



INTISARI

Latar belakang: Pneumonia pada anak adalah penyebab penting kesakitan dan kematian di dunia. Pneumonia menjadi pembunuh terbesar anak di negara berkembang, dengan angka kematian lebih dari 2 juta per tahun. Di Indonesia prevalensi pneumonia meningkat menjadi 4,5% di tahun 2013, dengan kasus pneumonia berat sebanyak 42.796 kasus, dan angka kematian pada balita mencapai 1,19 %. Selama 2 dekade terakhir ini perkembangan teknologi pada alat penunjang kehidupan mengakibatkan jumlah ruang perawatan intensif di rumah sakit semakin meningkat, dan 15-20% pembiayaan rumah sakit digunakan untuk ruang perawatan intensif tersebut. Beberapa penelitian tentang faktor prediktor kematian pneumonia berat di ruang perawatan intensif sudah pernah dilaporkan sebelumnya, seperti bakteremia, *hospital acquired pneumonia* (HAP), komorbid, syok septik, anemia, status gizi kurang/buruk, *acute respiratory distress syndrome* (ARDS) dan penyakit hepar kronis. Namun hanya sedikit sekali penelitian yang dilaporkan mengenai faktor prediktor kematian pasien pneumonia yang dirawat di PICU.

Tujuan: untuk membuktikan bahwa usia ≤ 6 bulan, status gizi kurang, anemia, bakteremia dan komorbid merupakan faktor prediktor mortalitas pasien pneumonia dengan ventilator di PICU.

Metode: penelitian ini merupakan penelitian observasional dengan desain kohort retrospektif. Pada pasien usia 1 bulan-18 tahun yang dirawat di *pediatric intensive care unit* (PICU) RSUP Dr Sardjito sejak tahun 2014-2016 dengan diagnosis pneumonia dan mendapatkan tunjangan ventilator. Kami menganalisis faktor prediktor anemia, komorbid, bakteremia, usia ≤ 6 bulan, status gizi kurang dihubungkan dengan kematian menggunakan uji *chisquare* dan regresi logistik multivariat.

Hasil: Seratus sebelas pasien terinklusi pada penelitian ini. Diagnosis terbanyak adalah *community acquired pneumonia* (CAP) 79,3%, diikuti oleh *hospital acquired pneumonia* (HAP) 14,4% dan *ventilator associated pneumonia* (VAP) 6,3%, dengan angka kematian 47,7%. Analisis regresi logistik multivariat mendapatkan 2 variabel prediktor yang berpengaruh secara bermakna terhadap kematian pasien pneumonia dengan tunjangan ventilator yaitu bakteremia dan status gizi kurang dengan masing-masing aOR 2,5(IK 95% 1,03-6,1) dan 2,4(IK 95% 1,1-5,7).

Simpulan: Faktor prediktor kematian pasien pneumonia dengan ventilator di PICU adalah status gizi kurang dan bakteremia.

Kata kunci: Faktor prediktor, anemia, komorbid, bakteremia, usia ≤ 6 bulan, status gizi, kematian, pneumonia, ventilator



ABSTRACT

Background: Pneumonia become the biggest killer children in developing country, with mortality rate 2 million/year. In 2013 the prevalence pneumonia in Indonesia increased with 42,796 case of severe pneumonia and mortality Rate 1.19 % in children under 5 years old. Over the last two decade development of life support equipment technology resulted increasing intensive care unit in many hospital, and spend 15-20 % hospital cost. some studies about predictor factor mortality in pneumonia ever reported before in other hospital, like bacteremia, hospital acquired pneumonia(HAP), comorbid, septic shock, anemia, undernutrition, severe ARDS and chronic liver disease. But lack of studies about predictor factor mortality pneumonia in PICU patient.

Objective: To analyze anemia, comorbid, bacteremia, age between 1-6 month old, and underweight nutritional status as predictor factor mortality patient pneumonia which supported by mechanical ventilation.

Method: This study is an observational study with cohort retrospective design. Patient between 1 month-18 year old diagnosed as pneumonia and supported by mechanical ventilation who admitted to pediatric intensive care unit (PICU) Sardjito hospital in 2014-2016 were included in this study. We analyzed anemia, comorbid, bacteremia, age between 1-6 month old, and underweight nutritional status with mortality using Chi-square and multivariate logistic regression test.

Result: One hundred eleven children were included in this study. Those patient diagnosed as community acquired pneumonia (CAP) 79,3%, hospital acquired pneumonia (HAP) 14,4% and ventilator associated pneumonia (VAP) 6,3%, with mortality rate 47,7%. Multivariate logistic regression analysis revealed that bacteremia, and underweight nutritional status could be use as predictor factor mortality patient pneumonia which supported by mechanical ventilation with aOR 2.5(CI95% 1.03-6.1) and 2.4(CI 95% 1.1-5.7) respectively .

Conclusion: Bacteremia, and underweight nutritional status could be use as predictor factor for mortality patient pneumonia which supported by mechanical ventilation.

Keyword: predictor factor, anemia, comorbid, bacteremia, age between 1-6 month old, nutritional status, mortality, pneumonia, ventilator