ISSN 2985-5667 (Online) | 2985-6353 (Print) | Vol. 3, No. 2, April (2025), pp. 62-67

Published by: IARN Institute

International Journal on Health and Medical Sciences

Journal homepage: https://journals.iarn.or.id/index.php/HealMed/index

Overview of the Level of Compliance of Outpatients in the Pulmonary Polyclinic Against the Use of Antibiotics in HKBP Balige Hospital

Heny Kurniasari[1], Faisal Yusuf[2], Ully Widya Rochmatil Ulla[3], Masrina Nurmayani Tambunan[4]

[1,2,3,4] D3 Pharmacy Study Program, STIKes Arjuna Jalan YP. Arjuna Pintubosi, 22381 Indonesia Indonesia

Article Info

Article history:

Received Jan 29, 2025
Revised Feb 09, 2025
Accepted Feb 19, 2025

Keywords:

Antibiotics;
At HKBP Balige General Hospital;
Compliance;
Patients.

ABSTRACT

Compliance with antibiotic use in Indonesia is much more and worrying because the use of inappropriate doses and therapy times can cause problems of increasing resistance to antibiotic use, patient compliance with antibiotic use greatly affects the occurrence of resistance. This study aims to determine the level of patient compliance with antibiotic use at HKBP Balige Hospital. This study is a descriptive study, which describes the percentage of patient compliance with antibiotic use at HKBP Balige Hospital. The results of the study obtained, from the number of respondents as many as 60 people who were compliant as many as 59.10% and those who were not compliant as many as 40.90%. The conclusion of this study was obtained Level of Patient Compliance with Antibiotic Use In HKBP Balige Hospital is included in the compliant category. Suggestions for HKBP Ballige Hospital to maintain and improve services in providing drug information.

Corresponding Author:

Heny Kurniasari,
Program Study D3 Pharmacy,
STIKes Arjuna Jalan YP. Arjuna Pintubosi,
95H2+WR5, Jl. Y.P. Arjuna, Pintu Bosi, Kec. Laguboti, Toba, Sumatera Utara, Indonesia
henykurniasari@gmail.com

1. INTRODUCTION

Antibiotics are a group of compounds or drugs derived from natural or synthetic materials that have the function or effect of suppressing or stopping a biochemical process in an organism, especially in the process of infection by bacteria(Bhattacharjee, 2016). A study by the National Academy of Sciences (NAS) stated that the use of antibiotics in the world continued to increase by 65% from 2000 to 2015(Kirchhelle, 2018). People use antibiotics to treat conditions such as coughs, flu, sore throats, itching, headaches, toothaches and high body temperature(Hirschmann, 2002). The use of antibiotics among the community does not pay attention to the rules of drug use, most people use antibiotics for one to two days only if the symptoms of the disease are no longer felt.

The use of antibiotics will cause health problems if the use is not appropriate and not compliant and other global problems such as bacterial resistance to antibiotics(Littmann et al., 2015). Resistance itself is the resistance of bacteria or the resistance of bacteria to an antibiotic so that bacteria are able to weaken the work of the antibiotic(Yoneyama & Katsumata, 2006). Resistance is one of the world's biggest problems because it causes the death rate to continue to increase(Laxminarayan et al., 2013). According to WHO (2015), deaths caused by antibiotic resistance up to 2014 reached 700,000 people

per year. It is predicted that in 2050 the death rate due to antibiotic resistance will be higher than the death rate due to cancer(Bassetti et al., 2017).

Several studies state that as many as 40-62% of antibiotic prescriptions in Indonesia are considered inappropriate(Hadi et al., 2008). This incident will cause new problems such as ineffective treatment, increased patient morbidity and mortality and increased health costs(Phillips & Bredder, 2002). One of the factors that causes errors in antibiotic use is poor patient compliance with antibiotics themselves(Kardas, 2002). According to previous research, it was concluded that patient compliance significantly influences compliance in using antibiotics. In terms of demographic aspects, there is a significant relationship between education level and patient compliance with antibiotics.

Nurani et al.'s study (2018) also concluded that the provision of pharmacist information also affects community compliance with usage techniques. One of the factors that directly influences antibiotic use is the level of community compliance with antibiotics(Pechère et al., 2007). Several studies have shown that the level of compliance greatly affects the way antibiotics are used. Education about antibiotic compliance delivered to the community is one of the efforts to prevent resistance(Finch et al., 2004). In several countries, socialization has been carried out to the public regarding compliance with the correct use of antibiotics and preventing resistance to antibiotics(Kaae et al., 2020). Increasing patient or community compliance with antibiotics is expected to prevent inappropriate use of antibiotics.

The public must obtain useful information to prevent unwanted incidents (Kjellén, 2000). Patients or the public usually obtain drug information from health workers, namely doctors and pharmacists. Information provided by doctors and pharmacists is very much needed to improve patient compliance in using medication(Ngoh, 2009). because inaccurate information will provide insufficient information to patients, which can lead to patient non-compliance in treatment therapy. In Drug Information Provision, the role of pharmacists is a major concern because pharmacists are responsible for pharmaceutical service practices(Ghaibi et al., 2015). Information services to patients regarding how to use drugs are one of the service functions that must be carried out by pharmacists to provide accurate and precise information to doctors, nurses, other health professions, patients and the public regarding drug use.

Previous research results by Elisa et al. (2018) patients can comply with taking antibiotics and finish antibiotics because of the label. Providing labels on drug packaging is one of the written methods used to make it easier for patients to find out drug information(Davis et al., 2006). The community needs to obtain drug information compliance including antibiotics, so the government must be serious in addressing the problem of compliance in the use of antibiotics to prevent resistance(Spellberg et al., 2008). Based on direct observation, most patients who receive health services do not receive clear drug information and lack compliance on how to take drugs, especially antibiotics, so that patients are not compliant in taking drugs at home. Based on this, a study was conducted with the title "Description of the level of compliance of outpatients in the pulmonary polyclinic regarding the use of antibiotics at the HKBP Balige Hospital.

2. RESEARCH METHOD

The research method used is prospective, namely a research method where data/information regarding the research subject cannot be observed(Chakrabarty, 2018). And owned by study on moment study done And research methods prospective rely on information which will obtained in line with the running of the research and oriented towards efforts to predict future subject behavior(Csikszentmihalyi, 2011). By using a questionnaire tool (Notoatmodjo, 2012). This study explains the scope of the field of social pharmacy regarding antibiotic use compliance(Waaseth et al., 2019).

3. RESULTS AND DISCUSSIONS

3.1 Results

Table 1. Patient characteristics by gender.

NO	Gender	Respondents	
		Amount	Percentage
1	Man	41	68%
2	Woman	19	32%
Total		60	100%

Based on table 1 the characteristics of respondents based on gender in table 1 show that out of 60 respondents, they are divided into two groups, namely male and female. The data shows that the majority of respondents are male, 41 people (68%) and the rest are female respondents, 19 people (32%).

Table 2. Patient characteristics based on occupation

No	Age	Respondents	
		Amount	Presentation
1	17-25	3	5%
2	26-35	2	3%
3	36-45	4	7%
4	46-55	13	22%
5	56-65	22	37%
6	≥ 65	16	27%
	Total	60	100%

Based on table 2 the characteristics of respondents based on their occupations in Table II show that of the 60 respondents studied, the most respondents worked as farmers, namely 63% with a total of 38 respondents, then worked as entrepreneurs, namely 35%. with 2% of respondents and there are respondents who are not working, namely 2% with 1 respondent.

Table 3. Respondent Characteristics Based on Age

No	Age	Respondents	
		Amount	Presentation
1	17-25	3	5%
2	26-35	2	3%
3	36-45	4	7%
4	46-55	13	22%
5	56-65	22	37%
6	≥ 65	16	27%
	Total	60	100%

Based on table 3 above, the characteristics of respondents based on age in table III show that out of 60 respondents, they are divided into six age groups, namely 17-25 years old 3 people (5%), 26-35 years old 2 people (3%) 36-45 years old 4 people (7%), 46-55 years old 13 people (22%), 56-65 years old 22 people (37%) and ≥ 65 years old 16 people (27%).

Table 4. Respondent Compliance Level

No	Compliance Level	Respondents	
		Amount	Percentage
1	Obedient	15	25%
2	Not obey	45	75%
	Total	60	100%

Based on the table the level of knowledge in show that the results of data analysis on 60 respondents at the HKBP Balige General Hospital obtained respondent compliance regarding the level of compliance of outpatients in the pulmonary polyclinic on the use of antibiotics at the HKBP Balige General Hospital, the majority were compliant, as many as 15 respondents (25%), and those who were not compliant were 45 respondents (75%).

3.2 Discussion

The results of the study on the characteristics of respondents based on gender in Table I show that out of 60 respondents, they were divided into two groups, namely male and female. The data

shows that the majority of respondents were male, 41 people (68%) and the remaining respondents were female, 19 people (32%). This shows that the majority of respondents are male, possibly because men play a large role when a family member is sick. This role makes them ask health workers more often, use it directly and understand the drugs used, so that it makes their level of knowledge and understanding of drug use much better. Lung disease can happen to anyone due to various factors, such as: Smoking, having smoked, being exposed to cigarette smoke frequently. Working or working in a job that exposes you to dust, gas, smoke, or chemicals.

Having a family history of lung disease. The results of the study on the characteristics of respondents based on their occupations in Table II show that of the 60 respondents studied, the most respondents worked as farmers, namely 63% with a total of 38 respondents, then worked as entrepreneurs, namely 35%. with 2% of respondents and there are respondents who are not working, namely 2% with 1 respondent. From the data above, it can be seen that the majority of respondents' jobs are Farmers. The type of occupation of the respondents influences safe, appropriate and rational self-medication. The better the type of work of a person, the more rational and careful in choosing drugs for self-medication.

Respondents who work and often interact with the outside world often interact with their co-workers and with a sufficient educational background, this will affect the respondent's mindset and ultimately affect the self-medication decisions taken (Defriyanti, 2014). According to Notoatmodjo (2010), indirectly work does play a role in influencing a person's level of knowledge. This is because work is closely related to social and cultural interaction factors, while social and cultural interactions are related to the process of exchanging information, this will certainly affect a person's level of knowledge. Work is something that must be done to support one's life and family (Nursalam 2016).

The results of the study on the characteristics of respondents based on age in table III show that out of 60 respondents, they are divided into six age groups, namely 17-25 years old 3 people (5%), 26-35 years old 2 people (3%) 36-45 years old 4 people (7%), 46-55 years old 13 people (22%), 56-65 years old 22 people (37%) and ≥ 65 years old 16 people (27%). The data shows that the majority of respondents' ages at HKBP Balige General Hospital are 56-65 years old with a total of 22 people (37%). The results of the study showed variations in the characteristics of respondents based on age. At the age of 56-65 years, experience in the use of antibiotics at HKBP Balige General Hospital.

The results of the study on the level of knowledge in table IV show that the results of data analysis on 60 respondents at the HKBP Balige General Hospital obtained respondent compliance regarding the level of compliance of outpatients in the pulmonary polyclinic on the use of antibiotics at the HKBP Balige General Hospital, the majority were compliant, as many as 15 respondents (25%), and those who were not compliant were 45 respondents (75%), so the level of compliance of outpatients in the pulmonary polyclinic at the HKBP Balige General Hospital was included in the non-compliant category.

Although there were some patients who used antibiotics until they ran out, if the patient did not comply, the participant was still declared non-compliant in using the antibiotics that had been prescribed by the doctor for him. Because even though antibiotics are taken until finished, if their use is not appropriate, the purpose of using antibiotics is also not appropriate, so that the use will not be optimally successful, even there will be adverse effects for patients. Although the effects that may appear do not appear immediately, they will gradually affect the patient's health. In addition, the problem of compliance is a multidimensional or complex problem that cannot all be measured

objectively (quantitatively) but requires other parameters to be able to understand the problem of antibiotic use as a whole.

For this reason, a research method is needed that is able to describe and interpret the use of antibiotics in these patients based on subjective experiences in the form of direct narratives/stories from phenomena or situations experienced by participants as the subject of research. This study is in line with research conducted by Yolanda Dwi Karlina, showing that patient compliance in using antibiotics at the Sawah Lebar Health Center is that there are 40.90% non- compliant. This is because many respondents themselves stopped using antibiotics for treatment after the patient's symptoms had subsided and medical personnel did not motivate patients to take their medication regularly and on time. Compliance is defined as the extent to which a patient complies with the drug regimen (interval and dose) as prescribed by a doctor's prescription (Zeber et al., 2013).

Compliance is one of the important components in treatment (Hu & et al., 2014). Moreover, in long-term therapy for chronic diseases, compliance with medication plays a very important role in the success of therapy (Lachaice & et al., 2013). The importance of patient compliance in taking antibiotics, because when patients are not compliant in taking antibiotics or their compliance is low, patients lose the desired therapeutic benefits so that the condition being treated may gradually worsen. For example, when a patient stops taking antibiotics to treat an infectious disease when symptoms have subsided and does not take all of the prescribed medication. This causes the infection to recur, if the series of treatments during therapy is shorter, it is not enough to eradicate the infection (Siregar & Endang, 2006).

4. CONCLUSION

Based on the results of the study showed that the level of compliance of respondents with good compliance with the criteria for the use of antibiotics in patients receiving antibiotics at the HKBP Balige General Hospital as a whole there were compliant patients, namely 25% and non - compliant patients, namely 75%. Based on the characteristics of the gender of patients at the HKBP Balige General Hospital, they had an average level of compliance, namely male 41 (68%) female 19 (32%). Based on the characteristics of the age of patients at the HKBP Balige General Hospital Age, 17-25 years 3 (5%), Age 26-35 years 2 (3%), Age 36-45 years 4 (7%), Age 46-55 years 13 (22%), Age 56-65 years 22 (37%), Age ≥65 years 16 (27%) had an average level of compliance, namely 95% Based on the characteristics of the work of patients at the HKBP Balige General Hospital Based on the characteristics of the education of outpatients in the pulmonary polyclinic at the HKBP Balige General Hospital.

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