

## ABSTRAK

Kasus kematian pasien COVID-19 di RSUD Prof. Dr. Margono Soekarjo tertinggi di kabupaten Banyumas. Kematian pasien COVID-19 yang dirawat di rumah sakit dipengaruhi oleh berbagai faktor. Penelitian ini bertujuan untuk menggali faktor risiko kematian pada pasien COVID-19 menggunakan pendekatan analisis survival. Penelitian ini merupakan penelitian analitik observasional menggunakan desain kohort. Data penelitian bersumber dari rekam medis pasien COVID-19 bulan September 2021 yang dirawat di RSUD Prof. Dr. Margono Soekarjo Purwokerto.. Analisis *life table* dan kurva kaplan meier digunakan untuk mengetahui ketahanan hidup pasien. Analisis multivariat menggunakan *cox regression time independent* digunakan untuk mengetahui faktor yang berpengaruh terhadap kematian pasien, dan mendapatkan nilai *hazard ratio*. Hasil dianggap signifikan apabila nilai  $p < 0,05$ . Hasil penelitian menunjukkan terdapat 169 pasien COVID-19, terdiri dari 100 perempuan, dan 69 laki-laki. Mayoritas berusia  $< 60$  tahun, dan berstatus menikah (75,15%). Sebagian besar memiliki saturasi oksigen  $\geq 93\%$ , memiliki komorbid (81,1%), sebanyak 75,15% memiliki tingkat keparahan ringan-sedang. Rata-rata kadar D-dimer 3802,8 ng/ml, kadar neutrofil-limfosit ratio 8,4, neutrofil 75,5%, leukosit 11713 ng/mL, dan limfosit 16,1%. Ketahanan hidup pasien selama 30 hari sebesar 0,64. Faktor yang berpengaruh signifikan terhadap kematian pasien COVID-19 yaitu kadar D-dimer  $\geq 2.390$  ng/ml ( $p = 0.001$ ; HR = 3.31), dan tingkat keparahan penyakit berat-kritis ( $p = 0,009$ ; HR = 2,74). Faktor lain seperti usia, komorbid, saturasi oksigen, kadar D-dimer, kadar leukosit, kadar limfosit, kadar NLR tidak berpengaruh. Berdasarkan hasil penelitian, maka pasien COVID-19 yang memiliki kadar D-dimer  $\geq 2.390$  ng/ml dan/atau berada pada tingkat keparahan berat-kritis perlu diprioritaskan untuk mendapatkan penanganan medis sehingga risiko kematianya dapat ditekan.

**Kata kunci :** COVID-19, faktor risiko, kematian

## **ABSTRACT**

*The highest number of COVID-19 patient deaths occurred at Prof. Dr. Margono Soekarjo General Hospital in Banyumas Regency. The mortality of COVID-19 patients treated in hospitals is influenced by various factors. This study aims to explore the risk factors for mortality in COVID-19 patients using a survival analysis approach. This research is an observational analytic study using a cohort design. The research data were sourced from the medical records of COVID-19 patients in September 2021 who were treated at Prof. Dr. Margono Soekarjo General Hospital in Purwokerto. Life table analysis and Kaplan-Meier curves were used to determine patient survival. Multivariate analysis using time-independent Cox regression was used to identify factors that significantly influence mortality and to obtain hazard ratio values. Results were considered significant if the p-value < 0.05. The study results showed that there were 169 COVID-19 patients, consisting of 100 females and 69 males. The majority were under 60 years of age and married (75.15%). Most had an oxygen saturation of  $\geq 93\%$ , had comorbidities (81.1%), and 75.15% had mild to moderate severity. The average D-dimer level was 3802.8 ng/ml, neutrophil-lymphocyte ratio was 8.4, neutrophil level was 75.5%, leukocyte count was 11713 ng/mL, and lymphocyte level was 16.1%. The 30-day survival rate of patients was 0.64. Factors significantly influencing COVID-19 patient mortality were D-dimer levels  $\geq 2,390$  ng/ml ( $p = 0.001$ ; HR = 3.31) and severe-critical disease severity ( $p = 0.009$ ; HR = 2.74). Other factors such as age, comorbidities, oxygen saturation, leukocyte levels, lymphocyte levels, and NLR levels did not have a significant impact. Based on the research findings, COVID-19 patients with D-dimer levels  $\geq 2,390$  ng/ml and/or severe-critical disease severity need to be prioritized for medical treatment to reduce the risk of death.*

*Keyword : COVID-19, D-dimer, severe-critical, time to death*