

## عنوان مقاله:

Incidence and Risk Factors of Acute Kidney Injury in Neonatal Intensive Care Unit

## محل انتشار:

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## خلاصه مقاله:

Background: Acute kidney injury (AKI) is a clinical syndrome in which the sudden loss of kidney function leads to kidney failure to maintain fluid hemostasis and electrolytes. Considering the increased hospitalization of patients in the neonatal intensive care unit (NICU), the prevalence of AKI due to common diseases, surgical procedures, various drugs, as well as the importance of long-term complications, this study aimed to determine the prevalence and related risk factors for the development of AKI in neonates admitted to NICU. Methods: This descriptive cross-sectional study was conducted on 173 newborns admitted to Boo-Ali-Sina Hospital in Sari, Iran, during 2016-2018. Patients' demographic characteristics, clinical findings, laboratory results, clinical outcomes, and risk-related disease factors were recorded. Data were analyzed using SPSS software (version 16). Results: The prevalence rate of AKI in infants admitted to Neonatal intensive care unit was 26.6%, consisting of 87% (n=40) prerenal, 8.7% (n=4) renal, and 2.2% (n=1) postrenal AKI cases. Furthermore, 6.4%, 9.2%, and 11% of the patients had grade 1, grade 2, and grade 3 AKI, based on RIFLE criteria. It should be mentioned that RDS, TTN, and seizure were the most common causes of hospitalization in the NICU. The most common laboratory disorders were acidosis, hyponatremia, anemia, and leukocytosis. Furthermore, anemia (89.1% vs. 19.7%), hypernatremia (8.7% vs. 2.4%), and hyperkalemia (26% vs. 8%) were significantly greater in AKI than in the non-AKI group. Conclusion: AKI was common in NICU, and accounted for about one-fourth of the admitted patients. The most common type of AKI was prerenal. The patients were equally distributed in all three stages. Eventually, anemia, hypernatremia, and hyperkalemia can be considered risk factors for AKI.

## کلمات کلیدی:

Acute kidney injury, Neonatal Intensive Care Unit, Renal Insufficiency

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