

## INTISARI

**Barros, A. G. 2023. PERBANDINGAN HASIL PEMERIKSAAN MIKROSKOPIS DAN *GENEXPERT* PADA SPESIMEN SPUTUM SUSPEK *TB* PARU DI PUSKESMAS ATSABE, TIMOR-LESTE. Skripsi. Program D4 Analis Kesehatan, Fakultas Ilmu Kesehatan Universitas Setia Budi Surakarta**

*Tuberculosis* paru merupakan penyakit menular yang disebabkan oleh bakteri *Mycobacterium tuberculosis*, dengan lokasi terbanyak di paru-paru. Timor-Leste mencatat angka peningkatan prevelensi *tuberculosis* dari 490 per 1000 penduduk menjadi 508, peningkatan angka kematian dari 100 menjadi 106 penderita *tuberculosis*. Tujuan penelitian adalah untuk mengetahui perbandingan hasil pemeriksaan *Mycobacterium tuberculosis* paru berdasarkan *GeneXpert* dan mikroskopis pada spesimen sputum.

Jenis penelitian ini menggunakan desain penelitian analitik observasional dengan pendekatan *cross sectional*. Penelitian ini dilaksanakan di Laboratorium Puskesmas Atsabe, Timor-Leste. Penelitian ini menggunakan data sekunder, diambil data mulai dari periode bulan Januari-Juli tahun 2022. Populasi penelitian ini adalah keseluruhan data suspek *tuberculosis* paru yang melakukan pemeriksaan di laboratorium dengan teknik *total sampling* sebanyak 30 suspek *tuberculosis* paru. Data dikumpulkan diolah menggunakan uji *Chi square*.

Hasil negatif pada pemeriksaan mikroskopis metode *Zhiel Neelsen* sebanyak 27 (90%) dan hasil positif sebanyak 3 (10%), data hasil pemeriksaan *Real-Time GeneXpert* didapatkan *MTB Not Detected* sebanyak 17 (56%) dan hasil *MTB Detected* sebanyak 13 (43,3%). Berdasarkan nilai output *Asymp.Sig. (2-sided)* pada uji pearson *Chi Square* adalah sebesar  $0,037 < 0,05$ . Disimpulkan metode *Real-Time GeneXpert* memiliki sensitivitas yang lebih tinggi dibandingkan dengan metode pewarnaan *Zhiel Neelsen* karena pemeriksaan *GeneXpert* mampu mendeteksi 10 *MTB Detected* pada 27 *BTA* negatif spesimen sputum.

**Kata Kunci : Mikroskop, *GeneXpert*, *Tuberculosis* Paru**

## ABSTRACT

**Barros, A.G. 2023.COMPARISON OF THE RESULTS OF MICROSCOPIC EXAMINATION AND *GENE EXPERT* PADA SPECIMEN SPUTUM SUSPEC *TB* LUNGS AT ATSABE HEALTH CENTER, TIMOR-LESTE.Thesis. D4 Medical Laboratory Technology Study Program, Faculty of Health Sciences, Setia Budi University, Surakarta**

*Tuberculosis* lung disease is an infectious disease caused by bacteria *Mycobacterium tuberculosis*, with the most location in the lungs. Timor-Leste recorded an increasing number of prevalence *tuberculosis* from 490 per 1000 population to 508, increased mortality from 100 to 106 sufferers *tuberculosis*. The research objective is to find out the comparison of examination results *Mycobacterium tuberculosis* lung based *GeneXpert* and Microscopy of sputum specimens.

This type of research uses an observational analytic research design approach *cross sectional*. This research was conducted at the Atsabe Community Health Center Laboratory. This research uses secondary data, data is collected starting from the period January-July 2022. The population of this study is all suspected data *tuberculosis* lungs who carry out laboratory examinations with techniques *Total sampling* as many as 30 suspects *tuberculosis* lungs. The data collected was processed using a test *Who squares*.

Negative result on microscopic examination method *Zhiel Neelsen* as many as 27 (90%) and positive results as much as 3 (10%), examination data Real Time *GeneXpert* obtained MTB Not Detected as many as 17 (56%) and results MTB Detected as many as 13 (43.3%). Based on the *Asymp.sig* output value. (2- sided) on the test *pearson Chi Square* is  $0.037 < 0.05$ , it is concluded by the method Real-Time *GeneXpert* has a higher sensitivity compared to the staining method *Zhiel Neelsen* due to inspection *GeneXpert* able to detect 10 MTB Detected at 27 BTA negative sputum specimen.

**Keywords : Microscope, *GeneXpert*, *Tuberculosis* Lungs**