Sistem skor kardio-renal sebagai prediktor perburukan fungsi ginjal pada pasien gagal jantung dekompensasi akut yang menjalani rawat inap = Cardiorenal scoring system as a predictor of worsening renal function among patients hospitalized with acute decompensated heart failure

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Abstrak

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Latar Belakang. Perburukan fungsi ginjal berkaitan dengan luaran klinis yang lebih buruk pada pasien gagal jantung dekompensasi akut. Karakteristik klinis pada saat pasien masuk ke unit gawat darurat (UGD) dapat menolong untuk identifikasi pasien yang berisiko terhadap kejadian perburukan fungsi ginjal. Tujuan penelitian ini adalah membuat sistem skor untuk mempermudah identifikasi pasien yang berisiko terhadap perburukan fungsi ginjal pada gagal jantung dekompensasi akut.
Metode. Studi kohort retrospektif dilakukan terhadap 614 pasien yang menjalani perawatan karenan gagal jantung dekompensasi akut. Perburukan fungsi ginjal didefinisikan sebagai peningkatan nilai kreatinin serum ≥ 0.3 mg/dL kapanpun selama perawatan atau ≥ 25% dari awal masuk perawatan.
Hasil. Perburukan fungsi ginjal terjadi pada hampir 26% pasien. Prediktor independen terhadap kejadian perburukan fungsi ginjal yang didapat melalui analisis dengan logistik regresi backward selection adalah usia > 75 tahun (p < 0.0001); perempuan (p = 0.034); riwayat hipertensi (p = 0.001); anemia (p = 0.005); dan serum Creatinin saat masuk di UGD > 2.5 mg/dL (p = 0.013). Sistem skor dibuat dari model akhir tersebut. Dilakukan validasi internal dengan metode bootstrap didapatkan hasil optimisme yang baik (0.01088808).
Kesimpulan. Sistem skor baru dapat memprediksi kejadian perburukan fungsi ginjal pada pasien gagal jantung dekompensasi akut yang menjalani rawat inap.
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ABSTRACT
Background. Worsening renal function (WRF) is associated with worse outcomes among patients who are hospitalized with acute decompensated heart failure (ADHF). Clinical characteristics at admission may help identify patients at increased risk of WRF. The aim of this study was to create in admission scoring system to simplify identification patients at risk of WRF in ADHF setting.
Methods. A retrospective data of 614 patients admitted with ADHF was analyzed. By the definition WRF occurred when serum Creatinin increased at anytime during hospitalization by ≥ 0.3 mg/dL or by ≥ 25% from admission.
Results. Worsening renal function developed in near 26% patients. The independent predictors of WRF analyzed with backward selection logistic regression were: age > 75 years old (p < 0.0001), female (p = 0.034); history of hypertension (p = 0.001); anemia (p = 0.005); and in admission serum Creatinin (p = 0.013). A scoring system was generated from this final model. An internal validation with bootstrap method showed good optimism (0.01088808).
Conclusion. A new scoring system could predict in-hospital worsening renal function among patients

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