

# Overview of Medication Compliance in MDR-TB Patients in Jambi Province

Puteri Paramita Ningrum, Melly Miranda, Wini Bertha and Endang Trianingsih  
*Faculty of Pharmacy, University of 17 August 1945, Jakarta 14350, Indonesia*

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**Abstract:** MDR-TB has become an obstacle to effective TB control; multidrug resistance (MDR-TB) is the biggest problem in global TB prevention and elimination. Indonesia ranks 8th out of 27 countries with the most MDR-TB in the world. MDR-TB is disease caused by *Mycobacterium tuberculosis* is minimally resistant to rifampicin and isoniazid. because \_ That in this research researchers try to see a picture of medication adherence patient with MDR-TB in the province of Jambi and for know the influencing factors obedience patient in consume medicine. Population and sample in this research is all over Multi Drug Resistance (MDR) Tuberculosis patients in the MDR TB Polyclinic at Raden Mattaher Hospital, Jambi. The type of research used is descriptive with a cross-sectional approach. A total of 19 patients interviewed using Mmas-8 questionnaire, obtained results as many as 26% of patients were treated return after failing in treatment, and 31.5% of patients treated because relapsed after finishing treatment, and 10% of patients not enough obedient drink medicine. For health officer expected can give advice on tuberculosis about definition, symptoms, methods of prevention, method of transmission and treatment, for patient patient diligent treatment in a way regular and follow recommended instructions health officer.

## 1 INTRODUCTION

TB is an infectious disease caused by the bacterium *Mycobacterium tuberculosis*. There are a number of *Mycobacterium* species, including: *M. tuberculosis*, *M. africanum*, *M. bovis*, *M. leprae* and so on. Mostly these bacteria infect the lungs but can also affect other organs of the body. Pulmonary TB is disease most influential contagion as reason morbidity and mortality, incl number incident in Indonesia. Indonesia is one of the countries that it has the greatest burden of TB among 5 countries, namely India, Indonesia, China, Philippines and Pakistan (Global Tuberculosis Report, 2017). Apart from that, there is necessary challenge to get attention that is increasing case of tuberculosis HIV, tuberculosis with DM, tuberculosis in children and society susceptible to others. This matter spur national TB control continue to intensification, acceleration, extensification and programme innovation. Indonesia has taken many steps to control this disease, which causes disability and death. One of these is directly observed treatment, short-course (DOTS), developed by WHO and IUALTD in the 1990s. DOTS is carried out

routinely and without interruption. When TB treatment efforts are interrupted and do not meet DOTS standards, cases of multiple resistance to anti-TB drugs (OAT), namely rifampicin and isoniazid, emerge. This has led to the emergence of new TB-related problems, namely the double immunity of TB bacteria to anti-TB drugs, or what is known as multidrug-resistant tuberculosis (MDR TB).

The number of MDR-TB cases reported worldwide in 2015 was 480,000 new cases, with an estimated 250,000 deaths. In 2016, the number of diagnosed MDR TB cases increased to 490,000 new cases. It is estimated that 350,000 (330,000-370,000) cases of MDR TB are TB patients. The highest incidence of MDR-TB in 2016 was in South-East Asia (45%) and the African region (25%).

This infectious disease can still be cured if the patient receives regular treatment. Medication needs to be taken under the supervision and with the support of family members. If the treatment is not carried out well, there is a possibility of relapse one day and the tuberculosis bacteria will become resistant to the drug. The duration of treatment, compliance and regularity of treatment, motivation of the patient, lack

of patient attitude towards treatment are several factors that greatly influence the success of treatment.

Influence obedience to tuberculosis treatment can be categorised as internal and external factors. Internal factors are characteristics and perceptions sufferer during undergo treatment. If desire for cured reduce so perception about treatment tuberculosis will react negatively so that obedience patient tuberculosis experience irregularity schedule. External factors is support as well as information from health officer. Officer good health \_ always motivate patient For finish treatment in a way regular, temporary lack of support family will cause regimen wrong treatment can change compliance. Patient then choose to stop drinking drug or drop out (drop out medicine) no cured even resistant to treatment. Patient separated drug can be dealt with with increase invention case healing supported by all \_ sector development networking work to implement the tuberculosis programme with good. The purpose of study this introduction is For To identify influencing factors\_level obedience patient to treatment tuberculosis.

## 2 RESEARCH METHODS

The type of research used is descriptive with a *cross-sectional approach*. The population in this study were all multi drug resistance (MDR) tuberculosis patients in the MDR TB Polyclinic at Raden Mattaaher Hospital, Jambi. The samples in this study were all Multi Drug Resistance (MDR) patients. Retrieval technique sample used\_ in this research is *non-probability sampling* with *purposive sampling*, samples used that is as much 19 people.

## 3 RESULTS AND DISCUSSION

According to the World Health Organization (WHO, 2011), there are about 500,000 cases of TB resistant to isoniazid and rifampicin each year, with a death rate of about 150,000, and about 10% of cases are newly detected and treated. The Global Plan to Stop Tuberculosis aims to treat approximately 1.6 million MDR-TB patients worldwide between 2006 and 2015, with 60% of these patients in high-burden countries, where the global prevalence of MDR-TB is estimated to be 2-3 times higher than existing cases.

The number of MDR-TB patients receiving treatment in Jambi province has continued to increase since 2020. A total of 136 MDR-TB patients were

treated since 2020, of whom 16 died. In this study, a total of 19 respondents were included in the inclusion criteria, namely patients undergoing treatment at the MDR-TB Polyclinic at Raden Mattaaher Hospital Jambi in the month of February to June in 2023, in this study, where 12 respondents were included in the adherent category and 7 respondents were non-adherent, a total of 19 patients interviewed with Mmas-8 questionnaire, obtained results as many as 26% of patients treated return after failing in treatment, and 31. 5% of patients treated relapsed after completing treatment, 90% of patients were adherent and 10% of patients were not adherent.

The data shows that part of the large respondents own level of obedience is high. Compliance level of one of them is high can be influenced by existence motivation. Motivation to increase awareness and desire treatment sufferers are very influential to success of TB treatment. Sometimes although symptom disease start burdensome, however if the sufferer no feel so sick, sufferer tend for no look for treatment.

Results of the above research in line with the results of research conducted by Reza Dhiyantari, et al (2015), based on the answer respondents who have researched received level obedience drink high drug that is amounting to 86.67%. His height level obedience treatment of respondents can be caused by several factor supporters, such as medicines and services given for free, central service easy health accessible to the public as well as exists desire from in self for recovery.

The above findings are also supported by the findings of Sari, Yuniar, & Syaripuddin (2014), who stated that the 92 patients who were respondents in the study were still compliant in taking anti-tuberculosis therapy, as evidenced by the fact that they continued to take anti-tuberculosis therapy until completion (for 6 months) and there was no leftover medication every month. This is due to factors that do not require external stimulation, which come from within in the form of motivation, beliefs, attitudes and personality of each respondent. Meanwhile, factors that require external stimulation are social support in the form of emotional support from other family members or friends. Adherence to TB treatment is a complex, dynamic phenomenon in which various factors interact and influence behavioral choices. It is therefore hoped that this study will provide information that will help to reduce the level of non-adherence to treatment among MDR-TB respondents.

## 4 CONCLUSION

The results of this study showed that the incidence of MDR-TB at Raden Mattaaher Hospital Jambi was 19 respondents, of which 26% of patients were re-treated after treatment failure and 31.5% of patients were treated because of relapse after completion of treatment. The compliance of MDR-TB respondents is quite high with a result of 90%.

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