Bedside assessment of the risk of non-compliance to medication is associated with mortality in elderly patients admitted for acute coronary syndromes

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Background: Elderly patients are at high risk of mortality in the setting of acute coronary syndromes (ACS).

Purpose: We investigated whether compliance assessed by Compliance Evaluation Test (CET) in elderly patients admitted for acute coronary syndromes was associated with higher risk of one-year mortality.

Methods: We used the data from a prospective, open, ongoing cohort of patients \geq 75 years old admitted for ACS to a tertiary center. The CET is a validated 6 item test easily performed at bedside. Non-compliance is defined by \geq "Yes" answers.

We used a Cox model, un-adjusted and adjusted on predefined correlates of mortality (age, gender, and GRACE score) to assess the relationship between the risk of non-compliance and 1-year mortality.

Results: Two hundred fifty-five consecutive patients (age 83±5, female gender 59.6%, GRACE score 175±24) with CET assessment within 48

hours after admission and 1 year follow-up were included in the analysis. 225 (88%) were identified as compliant and 30 (12%) as non-compliant based on the CET.

Thirthy-six deaths occurred at 1 year follow-up, 24 (10.6%) and 12 (30%) in compliant and non-compliant patients respectively.

There was an almost 4-fold increase in the risk of one-year mortality in association with non-compliance (HR 4.16; 95% CI 2.03 to 8.5, p<0.0001) and adj-HR 3.93; 95% CI 1.87 to 8.3, p=0.003), independent of other covariables.

Conclusions: In elderly patients admitted for ACS, the risk of non-compliance assessed by the simple bedside test is associated with a 4-fold increase in the risk of 1-year mortality independent of other correlates of mortality. Our results support specific measures to improve compliance in such patients.



Survival based on compliance test