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Nilai Prediktif Kuesioner Identification Senior at Risk Revised (ISAR-R) terhadap Lama Rawat Inap, Mortalitas, dan Readmisi dalam 30 Hari Pasien Usia Lanjut di RSUP DR. Sardjito Yogyakarta
Rosita Yunanda Purwanto, Dr. dr. I Dewa Putu Pramantara, Sp.PD-KGer, FINASIM.; dr. Eko Aribowo, Sp.PD- KGer,
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INTISARI

NILAI PREDIKTIF KUESIONER *IDENTIFICATION SENIOR AT RISK REVISED* (ISAR-R) TERHADAP DURASI RAWAT INAP, MORTALITAS, DAN READMISI DALAM 30 HARI PASIEN USIA LANJUT DI RSUP Dr. SARDJITO YOGYAKARTA

Rosita Yunanda Purwanto[1], I Dewa Putu Pramantara[2], Eko Aribowo[2]

[1]PPDS Ilmu Penyakit Dalam FKKMK UGM
[2]Divisi Geriatri Departemen Ilmu Penyakit Dalam FKKMK UGM

Pendahuluan: Pasien usia lanjut yang datang ke instalasi gawat darurat (IGD) memiliki risiko tinggi mengalami luaran buruk seperti mortalitas, readmisi, dan durasi rawat inap yang lebih panjang. Kuesioner *Identification of Seniors at Risk Revised* (ISAR-R) merupakan alat skrining sederhana untuk mengidentifikasi pasien risiko tinggi, namun validitasnya terhadap berbagai luaran klinis masih perlu dievaluasi.

Tujuan: Menilai nilai prediktif kuesioner ISAR-R terhadap mortalitas, readmisi, dan durasi rawat inap pada pasien usia lanjut yang datang ke IGD.

Metode Penelitian: Penelitian kohort prospektif pada pasien usia ≥60 tahun di IGD RSUP Dr. Sardjito Yogyakarta. Skor ISAR-R dinilai saat kedatangan dan pasien diikuti selama 30 hari untuk menilai mortalitas, readmisi, dan durasi rawat inap. Analisis menggunakan kurva ROC, Kaplan-Meier, dan regresi *Cox proportional hazard*.

Hasil Penelitian: Sebanyak 309 pasien diikutkan dalam analisis. Kuesioner ISAR-R menunjukkan kemampuan diskriminatif yang bermakna secara statistik terhadap mortalitas dengan nilai *Area Under the Curve* (AUC) 0,605 (p=0,002). Pada uji multivariat, skor ISAR-R >1 merupakan prediktor independen terhadap mortalitas dalam 30 hari dengan nilai *Hazard Ratio* (HR) sebesar 2,341 (IK 95% 1,204–4,553; p=0,012). Untuk luaran readmisi 30 hari, kemampuan diskriminatifnya sangat rendah dan tidak bermakna secara statistik (AUC 0,518; p=0,652). Uji log-rank dan multivariat ISAR-R terhadap readmisi juga tidak menunjukkan hasil yang signifikan. Terdapat korelasi positif yang lemah antara skor ISAR-R dan durasi rawat inap (r=0,182; p=0,004), dan meskipun AUC untuk prediksi rawat inap lama (>7 hari) bermakna (AUC 0,589; p=0,015), hal ini tidak terbukti independen pada uji multivariat (p=0,739).

Kesimpulan: Skor ISAR-R yang lebih tinggi (≥2) mampu memprediksi secara bermakna kesintasan hidup dalam 30 hari yang lebih pendek pada pasien usia lanjut di IGD. Akan tetapi, kemampuannya dalam memprediksi risiko readmisi dan durasi rawat inap tidak menunjukkan hasil yang bermakna. Kuesioner ISAR-R disarankan untuk digunakan sebagai alat penapisan awal guna stratifikasi risiko dan mengidentifikasi pasien yang membutuhkan *Comprehensive Geriatric Assessment* (CGA) secara lebih dini.

Kata Kunci: ISAR-R, Pasien Geriatri, Instalasi Gawat Darurat, Mortalitas, Readmisi, Durasi Rawat Inap

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ABSTRACT

PREDICTIVE VALUE OF THE REVISED IDENTIFICATION OF SENIORS AT RISK (ISAR-R) QUESTIONNAIRE FOR LENGTH OF STAY, MORTALITY, AND 30-DAY READMISSION IN ELDERLY PATIENTS AT RSUP DR. SARDJITO YOGYAKARTA

Rosita Yunanda Purwanto[1], I Dewa Putu Pramantara[2], Eko Aribowo[2]

[1]Department of Internal Medicine, Faculty of Medicine, Public Health and Nursing, Gadjah Mada University
[2]Division of Geriatrics, Department of Internal Medicine, Faculty of Medicine, Public Health and Nursing, Gadjah Mada University

Background & Objective: Elderly patients presenting to the Emergency Department (ED) are at a high risk of experiencing adverse outcomes such as mortality, readmission, and prolonged length of hospital stay. The Identification of Seniors at Risk Revised (ISAR-R) questionnaire is a simple screening tool designed to identify high-risk patients; however, its validity regarding various clinical outcomes at RSUP Dr. Sardjito requires evaluation. This study aimed to assess the predictive value of the ISAR-R questionnaire for mortality, readmission, and length of stay among elderly patients in the ED.

Methods: A prospective cohort study was conducted involving 309 patients aged ≥60 years at the ED of RSUP Dr. Sardjito Yogyakarta. The ISAR-R scores were assessed upon arrival, and the patients were followed up for 30 days to evaluate the clinical outcomes. Data were analyzed using Receiver Operating Characteristic (ROC) curves, Kaplan-Meier survival curves, and Cox proportional hazard regression

Results: The ISAR-R questionnaire demonstrated a statistically significant discriminative ability for mortality, with an Area Under the Curve (AUC) of 0.605 (p=0.002). In the multivariate analysis, an ISAR-R score >1 emerged as an independent predictor of 30-day mortality, with a Hazard Ratio (HR) of 2.341 (95% CI 1.204–4.553; p=0.012). For the 30-day readmission outcome, the discriminative ability was very low and statistically non-significant (AUC 0.518; p=0.652). There was a weak positive correlation between the ISAR-R score and the length of stay (r=0.182; p=0.004), and although the AUC for predicting a prolonged hospital stay (>7 days) was significant (AUC 0.589; p=0.015), it was not an independent predictor in the multivariate analysis (p=0.739).

Conclusion: A higher ISAR-R score (≥2) significantly predicts shorter 30-day survival in elderly patients presenting to the ED. However, its capability to predict the risk of 30-day readmission and prolonged length of stay did not show significant results. The ISAR-R questionnaire is recommended as an initial screening and risk stratification tool to identify elderly patients who require early Comprehensive Geriatric Assessment (CGA).

Keywords: ISAR-R, Elderly Patients, Emergency Department, Mortality, Readmission, Length of Stay.