

## Survival rate among tuberculosis patients identified in south of Iran, 2005-2016

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### Abstract

**Objective:** To determine the survival rate of tuberculosis (TB) patients and to identify the important factors associated with the survival of these patients in southern Iran. **Methods:** The present retrospective cohort study extracted and reviewed available medical records of 134 TB patients undergoing TB treatment centre, during 2005 to 2016. The Survival rate of patients for the outcome of the interval from diagnosis until death was plotted using life table and Kaplan-Meier survival curve. Cox proportional hazard regression model was used to examine the simultaneous effect of variables on survival rate. The significance level was considered to be 0.05. **Results:** In this study, 64.2% of the participants were male, 73.1% had pulmonary TB and 5.22% had HIV. The survival rate of one, five and thirteen years after diagnosis were 93%, 78% and 69%, respectively. The risk of death in patients with extrapulmonary TB (95%  $CI=1.96-15.83$ ,  $P=0.001$ ) was 5.58 times higher than in patients with pulmonary TB. The risk of death in smokers with TB (95%  $CI=1.74-2.46$ ,  $P<0.001$ ) was 2.07 times higher than in non-smoker patients, and also the risk of death increased to 1.10 times more for a one-year increase in patient age (95%  $CI=1.06-1.14$ ,  $P<0.001$ ). **Conclusions:** The risk of death in patients with extrapulmonary TB and TB smokers was higher than other patients. Therefore, timely diagnosis and proper treatment of patients with extrapulmonary TB as well as the development and integration of smoking cessation programs are underlined and emphasized in the formulation and implementation of the National Tuberculosis Control Program.

**Keywords:** Survival rate, Tuberculosis, Risk factors, South Iran