

**Age-related differences in the use of guideline-recommended medical and interventional therapies for acute coronary syndromes: a cohort study**

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**Introduction:** Recent guidelines for patients with acute coronary syndromes (ACS) recommend early medical and interventional therapies for older patients. We therefore compared the use of guideline-recommended medical and interventional therapies in older vs. younger patients with ACS.

**Methods:** In this prospective cohort study, 11932 patients with ACS were enrolled between March 1, 2001, and June 30, 2006 in 55 hospitals in Switzerland. ACS definition included ST-segment elevation myocardial infarction (STEMI), non-ST-segment elevation myocardial infarction (NSTEMI), and unstable angina (UA). We measured the use of medical and interventional therapies determined after exclusion of patients with contraindications and after adjustment for comorbidities. Multivariate logistic regression models were used to calculate odds ratios (OR) per year increase in age.

**Results:** Elderly patients were less likely to receive acetylsalicylic acid (OR, 0.976 [95% CI, 0.969–0.980]) or beta-blockers (OR, 0.985 [95% CI, 0.981–0.989]). No age-dependent difference was found for heparin use. Elderly patients with STEMI received less percutaneous coronary interventions (PCI) or thrombolysis (OR, 0.955 [95% CI, 0.949–0.961]). Elderly patients with NSTEMI/UA less often underwent PCI (OR, 0.943 [95% CI, 0.937–0.949]).

**Conclusion:** Elderly patients across the whole spectrum of ACS were less likely to receive guideline-recommended therapies even after adequate adjustment for comorbidities. Prognosis of elderly patients with ACS may be improved by increasing adherence to guideline-recommended medical and interventional therapies.