Kadar laktat arteri inisial dibandingkan dengan SAPS II sebagai prediktor mortalitas di unit perawatan intensif = Initial arterial lactate compared to SAPS II score as a mortality predictor in intensive care unit

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Abstrak

Pendahuluan:
Peningkatan kadar laktat pada saat masuk UPI secara independent berhubungan dengan outcome yang buruk. Kadar laktat sebagai parameter prognostik di UPI RSCM belum pemah diteliti sebelumnya. Pada penelitian pendahulu, skor SAPS II menunjukkan kemampuan yang baik dalam memprediksi mortalitas di UPI. Penelitian ini bertujuan membandingkan kadar laktat arteri inisial dengan SAPS II sebagai prediktor mortalitas di UPI RSCM.

Pasien & Metode:
Suatu studi observasi yang prospektif selama periode bulan April sampai Juni 2006 yang dilakukan di UPI bedah-medik. Data dikumpulkan dari 153 pasien yang memenuhi kriteria penerimaan. Data dasar: kadar laktat arteri inisial pada sate jam pertama masuk UPI dan 24 jam pertama untuk skor SAPS II. Mortalitas UPI pun dicatat. Analisis statistik menggunakan Uji Student t and chi-square. Kurva ROC (Receiver Operating Curve) dibuat dan titik potong optimal ditetapkan serta luas daerah di bawah kurva dihitung, untuk menilai untuk nilai prognostik kadar laktat arteri inisial dan SAPS II. Koefisien Pearson digunakan un tuk menganalisa hubungan antara kadar laktat inisial dan skor SAPS II.

Hasil:
Dari 153 pasien yang memenuhi kriteria, 16 pasien (10,5%) mengalami kematian di UPI. Kelompok survivor memiliki rerata kadar laktat arteri inisial dan skor SAPS II yang lebih rendah dibandingkan kelompok nonsurvivor. Terdapat perbedaan yang berrnakna antara kadar laktat dan mortalitas UPI (p=0,001). Titik potong ditetapkan 3 mmolll. Analisis ROC menunjukkan bahwa kadar laktat arteri inisial (leas daerah di bawah kurva=0,732) tidak lebih baik bila dibandingkan dengan skor SAPS II (luas daerah di bawah kurva=0,915) sebagai prediktor mortalitas di UPI. Terdapat hubungan yang lemah antara kadar laktat arteri inisial dan SAPS II (p=0,002).

Kesimpulan:
Kadar laktat arteri inisial dan skor SAPS H yang tinggi secara independent berhubungan dengan peningkatan mortalitas UPI di UPI RSCM.
<hr><i>Introduction:
Elevated lactate levels on ICU admission have been independently associated with poor outcome. The prognostic values of this value have not been investigated in Cipto Mangunkusumo Hospital's ICU

Patients & Methods:
A prospective observational study over a periode from April to June 2006 was conducted in a medical-

surgical ICU. Data were extracted from ICU data base: arterial blood lactate at the first hour on admission and the worst clinical & laboratory findings in the first 24 hours for SAPS II scoring. ICU mortality are also recorded. Statistical analyses were performed using Student t-test and chi-square tests_ Receiver Operating Curve were constructed, the optimal cut off point have been obtained and area under curve was used to assess the prognostic value of initial arterial lactate and SAPS H. The coefficient of Pearson were analyzed to assess the relation between initial lactate levels and SAPS II score.

Main Outcome:
Of the 153 evaluable patients, 16 patients (10.5%) were died in ICU Survivor had a lower mean of arterial lactate levels and SAPS II score than nonsurvivor). The mean of initial arterial lactate in survivor group is low than the nonsurvivor. There are a sign{flcant differences between initial lactate level and ICU mortality (p=0,001). The cut off point was obtained at 3.0 mmolll. ROC analysis demonstrated that initial arterial lactate level (AUC=0.732) is worsen than SAPS II Score (AUC=0,915) as a predictor of ICU mortality. There is a weak correlation between initial lactate and SAPS II score.

Conclusion:
An high initial arterial lactate and SAP II score are independently associated with increased ICU mortality in Cipto Mangunkusumo Central Hospital.</i>