



TB/HIV Co-infection in Iran: Current Situation and the Modeling Study for Future Policy

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Dear Editor-in-Chief

Tuberculosis (TB) is the commonest opportunistic disease among HIV patients with an estimated of 1.2 million HIV positive new TB cases in the world, in 2014 (1, 2). TB is the leading cause of death among HIV/AIDS patients (2) and it also enhances the progression of HIV to AIDS, increases the infectivity and reduces the efficacy of HIV treatment (3). Up to 10% of HIV/TB patients develop active TB (4). Co-infection with HIV can enhance the risk of latent TB reactiva-

tion by 20-fold (5). According the projection of WHO, TB and HIV infections will one of the tops 20 causes of death in 2030 (6).

Based on the WHO report, the status of HIV morbidity in 29% of Iranian TB patients were clear and 9% of them were HIV positive (Table 1). The estimated incidence rate of TB in Iran was 22 (18-26) and among TB/HIV cases was 0.51 (0.38 – 0.66) per 100,000 persons in 2014 (Table 2) (7).

Table 1: Status of TB/HIV co-morbidity in Iran based on TB case notifications, 2014

TB/HIV status	Number	Percent
TB patients with known HIV status	3009	29
HIV-positive TB patients	272	9
HIV-positive TB patients on antiretroviral therapy (ART)	100	37
HIV-positive people screened for TB	8233	

Table 2: Estimates of TB burden in Iran, 2014

Estimates of TB burden	Number (thousands)		Rate (per 100,000 population)	
Mortality (excludes HIV+TB)	2.7	(1.9 – 3.7)	3.5	(2.4 - 4.7)
Mortality (HIV+TB only)	0.11	(0.07– 0.15)	0.14	(0.09 – 0.19)
Prevalence (includes HIV+TB)	26	(13 – 43)	33	(17 – 55)
Incidence (includes HIV+TB)	17	(14 – 20)	22	(18 – 26)
Incidence (HIV+TB only)	0.4	(0.3 – 0.52)	0.51	(0.38 – 0.66)

The dynamics of the TB epidemic depends on the HIV status in a country. Therefore is necessary to control TB in high HIV prevalence sub-populations to achieve the high rates of detection and successful treatment of TB cases. In other words, additional measures are also necessary to develop improved specific TB control. The modelling studies have provided (8, 9) the significant data on the epidemiology of TB, which might be useful on future policies and interventions for TB control in Iran.

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