

中文題目：九十歲以上住院患者，日常生活功能表現可預測住院日數長短及住院死亡率

英文題目：In nonagenarians, functional status predicts both the hospital length of stay and mortality

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**Background:** With the advance of medicine and aging society, elderly in-patients occupy a greater proportion of admission. However, few studies deal with this issue in the literature, and none has been addressed in local community. We investigate the clinical determinants of hospitalization duration and overall outcome in a specific population, patients aged higher than 90.

**Materials and Methods:** We retrospectively enrolled all admitted patients aged > 90 from a general medical ward in National Taiwan University Hospital, a tertiary referral medical center. Patients' demographic profiles, performance status (assessed by Barthel index), comorbidities, admission diagnosis, variables pertaining to prognosis during hospitalization, and discharge diagnosis were collected. Each patient was followed until death or discharged from the hospital. Multivariate logistic regression analysis was utilized to analyze the factors associated with hospital length of stay and in-hospital mortality.

**Results:** A total of 283 nonagenarian in-patients were recruited, with 118 (41.7%) hospitalized longer than one week. Nonagenarians admitted with pneumonia ( $p=0.04$ ) and with lower Barthel index ( $p=0.012$ ) were more likely to be hospitalized longer than one week, while those with acute kidney injury ( $p=0.08$ ) at presentation were borderline significantly associated. Regression models revealed that patients with heart failure (odds ratio [OR] 2.28,  $p=0.069$ ) and lower Barthel index (OR 0.985;  $p=0.048$ ) were associated with longer hospital stay, while patients with lower Barthel index (OR 0.934;  $p=0.005$ ), with admission/discharge diagnoses of nephro-urology fields, and acute kidney injury (OR 30.7;  $p=0.007$ ) were associated with poorer prognosis.

**Conclusions:** Functional status, as assessed by Barthel index, can be predictive of hospital length of stay and in-hospital mortality in a cohort of moderate-sized nonagenarians in-patients. Measures aiming at improving functional status could be potentially beneficial for these extremely elderly patients.