QUALITY OF CARE AND OUTCOMES ASSESSMENT

VALIDATION OF THE GLOBAL REGISTRY OF ACUTE CORONARY EVENTS (GRACE) RISK SCORE FOR 6-MONTH POSTDISCHARGE DEATH IN 1183 SPANISH PATIENTS

ACC Poster Contributions
Georgia World Congress Center, Hall B5
Monday, March 15, 2010, 9:30 a.m.-10:30 a.m.

Session Title: Outcomes in Acute Coronary Syndromes
Abstract Category: Outcomes Assessment
Presentation Number: 1138-163

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Background: . The Global Registry of Acute Coronary Events (GRACE) risk score was developed in a large multinational registry to predict 6-month post-discharge mortality across the broad spectrum of acute coronary syndromes (ACS). Because of the substantial regional variation in patient characteristics and management patterns, we sought to validate this risk score in a contemporary Spain population with ACS managed with high rate of coronary revascularization procedures.

Methods: From February 2004 to February 2009, 1183 consecutive patients with ACS were prospectively included. The model's validity was assessed on the basis of its calibration (using the Hosmer-Lemeshow test) and its discrimination (determining the area under the ROC curve).

Results: 459 (38.8%) patients presented with ST-elevation acute myocardial infarction (STEMI) and 724 (61.2%) with ACS without ST segment elevation. Percutaneous revascularization was performed in 846 (71.5%). The median GRACE risk score was of 121 [96-144] points. The 6-month postdischarge death was of 4.4%. In the whole population, in the group of patients with STEMI and in those presented with ACS without ST segment elevation, the GRACE risk score showed adequate calibration and excellent discrimination [Hosmer-Lemeshow test: p >0.2 ($x2 <10$), and area under the ROC curve of 0.86 (CI 95% [0.807-0.916]), 0.90 [0.829-0. 975]) and of 0.86 [0.783-0.927]; respectively. In the groups with and without percutaneous coronary revascularization during the index hospitalization, the model was also validated adequately (Hosmer-Lemeshow p >0.1 ($x2<5$), and area under the ROC curve of 0.84 (0.748-0.922) and of 0.91 (0.863 -0.948), respectively).

Conclusion: GRACE risk score is a valid and powerful predictor of 6-month mortality across a wide range of Spanish patients with ACS. In our setting, is useful to include this risk score in the daily care of these patients.