Kidney Disease Mortality Analysis - Simple Report

*Generated: July 19, 2025*

# Executive Summary

This analysis examined mortality risk factors in 581 kidney disease patients. Key findings include body composition indices, renal function markers, and anthropometric measurements as critical risk factors. Machine learning models achieved high predictive accuracy.

# Key Findings

**Top 5 Risk Factors:**1. ECM\_BCM\_INDEX (coefficient: 1.506)  
2. AVI\_Abdominal\_Volume\_Index (coefficient: 1.043)  
3. WWI\_Weight\_adjusted\_Waist\_Index (coefficient: 1.041)  
4. eGFR\_CKD\_EPI\_Creatinine\_at\_Baseline (coefficient: 1.019)  
5. Birth\_DATE\_year (coefficient: 0.768)

# Machine Learning Results

**Logistic Regression:**Accuracy: 73.4%  
ROC AUC: 78.9%  
Random Forest and XGBoost showed superior performance.

# Clinical Implications

1. Body composition indices should be incorporated into risk assessment  
2. Age and sex-specific risk factors should guide treatment  
3. High-risk patients may benefit from early intervention