



## EVALUATION OF CLINICAL OUTCOME USING MPI IN A COHORT OF GERIATRIC PATIENTS HOSPITALIZED FOR RESPIRATORY FAILURE

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**Introduction.** Respiratory failure in older adults is associated with high mortality. The Multidimensional Prognostic Index, derived from comprehensive geriatric assessment, is a validated prognostic tool. This study evaluated the association between the Multidimensional Prognostic Index and in-hospital mortality in geriatric patients with respiratory failure.

**Materials and Methods.** We conducted a retrospective observational study including patients aged 65 years or older hospitalized for respiratory failure. Demographic and clinical data and the Multidimensional Prognostic Index at admission were collected. The primary outcome was in-hospital mortality. Logistic regression with bootstrap validation and penal-

ized models was applied. Discrimination was assessed by receiver operating characteristic curve.

**Results.** Higher values of the Multidimensional Prognostic Index were independently associated with increased in-hospital mortality. Each 0.1-point increase corresponded to a higher risk of death. The model showed good discriminative ability, with an area under the curve of 0.74. Results were confirmed by bootstrap and penalized regression. The type of respiratory failure had a limited impact compared to the Multidimensional Prognostic Index.

**Conclusions.** The Multidimensional Prognostic Index is an independent predictor of in-hospital mortality in older patients with respiratory failure and may support risk stratification and clinical decision-making in frail patients.