

VALIDITAS SKOR SAPS-3 TERHADAP MORTALITAS DAN *LENGTH* *OF STAY* PADA PASIEN SEPSIS DI ICU RSUP DR SARDJITO

INTISARI

Latar Belakang: Sepsis merupakan kondisi kompleks yang disebabkan oleh respons sistemik terhadap infeksi. Kasus sepsis dianggap mengkhawatirkan karena terkait dengan peningkatan mortalitas dan length of stay (LOS) di ICU. Prognosis pasien dengan sepsis sangat penting dan dapat menjadi acuan terapi sehingga menurunkan mortalitas dan *length of stay*. *Simplified Acute Physiology Score* (SAPS-3) merupakan salah satu skor menilai keparahan pasien di ICU, sehingga perlu dilakukan uji validitas mortalitas dan length of stay yang spesifik pada pasien sepsis terutama di ICU RSUP Dr. Sardjito.

Tujuan: Penelitian ini bertujuan untuk mengetahui diskriminasi dan kalibrasi skor SAPS-3 dalam memprediksi mortalitas dan LOS pada pasien sepsis di ICU RSUP Dr. Sardjito Yogyakarta.

Metode: Penelitian ini merupakan penelitian deskriptif analitik kohort retrospektif. Sampel diambil dari rekam medis pasien sepsis di ICU RSUP Dr. Sardjito periode Januari – Oktober 2024. Skor SAPS-3 dinilai untuk kemampuan diskriminasi dan kalibrasi. Kemampuan diskriminasi dievaluasi dengan kurva *Receiver Operating Characteristic (ROC)*. *Area Under the Curve (AUC)* dengan nilai $> 0,7$ dianggap *acceptable* dan nilai $> 0,8$ adalah baik. Kalibrasi dilakukan menggunakan tes kecocokan (*goodness of fit test*) yaitu uji Hosmer-Lemeshow. Apabila nilai $p > 0,05$ maka dapat skor dikatakan memiliki kalibrasi yang baik.

Hasil: Penelitian ini melibatkan 210 pasien sepsis di ICU RSUP Dr. Sardjito. Hasil AUC skor SAPS-3 terhadap mortalitas $AUC=0,875 (>0,8)$ dan 95% CI: 0,83 - 0,93. Hasil uji Hosmer-Lemeshow terhadap kematian pada SAPS-3 didapatkan nilai $p=0,059 (>0,05)$. Sedangkan hasil AUC skor SAPS-3 terhadap LOS di ICU didapatkan $AUC=0,528 (<0,8)$ dan 95% CI: 0,45 – 0,61. Berdasarkan hasil uji Hosmer-Lemeshow terhadap LOS di ICU didapatkan nilai $p=0,339 (>0,05)$.

Kesimpulan: skor SAPS-3 menunjukkan kemampuan diskriminasi dan kalibrasi yang baik dalam memprediksi mortalitas namun tidak terhadap LOS pada pasien sepsis di ICU RSUP Dr. Sardjito.

Kata Kunci: *Sepsis, Length of Stay, SAPS-3*

VALIDITY OF SAPS-3 SCORE ON MORTALITY AND LENGTH OF STAY OF SEPSIS PATIENTS IN THE ICU GENERAL HOSPITAL SARDJITO

ABSTRACT

Background: Sepsis is a complex condition defined by the systemic response to infection. Cases of sepsis are considered worrying because they are associated with increased mortality and length of stay (LOS) in the ICU. Early prediction of clinical outcomes in patients with sepsis is very important and can be a reference for treatment and reduce patient mortality. Simplified Acute Physiology Score (SAPS-3) one of the scores that can predict mortality and LOS specifically in patients with sepsis in the ICU at Dr. Sardjito General Hospital.

Objective: This study aims to determine the discrimination and calibration of the SAPS-3 score in predicting mortality and LOS in patients with sepsis in the ICU Dr. Sardjito General Hospital.

Methods: This study is a retrospective cohort analytical descriptive study. Samples was taken from medical record data of sepsis patients in the ICU at Dr. Sardjito General Hospital from January - October 2024. The SAPS-3 score was assessed for the ability to discriminate and calibrate. Discrimination ability was evaluated by the Receiver Operating Characteristic (ROC) curve. Area Under the Curve (AUC) with value of $> 0,7$ was considered acceptable and value of $> 0,8$ was good. Calibration was carried out with a goodness of fit test, namely the Hosmer-Lemeshow test. If the p value > 0.05 , the score can be said to have a good calibration.

Result: This study involved 210 sepsis patients in the ICU at Dr. Sardjito General Hospital. The AUC results of SAPS-3 score on mortality obtained $AUC = 0.875 (> 0.8)$ and 95% CI: 0.83 - 0.93. The results of the calibration test with the Hosmer-Lemeshow Test on mortality by SAPS-3 obtained a p value of 0.059 (> 0.05). While the AUC results of SAPS-3 score on LOS in the ICU obtained $AUC=0,528 (<0,8)$ and 95% CI: 0,45 – 0,61. Based on the results of the calibration test with Hosmer-Lemeshow Test on LOS in the ICU, SAPS-3 score obtained a p value of 0.339 (> 0.05).

Conclusion: The SAPS-3 score has good discrimination and calibration in predicting mortality but less good in predicting LOS in sepsis and septic shock patients in the ICU at Dr. Sardjito General Hospital.

Keywords: Sepsis, Length of stay, SAPS-3