https://www.infecto2025.com.br/

Objective: To evaluate the epidemiological profile of leprosy in southern Brazil from 2015 to 2025.

Method: Ecological epidemiological study developed with data on the number of new leprosy cases per year for each state in the South Region. Data were extracted from the Sistema de Informação de Agravos de Notificação (SINAN), available through the DATASUS (Departamento de Informática do Sistema Único de Saúde) platform. The main variable analyzed was the leprosy incidence rate, calculated as the number of annual new cases per 100,000 inhabitants.

Results: Over the analyzed decade, southern Brazil showed a general downward trend in the number of reported leprosy cases. In 2015, 2,402 cases were recorded, corresponding to an incidence rate of 8.26 cases per 100,000 inhabitants. This number decreased progressively until 2019. However, the sharpest drop occurred in 2020, the first year of the pandemic, when the incidence rate fell to 4.90/100,000 inhabitants. In the post-pandemic years (2023–2024), there was a slight recovery trend in notifications, but without returning to pre-pandemic levels. Partial data for 2025 indicate a very low number, which is expected for data still under consolidation. The abrupt decline in 2020 and the slow subsequent recovery strongly indicate that the COVID-19 pandemic negatively impacted leprosy surveillance. There was a 27% reduction in the mean annual number of cases and a 29.4% reduction in the mean incidence rate during the pandemic period compared to the previous five years.

Conclusion: The epidemiological analysis of leprosy in southern Brazil from 2015 to 2025 shows a declining trend; however, this trend was drastically and artificially accentuated by the COVID-19 pandemic. The abrupt drop in notifications from 2020 onward is a strong sign of underreporting, posing a serious risk to disease control because it means there are undiagnosed and untreated people, keeping the chain of transmission active in the community.

Keywords: Leprosy, Epidemiology, Southern region, COVID-19 pandemic, Ecological study.

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EPIDEMIOLOGICAL PROFILE OF HOSPITALIZATIONS FOR TUBERCULOUS MENINGITIS IN THE STATE OF SÃO PAULO BETWEEN 2014 AND 2024

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Introduction: Tuberculous meningitis (TBM) is caused by Mycobacterium tuberculosis and accounts for 5% of extrapulmonary tuberculosis cases. Children under 5 years old who are not immunized with the BCG vaccine and individuals with comorbidities are at higher risk for TBM. Incidence and vaccine coverage are important health indicators of a population, underscoring the relevance of analyzing the distribution of cases and the characteristics of hospitalizations among different populations in the state of São Paulo (SP).

Objective: To characterize the epidemiological profile of hospitalizations for TBM and relate it to BCG vaccine coverage in the state of SP between January 2014 and December 2024.

Methods: In this descriptive epidemiological study, data from SIH/SUS and SI–PNI (DATASUS) were used. All hospitalizations from January 2014 to December 2024 with TBM as the primary diagnosis were selected, using the following variables: sex, race, and age group. In addition, specific hospitalization rates per 100,000 inhabitants were calculated. BCG vaccine coverage during the period was also analyzed.

Results: Between 2014 and 2024, 868 hospitalizations for TBM were recorded in the state of SP. The lowest number occurred in 2014 (6.2%), whereas the highest number was recorded in 2024, totaling 12.7% of hospitalizations. Among hospitalizations, there was predominance of males (65.5%), White individuals (46.7%), and the 30–39-year age group (25.4%). In the pediatric population, the highest percentage was among 1–4 years of age, with the lowest hospitalization rate in 2014 and the highest in 2020. When calculating specific hospitalization rates per 100,000 inhabitants, the highest and lowest occurred, respectively, in 2020 (4.27) and 2014 (2.28). Finally, regarding BCG vaccine coverage, the highest number of immunizations was recorded in 2014 (103.46%), whereas the lowest coverage occurred in 2021 (68.76%).

Conclusion: Hospitalizations of children were more frequent in 2024 and less frequent in 2014, suggesting a possible relationship between the drop in vaccine coverage and the rise in cases. These results emphasize the importance of appropriate follow-up of patients with pulmonary tuberculosis, given the risk of progression to extrapulmonary forms involving the central nervous system, and highlight the need for public policies to expand and sustain BCG vaccination coverage in Brazil.

Keywords: Tuberculous meningitis, Hospitalization, Epidemiology.

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EPIDEMIOLOGICAL PROFILE OF TUBERCULOSIS NOTIFICATIONS IN A GENERAL HOSPITAL IN SÃO PAULO

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Introduction: Tuberculosis is a disease caused by the bacterium Mycobacterium tuberculosis, mainly affecting the lungs through the pulmonary form, but it can affect other organs and systems through extrapulmonary forms, especially in people living with HIV/AIDS (PLWHA). Despite being an ancient disease, tuberculosis remains a serious public health problem, affecting about 10 million people annually and causing more than one million deaths.

Objective: To evaluate the epidemiological profile of patients notified to the Ministry of Health in a General Hospital in São Paulo from January 2021 to June 2023.

Method: A survey of Tuberculosis Epidemiological Investigation Forms (FIE) was conducted, and their data were compiled, stratifying by clinical form of tuberculosis, vulnerability, and first treatment.

Results: Seventy-four cases were analyzed between January 2021 and June 2023. The pulmonary form was the most prevalent, accounting for 70.0% of cases, followed by pleural (20.6%), bone and ocular (2.7%), and miliary (6.7%) forms. The analysis also revealed the distribution of vulnerabilities in the studied population, including people living with HIV (PVH, 33.6%), people experiencing homelessness (PSR, 27.7%), and people deprived of liberty (PPL, 18.2%). There were no recorded cases among Indigenous people (ING), while people with chemical dependence (DQ) comprised 20.5% of cases. New cases accounted for 20.2% and retreatment for 79.8%, indicating challenges in treatment adherence, especially among PSR and DQ.

Comments: In light of the results, HIV investigation is recommended for all patients with tuberculosis. Proper and complete completion of the FIE allows recognition of risks in the local population. Adopting strategies aimed at adequate investigation in population groups of greater relevance to the disease thus ensures better disease management control, initiated at the local level. Knowing and identifying local human groups with greater vulnerability facilitates and ensures better action and control at the national level. Tuberculosis has a cure rate of 95% (MS), reinforcing the effectiveness of treatment when properly administered. Early recognition of patients at potential risk and adequate identification of the disease corroborate better cure outcomes and reduced transmission among the general population. This study contributes to tuberculosis management in the local context, enabling improvement in investigation strategies.

Keywords: Tuberculosis, Epidemiology, Vulnerability.

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EPIDEMIOLOGICAL PROFILE OF DRUG-RESISTANT TUBERCULOSIS IN PATIENTS FROM PARANÁ, 2022–2024

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Introduction/Objective: Drug-resistant tuberculosis (DR-TB) represents an important public health problem and one of the greatest challenges for TB control worldwide. Thus, the objective was to describe the sociodemographic, clinical, and therapeutic profile of DR-TB cases in the state of Paraná.

Method: Descriptive, cross-sectional study with a retrospective approach. All DR-TB notifications in the disease notification information system between 2022 and 2024 were eligible. The indicators evaluated were: age group, sex, race, schooling, area of residence, type of entry, TB form, sputum smear microscopy at diagnosis, and drug susceptibility testing results for anti-tuberculosis drugs. The analysis was performed using descriptive statistics and simple frequency, using the Statistical Package for the Social Science, version 22.0. The project was approved by the Research Ethics Committee (CAAE no. 73429023.6.0000.5231).

Results: Between 2022 and 2024, 256 DR-TB cases were reported in the state of Paraná. Most were adults aged 19–59 years (87.5%), male (71.9%), White (54.3%), with schooling up to nine years (48.8%), residents of urban areas (91.4%), with type of entry as a new case (66.8%) who had never undergone TB treatment or had done so for up to 30 days, with confirmed pulmonary TB (93.4%), with positive sputum smear microscopy at diagnosis (52.3%), with a detectable rapid molecular test (TRM-TB) sensitive to rifampicin (69.5%), and drug susceptibility testing resistant only to isoniazid (55.9%).

Conclusion: The findings show predominance of young adult male patients, living in urban areas and with low schooling. In addition, new TB cases, with pulmonary TB as the most predominant form, detectable and sensitive to rifampicin and resistant only to isoniazid, highlights the need for early diagnosis, since DR-TB prolongs treatment time, impacting the affected person socioeconomically and increasing the likelihood of treatment interruption. Furthermore, adequate treatment, strengthening rational use of antimicrobials and evaluation of the social determinants involved, and encouragement of new therapeutic technologies are important strategies in preventing DR-TB.