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## **Infection Control Measures of *Mycobacterium tuberculosis*: an Evaluative Study**

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### **ABSTRACT**

**Objective:** to evaluate the adoption of *Mycobacterium tuberculosis* in Primary Health Care in a capital of northeastern Brazil. **Method:** quantitative, evaluative and normative study. The study sample will consist of 235 health professionals from 26 units of Primary Health Care in the city of Natal/RN. The data will be collected through a questionnaire with 53 questions, using the Likert scale, divided into three sections: professional characterization, organizational resources and measures to reduce the transmission of Tuberculosis. The data will be analyzed using descriptive statistics. **Expected results:** to present information that can assist service managers and health professionals in making decisions regarding the organization and assessment of measures to control *Mycobacterium tuberculosis* infection.

**Descriptors:** Tuberculosis; Health assessment; Primary Health Care.

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## **PROBLEM SITUATION AND RELEVANCE:**

Tuberculosis (TB) is a public health issue that has occurred throughout human history. One third of the world population is estimated to host *Mycobacterium tuberculosis*, and per year about 11 million people develop the disease that is now considered the infectious disease with the highest mortality rate among the others of the same type, considered one of the top 10 causes of death worldwide<sup>(1)</sup>.

In Brazil, in order to control TB and improve the results of the fight against it, the Primary Health Care (APS) should play a leading role in actions and guarantee user access to health care networks and good quality comprehensive assistance<sup>(2)</sup>.

Thus, to reduce the risk of transmission of *Mycobacterium tuberculosis* and consequently the communicable period of TB among health professionals, health institutions are advised to carry out measures to control the infection by the disease. Such measures are based on the premise that disease control in health services is a way to prevent the chain of disease transmission in this context. These measures are divided into administrative (managerial), environmental (or engineering) and individual or respiratory protection<sup>(1)</sup>.

However, the implementation of these measures in places where people who are transmitting the bacillus circulate is little known in APS services. Therefore, this study raised the following research question:

## **RESEARCH QUESTION**

Are the *Mycobacterium tuberculosis* infection control measures implemented in APS in the

city of Natal/RN in accordance with the regulations provided by the Ministry of Health?

## **OBJECTIVE**

To evaluate the adoption of control measures of infection by *Mycobacterium tuberculosis* in Primary Health Care in a capital of northeastern Brazil.

## **METHODS**

Quantitative, evaluative and normative study. This study is characterized by the application of criteria and norms to obtain the context and results of the actions developed in comparison with what is recommended<sup>(3)</sup>. The study will be conducted in Natal, capital of the state of Rio Grande do Norte. The population will consist of health professionals from the municipality's APS team (doctors, nurses and nursing technicians or assistants), according to the following inclusion criteria: effective professionals or with temporary contracts by means of cooperatives, those working at some APS health unit in the municipality at the time of collection. Exclusion criteria: professionals who are on vacation, license or with a medical certificate during the data collection period.

For the sample calculation, the number of Basic Health Units that make up the APS and the number of professionals enrolled in the National Register of Health Facilities (CNES) were used. The sampling error of 5% and the 95% confidence interval were considered.

The researchers chose to carry out the probabilistic sampling, stratified proportionally with the professionals of two teams of the APS units, with the purpose having representatives from all the professionals that

make up the research scenario. Thus, the sample calculation showed that it would be necessary to collect data in 26 health units and with 235 professionals.

For the collection, a questionnaire prepared by researchers and technicians working in the TB area will be used, having as reference the norms of the Tuberculosis Control Program (TCP) on infection control<sup>(1)</sup>. The instrument is divided into three sections: professional characterization, organizational resources, and measures to reduce the transmission of TB.

The instrument has 53 questions, which are objective, dichotomous and multiple choice questions with a single answer, and the Likert scale is used. To use this scale, a value between "one" and "five" will be assigned, with the most favorable response being the one that receives the highest value on the scale and the most unfavorable being the one receiving the lowest value.

The data will be analyzed by the software *Statistical Package for Social Sciences* SPSS Statistics® version 22.0. Descriptive statistics will be used for data analysis, and the results will be presented through tables and graphs.

The project complied with Resolution 466/2012 of the National Health Council and was analyzed and approved by the Ethics Committee of the Federal University of Rio Grande do Norte under CAAE 08005818.6.0000.5537. The research is linked to the Academic Master's Degree in Nursing at UFRN.

## EXPECTED RESULTS

We expect that the assessment of the adop-

tion of TB infection control measures in APS make health professionals think about the organization of infection control measures and provide subsidies that help managers make decisions that may have an impact on the improvement of these control actions.

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