 12%; 59% among males; and 67% among most productive years (24-45 years). Furthermore, 97% was among previously treated TB patients and 3% was positive for HIV. MDR-TB confirmed in 68% and Rifampicin Resistance (RR-TB) in 31%. The treatment success rate was 70% and death rates was 15%. Detection and enrollment rates were 27% and 80%.

Conclusions: Despite NTCP efforts to respond to the challenge of DR-TB in Yemen, scaling-up of DR-TB services and removing the access barriers are crucial to increase the detection rate. Comprehensive strategies targeting priority population especially those enhancing treatment availability need to be implemented to increase enrollment. More intensive efforts to better manage MDR/RR-TB through adapting WHO shorter recommended regimen and inpatients management for those requires hospitalization will help to improve the treatment success and minimize further emergence of totally drug-resistant TB cases.

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