

**FAKTOR PREDIKTOR MORTALITAS PADA PASIEN ANAK
DENGAN PEDIATRIC ACUTE RESPIRATORY DISTRESS SYNDROME**

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INTISARI

Latar belakang *Pediatric acute respiratory distress syndrome* (PARDS) memiliki angka mortalitas yang tinggi. Faktor-faktor yang memengaruhi luaran PARDS perlu diteliti untuk mengetahui faktor prediktor mortalitas.

Tujuan Menilai apakah usia, tipe PARDS, serta kegagalan organ merupakan faktor prediktor mortalitas pada pasien anak dengan PARDS.

Metode Penelitian ini merupakan studi kohort retrospektif yang mengikutsertakan semua anak berusia 1 bulan – 18 tahun yang dirawat di PICU RSUP Dr. Sardjito dengan diagnosis PARDS pada periode Januari 2017 hingga Desember 2020. PARDS ditentukan berdasarkan kriteria *Pediatric Acute Lung Injury Consensus Conference* (PALICC). Data sekunder dari rekam medis dianalisis bivariante dilanjutkan multivariat regresi logistik untuk menentukan prediktor mortalitas PARDS.

Hasil Dari 49 subjek yang diikutsertakan dalam penelitian, terdapat 24 (48,9%) kasus kematian. Median usia subjek yang meninggal 16,3 bulan (6,5-92,9) dan subjek yang hidup 24,4 bulan (4,1-86,8). Sebanyak 40 subjek (81,6%) menderita PARDS direk dan 9 subjek (18,4%) PARDS indirek. PARDS indirek memiliki risiko mortalitas yang lebih rendah dibandingkan PARDS direk (OR 0,12 [0,02-0,96]; p 0,046). PARDS derajat berat berhubungan secara signifikan terhadap mortalitas (OR 492,35 [11,52-21.041,21]; p 0,001). Model prediktor: $\text{Log} (p/1-p) = -0,020 - 0,005X_1 - 2,099X_2 - 0,136X_3 + 1,577 X_4$

Kesimpulan PARDS direk dan PARDS derajat berat merupakan prediktor mortalitas PARDS

Kata kunci PARDS, mortalitas, prediktor, usia, tipe PARDS, kegagalan organ

MORTALITY PREDICTOR OF PEDIATRIC ACUTE RESPIRATORY DISTRESS SYNDROME

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ABSTRACT

Background Pediatric acute respiratory distress syndrome (PARDS) has high mortality rates. Factors which influences PARDS outcome need to be studied to know mortality predictors.

Objectives The aim of this study is to assess whether age, type of PARDS and organ failures are predictor of mortality in PARDS.

Methods This study was retrospective cohort included children aged > 1 month - < 18 years old with PARDS who were admitted to PICU Dr. Sardjito hospital between January 2017 and December 2020. PARDS was defined based on PALICC criteria (oxygenation index). Secondary data extracted form medical record was statistically analyzed with bivariate and logistic regression to find out PARDS mortality predictors.

Results There were 49 subjects were included with 24 death (48,9%). The median age of not survived subject was 16,3 months (6,5-92,9) and survived subject was 24,4 months (4,1-86,8). Forty subjects (81,6%) classified as direct PARDS meanwhile 9 subjects (18,4%) as indirect PARDS. Indirect PARDS decrease risk of mortality (OR 0,12 [0,02-0,96]; p 0,046). Severe PARDS significantly increase risk of mortality (OR 492,35 [11,52-21.041,21]; p 0,001). Predictor model: $\text{Log}(p/1-p) = -0,020 - 0,005X_1 - 2,099X_2 - 0,136X_3 + 1,577 X_4$

Conclusion Direct PARDS and severe PARDS are PARDS mortality predictors.

Keywords PARDS, mortality, age, PARDS type, organ failure