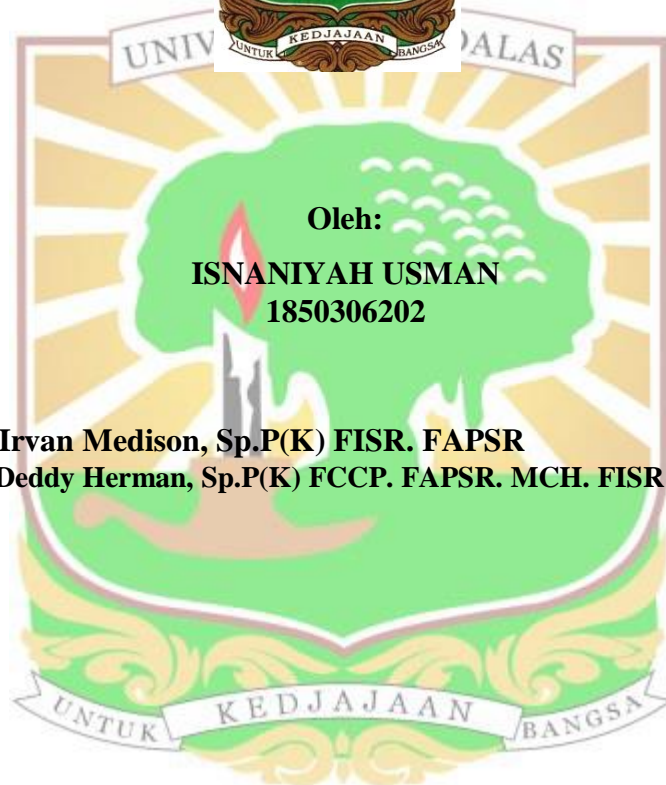


**PERBEDAAN KADAR PROTEIN C-REAKTIF BERDASARKAN DERAJAT KLINIS DAN  
LUARAN PASIEN COVID-19 YANG DIRAWAT DI RSUP DR. M. DJAMIL PADANG**

**TESIS**



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RSUP DR M DJAMIL  
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# PERBEDAAN KADAR PROTEIN C-REAKTIF BERDASARKAN DERAJAT KLINIS DAN LUARAN PASIEN COVID-19 YANG DIRAWAT DI RSUP DR. M. DJAMIL PADANG

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## Abstrak

**Latar belakang:** Proses inflamasi pada COVID 19 dapat menyebabkan peningkatan beberapa marker inflamasi diantaranya C-Reactive Protein (CRP), prokalsitonin (PCT) dan interleukin 6 (IL-6). Kadar protein C-reaktif menggambarkan tingkat keparahan infeksi virus. Penelitian ini bertujuan untuk mengetahui perbedaan kadar protein C-reaktif berdasarkan derajat klinis dan luaran pasien COVID-19 yang dirawat di RSUP Dr. M. Djamil Padang.

**Metode:** Penelitian ini merupakan penelitian kohort retrospektif dengan sampel semua pasien COVID-19 yang dirawat di RSUP Dr. M Djamil Padang yang memenuhi kriteria inklusi dan eksklusi. Penelitian dilakukan mulai dari 1 Desember 2021- Juni 2022. Data dianalisis dengan analisis univariat, bivariat dan dilanjutkan dengan uji confounding.

**Hasil:** Karakteristik pasien yaitu usia terbanyak 50-59 tahun (28,0%) dengan jenis kelamin perempuan (51,0%), komorbid terbanyak adalah hipertensi (46,0%) dengan derajat klinis kritis (75,0%). Sebagian besar subjek memiliki infeksi sekunder (49,0%) dan memiliki lama rawatan  $\leq 14$  hari (77,0%) dan lebih dari setengah subjek meninggal (65,0%). Kadar protein C-reaktif lebih tinggi pada pasien dengan derajat klinis kritis (89,00 mg/L) dibandingkan sedang (37,50 mg/L) dan berat (23,00 mg/L), kadar protein C-reaktif pasien dengan lama rawatan  $\leq 14$  hari (97,00 mg/L) lebih tinggi dibandingkan  $>14$  hari (88,50 mg/L), dan kadar protein C-reaktif lebih tinggi pada pasien yang meninggal (93,00 mg/L) dibandingkan yang hidup (68,00 mg/L).

**Kesimpulan:** Kadar protein C-reaktif berbeda secara bermakna berdasarkan derajat klinis pasien COVID-19, lama rawatan pasien, dan status akhir rawatan pasien COVID-19.

**Kata kunci:** Protein C-Reaktif, derajat klinis, luaran, COVID-19

# DIFFERENCES IN C-REACTIVE PROTEIN LEVELS BASEDON CLINICAL DEGREE AND OUTCOME OF COVID-19 PATIENTS AT RSUP. DR. M. DJAMIL PADANG

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## Abstract

**Background:** COVID-19's inflammatory process can result in an increase in inflammatory markers such as C-reactive protein (CRP), procalcitonin (PCT), and interleukin 6. (IL-6). The level of C-reactive protein describes the severity of the viral infection. Several studies have been conducted to investigate the link between C-reactive protein levels and the severity of COVID-19. The purpose of this study is to see if there are any differences in C-reactive protein levels based on clinical degrees and outcomes of COVID-19 patients treated at RSUP by Dr.

M. Jamil Padang.

**Methods:** This is a retrospective cohort study with a sample of all COVID-19 patients treated at RSUP by Dr. M. Djamil Padang who met the inclusion and exclusion criteria. The study lasted from December 1, 2021 to June 1, 2022. Data were analyzed using univariate and bivariate analysis, as well as the confounding test.

**Results:** The characteristics of the patients were the most age 50-59 years (28.0%) with female sex (51.0%), the most comorbid was hypertension (46.0%) with a critical clinical degree (75.0%). Most of the subjects had secondary infections (49.0%) and had a length of stay of  $\leq 14$  days (77.0%) and more than half of the subjects died (65.0%). C-reactive protein levels were higher in patients with critical clinical degrees (89.00 mg/L) compared to moderate (37.50 mg/L) and severe (23.00 mg/L), C-reactive protein levels in patients with long hospitalization  $\leq 14$  days (97.00 mg/L) was higher than  $>14$  days (88.50 mg/L), and C-reactive protein levels were higher in patients who died (93.00 mg/L) than those who were alive (68.00 mg/L).

**Conclusion:** C-reactive protein levels varied significantly depending on the clinical severity of the COVID-19 patient, the length of stay, and the final hospitalization status of the COVID-19 patient.

**Keywords:** C-Reactive Protein, Clinical severity, Outcome, COVID-19