

CLINICAL FRAILITY SCALE AS A PREDICTOR OF SHORT TERM FUNCTIONAL RECOVERY IN PATIENTS WITH HIP FRACTURE

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Aim: The prevalence of frailty in patients with hip fracture is high, but little is known about the choice of the best frailty tool in terms of prediction of functional recovery. The aim of this preliminary study was to determine the most predictive validated frailty tool in older people with hip fracture and to determine whether frailty can predict functional recovery during the hospital acute phase.

Material-Method: This study was observational prospective cohort study. Participants aged 65+ admitted to Hip Fracture Units in Florence, were assessed pre surgery (T0), and post surgery. Each participants underwent a comprehensive geriatric assessment and frailty was defined using: Clinical Frailty Scale (CSF), Frail Scale (FS), Reported Edmonton Frail Scale (REFS), Postal Frailty Screening (PFS). The outcome was functional recovery, evaluated by a score of postoperative performance on the Cumulated Ambulation Score (CAS). Data recorded included pre-recovery Barthel Index (BI), Charlson Comorbidity Index (CACI), Handgrip strenght test (HG), ASA score, Mini Nutritional assessment short-form (MNA-sf), delirium.

Results: Sample included 114 patients (mean age 85 ± 8 years, female 75.4 %) (Table 1). CFS was the most predictive frailty tool, with a 88% sensitivity and a 50% specificity (AUC = 0.80, cut off >3) (Figure 1). Dividing the sample according to premorbid BI, while BI itself had the highest predictive value when premorbid level was <80%, CFS was the best predictor of functional outcome in the 80%+ subsample (AUC= 0.67) (Figure 2).

Conclusions: Frailty defined by CFS can predict short-term functional recovery during acute phase following hip fracture. This appears particularly relevant for subjects with a higher pre-morbid functional independence.

Table 1. Sample characteristics

Age mean±DS	85±8
Female, N (%)	86 (75)
Barthel Index ≥ 80, N (%)	70 (61)
Charlson Comorbidity Index	5 (4.6)
ASA score ≥ 3, N (%)	68 (58)
SPMSQ ≥ 8, N (%)	16 (15)
AD8 ≥ 2, N (%)	86 (75)
Postoperative Delirium, N (%)	24 (20)
MNA-sf <12, N (%)	83 (73)
Handgrip deficient, N (%)	33 (73)

Figure 1. ROC Curve Clinical Frailty Scale and Cumulated Ambulation Score

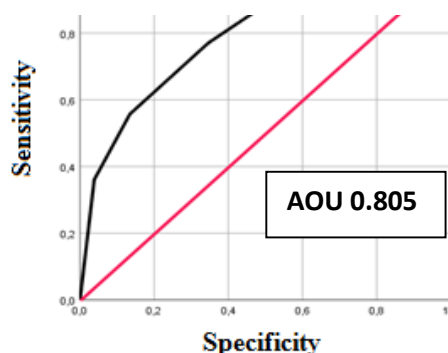


Figure 2. Walking at discharge versus the combination of Barthel Index and CFS

