both age groups and 30-days readmission only among patients older than 75 years. Policy makers, especially in universal health care systems, and hospital managers should be more sensitive to low educated patients in order to improve short-term performance outcomes after hospitalization for AMI. In this perspective, promoting healthier life style and providing post-hospitalization support to less educated patients may improve 30-days outcomes and reduce rehospitalisation costs.

Key messages

- Patients with low education are more likely to die and to be readmitted during the 30-days following hospitalization for AMI compared to patients with high education in Tuscany (Italy)
- Public health leaders and hospital managers should pay more attention on socioeconomic factors and promote strategies sensitive to patients with low educational level after hospitalization for AMI

Education and 30-days outcomes after hospitalization for acute myocardial infarction in Italy

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Background

Socioeconomic status affects health care outcomes after Acute Myocardial Infarction (AMI). There is an increasing interest toward short-term mortality and readmission after hospitalization for AMI, since they proved to be valid and reproducible quality measures of hospital performance. However, to the best of our knowledge, no study has been published on education and short-term readmission in Europe. The objective of this study is to examine the association between educational status at individual level and 30-days mortality and readmission among patients hospitalized for AMI in Tuscany (Italy).

Methods

A retrospective cohort study using data from hospital discharge records was conducted. The analysis included all patients discharged with a principal diagnosis of AMI between January 1, 2011 and November 30, 2014 from any hospital in Tuscany. Education was categorized as low (no middle school diploma), medium (middle school diploma) and high (high school diploma or more). Three multilevel models were fitted, sequentially controlling for patient-level socio-demographic and clinical variables and hospital-level variables. Patients were stratified by age ($\leq$75 and >75 years).

Results

Mortality analysis included 24.498 patients, readmission analysis 23.159 patients. In either unadjusted or full-adjusted models, patients with high education had lower odds of 30-days mortality compared to those patients with low education in both age groups (OR age$\leq$75 years 0.64, 95% CI:0.46-0.90; OR age>75 years 0.70, 95% CI:0.53-0.92). In regard to 30-days readmissions, only patients aged more than 75 years with high education had lower odds of short-term readmission compared to those patients aged more than 75 years with low education (OR 0.73, 95% CI:0.58-0.93).

Conclusions

Among patients hospitalized in Tuscany for AMI, individual level of education was associated with 30-days mortality for