

**Prediktor kematian *Acute Kidney Injury* pada pasien rawat inap  
di *Pediatric Intensive Care Unit*  
RSUP Dr Sardjito**

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### INTISARI

**Latar belakang:** *Acute kidney injury* (AKI) merupakan suatu keadaan yang dapat meningkatkan angka morbiditas dan mortalitas pada pasien anak yang dirawat di rumah sakit terutama pada pasien yang dirawat di ruang rawat intensif. Berbagai penelitian di luar negeri menyebutkan beberapa prediktor kematian pasien AKI di PICU, namun penelitian serupa di Indonesia yang terpublikasi belum ada.

**Tujuan:** Mengetahui prediktor kematian pasien AKI di PICU

**Metode:** Penelitian kohort retrospektif dengan subyek anak usia 1 bulan – 18 tahun yang dirawat minimal 1 hari di PICU RSUP Dr.Sardjito pada tahun 2010-2016. Sampel berdasar data rekam medis yang mencantumkan diagnosis AKI. Analisis statistik bivariat menggunakan analisis *chi square* dan multivariat menggunakan regresi logistik.

**Hasil:** Dari 152 subyek AKI, 119 pasien meninggal dan 33 pasien hidup. Analisis multivariat menunjukkan penggunaan ventilator RO 19,2 (IK 95% 6,2-59,7), derajat AKI berat 8,6 (IK 95% 2,7-27,6), adanya infeksi RO 0,2 (IK 95% 0,1-0,8), adanya *Multi organ failure* RO 2,9 (IK 95% 0,5-17,4) secara bermakna ( $p < 0,05$ ) mempengaruhi kejadian mortalitas.

**Kesimpulan:** Penggunaan ventilator, derajat AKI, infeksi meningkatkan risiko mortalitas pada anak sakit berat dengan AKI.

**Kata kunci:** prediktor, kematian, *acute kidney injury*, PICU

## Predictors of mortality in children with acute kidney injury in intensive care unit at the Dr Sardjito Hospital

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### ABSTRACT

**Background:** Acute kidney injury (AKI) may increase morbidity and mortality in children admitted to the pediatric intensive care unit (PICU). Previous published studies have been conducted mostly in high-income countries. Similar studies evaluating predictor of mortality in children with AKI are limited in low- and middle-income countries, particularly in Indonesia,

**Purpose:** To determine the predictors of mortality in children with AKI admitted to PICU

**Method:** A retrospective cohort study at the Dr. Sardjito Hospital in Yogyakarta, Indonesia. All consecutive children with AKI admitted to PICU more than 1 day in 2010 to 2016 were eligible. Sample based on AKI diagnosis which is written on medical record. Logistic regression was used to identify independent predictors.

**Result:** Total of 152 children with AKI were recruited. Of those, 119 died. In multivariate analysis, use of ventilator OR 19,2 (95% CI 6,2-59,7), severity of AKI OR 8,6 (95% CI 2,7-27,6), *Multi organ failure* OR 2,9 (95% CI 0,5-17,4) and infection OR 0,2 (95% CI 0,1-0,8) were independently associated with mortality in children with AKI.

**Conclusion:** The use of mechanical ventilator and severity of AKI were associated with mortality in children with AKI.

**Keywords:** predictor, death, acute kidney injury, PICU