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RISING BURDEN ACUTE KIDNEY INJURY IN INDONESIA :
LESSONS FROM A DISTRICT-LEVEL REFERRAL
HOSPITAL IN WEST LOMBOK

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Background and Objectives

- Acute Kidney Injury (AKI) is a major global health concern, affecting over 850 million people and projected to become the fifth leading cause of death by 2040. Globally, Acute Kidney Injury (AKI) is estimated to occur in approximately 13.3 million cases each year worldwide and is part of the burden of kidney disease that affects more than 850 million people globally in 2022. In Indonesia, 2022 data shows a surge in AKI cases among children due to contaminated syrup medication, with more than 300 cases reported by the WHO and 241 cases recorded by the Ministry of Health in October 2022. Despite its high morbidity and mortality, AKI often remains underdiagnosed, particularly in low- and middle-income countries where access to diagnostics and treatment is limited. In Indonesia, regional hospitals frequently face challenges in early detection and effective management. This study aims to describe the trends, prevalence, and key determinants of AKI at Patut Patuh Patju Hospital, a district-level referral hospital in West Lombok, Indonesia.

Methods

- This descriptive study analyzed secondary data from medical records of AKI patients treated between 2023 and 2025 across three inpatient units: the Intensive Care Unit (ICU), Kenanga Pavilion (surgical ward), and Nusa Indah Pavilion (general medical ward). at patut patuh patju hospital

Result

- Total AKI cases rose sharply from 18 in 2023 to 125 in 2025. The most substantial year-on-year increase occurred in the Nusa Indah Pavilion, where cases rose from 5 in 2023 to 56 in 2024 (a 1,020% increase), followed by a further 57% increase to 88 cases in 2025, while ICU cases remained relatively stable. Determinant factors included limited diagnostic capacity, late clinical recognition, and prevalent comorbidities such as hypertension and diabetes mellitus. AKI now affects around 13.3 million people every year. This figure has increased compared to previous estimates of around 10 million cases per year in 2015. In Indonesia, data from the Ministry of Health in 2022 reported 241 cases of AKI in children due to ethylene glycol/diethylene glycol contamination in syrup medicine, with a death toll of 141 (58%); while the WHO (2023) recorded more than 300 cases during the same period.

Conclusion

- The rising AKI burden in this regional hospital underscores the need for earlier detection, improved service capacity, and better chronic disease management, critical for mitigating AKI impact.

Keywords

- Acute Kidney Injury, Prevalence, Determinants, LMICs, Indonesia

Referensi

- Hoste EA, Kellum JA, Selby NM, Zarbock A, Palevsky PM, Bagshaw SM, et al. Global epidemiology and outcomes of acute kidney injury. Nat Rev Nephrol. 2018;14(10):607-25.
- Lewington AJ, Cerdá J, Mehta RL. Raising awareness of acute kidney injury: a global perspective of a silent killer. Kidney Int. 2013;84(3):457-67.
- Susantitaphong P, Cruz DN, Cerda J, Abulfaraj M, Alqahtani F, Koulouridis I, et al. World incidence of AKI: a meta-analysis. Clin J Am Soc Nephrol. 2013;8(9):1482-93.
- Nugraha G, Widiarta IG, Suwitra K. Acute kidney injury in Indonesian hospitals: current prevalence and management challenges. Bali Med J. 2020;9(2):345-51.
- Mehta RL, Cerdá J, Burdmann EA, Tonelli M, García-García G, Jha V, et al. International Society of Nephrology's 0by25 initiative for acute kidney injury (zero preventable deaths by 2025): A human rights case for nephrology. Lancet. 2015;385(9987):2616-43.
- Batte A., Infections and acute kidney injury: a global perspective (tinjauan) — estimasi 13.3 juta kasus AKI/tahun.
- The Worldwide Shadow of Kidney Disease / data ringkasan global — >850 juta orang hidup dengan penyakit ginjal (CKD + beban ginjal)