Healthcare system delay and utilization in tuberculosis patients in Portuguese high-incidence region

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Background:
In Portugal, the Tâmega e Sousa region (TeS) has a high incidence of tuberculosis (TB) [27.4 and 43.8 per 100.000 inhabitants in sub-regions Baixo Tâmega (BxT) and Vale do Sousa Sul (VSS), 2017]. Delay in TB diagnosis leads to increased transmission, which may lead to more people infected. This study aimed to describe healthcare system delay among TB patients and healthcare utilization from symptoms onset to diagnosis in TeS.
Methods:
We analysed pulmonary TB cases notified in BxT and VSS in 2014-7 in the national surveillance system (SVIG-TB). Concomitantly, we analysed healthcare utilisation from patients in a retrospective study (URBAN-TB) about TB delays in 2019-20. We characterised demographics of patients from each data source and comorbidities from SVIG-TB. We calculated median overall delay until diagnosis (days); and healthcare delay overall and by patient characteristics, for each sub-region. Delay was calculated only when relevant dates were recorded. Healthcare utilisation from symptoms onset to diagnosis was described using the frequency of each first contact provider and the average number of visits until diagnosis.
Results:
Included 139 patients from BxT and 206 from VSS (83% male, 53% aged 40-59y, and 17% with silicosis). Global delays were 48 and 75 days (n = 57/132; BxT and VSS). Healthcare delays were 7 and 8 days (n = 76/180; BxT and VSS). In both ACES, healthcare delays were longer for patients aged 60-79y, with COPD and aged 0-19y. Healthcare utilisation analysis included 38 patients (89% male; 55% aged 40-59y; n = 17/21). Primary care (n = 15; 39%) and emergency department (ED) (n = 9; 24%) were frequent points of first contact. The average number of visits until diagnosis was higher for patients from ED (3.9) and lower for patients from TB specialised units (1.3).
Conclusions:
Our results suggest that in TeS it is important to avoid ED as a point of first contact of TB patients and to facilitate the diagnosis in young, older and COPD patients.
Key messages:
- Emergency department is a relevant point of first contact and may be included in efforts to reduce tuberculosis delay.
- Policies to reduce tuberculosis delay may target younger, older and COPD patients.