

Performa Indeks FRAIL dan Indeks Cardiovascular Health Study (CHS) untuk Memprediksi Status Frailty Pada Pasien Dewasa Hemodialisis Kronik di RSUPN Cipto Mangunkusumo = "Diagnostic Performance of the FRAIL Index and Cardiovascular Health Study (CHS) Index to Predict Frailty in Adult Chronic Hemodialysis Patients of Cipto Mangunkusumo Hospital"

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Abstrak

Latar Belakang: Frailty pada penyakit ginjal kronik (PGK) memiliki prevalensi yang cenderung meningkat tiap tahun. PGK juga meningkatkan risiko seseorang untuk jatuh ke dalam kondisi frailty, namun kejadian frailty pada PGK sering tidak terdiagnosis dan berdampak terhadap meningkatnya mortalitas dan morbiditas pasien hemodialisis kronik. Sampai saat ini belum ada alat yang mudah, murah, dan validitasnya mendukung untuk mendiagnosis frailty pada PGK hemodialisis. Indeks frailty index-40 questions (FI-40) memiliki penilaian yang lengkap dan mendetail namun sulit dilaksanakan dalam praktik klinis sehari-hari. Penelitian ini bertujuan menilai performa diagnostik dari indeks FRAIL dan indeks CHS, yang memiliki kriteria yang sederhana sehingga lebih mampu-laksana dalam praktik sehari-hari.

Metode: Penelitian potong lintang dengan data primer dilakukan pada penderita PGK yang menjalani hemodialisis di RSUPN Cipto Mangunkusumo. Frailty dinilai dengan tiga instrumen: FI-40, indeks FRAIL dan indeks CHS. Riwayat medis dan hasil pemeriksaan laboratorium diperoleh dari rekam medis. Karakteristik pasien dan prevalensi frailty berdasarkan masing-masing instrumen dideskripsikan, lalu dilakukan penilaian parameter performa diagnostik indeks FRAIL dan Indeks CHS dengan table 2x2.

Hasil: Prevalensi frailty 28,6% (IK 95%;19,2-38%) dengan FI-40. Indeks FRAIL memiliki sensitivitas 88,46% (IK 95%: 69,86 – 97,55%) dan spesifisitas 86,15% (IK 95%: 75,34 – 93,47%). Sementara indeks CHS memiliki sensitivitas 88,46% (IK 95%: 69,86% - 97,55%) dan spesifisitas 92,31% (IK 95%: 82,95 – 97,46%). Indeks CHS unggul pada spesifisitas, positive predictive value, dan positive likelihood ratio, sehingga memiliki kemampuan lebih baik sebagai diagnostik sekunder.

Kesimpulan: Indeks FRAIL dan Indeks CHS yang diuji memiliki performa diagnostik yang baik dalam menilai status frailty frailty pada PGK hemodialisis.

.....Background: Frailty in chronic kidney disease (CKD) is a condition with yearly increasing prevalence. CKD itself predisposes patients for frailty, but this is often underdiagnosed and impacts on mortality and morbidity, especially in chronic hemodialysis patients. Until now, there are no effective, efficient, and valid tools to diagnose frailty in hemodialysis patients. the Frailty Index-40 questions (FI-40) is a comprehensive and detailed assessment of frailty, but is hard to use in everyday practice. This research was done to assess the diagnostic performances of the FRAIL and CHS indices, which are simpler and therefore easier to execute in daily practice.

Methods: This is a cross-sectional study with primary data from the hemodialysis unit of Cipto Mangunkusumo Hospital (RSCM) with age over 40 years old and various characteristics were included in this study. Frailty was measured using the FI-40, FRAIL index, and CHS index. Medical history and laboratory results were acquired through medical records. Patients' characteristics and frailty prevalences according to each instruments were described, and diagnostic parameters for each instruments were calculated based on a constructed 2x2 table.

Results: Frailty in this cohort was measured at 28.6% with FI-40, 35.2%. FRAIL index has a sensitivity of 88.46% (95%CI: 69.86 – 97.55%) and specificity of 86.15% (95%CI: 75.34 – 93.47%). Meanwhile, the CHS index has a sensitivity of 88.46% (95%CI: 69.86% - 97.55%) and specificity of 92.31% (95%CI: 82.95 – 97.46%). The CHS index offers better specificity, positive predictive value, and positive likelihood ratio. This ensures a greater and suited for secondary diagnosis.

Conclusions: FRAIL scale and CHS scale tested instruments offered excellent diagnostic capabilities for frailty in CKD patients with hemoanalysis.