

Affected Role Knowledge: The Use of Captopril in the Treatment of Hipertension Disease in Age 30-60 Years at the Maubara Health Center, in the Municipality of Liquica Timor-Leste [2025]

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Abstract

Introduction: Hypertension is a health problem in all parts of the world and as one of the main risk factors for cardiovascular diseases. Hypertension is also called as a non-communicable disease because hypertension is transmitted from people to people's lives in everyday that clear.

Research Objective: To know the level of knowledge of patients the use of drug captopril in the treatment of hypertension diseases in age 30 -60 years in Maubara Health Center Village of the Municipality of Liquica Timor- Leste.

Research Methodology: We use quantitative descriptive method, through the technical approach of sectoral study and technique analyzes data is univariate.

Result and Discussion: The results of this research were about the level of knowledge of patients about the use of captopril drugs for patients with hypertension at the Maubara Health Center. The results of this research are divided into (2) parts as general and specific data. It shows that the level of knowledge knowing, the highest percentage is the level of knowledge of the category sufficient with a percentage of 37 (79%), is the level of knowledge and the lowest category less with a percentage of 6 (8%). Based on the results, the level of knowledge that they understand about the use of captopril drugs for the patient with the highest percentage of higher is the level of knowledge of the category sufficient with a percentage of 34 (47%). The lowest percentage is the level of knowledge in the category less than 9 (13%).

Conclusion: patients' level of knowledge the use of captopril drug in the treatment of hypertension diseases at age 30 -60 years in Maubara Health Center are sufficient according to research [Tilman CB., et al, 2025].

Key words: Knowledge, Hypertension, Medications and Captopril.

Introduction

Hypertension is a health problem in all parts of the world and as one of the main risk factors for cardiovascular diseases. Hypertension is also called as a non-communicable disease because hypertension is transmitted from person to person in exceptional cases.

Globally, hypertension is one of the most serious problems in the world. However, according to the World Health Organization (WHO, 2022) it is estimated that 7.5, or 12.8% of the mortality outbreak, and it is estimated that by 2025 thousand adults will have had the disease, with Africa prevailing 46% of hypertension in the world and less than 35% in America. The World Health Organization (WHO, 2021) also reports that developed countries have low pressures in the extreme developing country with increasing prevalence. The current hypertension disease with temporary duration will cause complications such as heart disease, thrombosis, kidney and green failures (WHO, 2023).

The prevalence of hypertension in the Southeast Asia Region is 37% and causes the mortality of almost 1,500 people per year. The prevalence of hypertension in the Soutl-East Asia Region is 37% and causes the mortality of almost 1,500 people per year. According to data from Asia 2019, in the countries Indonesia data prevention had 25.8% of hypertension, the data show more than 30% in Asia, in Bangka Belitung, and the data are the lowest in Papua 16.8%. (WHO, 2023). Hypertension is a common problem in the Soult-East Asia Region and is the leading cause of cardiovascular disease. To do this, it is necessary to adapt adult clients to the treatment and prevention of these hypertension diseases. Obesity has become the first fac-

tor of hypertension in the Southeast Asia Region, making the descent of obesity help reduce the disease in the future (WHO, 2022). National data collected by the WHO researcher (2024), in Timor Leste the mortality rate due to hypertension reached 156 (2.21%) of the total deaths, the mortality rate by age category was 24.12 per 100,000 (per hundred thousand) of the population of Timor Leste and is in the world ranking. 60 meningeal diseases due to hypertension. According to data from the Ministry of Health of Timor-Leste, division of non-communicable diseases, hypertension in 2021 was 11,646 cases in 2022 from January to December there were 4,477 cases (Ministry of Health TL, 2024).

The national Captopril drug data was consumed in 2022 with 2,720,025 tablets and in 2023 were 3,223,267 and total of 5,943,292. tablets used. The data were collected by the Ministry of Health through the National Directorate of Pharmacy of Dili, on August 23, 2023 (MSDNFM, 2023). The local data of Captopril drugs were consumed in 2021 with 3,974 tablets and in 2022 were 4,269 tablets and in 2023 were 4,028 and a total of 12,271. tablets used. Data were collected from the patient consuming captopril drugs daily at the Maubara Health Center 2021 – 2023, -2024, January-June 2025 (CSM, 2024, cited by Tilman CB., et al, 2025).

Objective: To know the level of knowledge of patients about the use of the drug captopril in the treatment of hypertension diseases in age 30 -60 years in Maubara Health Center Municipality of Liquica Timor-Leste, 2025.

Theoretical Framework

The drug captopril entered the Angiotensin Converting Enzyme Inhibitor (ACEI) group. Accepting Captopril serves as the end of the production of angione hormones. The blood vessel may be normal so that the pressure goes down, the supply of oxygen in the heart increases significantly. The first captopril drugs treat diseases of high blood pressure or high blood pressure and can be used alone and combined with other anti-hypertension drugs use cited by (Sawari, 2018; Tilman CB., 2024).

- 1. Accepting medicines that work in a straight way: e.g., Captopril
- 2. Pro- pharmacist that the drugs are not right or inactive: e.g., enalapril, perindopril, ramipril, benazepril, and lisinopril.
- 3. Hypertension

Both some reference author second (Lanny, 2016; Tilman CB., 2024) Hypertension or Hypertension diseases are true that result in blood vessels that happened from the proliferation of O2 and nutrition that carry in the indicated blood up to the precious tissue. Hypertension is often referred to as a murder and silent killer, since the sufferers are also mortally deceased and related to the signs that are the victims' memory. Hypertension is one of the deadliest diseases of human life, with a higher risk because it can cause complications from the disease in older people. Hypertension is the highest blood pressure in the human body, when systolic and diaspora pressure pass normal limits. (Coming Edwin Wickson, 2018).

Hypertension is a systolic condition elevated to 120 mmHg and blood pressure higher than 80 mmHg. Blood pressure, which lasts for a longer time, can destroy, along with kidneys, hearts, and brains, oth-

er organs. (Irian Novian, 2016). Hypertension or blood pressure is a disease that, in large part, is due to the increase in blood pressure in the blood vessel, which causes people's hearts to smoke as quickly as possible with blood in all bodies. (Tim Bhumi Medica, 2019). According to the Joint National Committee (JNC), in 2023, the classification of hypertension is as follows:

Table 1. A. Classification of hypertension

Blood Pressure Rating Abstemi-ous Powerfully	Systolic blood pres-sure (mmHg)	Diastolic blood pres-sure (mmHg)
Normal	<120 AM	< 80
Prehypertension	120-139	80-89
Level 1 hyperten-sion	140-159	90-99
Level 2 hyperten-sion	>160 years	100

The etiology or causes of hypertension are divided into two groups:

- 1. Essential hypertension or pathology (first super tension) shows that the causes are still unknown, an essential hypertension of conditions not curable but just controllable.
- 2. Secondary hypertension indicates that the specific causes have been detected and patients have been caused by (secular hypertension), doctors will be able to monitor or diagnose patients (Suhani, 2018).

Multi factors with primary hypertension are:

- 1. Coverage of the renin-angiocentric system, natriuretic hormone, and hyperinsulinemia is not normal.
- 2. Problems of pathology in the nerve center of the octomom capillary, plasma volume and arterial constriction.
- 3. Natrium is strongly increased and increases the circulation of natriuretic harmonies that

transport an intracellular sodium, producing are greater with family members of close neighbors and increasing vascular reactivates and blood suffering from or attacking tension diseases. In this pressures. sense, the generation factors are also related to the

4. Increase the concentration of calcium intracellular, and alter vascular, lighter muscle functions and increase peripheral vascular resistance (ISO Pharmacotherapy, 2018). metabolism of salt form (NaCl) and the renunciation of cell membranes. Hence, the factor has marked consequences on tensions, which can minimize or eliminate through obscenest, the smoking tone, smoking, the consumption of alcohol and coffee, the consumption of salt, long-standing, and the balance in the hormonal system. (Team Bhumi Medical, 2024).

The risk factors for hypertension divided into two groups are the risk factor for hypertension that can be changed and there are also risk factors for hypertension that cannot be changed. (Team Bhumi Medical, 2023).

Risk factors for hypertension should not be changed

Age:

Age is one of the factors that has great consequences in finding hypertension or high blood pressure diseases that do not change. Age usually increases in which cases of hypertension also increase according to researchers (Triantis, 2021; Tilman CB., et al, 2025).

Sex

Sex is one of the factors that is causing the consequences of suffering from diseases, hypertension that cannot be changed or have to suffer. In this sense, most men face this disease compared to women. at a time when there are alleged men who achieve an unhealthy lifestyle compared to women. But that hypertension diseases prevail in women after their menopause age. It should be recalled that there have been changes in the hormonal in which women are found and then go into menopause.

Genetics

The consequences of this hypertension and tension

Risk Factors can Change for Hypertension Obesity:

Obesities has been known to supply hypertension and potential renegued diseases such as strokes and heart attack diseases. (Team Bhumi Medical, 2023).

Smoke:

Smoking is one of the factors associated with hypertension, so smoking is continuous. Cigarette smoke can cause nicotine to be absorbed by blood vessels in the lower lungs and then carried to the brain. In the nicotinoyl brain, the adrenal glands are signaled to abandon and extract epinephrine's or adrenalines, which give a small blood vessel and force the heart to work more closely in the face of high arterial pressure. (Team Bhumi Medical, 2023).

Alcohol consumption

Alcohol or wine are also one of the factors that have great consequences for sowing hypertension or stroke diseases to strong-headed symptoms. Thought has an impact on the red blood cells in our bodies, which cause the bodies to clot and ultimately give rise to tension. (Team Bhumi Medical, 2022).

Consume more salt

Salt consumption is largely caused by hypertension. The subject refers to salt (NaCl), here very natrium and they can attract blood out of the cells and even remove it to happen to the dead cells of the body. This problem is the increase in blood volume.

Stress (suffering) more aspects:

Suffering or too many ideas are serious consequences of a serious stress disorder. The occurrence of hypertension diseases is very dangerous for those who have their own problems with others until the person suffers from tension disorders. People are on an equal footing; Stutterers, fear, patience, upset and feel with a mistake of action and that the heart can suffer a serious illness of tension. (Team Bhumi Medical, 2022).

The most well-known hypertension in the English word is that "silent killer" since a person with hypertension in the primary does not give any sign, if the blood pressure is taken to physical tests in clinics to understand the hypertension of the patients. The diagnosis of minimal hypertension two times should be made regularly in the clinic to know the results of arterial hypertension or through the numbers identified by the classification of arterial hypertension (Tomashi, 2023). In addition to non-pharmacological forms of treatment, the first treatment of hypertension from drugs is the first. The decision to launch antihypertensive drugs is based on factors such as high arterial pressure, damage worthy of some organs, clinical manifestations of cardiovascular disease, or other risk factors. The treatment of hypertension as the treatment is long, it can be treated throughout life. Pharmacology therapies are the same:

Diuretic class

Diuretic thiazide is usually a primary treatment drug for patients with hypertension. Diuretics helps the kidneys draw out salt and water, which reduces the volume of fluid throughout the body while lowering artery pressure. Dilation can also be done in blood vessels. Diuretics is more effective than increasing black skin, age, heart failure patients, and kidney pain.

ACE-inhibitor

Dilate arteries. The drug is even more effective by donating it: the patients who were piled up, at the ages of the young, the cardiac influences, the patients with diabetic proteinuria.

Antigenic-II-blocker

Angiotensin-II-blocker lowers arterial pressure with a mechanism similar to that of Angiotensin Converting Enzyme (ACE)-inhibitor.

Antagonist's football

Antagonism calcinated dilation of blood vessels with different mechanisms. The most effective are the data for whom black skin, with increased age, patients angina pectoris (eye cuts), faster heart rates, headaches in the process of treatment.

Vasodilator

Vasodilator directly dilated blood vessels. Drugs in this group are almost always used additionally against other forms of antihypertension that exist in medical treatment.

Methodology

We use quantitative descriptive method, through the technical approach of sectoral study or Cross-Sectional study and technique analyzes data is univariate. Samples of this research totaled

prescriptions with (72) captopril drugs obtained through sloven formulations. We use technical data collection directly descended from local search data to primary data collection and questionnaire. The technical sample was used for the Non probability sampling in an accidental sampling and analysis using the SPSS (Statistical Package for the Social Sciences) computer program version 25.

Result

Table 1. Frequency distribution according to respondent characteristics based on gender.

No	Sex	F	%
1	Male	22	31
2	Female	50	69
Total		72	100

Table 2. Frequency distribution according to respondent characteristics based on age.

No	Age	F	%
1	30-35	19	26
2	35-45	39	54
3	45-50	5	7
4	50-60	9	13
Total		72	100

Table 3. Frequency distribution of respondent characteristics based on profession level.

No	profes-sion.	Fresequence	%
1	Civil	13	18
2	Service	12	17
3	Farmer	7	10
4	House-wife	29	40
5	Students	11	15
Total		72	100

Table 4. Types of Knowledge Level for the Use of Captopril Drugs for Hypertension at the Maubara Health Center the Municipality of Liquica Timor-Leste.

No	Category Knowledge	Frequency	%
1	Good	29	40
2	Enough	37	51
3	Less	6	8
Total		72	100

Based on the table above, it shows that the level of knowledge knowing, the highest percentage is the Knowledge Level of the category sufficient with a percentage of 37 (79%), the table further shows that the lowest percentage is the level of Knowledge and the lowest category less with a percentage of 6 (8%).

Table 5. Type of Knowledge Level Understanding of the Use of Captopril Drugs for Hypertension at the Maubara Health Center.

No	Category Knowledge	Frequency	%
1	Good	29	40
2	Enough	34	47
3	Less	9	13
Total		72	100

Based on the search results in the table above, the level of knowledge that they understand about the use of captopril drugs for the patient with the highest percentage of the highest is the level of knowledge of the category sufficient with a percentage of 34 (47%). The lowest percentage is the level of knowledge in the lower category with 9 (13%), cited by [Tilman CB., et al, 2025].

Discussion

Based on the age results, the majority of respondents from the 35 - 45 age groups 39 (54%) and a minority from the 45 - 50 age groups (7%). According to Budi, 2015 states that from the age of 18, hypertension can be a risk. As age increases, it may be less than its elasticity. When the blood pump heals throughout the body it can increase, affecting blood pressure as well. According to the

writer, increasing the age of a person's knowledge and experience also increases the improvement of hypertension and being able to have a better view of treatment when they have hypertension.

Based on the above-mentioned findings, the majority of respondents were housewives 29 (40%) and a minority of farmers 7 (10%). Poor work is done to meet people, especially in family life. Working is not a source of joy, but most of them, like the search for self-esteem, continue to face many obstacles. It starts to be enough; the level of maturity and strength of the person starts to be more mature, the age of each person starts to age, then the mentality of the developmental process increases well, but the age of the person who ends up increasing the mental development process is faster than the age of the young person.

1. In the discussion, the results of the research will be explained based on the following variables: to know and understand the patient's knowledge about the use of captopril drugs for patients with hypertension at the Maubara Health Center, according to the results obtained at the research site are as follows. Knowledge-level data based on the level of knowledge about the use of captopril drugs in patients with hypertension at the Maubara Health Center. Based on the above findings, the majority of the respondent had 72 respondents at the Maubara Health Center. The majority of the interview had a sufficient percentage of 37 (51%), while the majority had less than 6 (8%) knowledge. The knowledge that results from this knowledge and reanimation are detected through the meanings of the human body, such as: seeing (seeing), hearing (hearing), feeling (spanking), holding (indulgence), and day (smell). Friant (2019) stated that knowledge is

usually derived from experiences that come from diverse sources, such as mass media, electronic media, personal books. To help strengthen one's belief in something so that the person's actions are in line with your knowledge and belief.

2. Knowledge about the level of understanding of the use of captopril drugs at Maubara Health Center. Based on the above findings, the majority of the respondent had 72 based on their understanding at the Maubara Health Center, the majority had sufficient knowledge with 34 (47%) and the majority had less knowledge with 9 (13%). According to Nontaboo (2021; Tilman CB., 2024), comprehension is the same as giving an explanation of the right things about the object that is known and being interpreted the right things that are understood to clarify and mention a certain subject or subject. For example, remove the completion and predict the object.

Conclusion

It lists the main aspects of the research phase of the project, with the beginning and end of the project's development period. Based on the results of the research and discussion discussed on the topic of patients' level of knowledge the use of captopril drug in the treatment of hypertension diseases in age 30 -60 years in Maubara Health Center of the Municipality of Liquica, as follows;

Level of knowledge

The patient's level of knowledge is mainly known for the use of captopril sheets for the treatment of patients with hypertension, mainly in the sufficient category of percentage known as 37 (51%) and less than 6 (10%).

Level Comprehension

The patient's level of knowledge, especially the understanding of the use of captopril medication for the treatment of patients with hypertension, is mostly in the sufficient category by the percentage of sufficient comprehension 34 (47%) and less than 9 (13%), cited by [Tilman CB., et al, 2025].

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