

**Risk Factor Analysis of *Chronic Kidney Disease Stage 5* (N18.5) Based on
Medical Records of Inpatient Patients at Bangil Regional General Hospital**
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ABSTRACT

Chronic Kidney Disease Stage 5 (CKD *Stage 5*) is a *Chronic Kidney Disease* characterized by progressive deterioration of kidney function and structure, with a glomerular filtration rate (GFR) of $<15 \text{ mL/min/1.73 m}^2$ and kidney damage persisting for more than 3 months. Based on preliminary data from 2025, CKD *Stage 5* morbidity cases remained high, while mortality cases showed a fluctuating pattern throughout the year. This study aimed to identify the risk factors associated with CKD *Stage 5*, including age, hypertension, diabetes mellitus (DM), history of cardiovascular disease, cerebrovascular disease, and exposure to nephrotoxic substances or medications. This study employed a quantitative analytical approach with a case-control design. Data were collected through medical record review. The study included 192 respondents, consisting of 96 cases and 96 controls, selected using a convenience sampling technique. Data were analyzed using univariate and bivariate methods with the *Chi-Square* test and Fisher's Exact test. The results showed significant associations between age ≥ 60 years ($p = 0.045$; OR = 0.509), hypertension ($p < 0.001$; OR = 9.340), diabetes mellitus ($p < 0.001$; OR = 4.402), and a history of cardiovascular disease ($p = 0.046$; OR = 2.248) and the incidence of CKD *Stage 5*. This study concludes that age ≥ 60 years, hypertension, diabetes mellitus, and a history of cardiovascular disease are risk factors associated with CKD *Stage 5*. Hospitals should strengthen screening and monitoring of patients with these risk factors to help prevent disease progression.

Keywords: *Chronic Kidney Disease Stage 5*, risk factors, medical records