

## INTISARI

**Latar Belakang:** Penilaian klinis terhadap keparahan sebuah penyakit merupakan bagian penting dari praktek klinis sebagai prediksi mortalitas dan morbiditas di unit pelayanan intensif. Dikarenakan keterbatasan dari sumber daya kesehatan dan peningkatan biaya manajemen kesehatan, prognosis dari penyakit menjadi sangat penting pada ilmu kesehatan

**Tujuan:** Penelitian ini bertujuan untuk menilai hubungan skor APACHE II dengan lama perawatan dan biaya perawatan pasien yang dirawat di ICU RSUP Dr. Sardjito.

**Metode Penelitian:** Penelitian ini dilakukan secara kohort retrospektif di Instalasi Catatan Medik dan Akuntansi RSUP Dr. Sardjito. Besar sampel adalah seluruh pasien yang di rawat di ICU selama periode 1 Januari 2018 – 31 Desember 2018. Dilakukan pencatatan skor APACHE II selama 24 jam pertama dilanjutkan dengan *scoring* APACHE II, lama perawatan dan biaya perawatan pasien. Analisis korelasi dilakukan untuk mengetahui hubungan antara skor APACHE II dengan lama perawatan dan biaya perawatan pasien.

**Hasil:** Jumlah populasi sampel sebanyak 689 pasien, 529 subjek memenuhi kriteria inklusi, dan 160 subjek dieliminasi karena memenuhi kriteria eksklusi. *Median* subjek berusia 48 tahun (18-91) dengan 45.2 % laki-laki dan 54.8 % perempuan. *Median* lama rawat 2 hari (1-61). Mayoritas pasien pulang diizinkan 74,6% dan 25,4% meninggal. *Median* skor APACHE II 13 (1-50) dengan skor APACHE II <25 sebanyak 85.1%, 25-35 sebanyak 9.5%, dan >35 sebanyak 5.5%. Analisis bivariat skor APACHE II dengan lama rawat, skor APACHE II 25-35 (36,0%) lebih banyak lama rawat >14 hari dibandingkan skor APACHE II <25 (1,3%) dengan perbedaan bermakna ( $p=0,000$ ) dengan Nilai OR sebesar 41,63. *Median* total biaya skor APACHE II 25-35 adalah Rp.32.077.650, >35 yaitu Rp.16.881.000 dan <25 yaitu Rp.15.284.249. Total biaya pasien yang menggunakan ventilasi mekanik Rp. 16.902.650 lebih tinggi dibandingkan tanpa ventilasi mekanik Rp. 10.790.375 dengan perbedaan yang bermakna ( $p=0,009$ ). Pada Analisis Multivariat terhadap Lama Rawat didapatkan skor APACHE II 25-35 yang berpengaruh terhadap lama rawat ( $p=0,000$ ), dengan OR 42,81, skor APACHE II berpengaruh dominan terhadap total biaya pasien ( $p=0,000$ ), dengan koefisien regresi Rp. 8.498.702,00

**Kesimpulan :** skor APACHE II 25-35 berpengaruh terhadap lama rawat ( $p=0,000$ ), dengan OR 42,81, skor APACHE II berpengaruh dominan terhadap total biaya pasien ( $p=0,000$ ), dengan koefisien regresi (B) Rp. 8.498.702,00

**Kata Kunci:** *Intensive Care Unit* ( ICU ), APACHE II, lama perawatan, biaya perawatan

## ABSTRACT

**Background :** *Severity of disease clinical assessment is an important part of clinical practice as a prediction of mortality and morbidity in intensive care units. Due to the limitations of health resources and the increasing cost of health management, the prognosis of the disease becomes very important in health science.*

**Objective:** *To assess the relationship between the score of Acute Physiology and Chronic Health Evaluation (APACHE) II with the length of treatment and the cost of care from the patients treated at ICU Dr. Sardjito Hospital*

**Method:** *This research based on cohort retrospective at the Medical Records and Accounting Departement, Dr. Sardjito Hospital. The sample size was all patients hospitalized in the ICU during the period January 2018 until December 2018. APACHE II scores were recorded for the first 24 hours, length of stay and patient care costs. Correlation analysis was performed to determine the relationship between APACHE II score with length of stay and patient care costs.*

**Result :** *Total sample population was 689 patients, 529 subjects met the inclusion criteria, and 160 subjects were eliminated. Median subjects were 48 years old (18-91) with 45.2% male and 54.8% female. Median length of stay was 2 days (1-61). The majority of patients were allowed to go home, 74.6% and 25.4% died. The median APACHE II score was 13 (1-50) with APACHE II score <25 was 85.1%, 25-35 was 9.5%, and > 35 was 5.5%. Bivariate analysis was performed between APACHE II score and length of stay, APACHE II score 25-35 (36.0%) had more length of stay > 14 days than APACHE II score <25 (1.3%) with significant difference ( $p = 0.000$ ) OR 41.63. The median total cost of the APACHE II score 25-35 was Rp. 32,077,650, > 35 Rp. 16,881,000 and <25 Rp. 15,284,249. The total cost of patients using mechanical ventilation was Rp. 16,902,650 higher than without mechanical ventilation of Rp. 10,790,375 with a significant difference ( $p = 0.009$ ). In the multivariate analysis of length of stay, the APACHE II score was 25-35 which affected the length of stay ( $p = 0,000$ ), with an OR of 42,81, the APACHE II score had a dominant effect on the total patient cost ( $p = 0,000$ ), with a regression coefficient Rp. 8.498.702,00*

**Conclusion :** *APACHE II score 25-35 had an effect on length of stay ( $p = 0.000$ ), with OR 42,81, APACHE II score had a dominant effect on total patient costs ( $p = 0.000$ ), with a regression coefficient (B) of Rp. 8.498.702,00.*

**Keywords:** *Intensive Care Unit (ICU), APACHE II, length of treatment, maintenance cost*