

# AKI

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## 1 Background

Acute Kidney Injury (AKI) is an important clinical condition characterized by a rapid decrease in glomerular filtration rate (GFR) that occurs in several hours to days. AKI affects more than half of ICU patients and is associated with increased mortality, decreased renal function, and prolonged hospital discharge [1]. KDIGO Clinical Practice Guideline for AKI emphasized the importance of early risk assessment of AKI as susceptibilities to potentially harmful exposures differ across patients. Recent updates discussing the scope of the guideline still suggest that accurate prediction models, including machine learning algorithms, are needed to conduct personalized treatment [2]. In recent years, the AKI prediction with machine learning made great progress, but few models have clinical interpretability and high predictive performance [3]. The aim of this research was to develop high-performance clinically useful machine learning model that can predict AKI onset or progression.

## References

- [1] Eric A. J. Hoste et al. Epidemiology of acute kidney injury in critically ill patients: the multinational aki-epi study. *Intensive Care Med*, 2015.
- [2] Another Author. Kdigo guideline. *Publisher*, Another Year.
- [3]