

RATIONALITY ANALYSIS OF SWAMEDICATION OF USE OF URIC ACID DRUG IN THE COMMUNITY OF BINTAUNA BEACH AND KOPI VILLAGE, BINTAUNA DISTRICT, BOLAANG MONGONDOW NORTH REGENCY

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ABSTRACT

Uric acid is the condition that occurs by an excessive or abnormal levels of uric acid because the body cannot normally secrete it. The purpose of this study was to examine the pattern of self-medicated drug and to identify the prevalence of the self-medicated of uric acid drug that rationally used in the communities of Bintauna Pantai and Kopi Village, Bintauna District, Bolaang Mongondow Utara Regency.

This study used quantitative descriptive method. The data was collected using survey to analyze the rationalizations of self-medicated uric acid drug use in the communities that specifically suffer from uric acid condition.

The result of this study was analyzed using the data that collected from the questionnaire instrument to see how rational the use of uric acid drugs is by the people of Bintauna Pantai and Kopi Village, Bintauna District, Bolaang Mongondow Utara Regency. The rationality test showed that 94,5 % of respondents used the drugs rationally, and the other 5,5% used the drugs irrationally.

Keywords: uric acid, rational drug use, self-medicated

INTRODUCTION

Gout is a degenerative disease that is commonly found in people who have developed in the last few decades. The initial symptoms of gout are joint pain and swelling around the joint. If gout in the joints is not treated, it can affect other joints. The most common characteristics of gout are severe joint pain, swelling in the joints, redness of the skin in the joints, and a burning sensation around the joints [10].

Gout is a type of joint disease (rheumatism) that causes excessive or abnormal levels of uric acid in the body because the body cannot excrete uric acid naturally. Uric acid is an acid in the form of purine crystals, which is the end result of metabolism, because purines are a component of nucleic acids in the nucleus of cells in the body [3].

Foods that contain lots of purines can cause metabolism to be disrupted, so uric acid levels in the blood will increase and cause a buildup of uric acid crystals [7]. The body provides 85% of purine compounds for daily needs, which means only 15% of the food needed. Foods high in purines are converted to uric acid. Hyperuricemia can cause uric acid crystals that clog the bladder [16].

These uric acid crystals will form deposits of urate salts that accumulate in connective tissue throughout the body (these deposits are called tofus). This situation will trigger an inflammatory response that causes pain in the joints, this is what is called gout. Today's unhealthy lifestyle habits do not only occur in people living in urban areas, but also in people

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living in suburbs and even in rural areas [9].

Normal uric acid levels in men range from 3.5-7 mg/dl, while in women it is 2.6-6 mg/dl. If uric acid levels are above normal, there will be a buildup of uric acid crystals in joints and other soft tissues. It also causes swelling, pain, heat, and stiffness in the joints [18]. Gout is usually characterized by severe pain that suddenly attacks the joints at night, usually occurs in the thumb, the joints look swollen, the skin is reddish, feels hot, accompanied by severe pain. Other symptoms include fever, headache, decreased appetite, and palpitations. However, these symptoms can also occur in other joints such as heels, knees and elbows [6].

Purines can be found in all foods derived from vegetable crops, fruit, nuts and animal-sourced foods such as shrimp, squid, clams, crabs and anchovies. Gout often occurs in the ankles, knees, wrists and elbows. The accumulation of uric acid occurs due to consuming foods that contain lots of purines and not drinking enough. In addition to excessive consumption of foods with high purine levels, high uric acid in the blood is also caused by hypertension and obesity [3].

Underestimate gout. This disease is still seen as a harmless disease. Especially if it is still in the early stages because the symptoms are marked by pain that can go away on its own. Gout can interfere with the productivity of very severe pain in joints that experience crystallization due to the buildup of uric acid [16].

A drug is a substance that can act as a drug or poison. As stated in the medical definition, medicinal drugs can be useful for diagnosis, prevention, treatment or health maintenance. Drugs are usually given at the right dose and at the right time, but can be toxic to humans if used incorrectly in the event of an overdose or drug poisoning because not following the rules given can cause death. At lower

doses, treatment has no effect on healing the disease. Dosage limits on the nature of the drug or minor poison and the effects of the drug may vary from individual to individual [17].

Drug classification aims to improve the safety and accuracy of use as well as distribution security. Drug classification consists of: [14]

1. Over-the-counter drugs are the most widely used drugs on the market and can be purchased without a doctor's prescription. A special sign of over-the-counter drugs is a green circle with a black line.
2. Limited over-the-counter medicines are medicines that are sold free of charge and can be purchased without a doctor's prescription and without warning signs. The hallmark of this drug is a blue circle with a black border.
3. Mandatory pharmacy drugs are heavy drugs that can be given without a prescription but must be sent to the pharmacist at the pharmacy. The selection and use of mandatory drugs in pharmacies in helping themselves to overcome minor health problems, need to rely on tools that allow them to improve their self-medication in an adequate, safe and rational way. Can be obtained together with information from the pharmacist accompanied by relevant information to ensure the correct use of the drug.
4. Hard drugs are drugs that can only be obtained with a doctor's prescription. Features are marked with a round red circle with a black border, with the letter "K" in the middle touching the edge. This drug can only be sold in pharmacies and must be with a doctor's prescription.
5. Psychotropics and Narcotics, Psychotropics are substances or hard drugs, both natural and non-narcotic in synthesis, which have psychoactive properties through their selective

influence on the central nervous system that causes characteristic changes in mental activity and behavior. Narcotic drugs are still classified as hard drugs; therefore, these drugs are symbolized by a red circle with the letter "K" in the middle.

Narcotics are drugs derived from plants or non-plants that are well synthesized and can cause decreased and altered consciousness, loss of taste, reduced pain relief and irritation. Narcotics symbolized by a red circle in the middle is a cross (+).

Side effect is any adverse drug response and is not expected to occur due to the use of drugs in normal doses or doses in humans for diagnostic and therapeutic purposes. All drugs have side effects, whether desired or not. Even with the right drug dose, side effects are caused by a lack of drug specificity [13].

Rationality medicine is that patients receive treatment according to their clinical needs. The appropriate dose and duration of use is designed as a dose that suits individual needs for the right period of time and is determined according to the needs of each patient, including the right duration of medication according to the instructions for using the right drug. At the same time, what is meant by being satisfied with the price is the price that matches the lowest quality product for patients in the community with the drug of choice [17].

Self-medication is a self-care that is carried out by the community for the disease they are suffering from using medicines that are sold freely in the market without a doctor's prescription. One of the advantages of self-medication is that it overcomes minor complaints that are often felt, as well as drugs that are usually often used, namely drugs that are already available at home or over-the-counter. On the other hand, the risk of using the drug alone can cause symptoms that are not recognized, which is actually a disease and

a side effect of using inappropriate drugs [20].

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According to data sources from the Bintauna Pantai Health Center, in 2019, from the results of initial observations conducted at the Bintauna Pantai Health Center, partial data in June 2019 was 11 people, in July 2019 there were 21 people and in August 2019 17 people were examined and received treatment. from the health center. In the coffee village in June 2019 there were 28 people, in July 2019 there were 25 people and in August 2019 20 people were examined and received treatment from the Puskesmas.

In the treatment of gout there are about 2.2% of patients who do not perform routine checks from June, July and August. The patient revealed that he did not carry out routine checks at the Puskesmas because the patient did not have time, the patient had recovered, the patient forgot, and the patient took alternative methods as self-medication treatment that came from his own treatment experience. In addition, the patient also complained of pain in the shoulder, waist, and dizziness after consuming medicines that are sold freely, besides being easy to get, the price is also affordable.

Based on the results of these observations, researchers are interested in conducting research related to the Rationality Analysis of the use of self-medication of gout drugs in the people of Bintauna Pantai Village and Kopi Village, Bintauna District, Bolaang Mongondow Utara Regency. Because the data obtained that there are many people who have gout.

RESEARCH METHOD

The type of research used is descriptive quantitative research to describe and describe existing phenomena. This research was carried out in January-February 2020. It was carried out in Bintauna Pantai Village and Kopi Village, Bintauna District, Bolaang Mongondow Utara Regency.

The population is all people who suffer from gout in the Bintauna Pantai Village and Kopi Village, Bintauna District, Bolaang Mongondow Utara Regency. The sample is people who suffer from gout in the Village Bintauna Pantai and Desa Kopi as many as 122 samples.

Documentation and observations were carried out on people in the Bintauna Pantai village and the coffee village who had a history of gout. Data on patients with gout in the Villages of Bintauna Pantai and Villages of Kopi were obtained from the health center at the Puskesmas Bintauna Bintauna Pantai. Questionnaire is a data collection technique that is carried out by giving a set of questions or written statements to respondents to answer [19].

In this study, questionnaires were selected to obtain information on the use of self-medication gout drugs in the Villages of Bintauna Pantai and Villages of Kopi. In the questionnaire, it is hoped that respondents will be able to immediately provide answers according to the actual situation. Questionnaires were given to respondents, namely 55 respondents from Bintauna Pantai Village and Kopi Village who had a history of gout and often took gout drugs.

The data in this study will be analyzed non-statistically. The questionnaire used will be assessed using a Likert scale. Likert scale is a type of scale used to measure research variables such as attitudes, opinions, and social perceptions of a person or group [2]. Furthermore, it will be analyzed in a univariate manner to calculate the percentage of rationality for

using uric acid drugs independently so that they can be grouped based on predetermined categories.

The instrument used in this study was a questionnaire consisting of several questions with the aim of knowing the public's understanding of the use of drugs. The questionnaire will be assessed using a Likert scale and analyzed using a predetermined rational or irrational category. In this study, a choice-type questionnaire was used with four alternative answers consisting of (answers right, less precise, very less precise and incorrect).

In the questionnaire given to the research subjects, a sheet containing the initial data identification of the research respondents was attached which included: name, age, gender, occupation, address, and history of gout. This initial data identification was carried out for grouping the characteristics of respondents in data processing.

Age is categorized into 5 groups, namely: Infants (0-12 months), children (1-12 years), adolescents (13-17 years), adults (18-64 years), elderly (65 years and over). Based on this, it can be seen that the frequency of age in patients with gout in the coastal village of Bintauna and Kopi village, Bintauna sub-district, North Bolaang Mongondow Regency currently occurs at the age of 51-60 years (adults). Based on the results of the study, the majority of respondents suffered from gout at the age of 51-60 years. This shows that as a person ages, uric acid levels will increase. Another study stated that the proportion of respondents aged 40 years had high uric acid levels, which was 69.8% compared to respondents aged 40 years, which was 30.2%.

Generally, men who are often attacked by gout are men, because naturally men have higher uric acid levels in the blood than women. This study shows that from 55 people with gout in Bintauna Pantai

Village and Kopi Village, Bintauna District, North Bolaang Mongondow Regency whose data were taken using a questionnaire, it was seen that the sexes were mostly female (72%) and male (25 %). We cannot compare this data between male respondents and female respondents because the number of respondents is different.

Despite differences in uric acid, gout attacks are not common in women because the hormone is estrogen, which helps eliminate uric acid in the urine. Men do not have high levels of the hormone estrogen, so uric acid is difficult to excrete through urine, and poses a risk to men's uric acid levels. Women have a lower percentage of gout than men. Although uric acid levels in women increase at menopause [3].

Men are more exposed to gout, especially those who are entering adulthood because the androgen hormone in adult men is more active than women. Meanwhile, women have the hormone estrogen which can reduce the risk of uric acid buildup. However, at the time of old age, the female hormone estrogen is no longer active, so the risk of gout increases. Generally, people who are often attacked by gout are elderly people [13].

HASIL PENELITIAN

Table 1. Validity Test

Pertanyaan	R (hitung)	R (Tabel)	Keterangan
1	0,699		Valid
2	0,544		Valid
3	0,830		Valid
4	0,600		Valid
5	0,699		Valid
6	0,699		Valid
7	0,830		Valid
8	0,830		Valid
9	0,578	0,514	Valid
10	0,578		Valid
11	0,578		Valid
12	0,699		Valid
13	0,699		Valid
14	0,600		Valid
15	0,682		Valid
16	0,682		Valid
17	0,751		Valid

Based on table 1 shows that the validity test of 55 respondents who have been calculated using the SPSS program is declared valid. Because the validity test compares Rcount with Rtable, where if $Rcount > Rtable$ then it is declared valid and if $Rcount < Rtable$ then it is declared invalid. This validity test is used to determine the validity or invalidity of a questionnaire (11).

The results of the validity test were obtained from the Ttable value of 0.514. On the questionnaire There are 17 questions to be answered by 55 respondents, which will be asked to each respondent. In accordance with the results carried out using SPSS, where all values $Rcount > Rtable$ [1].

Tabel 2. Uji Releabilitas Kuisiонер Realibility Quesioner Test

Nilai Alpha	Nilai R (tabel)	Keterangan
0,928	0,514	Releabel

Based on table 2 shows that the reliability test of 55 respondents is really reliable. Because of the reliability test to test the consistency of the measuring instrument. Will the results remain consistent if repeated measurements are made. Questionnaire instruments that are not reliable cannot be consistent for measurements so that the measurement results cannot be trusted. This reliability test is used to show the consistency of the scores that have been given with other scores [15].

The results of the reliability test were obtained from the Cronbach Alpha value. Prior to the reliability test, the validity of the questionnaire using SPSS was tested which obtained valid results, then the reliability test was carried out on the questionnaire questions using the Cronbach Alpha formula with a value of 0.928. From these results it can be concluded that the questionnaire on the use

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of self-medication of uric acid drugs in the community showed reliable results [1].

Table 3. Analysis of the Rationality of Drug Use

Analisis	Jumlah	%
Rasional	52	94,5
Tidak Rasional	3	5.5
Total	55	100

Based on table 3 shows that the results of the rationality analysis of the use of uric acid drugs independently of 55 respondents who have been given a questionnaire containing 17 questions about gout to determine the knowledge of respondents about rational or not in the use of drugs, storage, and how to consume gout drugs. From the results of research conducted on the calculation of the percentage there are respondents who consume drugs rationally as much as 94.5% while respondents who do not consume drugs rationally are 5.5%. It is suspected that respondents who use drugs in an irrational way rarely carry out routine checks at the health center, and often use drugs obtained from neighbors or stored drugs.

DISCUSSION

In this study, an analysis of the rationality of the use of gout drugs was carried out using a questionnaire instrument to determine how rational the use of drugs by the people of Bintauna Pantai Village and Kopi Village, Bintauna District, Bolaang Mongondow Regency.

This study aims to determine the pattern of use of gout drugs and to find out what percentage of the incidence of self-medication use of gout drugs in the people of Bintauna Pantai Village and Kopi Village, Bintauna District, Bolaang Mongondow Utara Regency. Data collection techniques in the study were carried out in two ways, namely:

1. Documentation and Observations, conducted on the people of Bintauna

Pantai Village and Kopi Village, Bintauna District, North Bolaang Mongondow Region in gout sufferers. In quantitative research, data collection is collected from the results of documentation, observation, and interviews, where observation is one of the techniques in data collection that is very commonly used in quantitative methods. Observations were made to collect data directly from the field. Documentation is used to collect data by recording existing data.

2. Questionnaire is a data collection technique that is done by giving questions or written statements to respondents to be answered [19]. In a quantitative study a questionnaire was conducted to determine the knowledge of people suffering from gout [12]. This study also used a choice type questionnaire with four alternative answers consisting of (correct, inaccurate, very inaccurate and inappropriate answers) in order to make it easier for respondents to answer the questionnaire questions so that respondents just choose the answers that match their own opinions or beliefs.

This questionnaire was given to gout sufferers to determine their level of knowledge. In the questionnaire there are 17 questions, these 17 questions are made so that there are not too many questions that will make respondents bored to answer the questions given, and it does not take much time for respondents.

Judging from the questions concerning the early symptoms of gout, how to take the drug, and how to store it properly, almost all of the respondents answered correctly. Some respondents said that they often received information about gout, how to take drugs, and how to store drugs correctly, they got from health workers at posyandu and puskesmas [5].

Of the 55 respondents, pain is the main complaint suffered by the sufferers and often gout sufferers go to the health center for treatment. In this rationality test, there are 94.5% of respondents who use drugs rationally, respondents routinely go to the health center to check uric acid levels and take drugs according to doctor's rules. While the irrational use of drugs there are 5.5% of respondents who do not routinely check uric acid levels at the health center. Some respondents use drugs irrationally because they often use herbal plants that are consumed as lowering uric acid levels, and also often consume drugs that are purchased freely without a doctor's prescription. This can lead to medication errors or unwanted side effects.

The use of drugs in the community can be said to be rational or in accordance with the doctor's rules, where gout sufferers if they experience severe pain will immediately go to the puskesmas to get first aid by giving drugs that can relieve the pain felt by the sufferer. The use of gout drugs is used by gout sufferers in accordance with the rules of the doctor or rationally, as well as how to take the drug in accordance with the rules given by the doctor.

Normal uric acid levels in men are 7 mg/dl, while in women it is below 6 mg/dl. If uric acid levels are above normal, it can cause severe pain in the joints. In this study, the uric acid level of patients on average had normal uric acid levels where patients regularly checked themselves every month at the health center to find out how much uric acid levels were [3].

The use of drugs by gout sufferers must be rational, where gout sufferers get prescribed drugs from doctors according to disease indications [13]. In medicine, it is said to be rational if it is used correctly, namely:

1. Correct patient, that is, ask the patient's name and date of birth according to the patient's identity.

2. The right drug, namely checking the name of the drug according to the prescription from the doctor and the drug is not expired,
3. Appropriate Dosage, ie see the amount and unit; micrograms, milligrams, grams,
4. On time, namely the frequency of giving; morning, afternoon, evening and night,
5. Appropriate method of use, namely identification of the route and method of administration; used orally, intramuscularly, intravenously, ear drops, nasal drops, suppositories,
6. Accurate information, which is given an explanation and action to be taken.
7. Appropriate response, i.e. make sure the drug gives the effect/response that is in accordance with what is expected from the administration of the drug,
8. Accurate documentation, namely recording which includes the date and time of administration, drug name, dose and method of use, and put a check mark on the list of drug therapy and initials in the available column [4].

CONCLUSIONS

Analysis of the rationality of self-medication of the use of gout drugs from 55 respondents who were given a questionnaire containing 17 questions about gout to determine the knowledge of the respondents about rational or not in the use of drugs, storage, and how to take gout drugs. From the results of research conducted on the calculation of the percentage there are respondents who consume drugs rationally as much as 94.5% while respondents who do not consume drugs rationally are 5.5%. It is suspected that respondents who use drugs in an irrational way rarely carry out routine checks at the health center, and often use drugs obtained from neighbors or stored drugs.

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Suggestions from this study are for gout sufferers to always check uric acid levels regularly at the Puskesmas and gout sufferers to reduce foods high in purines such as offal, and squid.

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