

## INTISARI

### PERAN SKOR A-DROP SEBAGAI PREDIKTOR MORTALITAS PADA POPULASI GERIATRIK DENGAN PNEUMONIA COVID-19 DI RSUP DR.

#### SARDJITO YOGYAKARTA

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**Latar Belakang:** *Pneumonia Coronavirus Disease 2019 (COVID-19)* merupakan penyakit yang sampai saat ini masih sering ditemui dengan spektrum keparahan yang luas. Penurunan fungsi fisiologis pada populasi geriatrik menyebabkan penyakit ini dapat bermanifestasi menjadi berat hingga membutuhkan perawatan intensif. Upaya untuk melakukan triase yang efektif perlu dilakukan agar alokasi sumber daya perawatan kesehatan serta penggunaan perawatan intensif dapat dilakukan dengan efektif. Sistem skor penilaian untuk memprediksi derajat keparahan pneumonia dapat diterapkan pada pneumonia COVID-19. Salah satu sistem skor, yakni, Skor A-DROP, yang dibuat oleh *Japanese Respiratory Society (JRS)*, sampai saat ini belum pernah dilakukan pengkajian akurasinya di Indonesia.

**Tujuan:** Mengetahui Skor A-DROP dapat menjadi salah satu prediktor mortalitas pada populasi geriatrik dengan pneumonia COVID-19 yang dirawat inap di RSUP Dr. Sardjito dalam 7 hari perawatan sejak admisi.

**Metode:** Penelitian observasional kohort retrospektif ini dilakukan tanggal 11 Juli 2022 di Instalasi Catatan Medik RSUP Dr. Sardjito Yogyakarta, dengan data rekam medis elektronik pasien yang terdiagnosis pneumonia COVID-19 yang memenuhi kriteria inklusi dan eksklusi pada tahun 2020 hingga 2021. Skor A-DROP dinilai saat admisi, dikategorikan Skor A-DROP  $\geq 2$  atau  $< 2$ . Analisa statistik bivariat *Chi Square* serta *Fisher Test* serta penghitungan nilai *Odds Ratio* (OR) dilakukan untuk mengetahui hubungan Skor A-DROP terhadap keadaan pasien dalam 7 hari perawatan sejak admisi. Kemudian dilanjutkan uji analisis multivariat dengan regresi logistik untuk menilai variabel manakah yang paling bermakna secara statistik.

**Hasil Penelitian:** Sebanyak 139 pasien pneumonia COVID-19 dengan median usia 64 tahun, laki-laki sebanyak 68,3%. Pada analisis bivariat didapatkan variabel yang bermakna secara statistik yaitu: Skor A-DROP  $\geq 2$  (OR 2,49); derajat keparahan pneumonia COVID-19 saat masuk (OR 16,23); serta diabetes mellitus (OR 2,34). Pada analisa multivariat didapatkan beberapa variabel yang memiliki pengaruh secara konsisten dan signifikan terhadap kematian dalam 7 hari perawatan sejak admisi yaitu Skor A-DROP  $\geq 2$  (OR 3,589), derajat pneumonia COVID-19 berat (OR 21,506), serta diabetes mellitus (OR 3,548). Skor A-DROP merupakan salah satu prediktor mortalitas pada populasi geriatrik dengan pneumonia COVID-19 dengan nilai *cut off* optimal sebesar 2 yang memiliki sensitivitas sebesar 56,9% dan spesifisitas sebesar 65,4%

**Kesimpulan:** Skor A-DROP merupakan salah satu prediktor mortalitas pada populasi geriatrik dengan pneumonia COVID-19.

**Kata Kunci:** Pneumonia COVID-19, Skor A-DROP, Geriatrik, Mortalitas

## ABSTRACT

### THE ROLE OF A-DROP SCORE AS A PREDICTOR OF MORTALITY IN THE GERIATRIC POPULATION WITH COVID-19 PNEUMONIA AT DR.

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**Background:** Coronavirus Disease 2019 (COVID-19) pneumonia is a disease that is still frequently encountered with a broad spectrum of severity. Decreased physiological function in the geriatric population means that this disease could easily become severe and requires intensive care. Efforts to carry out effective triage need to be made so that the allocation of health care resources and the use of intensive care can be carried out effectively. The scoring system for predicting the severity of pneumonia can be applied to COVID-19 pneumonia. One of the scoring systems, namely, the A-DROP Score, created by the Japanese Respiratory Society (JRS), has never had its accuracy assessed in Indonesia.

**Objective:** To determine the A-DROP Score as a predictor of mortality in the geriatric population with COVID-19 pneumonia hospitalized at RSUP Dr. Sardjito within 7 days of treatment since admission.

**Method:** This retrospective observational cohort study was conducted in 11 July 2022 at the medical record instalation of RSUP Dr. Sardjito Yogyakarta, with electronic medical record data of patients diagnosed with COVID-19 pneumonia who met the inclusion and exclusion criteria from 2020 to 2021. The A-DROP Score was assessed at admission, with an A-DROP Score value of  $\geq 2$  or  $< 2$ . Chi Square bivariate statistical analysis and Fisher Test as well as calculation of Odds Ratio (OR) values were carried out to determine the relationship between the A-DROP Score and the patient's condition within 7 days of treatment since admission. Continued with the multivariate analysis test with logistic regression to assess the most statistically significant variables.

**Result:** A total of 139 COVID-19 pneumonia patients with a median age of 64 years and 68.3% were male. In the bivariate analysis, statistically significant variables were obtained, namely: A-DROP score  $\geq 2$  (OR 2,49); severity of COVID-19 pneumonia at admission (OR 16,23); and diabetes mellitus (OR 2,34). In the multivariate analysis, several variables were found that had a consistent and significant influence on mortality within 7 days of treatment since admission, namely severe of COVID-19 pneumonia (OR 21,506), A-DROP score  $\geq 2$  (OR 3,589), and diabetes mellitus (OR 3,548). The A-DROP Score can be a predictor of mortality in the geriatric population with COVID-19 pneumonia with optimal cut off value 2 which has a sensitivity of 56,9% and a specificity of 65,4%.

**Conclusion:** The A-DROP Score can be a predictor of mortality in the geriatric population with COVID-19 pneumonia.

**Keywords:** COVID-19 Pneumonia, A-DROP Score, Geriatrics, Mortalit