

## ABSTRAK

**Rahma Pramutama Tameru, G0015194, 2018.** : Perbandingan Skor SIRS dan qSOFA dalam Memprediksi Mortalitas dan Lama Rawat Inap Pasien Sepsis di Instalasi Perawatan Intensif RSUD Dr Moewardi Surakarta

**Latar Belakang:** Sepsis masih menjadi salah satu penyebab kesakitan dan kematian pada pasien yang menjalani rawat inap di rumah sakit sehingga diperlukan pengenalan dan terapi lebih awal untuk mencegah perburukan penyakit dan memprediksi *outcome*. *The Third International Consensus Definitions for Sepsis and Septic Shock* pada tahun 2016 telah mengeluarkan definisi terbaru untuk sepsis dan merekomendasikan skor qSOFA menggantikan sistem penilaian sebelumnya yaitu kriteria SIRS. Penelitian ini dilakukan dengan tujuan mengetahui akurasi kriteria SIRS, akurasi skor qSOFA, dan perbandingan antara keduanya terhadap tingkat mortalitas dan lama rawat inap pasien sepsis di ICU RSUD Dr Moewardi.

**Metode:** Penelitian ini merupakan studi penelitian observasional analitik dengan pendekatan *cross sectional retrospektif* di RSUD Dr Moewardi pada September-November 2018 dengan jumlah sampel 106 pasien sepsis. Pengumpulan data dilakukan dengan membaca catatan rekam medis pasien sepsis yang dirawat di Instalasi Perawatan Intensif selama periode perawatan 1 Juli 2017-30 Juni 2018 lalu data dianalisis secara statistik dengan analisis kurva ROC, uji *chi square*, dan uji *zero-truncated poisson regression*.

**Hasil:** Skor qSOFA Pre-ICU (Sens 67.9%, Spe 50%,  $p=0.120$ , OR=2.111), Skor qSOFA ICU (Sens 63.1%, Spe 77.3%,  $p=0.001$ , OR=5.813), Kriteria SIRS Pre-ICU (Sens 88.1%, Spe 18.2%,  $p=0.439$ , OR=1.644), serta Kriteria SIRS ICU (Sens 84.5%, Spe 40.9%,  $p=0.009$ , OR=3.781). Perbandingan nilai diskriminasi skor qSOFA Pre-ICU, SIRS Pre-ICU, qSOFA ICU, dan SIRS ICU terhadap mortalitas dengan AuROC masing-masing sebesar 0.625, 0.503, 0.754, dan 0.644. Perbandingan nilai diskriminasi skor qSOFA Pre-ICU, SIRS Pre-ICU, qSOFA ICU, dan SIRS ICU terhadap lama rawat inap dengan AuROC masing-masing sebesar 0.603, 0.556, 0.681 dan 0.639.

**Simpulan:** Skor qSOFA memiliki sensitivitas rendah dan spesifisitas sedang, sedangkan kriteria SIRS memiliki sensitivitas tinggi namun spesifisitas sangat rendah. Skor qSOFA memiliki kemampuan diskriminasi terhadap mortalitas maupun lama rawat inap di instalasi terapi intensif  $\geq 3$  hari lebih besar dibanding kriteria SIRS.

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**Kata Kunci:** sepsis, SIRS, qSOFA, mortalitas, lama rawat inap, ICU

## ABSTRACT

**Rahma Pramata Tameru Rambey, G0015194, 2018.** : Comparison between SIRS Criteria and qSOFA Score for Predicting Mortality and Length of Stay Sepsis Patients in ICU of Dr Moewardi Hospital Surakarta

**Background:** Sepsis is still one of the causes of morbidity and mortality in patients who are hospitalized, early recognition and therapy is needed to prevent deterioration of the disease and predict outcomes. The Third International Consensus Definitions for Sepsis and Septic Shock in 2016 issued the latest definition for sepsis and recommended a qSOFA score to replace the previous assessment system, the SIRS criteria. This study was conducted with the aim of knowing the accuracy of the SIRS criteria, the accuracy of the qSOFA score, and the comparison between the two for predicting the mortality rate and length of stay of sepsis patients at ICU of Dr Moewardi Hospital Surakarta

**Method:** This research was an observational analytic study with cross sectional approach. It was conducted in Dr Moewardi General Hospital on September-November 2018. The sample were 106 sepsis patients. The data were collected by reading the medical record of sepsis patients who were hospitalized in ICU during of period July 2017 until June 2018 and analyzed statistically by *chi square test*, *zero-truncated regression poisson test*, and *ROC curve* analysis.

**Result :** qSOFA Score Pre-ICU (Sens 67.9%, Spe 50%,  $p=0.120$ , OR=2.111), qSOFA Score ICU (Sens 63.1%, Spe 77.3%,  $p=0.001$ , OR=5.813), SIRS Criteria Pre-ICU (Sens 88.1%, Spe 18.2%,  $p=0.439$ , OR=1.644), and SIRS Criteria ICU (Sens 84.5%, Spe 40.9%,  $p=0.009$ , OR=3,781). Area under receiver operating characteristic (AuROC) in predict mortality for qSOFA Pre-ICU, SIRS Pre-ICU, qSOFA ICU, dan SIRS ICU were 0.625, 0.503, 0.754, dan 0.644 consecutively. Area under receiver operating characteristic (AuROC) in predict length os stay in ICU  $\geq 3$  days for qSOFA Pre-ICU, SIRS Pre-ICU, qSOFA ICU, dan SIRS ICU were 0.603, 0.556, 0.681 dan 0.639 consecutively.

**Conclusion:** The qSOFA score has a poor sensitivity and fair specificity, while the SIRS criteria have a high sensitivity but very low specificity. But, qSOFA is superior than SIRS for predicting mortality and length of stay in ICU  $\geq 3$  days.

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**Keyword:** sepsis, SIRS, qSOFA, mortality, length of stay, ICU