EAS Journal of Parasitology and Infectious Diseases
Abbreviated Key Title: EAS J Parasitol Infect Dis
ISSN: 2663-0982 (Print) & ISSN: 2663-6727 (Online)
Published By East African Scholars Publisher, Kenya

OPEN ACCESS

Volume-5 | Issue-1 | Jan-Feb- 2023 | DOI: 10.36349/easjpid.2023.v05i01.001

Original Research Article

Description of the Characteristics of Leprosy Patients Hospitalized for Leprosy and General Disability of Naob Perpetual Helpers

Genevensius Melkior G. Rae Molo[1*], Deviarbi Sakke Tira[1], Yuliana Radja Riwu[1]

[1]Public Health Science, Faculty of Public Health, University of Nusa Cendana, Indonesia

Article History
Received: 08.09.2022
Accepted: 17.10.2022
Published: 26.02.2023

Journal homepage:
https://www.easpublisher.com

Quick Response Code

Abstract: Leprosy is one of the endemic disease problems that is exacerbated by poor social stigma in society, causing many sufferers to be reluctant to come to health facilities. This causes delays in diagnosis and treatment of the disease. This study aims to describe the characteristics of leprosy patients hospitalized at the Leprosy and General Disability Hospital of the Mother of Perpetual Helper Naob. his type of research is a descriptive study that describes the characteristics of leprosy patients hospitalized in the Leprosy and General Disability Hospital Mother of Perpetual Helper Naob with variables of age, gender, occupation, education, type of leprosy, method of finding patients, history of first seeking treatment, contact history. Household and medical history. Techniques, Data analysis was carried out univariately. The results showed that the incidence of leprosy in the productive age group was 31%, male sex was 74%, elementary school education level was 79%, farmer occupation was 74%, Multibacillary leprosy type was 100%, how to find leprosy patients who came alone. By 85%, seeking treatment for the first time who had never received treatment by 87%, healthy household contacts by 100%, history of treatment while on MDT treatment by 69%.

Keywords: Leprosy and Characteristics of the Patient.

INTRODUCTION

Leprosy is still one of the endemic disease problems in Indonesia which is exacerbated by the bad social stigma that arises in the community so that it is not uncommon for many sufferers to be reluctant to come to health facilities, this causes late diagnosis and treatment and ends in physical disability and decreased quality of life [1]. This is because the number of leprosy cases is still quite high. According to the World Health Organization (WHO), the number of people with leprosy reported from 150 countries throughout the WHO region in 2017 was 210,671 new cases of leprosy and the number of patients receiving treatment was 192,713 cases, with a total disability of 1.6 1.000.000. population per year [2].

The 2018 Indonesian Health Profile shows 17,017 new cases of leprosy (6.42/100,000 population) in 2018, with 85.46% of multibacillary (MB) cases and 62.7% of new leprosy patients being male [3]. The health profile of East Nusa Tenggara for the last 5 years reported that leprosy cases fluctuated from 2014 to 2018. In 2014 the number of leprosy cases was 575 cases (11.42 per 100,000 population), and decreased to 306 cases in 2015 (CDR 5.98 per 100,000 population) in 2016 it decreased to 261 cases (CDR 5.02 per 100,000 population). and increased to 384 cases in 2017 (CDR 7.26 per 100,000 population) and decreased to 350 cases in 2018 (CDR 6.5 per 100,000 population).

The incidence of leprosy in East Nusa Tenggara Province by district/city in 2018, Kupang City ranked first, followed by East Flores Regency ranked second while Kupang Regency was third and TTU Regency was fourth [4]. The profile of the TTU District Health Office shows that the number of new leprosy cases has fluctuated over the last 3 years, in 2016 there were 47 cases, in 2017 there were 37 cases, in 2018 there were 25 new cases of leprosy with all of them in the multi-bacillary (MB) type with a total of Most patients are male, while in 2019 there were 38 cases.

The data obtained from the Hospital for Leprosy and General Disability of the Abadi Maid in Naob Village, Kec. Noemuti, Kab. TTU shows the prevalence of leprosy sufferers in 2018 as many as 522 patients, in 2019 as many as 473 patients and in 2020 as

***Corresponding Author:** Genevensius Melkior G. Rae Molo
Public Health Science, Faculty of Public Health, University of Nusa Cendana, Indonesia

many as 45 patients. patients in April with a distribution of 23 outpatients and 22 inpatients. The Leprosy and General Disabled Hospital of Bunda Pembantu Abadi is the only leprosy hospital as a leprosy rehabilitation center on the island of Timor. The Leprosy and General Disabled Hospital of Bunda Pembantu Abadi Naob is a hospital that accommodates people from various districts in the province of East Nusa Tenggara who are affected by leprosy and are rehabilitated at the hospital. Patients with leprosy who come from various regions in East Nusa Tenggara certainly have different individual characteristics and have different influences on the incidence of leprosy.

METHOD

This study is a descriptive study that describes the characteristics of leprosy patients hospitalized at the hospital. Leprosy and General Disability Mother of the Perpetual Helper of Naob Village, Kec. Noemuti, Kab. TTU 2021 with variables of age, gender, occupation, education, type of leprosy, how to find patients, history of first treatment, history of household contacts and history of ongoing treatment.

This investigation was carried out at the hospital. Leprosy and General Disability Mother of the Perpetual Helper of Naob Village, Kec. Noemuti, Kab. TTU is calculated from 27 September – 27 October 2021. The population in this study is the number of patients who are in the hospital. There were 34 people with leprosy and general disability of the Eternal Helper Mother Naob. The sample in this study were all patients in the hospital. There were 34 people with leprosy and general disability of the Mother of Perpetual Helper Naob, with the sampling technique in this study using total sampling.

The type of data collected is secondary data obtained from supporting documents, namely from the NTT Provincial Health Profile, Infodatin Leprosy, Indonesian Health Profile and hospital inpatient data. Leprosy and general disability of Naob's Eternal Helper Mother. Data were analyzed descriptively with univariate analysis. Univariate analysis is an analysis that is carried out for each research variable and is used to determine the description, distribution, frequency of the percentage of the independent variable or the dependent variable [5]. This research has been tested for feasibility at the Faculty of Public Health with the ethical review number 2021125-KEPK.

RESULT

1. Distribution of Leprosy by Age

Distribution of the number of leprosy patients based on age in the hospital. Leprosy and General Disability of the Mother of Perpetual Helpers, the highest is the age group of 31-40 years, namely 12 people with a percentage of 31% and the lowest is 2 people with a percentage of 5%.

Table 1: Distribution of Leprosy Incidence by Age in Leprosy Hospital and General Disability of Perpetual Helper, North Central Timor Regency 2021

Age	Frequency	Percentage (%)
11-20 years	8	21
21-30 years	6	15
31-40 years	12	31
41-50 years	4	10
51-60 years	4	10
61-70 years	2	5
>70 years	3	8
Total	**39**	**100**

2. Distribution of Leprosy by Gender

Distribution of the number of leprosy patients based on gender in the hospital. Leprosy and General Disability of the Mother of the Eternal Maid are the highest in the male gender group, which is 29 people with a percentage of 74%.

Table 2: Distribution of Leprosy Incidence by Gender in Leprosy Hospital and General Disability Mother of Perpetual Helper, North Central Timor Regency 2021

Gender	Frequency	Percentage (%)
Male	29	74
Female	10	26
Total	**39**	**100**

3. Distribution of Leprosy Based on Education

Distribution of the number of leprosy patients based on education in the hospital. Leprosy and General Disability Mother of Perpetual Helper is highest in patients with a comparable history of basic education, namely 31 people with a percentage of 79%.

Table 3: Distribution of Leprosy Incidence Based on Educational History in Hospitals. Leprosy and General Disability of Mother of Perpetual Helper, North Central Timor Regency 2021

Education	Frequency	Percentage (%)
Primary school	31	79
Junior high school	4	10
Senior High School	4	10
Total	**39**	**100**

Table 4: Distribution of Leprosy Incidence by Type of Occupation in Hospitals. Leprosy and General Disability of Mother of Perpetual Helper, North Central Timor Regency 2021

Type of Work	Frequency	Percentage (%)
Farmer	29	74
Private	1	3
Housewife	5	13
Student	4	10
Total	**39**	**100**

5. Distribution of Leprosy by Type of Leprosy

Distribution of the number of leprosy patients based on education in the hospital. Leprosy and General Disability of the Mother of Perpetual Helpers were highest in patients with the Multibasilar type as many as 39 people with a percentage of 85%.

Table 5: Distribution of Leprosy Incidence by Type of Leprosy in Leprosy Hospital and General Disability of Mother of Perpetual Helper, North Central Timor Regency 2021

Type of Leprosy	Frequency	Percentage (%)
Pausibalar	0	0
Multibasilar	39	100
Total	**39**	**100**

6. Distribution of Leprosy Based on How to Find People with Leprosy

Distribution of the number of leprosy patients is based on the method of finding leprosy patients at the hospital. Leprosy and General Disability of the Mother of the Perpetual Helper are highest in patients by finding leprosy patients who come alone as many as 43 people with a percentage of 85%.

Table 6: Distribution of Leprosy Incidence Based on How to Find People with Leprosy at the Hospital for Leprosy and General Disability Mother of Perpetual Helper North Central Timor Regency 2021

How to Find People with Leprosy	Frequency	Percentage (%)
Come Alone	34	85
Between Families	5	13
Picked up	1	3
Total	**40**	**100**

7. Distribution of Leprosy Based on History of First Time Treatment

Distribution of the number of leprosy patients based on the history of seeking treatment for the first time in the hospital. Leprosy and General Disability of the Mother of Perpetual Helpers were highest in patients with a history of seeking treatment for the first time as many as 43 people with a percentage of 87%.

Table 7: Distribution of Leprosy Events Based on History of First Treatment at the Hospital. Leprosy and General Disability of the Mother of the Permanent Assistant of North Central Timor Regency 2021

History of First Time Treatment	Frequency	Percentage (%)
Never Been Treated	34	87
Have you Ever Been Treated	5	13
Total	**39**	**100**

8. Distribution of Leprosy Based on Household Contact History

Distribution of the number of leprosy patients based on history of household contacts in the hospital. Leprosy and General Disability of the Mother of Perpetual Helpers were highest in patients with a history of household contact as many as 39 with a percentage of 100%.

Table 8: Distribution of Leprosy Incidence Based on History of Household Contacts at the Leprosy Hospital and General Disability of the Mother of the Perpetual Helper, North Central Timor Regency 2021

Household Contact History	Frequency	Percentage (%)
Healthy	39	100
Sick	0	0
Total	**39**	**100**

9. Distribution of Leprosy Based on Current Treatment History

Distribution of the number of leprosy patients based on the history of treatment in the hospital. Leprosy and General Disability of the Mother of Perpetual Helpers were highest in patients while MDT treatment was 27 people with a percentage of 69%.

Table 9: Distribusi Kejadian Kusta Berdasarkan Riwayat Kontak Serumah di Rumah Sakit Kusta dan Cacat Umum Bunda Pembantu Abadi Kabuparen Timor Tengah Utara 2021

Current Treatment History	Frekuensi	Presentase
While treatment MDT	27	69
Completed treatment RFT	12	31
Total	**39**	**100**

DISCUSSION

1. Description of Leprosy by Age

Leprosy is a chronic disease that attacks every part of the human body except the central nervous system. People with leprosy must suffer from bodily dysfunction. Which can cause a lack of confidence in people with leprosy due to physical limitations and affect the quality of life of people with leprosy. Almost all the incidence of a disease is influenced by age. Chronic diseases such as leprosy are known to affect all age groups, from infants to the elderly (3 weeks to over 70 years). However, the majority are young and productive [5].

The results of this study indicate that the incidence of leprosy at the hospital. Leprosy and General Disability of the Mother of Perpetual Helpers by age group, the highest age group 31-40 is 31% and the age group 61-70 is the lowest 5%. At the productive age, compared to the age of children or parents, humans play an active role in dealing with the outside world, both at work and in relation to the environment, so that at this productive age the person becomes more susceptible to disease. Infectious diseases, so that people with leprosy of productive age hamper productivity [6].

This research is in line with the research of Inti Fikria, 2015 which shows that leprosy is more common in adults than in the elderly. Based on the description above, leprosy can occur at all ages, especially in productive age, because someone in productive age has more relationships and a higher level of activity than in non-productive age [7].

2. Description of Leprosy by Gender

Leprosy can attack anyone, men are more affected than women with a ratio of 2:1. The low incidence of leprosy in women can be caused by environmental or biological and socio-cultural factors. In addition, women are more embarrassed if their disease is known to others because women tend not to immediately go to health services when they are sick, so that cases of leprosy in women are not recorded, while cases of leprosy in men are more than most other cases. infectious diseases Because men Men are more susceptible to risk factors because of their lifestyle, such as the tendency of men not to wear clothes in daily life, which increases the chances of contracting leprosy through skin-to-skin contact [8].

Most countries in the world, except for a few countries in Africa, indicate that men are more likely to be affected by leprosy than women. The low incidence of leprosy in women is caused by several factors such as: B. Environmental and biological factors [9]. Most countries in the world, except for a few countries in Africa, indicate that men are more likely to be affected by leprosy than women. The low incidence of leprosy in women is caused by several factors such as: B. Environmental and biological factors.

Based on the description above, both men and women have the potential to be affected by leprosy, although in several studies men tend to have higher rates of leprosy. Therefore, people are advised to live a healthy lifestyle such as wearing long clothes to minimize skin contact with leprosy sufferers and maintain personal and environmental hygiene.

3. Description of Leprosy Based on Education

Level of education in relation to treatment measures. A low level of education causes a person to be slower in diagnosing disease and seeking treatment [9]. The level of education is an effort to persuade or learn from the community that they want to take action (practice) to maintain it (solve problems) and improve their health. The level of education is considered as one of the things that determine a person's experience and knowledge both in science and in social life. There are studies that show that those with low education have 7,405 times more likely to be affected by leprosy compared to those with high education.

This study shows that the highest incidence of leprosy is in patients with a history of elementary education equivalent to 79% and the lowest is in patients with a history of junior high and high school education, which is as much as 10%. According to

Kusuma Dewi's research (2019), it shows that the education level of outpatients with leprosy is dominated by the elementary education level. This is in accordance with the research of Wijayanti, (2017) in this situation, most of the people with leprosy have low education (76.5%).

Based on the description above, the level of education has an effect on the occurrence of leprosy because the higher the education, the higher the knowledge a person has so that the more he receives and understands various kinds of information given to him, especially regarding efforts to prevent and transmit leprosy.

4. Description of Leprosy by Type of Work

The respondent's daily work or livelihood is divided into light work (not working, domestic workers, students, private employees) and heavy work (farmers, laborers, craftsmen, etc.). Many cases of leprosy that occur in the workplace of farmers as we know that working as a farmer is often in contact with soil and also a dirty environment.

The incidence of leprosy is believed to be more common in workers who spend a lot of energy and suffer from physical exhaustion. The effect is a decrease in the immune system, so that leprosy sufferers can experience physical stress and changes in the immune response that can be triggered by ENL (erythema nodosum leprosum). Physical fatigue and stress due to work cause general conditions in leprosy patients that can trigger a strengthening of the cellular immune response and leprosy reactions can occur [12].

The results showed that the incidence of leprosy according to the type of work was highest in the type of farmer's work, which was 74% and the lowest was in the type of private work, which was 3%. This research is in line with Wijayanti's research, (2017) which shows that most people with leprosy have labor/farming jobs as many as 17 people (50%). Another study brought by Muchtar, SV, *et al*., (2009) Where in this study leprosy sufferers have the most types of work, farmers with a percentage of 57.5%.

Based on the description above, some people with leprosy have a livelihood as farmers so that they often come into direct contact with the soil and also with a dirty environment, which is a breeding ground for bacteria. Therefore, the public is recommended to wear complete work clothes, thereby minimizing the possibility of contracting the Mycobacterium leprae bacteria from skin contact.

5. Description of Leprosy by Lype of Leprosy

The type of leprosy is divided into two: dry leprosy type (PB = Pausi Basiler) usually occurs in hosts with high immunity to Mycobacteriun Leprae, and wet leprosy type (MB = Multi Basiler) usually occurs in hosts with low immunity to Mycobacterium bacteria. leprosy. Pausibacillary (PB) This disease contains many bacilli and consists of: Indeterminate type, Tubercolloid, Borderline Tubercolloid. The number of lesions is 1 to 5 skin lesions. The results of the acid-fast bacillus test were negative. Multibacterial (MB) This disease contains few bacilli and consists of borderline, borderline lepromatous and lepromatous types. The number of lesions is greater than or equal to 6 skin lesions. Positive smear results [13].

The results showed that the highest incidence of leprosy was in the Multibacillary type of leprosy, which was as much as 100%. This is in line with Manurung's research, (2017) that the largest sample is Multi Basiler with a total of 40 people (88.9%). The highest number of defects is found in MB type, this is due to the nature of MB which has faster core propagation and causes many defects at the end of the spectrum. Because this type of MB is contagious, proper treatment is needed and education is important to carry out treatment until it is declared complete and cured to prevent transmission to other people.

6. Description of Leprosy Based on How to Find People with Leprosy

The main problem with increasing the incidence of leprosy is the source of transmission that is still high in the community, the occurrence of residues, namely cases that are not detected and not treated, subclinical infections are not detected, so new cases and events continue to emerge. Leprosy is still difficult to detect. Only patients who are treated, while the subclinical has not been treated to become clinical. It is very important to find cases of leprosy as soon as possible, especially cases of subclinical leprosy. Subclinical leprosy is a person who is clinically asymptomatic but has laboratory evidence of the presence of specific antibodies against Mycobacterium leprae or has been exposed to leprosy bacilli. Subclinical infection becomes important, meaning that some will manifest, so that if there is no treatment and treatment for subclinical leprosy, this event will often occur [14]. The method of finding the patient's discovery can be affected by the disability of the leper when it is found, if the discovery is late then the treatment is too late and even the disability is found [15].

In this study, it was shown that based on the method of finding people with leprosy at the Hospital. Leprosy and general disability of the perpetual maid were the highest, namely patients who came alone to the hospital as much as 85% and the lowest were patients who were picked up by 3%. This proves that

there is awareness of the patient about his own health. The importance of taking treatment in health services when experiencing symptoms of health.

7. Description of leprosy based on history of first treatment

Treatment of leprosy was not carried out since the discovery of numb spots on the respondent's body, treatment was only carried out when the respondent had experienced complaints in the form of disorders of the nerves such as tingling or on the surface of the skin. The respondent's lack of openness to the family to the early symptoms of leprosy in the form of numb spots was one of the factors that realized this. In addition, the low family knowledge of the early symptoms of leprosy experienced by respondents also supports the respondents' poor treatment seeking practices. In line with the statement of Notoatmodjo, (2010) that someone who is sick or not sick will definitely not do anything. However, when you are sick and you are also in pain, various behaviors and efforts emerge, one of which is visiting health care facilities. Based on research conducted by Ellyke, (2012) in euthiopia on treatment seeking behavior of leprosy patients, it was shown that 77% of cases in the case group waited more than one year to conduct a cliché evaluation for signs of leprosy. Therefore, many people with leprosy come late to go to health services for treatment [16].

The results showed that the incidence of leprosy according to the history of seeking treatment for the first time was highest in patients who had never been treated as much as 87% and the lowest was in patients who had been treated at PKM, namely as much as 13%. Based on the description above, it can be concluded that the history of seeking treatment for the first time is mostly done by patients who have never been treated but when they have felt pain because they have less knowledge of the symptoms that arise, so often the disease they experience takes a long time to heal treatment. Therefore, it is recommended that the public increase their knowledge of the symptoms caused by the disease so that it is earlier to take treatment.

8. Description of Leprosy Based on Household Contact History

Leprosy is an infectious disease, but its infectivity is low, the incubation period is long, and most patients are infected in childhood. This disease arises from close physical contact with infected patients and is exacerbated by contact with leprosy patients. Nasal discharge is the main source of infection in the community [5].

A history of contact leprosy is an infectious disease, but its infectivity is low. The incubation period is long, perhaps several years, and it appears that most sufferers contract the infection in childhood. The low incidence of married patients (partner-acquired leprosy) indicates that adults are relatively less susceptible. This disease arises from too close physical contact with people with leprosy, and the risk becomes much greater when there is contact with people with leprosy. The results showed that at Tajuddin Chalid Hospital Makassar there were 2 leprosy patients who had household and social contacts with leprosy sufferers (10%) and who had never had household and social contacts (80%) [16].

The results showed that the incidence of leprosy based on history of household contact was highest in the healthy category as much as 100%. The results of this study are in line with research conducted by Wijayanti, (2017) which states that most leprosy patients have a history of non-risk household contacts, namely: 85.30%. Based on the description above, the effect of household contact has a small risk of the incidence of leprosy, although other studies have shown that the effect of household contact has a large risk of the incidence of leprosy. This depends on the personal hygiene possessed by people who have been in contact with people with leprosy before, for example, individual hygiene and the use of separate eating and bathing utensils as well as conducting early detection or routine examinations.

9. Description of Leprosy Based on Current Treatment History

The main objectives of the leprosy eradication program are to break the chain of transmission, reduce the incidence of disease, treat and cure patients, and prevent disability. To achieve this goal, the main goal so far is still early examination and treatment of patients, which are indispensable, even if an effective leprosy vaccine becomes available later. Since January 1982, the treatment of leprosy in Indonesia has followed the decision of the WHO expert committee in Geneva, namely the combination treatment of DDS, lamprene and rifampin [16].

MDT treatment has and can kill the leprosy bacteria, if the defects in the eyes, hands, or feet that have developed will exist for the rest of his life, so he must be willing to take care of himself constantly that disability to do so doesn't get any worse. Self-care for the eyes, hands and feet is carried out for life by leprosy patients using the 3M principles, namely checking, treating and protecting. This self-care can be done at home every day and it is better if a self-care group (KPD) can be formed. Members of this group can integrate not only with patients and OYPMK but also with persons with disabilities due to filariasis or disabilities due to diabetes mellitus.

This study showed that the incidence of leprosy based on medical history was highest in patients who were on MDT treatment as much as 69% and the lowest in patients who had finished RFT treatment as much as 31%. According to Sutabrata's research (2010), it was found that all leprosy patients were of the multibacillary (MB) type, most of which included elderly patients undergoing multidrug therapy (MDT) (80%), the risk factors for leprosy transmission in patients were mainly due to environmental factors (airbone disease) (86%), followed by a history of contact with previous leprosy sufferers (12%) and several endemic areas in East Java and surrounding areas, West Surabaya being the largest endemic area (29%). The pattern of drug use in leprosy therapy includes the main therapy with the WHO scheme, namely MDT. In this study, the majority of patients used MB-type MDT (86%) and more used MB-type MTD without dapsone or MDT without lampren (2%) because of drug side effects. Therapies to treat leprosy reactions included corticosteroids (methylpretnisolone 41%) and NSAIDs (acetosal 39%). The various symptomatic therapies used include antipyretics, antihistamines, antacids and ampoules, nutrition and vitamins, and topical treatments.

Based on the description above, the treatment history for leprosy patients was more in patients who were temporarily on MDT treatment and the lowest was in patients who had finished RFT treatment. MDT treatment is a combination of two or more anti-leprosy drugs, one of which must consist of rifampin as an anti-leprosy drug that has strong bactericidal properties and other anti-leprosy drugs that can be bacteriostatic. If patients are treated as soon as possible after the first signs of leprosy appear, most people will not have serious problems and will be able to live full and normal lives, Siswanto *et al*., (2020). And the RFT Treatment can be declared after filling the dose without the need for laboratory testing. After RFT, leprosy patients were removed from the cohort list. RFT means that leprosy patients have been considered cured and no longer need to take MDT drugs [2].

CONCLUSION

The results of the study concluded that; The incidence of leprosy according to the highest age group is in the 31-40 year age group, which is 31%. The incidence of leprosy after the highest gender group was the male sex group, which reached 74%. The incidence of leprosy after education was the highest in patients with equal primary education in history was 79%. The incidence of leprosy by type of occupation is highest in patients with farmer type of work as much as 74%. The incidence of leprosy by type of leprosy is highest in patients with multibacillary leprosy as much as 100%. The incidence of leprosy according to the method of finding leprosy patients is highest in patients with the discovery of leprosy patients who come alone as much as 85%. The incidence of leprosy according to seeking treatment for the first time was highest in patients who had never been treated as much as 87%. The incidence of leprosy according to the history of household contacts are all 100% healthy. The incidence of leprosy according to medical history was highest in patients while MDT treatment was 69%.

REFERENCES

1. Safira, N. F., Widodo, A., Wibowo, D. A., & Budiastuti, A. (2020). Risk Factors for Patients with Multibacillary Leprosy at Tugurejo Hospital Semarang. *J Kedokt DIponegoro*, 9, 201-207. Available from: https://doi.org/10.14710/dmj.v9i2.27146.
2. Ministry of Health of the Republic of Indonesia. (2019). Regulation of the Minister of Health of the Republic of Indonesia Number 11 of 2019 concerning Management of Leprosy [Internet]. Jakarta; 2019. Available from: http://hukor.kemkes.go.id/uploads/produk_ Hukum/PMK_No__11_Th_2019_ttg_Penanggulangan_Kusta.pdf
3. Health Profile of NTT Province. (2018). East Nusa Tenggara Provincial Health Office [Internet]. Kupang City: M.K.D. Robertus Akoit. Available from: https://dinkes-kotakupang.web.id/bank-data/category/1-profil-kesehatan.html?download=36:profil-kesehatan-tahun-2018
4. Notoatmodjo. Health Research Methods [Internet]. Jakarta. Jakarta: Rineka Cipta; 2012. Available from: https://isc.irk.ru/sites/default/files/2020-06/ilyniuce438.pdf
5. Hadi, M. I., & Kumalasari, M. L. F. (2017). Leprosy Subclinical Stage [Internet]. Funsu Andiarna, editor. Surabaya: Architecture Study Program, UIN Sunan Ampel Jl. A. Yani No. 117 Surabaya, East Java, Indonesia, 60237. Available from: https://osf.io/d82nb/download
6. Dewi, M. K. (2019). Spatial Distribution and Trend Analysis of Leprosy in the Last Three Years at Sumberglagah Hospital, East Java Province. 2019; Available from: http://eprints.uad.ac.id/14965/
7. Fikria, I. (2015). Characteristics of Leprosy Patients in Tangerang Hospital in 2011 [Internet]. Syarif Hidayatullah State Islamic University Jakarta. Available from: https://repository.uinjkt.ac.id/dspace/bitstream/123456789/37768/1/INTI FIKRIA-FKIK.pdf
8. Wijayanti, J. (2017). Overview of Host Factors and Physical Home Environment for People with Leprosy in South Tangerang City in 2017 [Internet]. [Jakarta]: Syarif Hiidayatullah State Islamic University. Available from:

https://repository.uinjkt.ac.id/dspace/bitstream/123456789/35969/1/Juwita Wijayanti-FKIK.pdf

9. Hadi, I. M., & Kumalasari, F. L. M. (2017). Leprosy Subclinical Stage Risk Factors and Problems [Internet]. Andiana F, editor. Surabaya: Architecture Study Program of UIN Sunan Ampel, 5–99 p. Available from: https://osf.io/d82nb/download
10. Wijayanti, J. (2017). Overview of Host Factors and Physical Home Environment for People with Leprosy in South Tangerang City. Specialization in Environmental Health Public Health Study Program Faculty of Medicine and Health Sciences Syarif Hidayatullah State Islamic University Jakarta.
11. Dewi, M. K. (2019). Spatial Distribution and Trend Analysis of Leprosy in the Last Three Years at Sumberglagah Hospital, East Java Province. Ahmad Dahlan University.
12. Muchtar, S. V. (2009). Lepromin Test in Leprosy Patients. *Berk of Skin and Sex Health Sciences*, 21. Available from: http://journal.unair.ac.id/BIK3@lepromin-test-pada-penderita-kusta-article-2982-media-34-category-3.html
13. Snow, V. E., Muntasir., & Rulianti, P. L. (2018). Study of Factors Associated with the Incidence of Leprosy in the Work Area of the Bakunase Public Health Center, Kupang City in 2017. *J Health Info*, 16(2). Available from: http://jurnal.poltekeskupang.ac.id/index.php/infokes/article/download/223/180/
14. Sujagat, A. (2015). Finding Subclinical Infection Cases in Children through Detection of Anti-PGL-1 Antibody Levels (Igm). *Masy Nas Health (National Public Heal Journal)*. Available from: https://journal.fkm.ui.ac.id/kesmas/article/view/883
15. Purwanto, H. (2013). How to Find New Leprosy Patients and Disability Levels in Lampung Province. *J Health*, IV(2), 371-380.
16. Notoatmodjo, S. (2010). Behavioral Health Sciences [Internet]. Jakarta: Rineka Cipta. Available from: https://scholar.google.co.id/citations?view_op=view_citation&hl=en&user=t4hTra0AAAAJ&citation_for_view=t4hTra0AAAAJ:kRWSkSYxWN8C

Cite This Article: Genevensius Melkior G. Rae Molo, Deviarbi Sakke Tira, Yuliana Radja Riwu (2023). Description of the Characteristics of Leprosy Patients Hospitalized for Leprosy and General Disability of Naob Perpetual Helpers. *EAS J Parasitol Infect Dis*, *5*(1), 1-8.