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**ACUTE KIDNEY INJURY (AKI), NLR (NEUTROPHIL LYMPHOCYTE RATIO), AND DURATION OF HOSPITALIZATION, IN COVID-19 PATIENTS WITH MORTALITY OUTCOME IN dr. SARDJITO GENERAL HOSPITAL, YOGYAKARTA**

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**Objectives:** There were limited study about AKI, duration of hospitalization, and NLR in Indonesia. In this study, we predicted correlation mortality outcome in COVID-19 patients with AKI, duration of hospitalization, and NLR.

**Methods:** COVID-19 patients in isolation ward from March 2020 to January 2021 were analyzed. The mortality outcome and AKI were recorded. The relations between AKI, NLR, and duration of hospitalization, with mortality were assessed using analytic descriptive model.

**Results:** A total of 51 patients were analyzed. 31 (58.8%) patients died, 23 (74.19%) developed AKI according to KDIGO criteria during hospitalization, (OR = 4.313, 95% CI = 1.295 – 14.363, p = 0.015), (including 20 (86.96%) of them had AKI on admission). 8 patients (25.8%) died without AKI. AKI stage 3 was the highest in patients with mortality (13 = 56.52%), AKI stage 2 (5 = 21.74%), and AKI stage 1 (5 = 21.74%). The other risk factor for mortality outcome were NLR and duration of hospitalization. The NLR (OR = 5.093 95% CI = 1.455 – 17.828, p = 0.008), with cut off was 0.58, area under the curve (AUC) of 0.698, sensitivity of 67.74%, specificity of 65.00%. Duration of hospitalization (OR = 0.134 95% CI = 0.038 – 0.478, p = 0.001 ), with duration < 7 days was the highest 17 (58.84%) patients (OR = 0.032 95% CI = 0.005 – 0.224, p = 0.000) , 7 - 22 days 5 (35.48%) patients (OR = 0.174 95% CI = 0.035 – 0.851), and > 22 days 3 (9.68%) respectively.

**Conclusions:** In this study, there were significant correlation between AKI, NLR, and duration of hospitalization with mortality outcome. AKI, NLR, and duration of hospitalization were a powerful risk factor to predict mortality outcome in COVID-19 patients