ABSTRAK

Bella Novalindo, NIM : 1534037, 2019. The different detection of acid-fast bacilli in sputum examination sampled by standard and non-standard sampling techniques.

Background: The treatment of pulmonary tuberculosis reducting can be done by early detecting tuberculosis in sputum. The role of sputum examination plays to diagnose the tuberculosis positivity, determine the potential transmission, and assess the success of tuberculosis treatment. In the sputum examination, there are several parameters which should be well maintained. One of these parameters is how to take the sputum sample. The incorrect-sampling techniques can obtain the false-tuberculosis positivity correlated to the acid-fast bacilli degree of positivity. Moreover, the false-tuberculosis positivity can affect to further treatment, medication, and level of disease severity and transmission.

Method: The study is pre-experimental research, where the samples are the patients of lung-tuberculosis which have positive acid-fast bacilli at Lung Specialty Hospital Palembang. The determination of samples uses the inclusion and exclusion principles. In this present study,15 patients are participating as samples. To investigate the effect of sputum sampling technique on the detecting of tuberculosis, the sputum sampling is conducted by standard and non-standard sampling techniques. The sampling technique is done using *consecutive sampling*method.After obtaining the sputum, all the samples are examined, and all the obtained data is statistically analyzed using *Statistical Product and Service Solution* (SPSS) 22.00 and tested using the Wilcoxon test.

Result: The result showed that there are different numbers of tuberculosis positivity sampled by standard and non-standard sampling techniques. To be more specific, the standard sampling technique can detect 9 participants (60%) having 3+ of acid-fast bacilli degree. On the other hand, the non-standard sampling technique only can obtain 40% of patients having 1+ of acid-fast bacilli degree. Wilcoxon test also supported that there is a significant difference of positivity degree in the detection of acid-fast bacilli using standard and non-standard sampling techniques. It is based on the result of statistical analysis which has the significance level of 0,005 (less than α=0,05).

Conclusion: There are different numbers of tuberculosis positivity sampled by standard and non-standard sampling techniques, indicating the sputum sampling technique affect the number of acid-fast bacilli positivity.

Keywords: Acid-fast bacilli (BTA), Sputum Sampling, Tuberculosis positivity