

**RISK FACTORS OF MORTALITY
IN PATIENTS WITH DIABETIC FOOT ULCER
AT DR. SOETOMO GENERAL HOSPITAL 2016 – 2018 PERIODE**

ABSTRACT

Introduction: Diabetic foot ulcer (DFU) is one of diabetes mellitus complication which has a high mortality rate. There are several factors which increase the risk of mortality in DFU patients.

Methods: This research introduces a retrospective observational analytic study using a case control approach bases on secondary data from Medical Record Installation Unit at Dr. Soetomo General Hospital between 2016 - 2018. Univariate, Bivariate and Multivariate analysis are employed for characteristics, associations and multiple measurements respectively.

Results: From 210 case subjects and 187 control subjects, 179 case-control pairs diagnosed with DFU were included in this research. Univariate analysis demonstrated *Escherichia coli* was the common microorganism cultured and the death of the most patients due to septic shock (68.7%). Bivariate analysis outcomes demonstrated 5 out of 8 independent variables were associated with the mortality in DFU patients. Those variables are also associated and effected the mortality in multivariate analysis. The variables are serum albumin ($p < 0.001$ OR 16.520 CI 95% 3.417 – 79.859), sepsis complication ($p < 0.001$ OR 23.474 CI 95% 5.796 – 26.846), renal function impairment complication ($p < 0.001$ OR 3.410 CI 95% 1.874 – 6.205), cardiovascular complication ($p < 0.001$ OR 2.930 CI 95% 1.636 – 5.245), and Wagner's severity level of ulcers ($p < 0.001$ OR 6.801 CI 95% 3.769 – 12.274). First model shows that there are 32 probability options. Second model shows maximum score of 7.

Conclusion: Both bivariate and multivariate analysis results low serum albumin, sepsis complication, renal function disturbance complication, cardiovascular complication, and Wagner's severity level IV – V of ulcers as the risk factors of mortality in DFU patient at Dr. Soetomo General Hospital 2016 – 2018.

Keywords: diabetic foot ulcer, diabetes complications, diabetes mellitus, risk factors, mortality