Background: The importance of early risk stratification in the management of ACS has been emphasized recently in clinical guidelines. Patients with ST-segment elevation and elevated levels of the Tn cardiac marker are predicted to be at higher risk of ischemic events, but patients without cardiac markers may also be at risk.

Methods: GRACE is a multinational, prospective registry of unselected patients hospitalized with ACS. This analysis included patients who presented with an admission diagnosis of UA, without dynamic ST-segment elevation or hemodynamic or arrhythmic instability, or without elevated levels of cardiac markers.

Results: Of 5002 patients with UA, 1055 were defined as being at low risk of ischemic events. Abnormal electrocardiographic changes were seen in 39% of patients, of which nearly one-third were T-wave changes. Discharge medications included aspirin (78%), beta-blockers (62%), nitrates (51%), calcium antagonists (35%), ACE inhibitors (36%) and statins (53%). In the 6-month period after hospital discharge, 17% of patients were readmitted, 9% revascularized, 0.3% had an MI and 2% died. Patients who were not prescribed statins at discharge were twice as likely to be readmitted as those who received statins (OR 1.94, 95% CI 1.3–2.81). Revascularization was predicted by the presence of at least one stenosis >50% (OR 1.8, 95% CI 1.18–2.85), and by the nonuse of beta-blockers at discharge (OR 2.23, 95% CI 1.26–3.95).

Conclusion: Low-risk patients with ACS remain at risk of some adverse events after discharge from hospital. The use of medications at discharge can alter this risk.

Safety of the combination of low-molecular-weight heparin and glycoprotein IIb/IIIa inhibitors: observations from the Global Registry of Acute Coronary Events (GRACE)

Background: The LMWH enoxaparin and the combination of GP IIb/IIIa inhibitors and UFH reduce the risk of death or MI at 30 days by 15–20% in patients with ACS. Data from randomized clinical trials on the possible benefits and safety of the combining LMWH and GP IIb/IIIa inhibitors, particularly in patients undergoing PCI, are not yet available. In this study of patients with ACS enrolled in the multinational GRACE registry, we hypothesized that the risk of major hemorrhage using LMWH combined with GP IIb/IIIa inhibitors was similar to the risk using UFH.

Methods and results: Of 11 426 patients presenting with ACS, 7290 presented with NSTEMI or UA. The highest rate of major bleeding was seen in patients who received UFH and GP IIb/IIIa inhibitors (Table). Multivariate analysis revealed that increasing age (OR 1.5/decade, P<0.0001) and treatment with the combination of UFH and GP IIb/IIIa inhibitors (OR 2.3, P=0.0068) were significant predictors of major bleeding.

Conclusions: The findings of this study reveal a low rate of major hemorrhage among patients treated with the combination of LMWH and GP IIb/IIIa inhibitors. These data contribute to the growing body of evidence suggesting that LMWH combined with GP IIb/IIIa inhibitors is safe, and can be used for the treatment of patients with UA or NSTEMI, including those referred for PCI or CABG.