

ABSTRAK

Pendahuluan: Pneumonia adalah infeksi pernapasan akut yang mempengaruhi alveoli dan saluran udara distal. Kondisi pneumonia juga dapat ditemukan pada pasien COVID-19. Kegagalan pernafasan akibat ARDS yang merupakan penyebab kematian utama penderita pneumonia COVID-19. Penilaian CRB-65, CURB-65 dan *expanded* CURB-65 merupakan skoring yang digunakan untuk menilai prognosis pasien pneumonia, namun belum terdapat penelitian yang mengevaluasi pemanfaatan CRB-65, CURB-65 dan *expanded* CURB-65 secara bersama-sama dalam memprediksi derajat keparahan *acute respiratory distress syndrome* pada pasien pneumonia COVID-19 .

Tujuan: Mengetahui hasil diagnostik CRB-65, CURB-65 dan *Expanded* CURB-65 dalam memprediksi derajat keparahan *acute respiratory distress syndrome* pada pasien pneumonia COVID-19

Metode: Penelitian observasional analitik melibatkan data rekam medik 112 pasien terdiagnosis COVID-19 dengan ARDS ringan dan ARDS berat dari bulan Mei 2020 hingga Juli 2021. Variabel bebas penelitian adalah CRB – 65, CURB – 65 dan *expanded* CURB-65. Variabel terikat penelitian adalah derajat keparahan ARDS pada pasien pneumonia COVID-19. Variabel perancu penelitian adalah jenis kelamin dan komorbiditas. Analisis dilakukan menggunakan aplikasi SPSS versi 23 melalui uji Chi-square, Fischer exact, Mann whitney dan analisis kurva ROC dimana hasil dikatakan signifikan apabila $p < 0.05$

Hasil: Pada skor CRB-65 ≥ 1 didapatkan hasil sensitivitas 0.628 dengan spesifisitas 0.681, dimana terdapat hubungan antara skor CRB-65 dengan derajat ARDS ($p=0.001$). Pada skor CURB-65 ≥ 2 didapatkan hasil sensitivitas 0.442 dengan spesifisitas 0.797, dimana terdapat hubungan antara skor CURB-65 dengan derajat ARDS ($p=0.007$). Pada *expanded* CURB-65 ≥ 3 didapatkan hasil sensitivitas 0.721 dengan spesifisitas 0.667, dimana terdapat hubungan antara skor *expanded* CURB-65 dengan derajat ARDS ($p<0.001$).

Kesimpulan: Skor *Expanded* CURB – 65 merupakan metode skrining terbaik dalam memprediksi ARDS Berat Pneumonia COVID – 19 namun apabila terdapat keterbatasan pemeriksaan laboratorium di fasilitas kesehatan, maka skor CRB – 65 dapat digunakan dengan sensitivitas yang cukup baik

Kata Kunci : CRB-65, CURB-65, *Expanded* CURB-65, ARDS, Pneumonia COVID-19

ABSTRACT

Introduction: *Pneumonia is an acute respiratory infection that affects the alveoli and distal airways. Pneumonia conditions can also be found in COVID-19 patients. Respiratory failure due to ARDS is the main cause of death for people with COVID-19 pneumonia. The CRB-65, CURB-65 and expanded CURB-65 assessments are scorings used to assess the prognosis of pneumonia patients. However, there has been no research evaluating the utility of CRB-65, CURB-65 and expanded CURB-65 together in predicting the severity of acute respiratory distress syndrome in COVID-19 pneumonia patients.*

Objective: *To determine the diagnostic results of CRB-65, CURB-65 and Expanded CURB-65 in predicting the severity of acute respiratory distress syndrome in COVID-19 pneumonia patients*

Method: *This analytical observational study involved medical record data from 112 patients diagnosed with COVID-19 with mild ARDS and severe ARDS from May 2020 to July 2021. The independent variables of the study were CRB – 65, CURB – 65 and expanded CURB-65. The dependent variable of the study was the severity of ARDS in COVID-19 pneumonia patients. The research confounding variables were gender and comorbidities. Analysis was carried out using the SPSS version 23 application via Chi-square, Fischer exact, Mann Whitney tests and ROC curve analysis where the results were said to be significant if $p < 0.05$*

Results: *The CRB-65 score > 1 , the sensitivity was 0.628 with a specificity of 0.681, where there was a relationship between the CRB-65 score and the degree of ARDS ($p=0.001$). The CURB-65 score ≥ 2 showed a sensitivity of 0.442 with a specificity of 0.797, where there was a relationship between the CURB-65 score and the degree of ARDS ($p=0.007$). The expanded CURB-65 ≥ 3 showed a sensitivity of 0.721 with a specificity of 0.667, where there was a relationship between the expanded CURB-65 score and the degree of ARDS ($p < 0.001$).*

Conclusion: *Expanded CURB score – 65 is the best screening method in predicting Severe ARDS Pneumonia COVID – 19 however if there are limited laboratory tests in health facilities, then the CRB – 65 score can be used with quite good sensitivity*

Keywords : *CRB-65, CURB-65, Expanded CURB-65, ARDS, Pneumonia COVID-19*