## Improved survival and reduced bleeding with low-molecular-weight heparin across all ACS subsets: findings from the Global Registry of Acute Coronary Events (GRACE)

W. Klein\*, W. Kraxner, R. Hoedl, P.G. Steg, A. Budaj, D. Gulba, I. Sadiq, F. Van de Werf, K. White, K.A.A. Fox, for the GRACE Investigators.

**Background:** The safety and efficacy of the antithrombotic agents UFH and LMWH have not been compared in the "real-world" setting in patients with ACS. The aim of this study is to identify patterns of use of UFH and LMWH and to report their correlates and outcomes in a broad spectrum of ACS patients enrolled in the observational GRACE study.

**Methods and results:** Data from 12,665 ACS patients were analyzed according to patient history, concomitant treatments and invasive procedures in sites located inside and outside of the United States. Patients who were more likely to receive UFH than LMWH were: aged <60 years; smokers; receiving antiplatelets, thrombolytics, beta-blockers, and ACE inhibitors; admitted to hospitals with PCI facilities; and undergoing invasive procedures. UFH was used more frequently than LMWH in sites in the United States. After adjustment for covariables, rates of hospital death, major bleeding and stroke were significantly lower in patients treated with LMWH than UFH in each ACS subgroup (Figure).

**Conclusion:** Despite the fact that UFH is used more often, hospital outcomes appeared to be significantly better with LMWH.

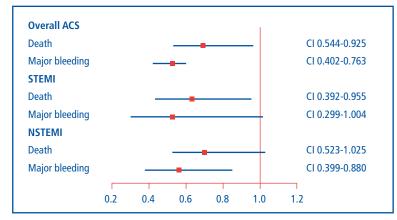


Figure. Adjusted OR and CI for death and major bleeding according to ACS type

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\*Karl-Franzens-University, Graz, Austria