INTISARI

Latar Belakang: Malnutrisi pada pasien sepsis dapat terjadi akibat stress katabolisme dan input nutrisi tidak yang adekuat. Malnutrisi dapat meningkatkan morbiditas dan kematian pada pasien sepsis di ICU. Prediktor kematian pasien di ICU diperlukan untuk meentukan perencanaan dan evalusasi pemberian terapi nutrisi pasien kritis. Penilaian konvensional seperti APACHE II, SAPS dan SOFA dapat memprediksi kematian di ICU namun tidak dapat menilai risiko malnutrisi. NRS-2002 dan mNUTRIC direkomendasikan untuk menilai risiko malnutrisi pada pasien kritis di ICU. Belum ada consensus yang mengutaman antara pemakaian NRS-2002 atau mNUTRIC untuk menilai risiko malnutrisi pasien krtitis di ICU. Penelitian terkait uji validitas terhadap kematian pasien sepsis di ICU masih terbatas.

Tujuan: Mengetahui validitas NRS-2002 dan mNUTRIC dalam memprediksi kematian pasien sepsis di ICU.

Metode: Penelitian merupakan penelitian observasional retrospektif dengan metode kohort. Populasi penelitian adalah pasien sepsis di unit rawat intensif RSUP Dr. Sardjito Yogyakarta. Sampel penelitian adalah pasien sepsis yang dirawat di ICU RSUP Dr. Sardjito paeriode 1 Januari - 31 Desember 2023. Sampel dipilih dengan metode consecutive sampling diurutkan mulai pasien yang dirawat sampai 31 Desember 2023 kemudian ditarik waktu mundur hingga terpenuhi 54 sampel penelitian. Uji validitas NRS-2002 dan mNUTRIC dalam memprediksi kematian pasien sepsis di ICU dilakukan dengan penghitungan *Area under Curve* (AUC) dari *Receiver Operating Characteristic* (ROC). NRS-2002 dan mNUTRIC dikatakan valid jika nilai AUC > 0,7 dengan $p < 0,05$.

Hasil: Hasil perhitungan AUC dari ROC terhadap kematian pasien sepsis didapatkan NRS-2002 tidak valid dalam memprediksi kematian di ICU dan kematian 28 hari di rumah sakit. Nilai AUC NRS-2002 terhadap kematian di ICU adalah 0,596 dengan nilai $p = 0,230$ dan nilai AUC NRS-2002 kematian 28 hari di rumah sakit adalah 0,535 dengan nilai $p = 0.657$. Hasil perhitungan AUC dari ROC terhadap kematian pasien sepsis didapatkan mNUTRIC valid dalam memprediksi kematian di ICU dan kematian 28 hari di rumah sakit. Nilai AUC mNUTRIC terhadap kematian pasien sepsis di ICU adalah 0,777 dengan sensitifitas 87,5% dan spesifisitas 66,7% dengan nilai $p < 0.001$. Nilai AUC mNUTRIC terhadap kematian 28 hari di rumah sakit pada pasien sepsis adalah 0,830% dan meniliki sensitifitas 83,3% dan spesifisitas 75% dengan nilai $p < 0.001$.

Kesimpulan: NRS-2002 tidak valid dalam memprediksi kematian di ICU dan kematian 28 hari rumah sakit sedangkan mNUTRIC valid dalam memprediksi kematian di ICU dan kematian 28 hari di rumah sakit pada pasien sepsis.

Kata Kunci. Sepsis, kematian, NRS-2002, mNUTRIC

ABSTRACT

Background: *Malnutrition in sepsis patients may occur due to catabolic stress and inadequate nutritional input. Malnutrition may increase morbidity and mortality in sepsis patients in the ICU. Predictors of patient mortality in the ICU are needed to determine the planning and evaluation of nutritional therapy for critical patients. Conventional assessments such as APACHE II, SAPS and SOFA can predict mortality in the ICU but cannot assess the risk of malnutrition. NRS-2002 and mNUTRIC are recommended to assess the risk of malnutrition in critical patients in the ICU. There is no consensus on which is preferable between the use of NRS-2002 or mNUTRIC to assess the risk of malnutrition in critical patients in the ICU. Research related to the validity test for mortality in sepsis patients in the ICU is still limited.*

Objective: *To determine the validity of NRS-2002 and mNUTRIC in predicting mortality in sepsis patients in the ICU.*

Method: *This research was a retrospective observational study with a cohort method. The study population was sepsis patients in the intensive care unit of Dr. Sardjito General Hospital Yogyakarta. The study sample was sepsis patients treated in the ICU of Dr. Sardjito General Hospital for the period 1st January – 31st December 2023. The sample was selected using the consecutive sampling method, sorted from patients treated until 31st December 2023, then drawn backwards until 54 research samples were met. The validity test of NRS-2002 and mNUTRIC in predicting the death of sepsis patients in the ICU was carried out by calculating the Area under Curve (AUC) from the Receiver Operating Characteristic (ROC). NRS-2002 and mNUTRIC are said to be valid if the AUC value is > 0.7 with p < 0.05.*

Results: *The results of the AUC calculation of ROC on mortality in sepsis patients showed that NRS-2002 was not valid in predicting ICU mortality and 28-day hospital mortality. The AUC value of NRS-2002 on ICU mortality in sepsis patients was 0.596 with p value = 0.230. The AUC value of NRS-2002 was 0,535 with a p value = 0,657. The results of the AUC calculation of ROC on mortality in sepsis patients showed that mNUTRIC was not valid in predicting ICU mortality and 28-day hospital mortality. The AUC value of mNUTRIC on ICU mortality in sepsis patients was 0.777 with a sensitivity of 87,5% and a specificity of 66,7% with p value <0,001. The AUC value of mNUTRIC on 28-day hospital mortality in sepsis patients was 0,830 and had a sensitivity of 83,3% and a specificity of 75% with a p value <0.001.*

Conclusion: *NRS-2002 was not valid in predicting ICU mortality and 28-day hospital mortality while mNUTRIC was valid in predicting ICU mortality and 28-day hospital mortality in sepsis patient.*

Keywords. *Sepsis, mortality, NRS-2002, mNUTRIC*