# The Relationship Between The Rationality Of Prescribing And The Quality Of Life Of Hypertension Patients At The Central Siantan Health Center In Pontianak

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**Abstract**

Hypertension is a silent killer disease that can affect the patient's quality of life. There is a need for rational treatment to achieve the success of therapy and the desired quality of life. This study aims to determine the relationship between the rationality of prescribing and the quality of life of hypertensive patients. The study design was an observational cohort. Data were obtained from hypertensive patients at the Puskesmas Siantan Tengah Pontianak who met the inclusion criteria in June-July 2021 using a prospective purposive sampling and collected from medical records, EQ5D5L and VAS questionnaires. The results of the study on 101 samples were obtained; the rationality of prescribing antihypertensive drugs was rational, with the percentage of rationality being the appropriate indication 87,12%; appropriate drug 87.12%; appropriate patient 88.11%; and appropriate dose 88.11%. In addition, 28 patients (27.72%) did not have a problem with the five dimensions with the highest EQ5D5L index of 1,000, while the quality of life, as measured by VAS, had a median value of 60. The results of the Pearson chi-square test showed that there was a relationship between the rationality of prescription and quality of life for hypertensive patients with a significance value ≥ 0.05 using the EQ5D5L (p = 0.688) and VAS (p = 0.583) questionnaires. Conclusion: there is no significant relationship between the rationality of prescribing and the quality of life of hypertensive patients, both using the EQ5D5L and VAS questionnaires.

**Keywords:** EQ5D5L, hypertension, quality of life, rationality prescription, VAS

## 1. BACKGROUNDS

Hypertension is a condition where a person's systolic blood pressure is more than equal to 140 mmHg and/or diastolic blood pressure is more than equal to 90 mmHg after two separate measurements[1]. Hypertension is a silent killer disease where the sufferer is not aware of the disorder and, without realizing it, experiences complications in important organs such as the kidneys, heart and brain[2]. Several risk factors, including excess sodium intake, obesity, dyslipidemia, genetics, lack of physical activity, and vitamin D deficiency, can trigger hypertension[3].

Based on data from the World Health Organization (WHO), 972 million people or 26.4% of people worldwide, suffer from hypertension. It is estimated that by 2025, this figure will increase to 29.2%. Hypertension sufferers are more common in developing countries, one of which is Indonesia[4]. According to Riskesdas 2018, the prevalence rate of hypertension in Indonesia is 34.11%, while the prevalence of hypertension in West Kalimantan is

36.99%.[5] Then, based on Pontianak City's health profile in 2018, hypertension was ranked second among the ten most common diseases, totaling 41,736 cases[6].

The health center chosen to research was the Central Siantan Health Center in North Pontianak District. According to data from the Pontianak City Health Service in 2017, the Central Siantan Community Health Center is one of the Community Health Centers with the highest proportion of prevalence of hypertension sufferers in North Pontianak, with 95.36 samples[6]. The Community Health Center was chosen because it is a first-level health facility where many people are from middle to lower economic levels. Apart from that, there are more health centers and cheaper drug prices, so it is easier for people to reach them[7].

Hypertension cases continue to increase every year, causing rational drug selection to be one of the important things to achieve the success of therapy and the desired quality of health.[8] Based on research by Aryzki (2018), an evaluation of the rationality of antihypertensives at the Pelambuan Banjarmasin Community Health Center was obtained from the right patients. 89.1%, correct indication 48.65%, correct dose 45.95%, and correct medication 48.65%. Rational use of medication can improve the quality of treatment and health services so that the quality of life of hypertensive patients can increase[9].

Several patient quality of life measurements include EQ5D5L (European Quality Of Life 5 Dimensions 5 Levels) and VAS (Visual Analog Scale). The EQ-5D-5L is a short, simple, and one of the world's most popular instruments for measuring health outcomes. In addition, the EQ-5D-5L can significantly increase sensitivity and reliability while maintaining feasibility and reducing the ceiling effect compared to the EQ-5D-3L[10]. According to Sari's 2015 research at the Kota Gede II Yogyakarta Community Health Center, the EQ5D and VAS methods are valid and realistic and can be used to measure the quality of life of hypertensive patients[11]. Based on this presentation, researchers want to know the relationship between the rationality of drug prescribing and the quality of life in patients at the Siantan Tengah Health Center, Pontianak City.

## 2. METODE

### Design, Place, and Time

The research used an analytical observational method with a prospective cohort design. Data was collected at the Central Siantan Health Center, Pontianak City, in June-July 2021. Sample selection was done by purposive sampling of hypertensive patients who received antihypertension, underwent outpatient treatment at the Central Siantan Health Center, Pontianak City, and met the inclusion criteria.

### Tools and materials

The tools used in this research were stationary, informed consent sheets, data collection sheets, EQ-5D-5L (European Quality Of Life 5 Dimensions 5 Levels) and VAS (Visual Analog Scale) questionnaires, calculators, Microsoft Excel applications, SPSS applications ( Statistical Package For The Social Science) 22, and patient data collection forms. The materials used in this study were JNC VII, JNC VIII, medical records and hypertensive patients who received antihypertensive treatment at the Central Siantan Health Center, Pontianak City.

The population in this study consisted of hypertensive patients undergoing antihypertensive treatment at the Siantan Tengah Health Center, Pontianak City, from June to July 2021. The samples used in this study were patients who met the inclusion and exclusion criteria. Inclusion criteria for hypertensive patients are hypertensive patients aged ≥ 18 years, hypertensive patients undergoing outpatient hypertension treatment at the Siantan Tengah Health Center, Pontianak City, in June-July 2021, patients who are willing to fill out informed consent, the European Quality of Life 5 Dimensions questionnaire 5 Levels (EQ-5D-5L), Visual Analog Scale (VAS), and patient data collection form. Patients have complete medical records and patients with a first or follow-up visit from the previous month in June-July 2021. Meanwhile, the exclusion criteria for hypertensive patients are patients referred to the hospital. Determining the minimum sample using the Lemeshow formula, namely:[12]

$$n = \frac{Z\alpha^2(PQ)}{d^2}$$

Information :

n = sample size

Zα = Standard value of normal distribution at a certain α (1.96)

P = Proportion of prevalence of hypertensive patients in North Pontianak (0.306)

Q = 1 - P

d = Degree of absolute precision 0.1

A minimum sample of 82 samples was obtained. The results obtained were increased by 10% to 90 samples. So, the minimum sample that will be used is 90 samples.

**How to Collect Data**

Methods for collecting data include obtaining a certificate of passing an ethical review issued by the ethics committee, requesting approval to conduct research at the Central Siantan Community Health Center, approaching and asking patients to become respondents and explaining the purpose and benefits of the research, filling out informed consent by patients who meet the inclusion criteria. , the patient fills in the Indonesian version of the EQ5D5L and VAS instruments provided and takes the patient's medical record data and processes the medical record data and the results of the EQ5D5L and VAS instruments which have been filled in in their entirety.

**Data analysis**

The analysis carried out is: The rationality of prescribing is obtained by analyzing prescriptions using the 4 T criteria (right drug, right dose, right patient, right indication) based on JNC VII and JNC VIII. Then, the data is created in percentage form (rational/irrational prescriptions divided by the total number of patients). Patient quality of life was measured by asking patients to fill out the EQ-5D-5L and VAS questionnaires. EQ-5D-5L consists of 5 dimensions (walking/moving, self-care, usual activities, pain/discomfort, and anxiety/depression) and five levels (no problem, slightly problematic, moderately problematic, very problematic, and very, very problematic). The value of each dimension is converted using the EQ5D5L calculator, and the EQ5D5L index is obtained. The highest index is expressed with an index score of 1,000, meaning it has a good level of quality of life. Data is made

in percentage form (the number of patients who have a good/bad quality of life divided by the total number of patients). VAS is a scale in the form of a vertical line from 0-100 (0: the worst level of quality of life, 100: the best level of quality of life). The results of the VAS were then tested for normality using the SPSS application. If the data is normally distributed, look for the mean value. If the data is not normally distributed, look for the median value. The relationship between the rationality of prescribing and the quality of life of hypertensive patients was obtained by carrying out crosstabulation and Pearson chi-square analysis using the SPSS application between the percentage of rational prescribing and the percentage of patient quality of life (EQ5D and VAS). If the significance value is ≥ 0.05, then there is no significant relationship between the rationality of prescribing and the quality of life of hypertensive patients. In contrast, if the significance value is ≤ 0.05, then there is a significant relationship between the rationality of prescribing and the patient's quality of life.

## 3. RESULTS AND DISCUSSION

In this study, 101 subjects were suffering from hypertension and were grouped based on data characteristics that met the inclusion and exclusion criteria. Data characteristics in this study include age, gender, blood pressure, and type of antihypertensive therapy.

**Table 1. Patient Characteristics**

| Patient Characteristics | | Numbers | % |
|---|---|---|---|
| Gender | Male | 40 | 39,6 |
| | Female | 61 | 60,39 |
| Age | Late teenager (18-25 years) | 0 | 0 |
| | Early adulthood (26-35 years) | 1 | 0,99 |
| | Late adulthood (36-45 years) | 11 | 10,89 |
| | Early elderly (46-55 years) | 24 | 23,76 |
| | Elderly (56-65 years) | 43 | 42,57 |
| | Senioes ( > 65 years) | 22 | 21,78 |
| | Total | 101 | |

It can be seen in Table 1 that hypertension sufferers at the Central Siantan Community Health Center, Pontianak City in June-July 2021 were 0 patients aged 18-25 years, 1 patient aged 18-25 years (0%), 1 patient aged 26-35 years, 1 patient aged 36 -45 years as many as 11 patients (10.89%), aged 46-55 years as many as 24 patients (23.76%), aged 56-65 years as many as 43 patients (42.57%), and aged over 65 years as many as 22 patients (21.78%). In addition, the number of hypertensive patients was greater in women, namely 61 patients (60.39%), while there were 40 male patients (39.60%). Based on research is by research by Sundari (2015), where the percentage of hypertensive patients was more female, namely 60.6%, while the male was 39.4%.

The high prevalence of hypertension experienced by women is caused by the cessation of production of the hormone estrogen, which causes the body to be unable to maintain vasodilation, which can control blood pressure and cannot protect blood vessels from damage[13]. Based on

the age characteristics in Table 1, hypertensive patients undergoing treatment at the Community Health Center Central Siantan, Pontianak City, in June-July 2021 occurred more frequently in those aged 56-65 years with 43 patients (42.57%). It was the same situation with research conducted by Syahrini (2012), and the percentage of patients aged 55-64 experienced hypertension, namely 37.5% (30 patients). This is because, in old age, there is a decline in organ function, loss of tissue elasticity, and atherosclerosis, which cause hypertension, so the tissue or organ cannot function optimally[14].

**Table 2. Antihypertensive Drugs %**

| Drug Name | Amount | % |
|---|---|---|
| Amlodipin | 100 | 99 |
| Captopril | 1 | 1 |

Based on the description of antihypertensive drugs in Table 2, the most frequently prescribed antihypertensive is Amlodipine, with 100 prescriptions (99%). The same research results were also carried out by Taslim (2020) at the Rawang Community Health Center, where a single drug in the CCB group (Calcium Channel Blocker) was the most widely prescribed medication, namely Amlodipine[15]. The use of Amlodipine at the Central Siantan Community Health Center is more widely prescribed because, apart from its availability, Many of these health centres also have antihypertensives that are safe to use in patients who have complications such as diabetes mellitus, asthma and angina, as well as their ability to lower blood pressure with a dose of 10 mg in a short time, so that patients feel their health has improved and can carry out their activities as before[16].

**Table 3. Indicative Exact Rationality**

| Rationality | Amount | % |
|---|---|---|
| Exact indication | 88 | 87,12 |
| Inaccurate indication | 13 | 12,87 |
| Total | 101 | |

Evaluation of the rationality of using antihypertensive drugs is carried out, namely the right indication, the right drug, the right patient and the right dose. Based on research conducted at the Central Siantan Community Health Center for the period June-July 2021, from 101 prescriptions for hypertensive patients, it was found that the accuracy in selecting antihypertensives was based on the correct indication in Table 3, namely 87.12% and incorrect indication, namely 12.87%. Inaccuracy of indications occurred because the antihypertensive drugs did not match the blood pressure conditions of patients seeking treatment at the Central Siantan Health Center based on JNC VII and JNC VIII. It could be caused by patients with normal blood pressure and prehypertensive patients who do not need to be given antihypertensive drugs. Patients with prehypertension, according to JNC VII, need to make lifestyle modifications such as losing weight, low sodium diet, physical activity, reducing or stopping alcohol and smoking consumption, and adjusting their diet. Apart from that, some hypertensive patients are in stage 2 and are not given combination drugs based on JNC VII[17]. The disadvantage of using antihypertensives with inappropriate indications is that there will be a misdiagnosis, which will affect drug prescribing errors. If this happens, the patient will not receive optimal hypertension therapy. These research results are lower than those by Sodiqoh

(2021) at Bumiayu Community Health Center 2021, with an accurate indication of 100%[18].

**Table 4. Appropriate Rationality of Drugs**

| Rationality | Amount | % |
|---|---|---|
| Exact drug | 88 | 87,12 |
| Inappropriate medication | 13 | 12,87 |
| Total | 101 | |

Based on the accuracy in selecting antihypertensives in Table 4, it was found that the correct medication was 87.12% and the incorrect medication was 12.87%. The inaccuracy of medication occurred because the patient came to the Central Siantan Community Health Center and then had his blood pressure measured, showing that the patient was diagnosed with stage 2 hypertension, but the doctor gave antihypertensive medication, not a combination of monotherapy (Captopril 12.5 mg; 3 times a day), not by JNC VII treatment and JNC VIII. It can happen because the doctor prescribed the initial dose for 3 days, hoping that the patient would return to the Community Health Center and have his blood pressure evaluated. If the patient's blood pressure does not decrease, the doctor will prescribe a combination of antihypertensive drugs according to JNC VII and JNC VIII standards[19]. Other drug inaccuracies also occur because patients who come are diagnosed with hypertension but, judging from their blood pressure, are in the normal and prehypertensive categories but receive antihypertensive medication. Inaccuracy in prescribing can occur due to the progress of the patient's disease and the continuous and regular use of antihypertensive drugs. Losses that occur if the antihypertensive medication is not taken correctly will result in errors in administering the drug dose and also the rules for using the drug. The results of this research are lower than those of Alaydrus (2017) at the Marawola Community Health Center in 2017, which included 100% correct medication[20].

**Table 5. Patient's Appropriate Rationality**

| Rationality | Amount | % |
|---|---|---|
| Appropriate patient | 88 | 88,11 |
| Inappropriate patient | 12 | 10,88 |
| Total | 101 | |

Based on the accuracy in selecting antihypertensives in Table 5, it was found that 88.11% of patients were correct, and 10.88% of patients were incorrect. The patient inaccuracy occurred because there were patients with normal blood pressure and prehypertension who, based on JNC VII, were not indicated to be given antihypertensive drugs but, from the research results, were given antihypertensive drugs. It could happen because the patient had previously received treatment at the Central Siantan Community Health Center. Still, because the patient had been taking antihypertensive medication continuously and taking the medication regularly, the patient's blood pressure had decreased. Losses resulting from improper treatment of hypertension in these patients will cause high side effects in patients who take the drug. The results of this study are not much different from research conducted by Aryzki (2017) at the Pelambuan Banjarmasin Community Health Center with 89.19% patient accuracy[9].

**Tabel 6. Patient's Appropriate Rationality**

| Rationality | Amount | % |
|---|---|---|
| Right dose | 88 | 87,12 |
| Incorrect dosage | 13 | 12,87 |
| Total | 101 | |

Based on the accuracy in selecting antihypertensives in Table 6, it was found that the correct dose was 87.12% and the incorrect dose was 12.87%. Inaccuracy in dosage is closely related to inaccuracy in administering medication to patients. Inaccuracy in dosage occurred because patients with blood pressure at stage 2 were not given combination drugs according to JNC VII and JNC VIII treatment. If antihypertensive medications are given in combination to hypertensive patients, the dosage will be different from drugs given alone in order to achieve therapy. Other dosage inaccuracies occurred because there were patients with normal blood pressure and prehypertension but who were given antihypertensive drugs. The disadvantage of inaccurate dosage is that if the dose received is too low, it can cause the drug level in the blood to be below the therapeutic range so that the drug cannot provide the expected response. At the same time, a drug dose that is too high can cause the drug level in the blood to exceed the therapeutic range, which can result in toxicity. The results of this research are higher than those conducted by Darwis (2016) at the Lebung Community Health Center, with an accurate indication of 79.2%[21].

This research uses two types of quality of life measurements, namely the European Quality of Life 5 Dimensions 5 Levels (EQ5D5L) Questionnaire and the Visual Analog Scale (VAS). The results of the quality of life analysis from this study obtained the EQ5D5L Index from the EQ5D5L questionnaire scoring results, which were converted using the EQ5D5L Index calculator. The results in Table 7 show that the highest percentage of the EQ5D5L index score was 27.72% in the dimension that had no problems with an EQ5D index score of 1, whereas the patient receiving antihypertensive therapy had no problems in the five dimensions contained in the EQ5D5L. This result is slightly higher than that of research conducted by Yuswar (2019) at the Community Health Center using EQ5D, namely 25.49%. Moreover, it could happen because the symptoms of hypertension experienced by some patients are not severe enough. In addition, most patients do not have severe disease complications.[22]

**Table 7. Quality of Life in Patients Using Antihypertensives Through EQ5D5L**

| EQ5D5L Indeks | PROBLEM DIMENSIONS | N (101) | % |
|---|---|---|---|
| 0,414 | Walking/moving, pain/discomfort, anxiety/depression | 1 | 0,99 |
| 0,426 | Walking/moving, usual activities, pain/discomfort, anxiety/depression | 1 | 0,99 |
| 0,553 | Walking/moving, usual activities, pain/discomfort | 1 | 0,99 |
| 0,62 | Walking/moving, usual activities, pain/discomfort, anxiety/depression | 1 | 0,99 |
| 0,642 | Walking/moving, usual activities, pain/discomfort, anxiety/depression | 1 | 0,99 |
| 0,654 | Walking/moving, usual activities, pain/discomfort, anxiety/depression | 3 | 2,97 |
| 0,666 | Berjalan/bergerak, kegiatan yang biasa dilakukan, rasa sakit/tidak nyaman, rasa cemas/depresi | 1 | 0,99 |
| 0,668 | Walking/moving, pain/discomfort, anxiety/depression | 1 | 0,99 |
| 0,671 | Walking/moving, pain/discomfort, anxiety/depression | 1 | 0,99 |
| 0,679 | Walking/moving, usual activities, pain/discomfort, anxiety/depression | 1 | 0,99 |
| 0,691 | Walking/moving, usual activities, pain/discomfort | 2 | 1,98 |
| 0,698 | Walking/moving, usual activities, pain/discomfort | 1 | 0,99 |
| 0,708 | Walking/moving, pain/discomfort, anxiety/depression | 2 | 1,98 |
| 0,716 | Walking/moving, usual activities, pain/discomfort | 1 | 0,99 |
| 0,723 | Walking/moving, usual activities, pain/discomfort | 1 | 0,99 |
| 0,735 | Usual activities, pain/discomfort, anxiety/depression | 1 | 0,99 |
| 0,736 | Usual activities, pain/discomfort, anxiety/depression | 1 | 0,99 |
| 0,739 | Walking/moving, pain/discomfort | 1 | 0,99 |
| 0,74 | Pain/discomfort, anxiety/depression | 3 | 2,97 |
| 0,75 | Pain/discomfort, anxiety/depression | 2 | 1,98 |
| 0,767 | Walking/moving, pain/discomfort | 3 | 2,97 |
| 0,768 | Pain/discomfort, anxiety/depression | 2 | 1,98 |
| 0,778 | Walking/moving, usual activities, anxiety/depression | 1 | 0,99 |
| 0,795 | Usual activities, pain/discomfort | 1 | 0,99 |
| 0,796 | Pain/discomfort | 6 | 5,94 |
| 0,837 | Self-care, pain/discomfort | 26 | 25,74 |
| 0,846 | Self-care | 1 | 0,99 |
| 0,848 | Anxiety/depression | 1 | 0,99 |
| 0,877 | Walk/move | 2 | 1,98 |
| 0,879 | Anxiety/depression | 2 | 1,98 |
| 0,906 | Normal activities | 1 | 0,99 |
| 1 | No problem | 28 | 27,72 |

**Table 8. Quality of Life of Patients Using Antihypertensives Via VAS**

| VAS | Value |
|---|---|
| Lowest VAS Value | 30 |
| Highest VAS Score | 90 |
| Median | 60 |

The results of the analysis of quality of life levels using SPSS in this study via VAS in Table 8 were obtained in the normality test with a P value = 0.00 (P value < 0.05), meaning that the analysis had an abnormal data distribution. Hence, the data analysis used the median. The median value on the VAS obtained from SPSS analysis using descriptive tests in patients receiving antihypertensives was found to be a median value of 60, meaning that the majority of patients had a good quality of life. The lowest VAS value in patients receiving antihypertensives was 30, while the highest was 90. The results obtained were lower than those obtained by previous research conducted by Yuswar (2019) at the Perumnas I Community Health Center, which received an average quality of life result with a VAS value of 70. Also, due to the presence of symptoms of comorbidities experienced by the patient, most of the patients are elderly, which affects the patient's quality of life. However, fewer patients experience serious disease complications, and the treatment provided by the Central Siantan Health Center in dealing with the symptoms of hypertension patients is appropriate so that the patient's quality of life is still in the excellent category.[23]

**Table 9. Crosstab Results of the Relationship between Rationality and Quality of Life (EQ5D5L) of Hypertension Patients**

| Rationality*Quality of Life (EQ5D5L) Crosstabulation | | | | |
|---|---|---|---|---|
| | | Quality of Life | | |
| | | Bad | Good | Total |
| Rationality | Bad | 10 (9,9%) | 3 (3%) | 13 (12,9%) |
| | Good | 63 (62,4%) | 25 (24,8%) | 88 (87,1%) |
| Total | | 73 (72,3%) | 28 (27,7%) | 101 (100%) |

| *Chi-Square Tests* | | | | | |
|---|---|---|---|---|---|
| | *Value* | df | *Asymp .Sig.(2-sided)* | *Exact Sig. (2-sided)* | *Exact Sig. (1-sided)* |
| *Pearson Chi-Square* | .161[a] | 1 | .688 | | |

The relationship between the rationality of prescribing and the quality of life of hypertensive patients can be determined by conducting a crosstab analysis of the percentage of rational prescribing and the quality of life (EQ5D5L and VAS) of hypertensive patients. It is known in Table 9 and Table 10 that rational drug prescribing was 88 patients (87.12%) and irrational was 13 patients (12.87%). Quality of life of hypertensive patients using EQ5D5L were with good quality of life in 28 patients (27.72%) and poor quality of life in 73 patients (72.28%). Meanwhile, the quality of life of hypertensive patients using VAS with good quality of life was 99 patients (98.01%), and poor quality of life was two patients (1.98%).

**Table 10. Crosstab Results of the Relationship between Rationality and Quality of Life (VAS) of Hypertension Patients**

| Rationality*Quality of Life (EQ5D5L) Crosstabulation | | | | |
|---|---|---|---|---|
| | | Quality of Life | | |
| | | Bad | Good | Total |
| Rationality | Bad | 0 (0 %) | 13 (12,9%) | 13 (12,9 %) |
| | Good | 2 (2 %) | 86 (85,1%) | 88 (87,1 %) |
| Total | | 2 (2 %) | 99 (98 %) | 101 (100 %) |

| *Chi-Square Tests* | | | | | |
|---|---|---|---|---|---|
| | *Value* | df | *Asymp. Sig. (2-sided)* | *Exact Sig. (2-sided)* | *Exact Sig. (1-sided)* |
| *Pearson Chi-Square* | .301[a] | 1 | .583 | | |

The results of research on the relationship between the rationality of prescribing and the quality of life of hypertensive patients using VAS with the Chi-Square Test in Table 10 showed a significance value of ≥ 0.05 (p-value = 0.583). Based on statistical tests, it can be concluded that there is no significant relationship between the rationality of prescribing and the quality of life of hypertensive patients using the Visual Analog Scale (VAS) at the Siantan Tengah Health Center, Pontianak It could happen due to many factors that can affect the patient's quality of life. These results are different from research conducted by Farha at Jordan University Hospital using the RAND-12 questionnaire, stating that DRPs (Drug Related Problems) or drug-related problems affect the quality of life of hypertensive patients.[24] However, these results are in line with research conducted by Sari (2017) using the EQ5D questionnaire, which stated that there was no significant relationship between the rationality of prescribing (proper indication, right drug, correct dose, right patient) on the quality of life of hypertensive patients.[25] This is because the patient's disease condition is classified as not yet too severe, so there is no visible difference between the rationality of prescribing and the quality of life of hypertensive patients.

## 4. CONCLUSION

The rationality of prescribing antihypertensive drugs at the Central Siantan Community Health Center, Pontianak, is rational with a percentage of rationality, namely 87.12% correct indication, 87.12% correct drug, 88.11% correct patient and 87.12% correct dose. The highest percentage score of the European Quality of Life 5 Dimensions 5 Levels (EQ5D5L) index was 27.72%, and the median Visual Analog Scale (VAS) score was 60. There was no significant relationship between the rationality of prescribing and the quality of life of hypertensive patients using either the EQ5D5L Index or using VAS. Suggestions for future researchers are that research can use particular questionnaires for hypertensive patients, such as the MINICHAL questionnaire, or different questionnaires other than EQ5D5L, such as WHOQOL-BREF, SF-6D, SF-12, and SF-36, to get different results and can be compared with the EQ5D5L method.

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