

***The Relationship Between Age, Gender, White Blood Cell Count, Nutritional Status, and Comorbidities and the Length of Hospitalization for Patients with Typhoid Fever (A01.0) Based on Inpatient Medical Records at Djatiroto Hospital in Lumajang***

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**ABSTRACT**

*Djatiroto Hospital noted that cases of typhoid fever increased during the 2021–2024 period; by 2024, it was among the top 10 most common diseases and was associated with fatalities, averaging 2 deaths per year. The management of typhoid fever uses a service quality indicator in the form of Length of Stay (LOS) with a standard of 4 days, however 21.2% of patients still have a length of stay that does not align with the established clinical pathway. A prolonged length of stay can increase treatment costs and the burden on the healthcare system. This study aims to analyze the relationship between age, gender, white blood cell count, nutritional status, and comorbidities with the length of stay of typhoid fever patients. This is a quantitative study using a cross-sectional approach. The study sample consisted of 250 medical records selected using simple random sampling. Data analysis included univariate and bivariate analyses using the chi-square test. The results of this study indicate that there is a significant association between age ( $p=0.036$ ), white blood cell count ( $p=0.029$ ), and nutritional status ( $p=0.023$ ) and the length of hospitalization for typhoid fever, while gender ( $p=0.585$ ) and comorbidities ( $p=0.134$ ) were not significantly associated with the length of hospitalization for typhoid fever. The conclusion of this study is that patients aged  $< 5$  years and  $\geq 60$  years, those with leukopenia, and those with abnormal nutritional status are likely to have a longer length of stay. It is hoped that hospitals can improve monitoring, particularly of vulnerable patients, those with leukopenia, and those with abnormal nutritional status, to prevent prolonged hospital stays.*

**Keywords:** *Length of stay, typhoid fever, medical records*