

**THESIS**

**RATIONALITY OF NONSTEROIDAL ANTI-INFLAMMATORY  
DRUGS (NSAID) TREATMENT IN HOSPITALIZED PATIENTS  
WITH IMPAIRED KIDNEY FUNCTION AT Dr. MOEWARDI  
HOSPITAL**



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I sincerely declare that the research contained in this thesis is my own work and does not belong to anyone else. This thesis has been published before, except for some parts with original references.

If in the future it is found that this work is plagiarism, I am ready to be given administrative and academic sanctions.

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**VALIDITY SHEET  
THESIS EXAM**

It is hereby stated that the thesis with the title :

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DRUGS(NSA IDs) TREATMENT IN HOSPITALIZED PATIENTS WITH  
IMPAIRED KIDNEY FUNCTION AT Dr. MOEWARDI HOSPITAL**

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## ABSTRAK

### RASIONALITAS PENGOBATAN *NONSTEROIDAL ANTI-INFLAMATORY DRUGS* (NSAID) PADA PASIEN RAWAT INAP DENGAN PENURUNAN FUNGSI GINJAL DI RSUD Dr. MOEWARDI

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Gagal ginjal merupakan penyakit dengan penurunan fungsi ginjal dalam membuang sisa metabolisme, mengatur elektrolit, asam dan basa. Terdapat 60% dengan penurunan fungsi ginjal mengalami nyeri. Obat lini pertama dalam mengatasi nyeri yaitu NSAID. Pasien dengan penurunan fungsi ginjal memiliki parameter farmakokinetik yang cukup berbeda dengan pasien fungsi ginjal normal. Pemilihan obat dan dosis yang tepat sangat diperlukan pada pasien dengan penurunan fungsi ginjal untuk menghindari reaksi obat yang merugikan dan memastikan efektivitas pengobatan yang optimal. Tujuan penelitian ini untuk mengetahui gambaran persepsian dan rasionalitas persepsian NSAID pada pasien rawat inap dengan penurunan fungsi ginjal di rumah sakit. Penelitian ini merupakan penelitian non ekperimental dengan metode retrospektif dan menggunakan analisis data deksriptif dengan melihat data rekam medik pasien periode Januari-Desember 2023. Hasil dari penelitian ini terdapat 160 pasien rawat inap dengan penurunan fungsi ginjal mendapatkan NSAID. Diperoleh hasil dari gambaran persepsian NSAID paling banyak digunakan yaitu NSAID golongan non-selektif yaitu injeksi metamizole 1000mg/ml sebanyak 80 pasien (50%) dan antrain (metamizole) 500mg/ml sejumlah 43 pasien (26,8%). Jenis obat NSAID non selektif yang digunakan di RSUD Dr Moewardi diantaranya yaitu metamizole, antrain, ketorolak, natrium diklofenak, dan ibuprofen, hal ini dikarenakan NSAID jenis selektif lebih cenderung terhadap peningkatan tekanan darah dan meningkatkan retensi natrium, sehingga dapat memperburuk fungsi ginjal. Pada pengukuran rasionalitas pengobatan NSAID pada pasien dengan penurunan fungsi ginjal yaitu tepat indikasi 100%, tepat obat 9,4%, tepat dosis 8,2%, tepat aturan pakai 8,2%, dan potensi peningkatan serum kreatinin 5%.

**Keywords :** Gagal ginjal, NSAID, Rasionalitas, LFG

## ABSTRACT

### **RATIONALITY OF NONSTEROIDAL ANTI-INFLAMMATORY DRUGS (NSAID) TREATMENT IN HOSPITALIZED PATIENTS WITH IMPAIRED KIDNEY FUNCTION AT Dr. MOEWARDI HOSPITAL**

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Kidney failure is a disease with decreased kidney function in eliminating metabolic waste and regulating electrolytes acids, and bases. Patients with a 60% decreased kidney function experience pain. The first-line treatment for pain is NSAIDs. Patients with decreased kidney function have pharmacokinetic parameters that differ significantly from patients with normal kidney function. The appropriate selection of medication and dosage is essential for patients with reduced kidney function to avoid adverse drug reactions and ensure optimal treatment effectiveness. The purpose of this research was to evaluate the description and the rationality of NSAID prescriptions in hospitalized patients with decreased kidney function in hospitals. This research is a non-experimental with a retrospective method. It employs descriptive data analysis by reviewing patient medical record data for the period January-December 2023. The result of this study found 160 inpatients with impaired kidney function receiving NSAIDs. The results obtained from the description of the most widely used prescriptions were non-selective NSAIDs, namely metamizole injection 1000mg/ml in 80 patients (50%) and antrain (metamizole) 500mg/ml in 43 patients (26,8%). The type of non-selective NSAID drugs used at Dr. Moewardi Hospital include metamizole, antrain, ketorolac, diclofenac sodium, and ibuprofen, this is because selective NSAIDs are more likely to increase blood pressure and increase sodium retention, so they can worsen kidney function. In measuring the rationality of NSAID treatment in patients with decreased kidney function, namely 100% correct indication, 9,4% correct drug, 8,2% correct dose, 8,2% correct rule of use, and the potential increase in serum creatinine 5%.

**Keywords:** Kidney Failure, NSAID, Rationality, GFR

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