

## Social Profile and Outcomes of Users Submitted to Directly Observed Treatment (Dot): A Literature Review

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### Abstract

**Introduction:** The Directly Observed Treatment (DOT) promotes an increase in adhesion, creates a bond, increases cure rates and reduces the risk transmission in the community.

**Objective:** To analyze the profile and outcomes of tuberculosis patients submitted to Directly Observed Treatment.

**Method:** It is a bibliographical review of the literature, held in the Lilacs and Pubmed database from December 2016 to January 2017.

**Results and discussion:** It was found 423 scientific articles, of which 417 were excluded. The profile of tuberculosis patients submitted to DOT was male, at an economically active age, low educational level, unemployed, absence of TB/HIV co-infection, predominance of pulmonary clinical form, positive smear microscopy and is directly associated with cure of TB treatment.

**Conclusion:** It was found that the profile of the TB patients who underwent DOT reflected the same results found in the incidence of the disease and assists the favorable outcome of the treatment.

**Keywords:** Tuberculosis; Directly observed therapy; Health profile; Treatment outcome

### Introduction

Directly observed treatment (TDO) aims to ensure adherence to the treatment of tuberculosis (TB), increase in case detection and strengthening of the bond, in order to achieve better percentages of cure, interrupting the chain of transmission [1] and the development of multidrug-resistant TB (MDR-TB).

Therefore, it is necessary to know the profile and difficulties of TB patients in adhering to treatment, in order to seek better strategies and actions in the provision of care. It is important to note that DOT is not only observed by the intake of medications, but through the bond and understanding the characteristics of the population to be treated.

In this sense, this study aimed to analyze the social profile and outcomes of TB patients submitted to DOT, based on a literature review.

### Methods

This is a bibliographical review of the literature, carried out in the databases of Latin American and Caribbean Literature in Health Sciences (Lilacs) and International Literature in Health Sciences (PubMed), from December 2016 to January 2017, based on the guiding question "What are the outcomes and profile of TB patients submitted to DOT?"

The indexed descriptors "Tuberculosis", "Treatment Outcome", "Medication Adherence", "Process Assessment", "Health Profile", "Health Services" and "Directly Observed Therapy" were used by means of the combination Descriptors through the Boolean AND.

The inclusion criteria used were scientific articles available in full for free access, carried out in the period from 2012 to 2016, in national and international journals, as well as those that addressed the topic of the DOT. Literature reviews, letters, editorials, manuals, articles of reflection and debates, as well as dissertations, academic theses and duplicate articles were excluded.

### Results and Discussion

A total of 423 scientific articles were found, 147 in Lilacs and 276 in Medline. Of these 417 were excluded, of which 8 were not complete articles, 10 were not available for free access, 67 were prior to the period previously selected, 317 had no relevant results to the object of this study and 15 were duplicated. Therefore, six articles [2-7] were selected for reading in full.

The profile of TB patients undergoing DOT was characterized by being male [3,6], which is associated with health-related behavior [5], economically active age [2-7], which reflects a negative impact on socioeconomic status of the population [6].

Other studies have addressed the low educational level (7.7 years) [2], however, did not indicate a risk factor for TB. It should be emphasized that the lack of information can influence the knowledge

of the various health problems, favoring the continuity of the TB transmission chain.

Unemployment was evidenced in two studies [2,5], either due to absence of employment, no formal contract or informal work. This result can be inferred from the lifecycle of treatment, keeping in mind that financial resources are required to maintain and improve the health status of the patient.

It was found that when the DOT is carried out effectively, as well as social, incentives offered such as food basket and transportation vouchers, help in living conditions and, consequently, the success of the outcome of the treatment [7].

Regarding the clinical profile of TB patients undergoing DOT, studies indicated that these TB patients were not co-infected with TB/HIV [6], had a pulmonary clinical form [6,7] and positive sputum smear microscopy [7] for the diagnostic examination.

The absence of TB/HIV co-infection may reflect the adherence to treatment by this population, either by the side effects and quantity of the medications, as well as stigma and long treatment period. The pulmonary clinical form is the transmissible form of the disease. This fact can be related to the diagnostic exams performed, such as sputum smear microscopy and positive result.

Regarding the outcome of TB treatment (cure, abandonment, failed, transferred out and death) [4-7] of the patients submitted to DOT, an increase in the percentage of cure was observed [4-7]. Regarding the abandonment variable, one article [5] had a higher percentage than that recommended by the WHO (5%) and the other studies presented values below [4,6,7]. In relation to the variables death, failed and transfer out, the results were insignificant [4-8].

Cure as an outcome is directly related to the DOT treatment regimen, since patients feel more committed to drug supervision [2]. On the other hand, abandonment can be avoided by an effective follow-up, identifying the needs and orienting these patients submitted to DOT in relation to the effects and continuity of the treatment, besides not interrupting it with the improvement of the symptoms.

## Conclusion

Among the analyzed studies it was verified that the male sex and economically active age were important findings regarding the social

profile. In relation to the clinical profile, the pulmonary form and non-TB/HIV co-infection were predominant. With respect to the outcome, cure and abandonment were observed as particularities within the studied population.

It should be emphasized that this socio-demographic and clinical profile of TB patients who underwent DOT reflects the same results found in the incidence in the disease and assists in the favorable outcome of the treatment. However, the absence of current studies is one of the aspects that limit this review, since it could contribute to the identification of other elements, such as association with other diseases.

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