

Functional Recovery of Elderly Patients Hospitalized in Geriatric and General Medicine Units. The PROgetto DIMissioni in GERiatria Study

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OBJECTIVES: To investigate the characteristics of patients who regain function during hospitalization and the differences in terms of functional outcomes between patients admitted to geriatric and general medicine units.

DESIGN: Multicenter, prospective cohort study.

SETTING: Acute care geriatric and medical wards of five Italian hospitals.

PARTICIPANTS: One thousand forty-eight elderly patients hospitalized for acute medical diseases.

MEASUREMENTS: Functional status 2 weeks before hospital admission (baseline), at admission, and at discharge, as measured using the Barthel Index (BI).

RESULTS: Geriatric patients were older ($P < .001$) and had lower preadmission functional levels ($P < .001$) than medical patients. Between baseline and discharge, 43.2% of geriatric and 18.9% of medical patients declined in physical function. In the subpopulation of 464 patients who had declined before hospitalization (between baseline and admission), 59% improved during hospitalization (45% of geriatric and 75% of medical patients), whereas only approximately 1% declined further. High baseline function (odds ratio (OR) = 1.03, 95% confidence interval (CI) = 1.02–1.04, per point of BI) and greater functional decline before hospitalization (OR 0.95, 95% CI 0.94–0.97, per % point of BI decline) were significant predictors of in-hospital functional improvement; type of hospital ward and age were not.

CONCLUSION: Although geriatric patients have overall worse functional outcomes, in-hospital functional recovery may be frequent even in geriatric units, particularly in patients with greater preadmission functional loss and high baseline level of function. *J Am Geriatr Soc* 59:193–199, 2011.

Key words: hospital-related disability; frail elderly

Hospitalization for acute medical illness is a crucial event in the complex process of the functional decline of elderly people.¹ Poor nutrition, excessive bed rest, sleep deprivation, and multiple drug treatment are all factors explaining why hospitalization per se is a recognized risk factor for loss of independence in elderly people.¹ It is calculated that approximately 30% to 35% of older adults are discharged from hospitals with new activity of daily living disabilities;^{2–6} this rate may increase to 50% in people aged 85 and older.³ Functional decline is a challenge for healthcare systems, because most patients who are discharged with new disabilities cannot live alone and need continuous assistance at home. In addition, patients with hospital-related disabilities are more likely than those discharged without new disabilities to experience long-term adverse outcomes such as nursing home placement, sustained functional decline, and death.^{7,8}

Functional decline may occur a few days before hospitalization as a consequence of the acute medical illness.^{3,9} After hospital admission, some patients do not recover to preadmission function, others may decline further in function, but approximately 20% experience significant functional improvement during their hospital stay.³ This in-hospital improvement is expected to be a crucial determinant of the functional outcome caused by the combination of the acute disease and the hospital stay, because people who recover may be discharged with baseline function

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