


Rationality of the Use of NSAIDS in Rheumatic Osteoarthritis Patients in Outpatient Singosari Health Center Pematangsiantar City

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Article Info	ABSTRACT
<p>Article history:</p> <p>Received ; November 03, 2021 Revised ; November 25, 2021 Accepted ; December 07, 2021</p> <hr/> <p>Corresponding Author:</p> <p>Wilson Samosir Universitas Efarina, Simalungun, Indonesia Email: wilsonsamosir@gmail.com</p>	<p>Tuberculosis is an infectious disease caused by <i>Mycobacterium tuberculosis</i>. Osteoarthritis (OA) is the most common form of arthritis found in the community, is chronic in nature, has a major impact on public health issues. a total of 213 arthritis patients, only 30 patients who met the inclusion criteria were due to incomplete medical record data or even loss of medical record data which caused the patient's medical record data to be incomplete. right indication, right drug, right dose, right route of administration, right patient) then the results of the analysis show that accuracy is 100% right, while for the right drug parameters it is still worth 53%. So it can be concluded that treatment for osteoarthritis patients when viewed from the right diagnosis, right indication, right dose, right patient, right drug, right method of administration at the Singosari Health Center cannot be fully rational.</p> <p>Keywords:</p> <p>Osteoarthritis, Arthritis Patients, Rationality.</p> <p>This article is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.</p> 

1. INTRODUCTION

Rheumatism is a disease that many Indonesian people suffer, especially the elderly. Rheumatism is a disease that attacks the joints and bones or supporting tissues around the joints. This group of diseases is an autoimmune disease that affects many elderly people (age 50 years and over). [2]. And this disease often attacks women at the age of 40 years [1]

Sufferers can be life-threatening or only cause disturbances to comfort in carrying out activities, and the problems caused by this rheumatic disease are not only limitations in mobility, but what is most feared is disability, this disease is also feared to cause organ failure and even death.

WHO reported the incidence of rheumatism in 2008 reached 20% percent of the world's population who were attacked by rheumatism, of which 5-10% were sufferers aged 5-20 years. And 20% of people with arthritis are those aged 55 years [7]. Meanwhile, sufferers in Indonesia according to the results of research from Zeng QY et al 2008, stated that the prevalence of rheumatism in Indonesia reached 23.6% to 31.3%.

Based on the description above, the prevalence of Osteoarthritis is increasing and the number of cases such as polypharmacy and complications suffered by Osteoarthritis patients, it is necessary to evaluate the rationality of using non-steroidal anti-inflammatory drugs. Therefore researchers want to conduct research on outpatients at the Singosan Health Center in Pematangsiantar City for the January-February 2019 period, namely regarding the rationality of using non-steroidal anti-inflammatory drugs in osteoarthritis patients.

Formulation of the problem

In many cases, pain is often prescribed with non-steroidal anti-inflammatory drugs or what are called NSAIDs/NSAIDs (non-steroidal anti-inflammatory: drugs), especially in cases of rheumatoid arthritis patients. However, so far there has rarely been an assessment of the rationality of using these drugs in terms of Accuracy of Diagnosis, Accuracy of Indication, Accuracy of Drugs, Accuracy of Dosage, Right Patient and Accuracy of Method of Administration As it is known that NSAID drugs are used without regard to rationality so that unwanted effects often occur, therefore rationality needs to be considered in the treatment of Osteoarthritis.

2. METHOD

This research was conducted on outpatients at the Singosari Health Center, Pematangsiantar City, January-February 2019. Research data collection was carried out in July 2019. Data analysis was carried out from July to August 2019. This research was conducted by collecting secondary data, namely in the form of medical record records of patients with osteoarthritis at the Singosari Public Health Center, Pematangsiantar City for the January-February 2019 period. patient medical records for the January-February 2019 period. The design used was Cross Sectional, namely the collection of variable data to get an overview of the rationality of using Non-Steroidal Anti-Inflammatory Drugs in patients receiving outpatient treatment as the dependent variable at a certain time.

3. RESULTS AND DISCUSSION

A combination of oral, injectable and topical NSAIDs

In certain circumstances, combination therapy of several oral DAINS drugs is required. Topical injections achieve the desired therapeutic effect. However, in the case findings, all of them used oral NSAID therapy.

NSAID Rationale Analysis

Proper administration of NSAIDs is very important given the high incidence and the importance of proper management of Osteoarthritis and the complications it causes. Therefore, Osteoarthritis therapy must be carried out rationally both pharmacologically and non-pharmacologically. Appropriate therapy is influenced by the process of diagnosis, selection of therapy. administration of therapy, as well as evaluation of therapy. Evaluation of drug use is a quality assurance process that is structured and carried out continuously to ensure that the drugs used are appropriate, safe, and efficient [13]. Rationality of the drug is an assessment that is in accordance with several aspects of accuracy, namely including the right indication, the right dose, the right drug, the right patient, the right method of administration. Patients can be said to be rational if they fulfill the evaluation of the accuracy assessment. If there is one of them that is right, the patient cannot fulfill the evaluation of accuracy so that the patient can be said not to have rationally received Osteoarthritis treatment therapy. Patients can be said to have received NSAIDs rationally if they have met the evaluation criteria for accuracy and none of the NSAIDs given did not meet the evaluation for the accuracy of NSAID administration. Percentage analysis for accuracy was obtained from the use of NSAIDs with 5 different types of NSAIDs given to 30 patients. In the diagram, it can be seen that the highest accuracy rate is found in the correct dosage, indication and right patient. The right way of administration is 100%, while the right drug shows a percentage of 51%. This shows that there are many inaccuracies in administering therapy to Osteoarthritis patients, this is due to the fact that currently the use of Diclofenac Sodium which has been recommended to doctors by the RI POM Agency will limit this combination to the dosage and contraindications of diclofenac products related to cardiovascular risk, with Attachment letter No. : SV.03.01.343.3.07.15.4239. This is because diclofenac sodium can cause systemic effects at high doses and in the long term. So with a circular letter from the POM Agency, the use of diclofenac sodium can be categorized as inappropriate, and in treatment therapy does not follow the stages of therapy treatment that has been recommended by the Indonesian Rheumatoid Association by not giving Acetaminophen first at the start of therapy.

Correct Diagnosis

Correct diagnosis is the accuracy of the diagnosis of the disease suffered by the patient. In this study the measurement of diagnosis was based on what was stated in the patient's medical record. Because the diagnosis is carried out by the doctor who provides therapy.

Precise Indication

Appropriate indication is the correct use of NSAIDs on the basis of an established diagnosis, according to the diagnosis listed in the medical record. The diagnosis of OA can be established through 5 stages, namely: history, physical examination, approaches to rule out other disease diagnoses, examination of visitors, special attention to clinical symptoms and factors that influence the choice of therapy/management of OA. There are 100% correct indication of NSAIDs. Accuracy of NSAID indications for patients occurs if the NSAIDs given are in accordance with the indications for the patient's condition. The results of the analysis can be seen in Appendix 3

Correct Dosage

Dosage is one of the things to be considered in the assessment of accuracy. The dose given must be in accordance with the patient's condition, and the dose has been determined in the literature (Drug Information Book). The results of the analysis of the accuracy of the NSAID dosage based on the number of NSAIDs administered to the patient. there is the administration of NSAIDs with the correct dosage of 100% The assessment of the correctness of the dose in patients is based on the dosage regimen given. All outpatient Osteoarthritis patients at the Singosari Health Center have received doses according to the requirements set out in the literature (Drug Information Book).

Right Patient

The exact patient is given NSAIDs must be adjusted to the circumstances of each patient. The patient's accuracy can be seen from the suitability of the patient's condition. Thus, 100% of NSAIDs are given to the right patient. Appendix 5 shows the results of the patient accuracy assessment analysis.

Right Medicine

The accuracy of the drug is the suitability of selecting a drug among several types of drugs that have indications for Osteoarthritis that have been set in the standard literature and adapted to the patient's treatment history that has been used previously. Based on IRA recommendations, it is stated that:

- a. For Osteoarthritis with mild to moderate symptoms, the following drugs can be given, if they are not present or cause contraindications to administering these drugs:
 - Acetaminophen (less than 4 grams daily).
 - Non-steroidal anti-inflammatory drugs.
- b. For Osteoarthritis with mild to moderate symptoms who are at risk to the digestive system (for patients aged > 60 years, accompanied by comorbid diseases with polypharmacy, history of peptic ulcer, history of gastrointestinal bleeding, taking corticosteroids and or anticoagulants), one of the following drugs can be given This:
 - Acetaminophen (less than 4 grams per day).
 - Topical non-steroidal anti-inflammatory drugs (NSAIDs).
 - Non-selective non-steroidal anti-inflammatory drugs (NSAIDs), by administering gastro-protective agents.

The Right Way of Giving

The method of administration is a rule of drug use that must be considered by Osteoarthritis patients. Here's because each drug has different rules of use. The method of administering drugs to Osteoarthritis patients gets an accuracy rate of 100%.

Evaluation of Rationale Analysis

Rationale evaluation analysis is carried out by paying attention to the evaluation of the results, right indication, right drug, right dose, right patient, right method of administration. These five aspects of accuracy must be able to give the right value until the end of the evaluation is declared completely right So that in terms of proper diagnosis. the right indication, the right drug, the right dose, the right patient, the right way of administration a decision was made that giving NSAIDs was declared rational if it was stated to be right in each of the six aspects in each administration of NSAIDs to patients. it was stated that the drug was not appropriate and there were several drug therapies that were administered directly by diclofenac Na and did not follow according to the guidelines for Osteoarthritis treatment therapy even though the other criteria were in accordance with the accuracy whether issued by the hospital formulary or other osteoarthritis management algorithms.

4. CONCLUSION

Rationality in terms of 6 accuracy (right diagnosis, right indication, right drug, right dose, right route of administration, right patient) then the results of the analysis show that accuracy is 100% right, while for the right drug parameters it is still worth 53%. So it can be concluded that treatment for Osteoarthritis patients when viewed from the right diagnosis, right indication, right dose, right patient, right drug, right method of administration at the Singosari Health Center cannot be fully rational.

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