OBJECTIVE: To assess the burden of hospitalization for acute coronary syndrome (ACS) and the impact of the new diagnostic criteria for acute myocardial infarction on epidemiology of ACSs.

METHODS: We analysed the hospital discharge record archives of the Veneto Region in the period 2000-2003, including admissions of regional residents outside the study area. We defined a list of ICD-9-CM codes for the identification of different types of ACS. We examined trends in standardized hospitalization rates as well as patient characteristics (age, sex) and pattern of care (setting, invasive revascularization, length of hospital stay, in-hospital mortality).

RESULTS: The hospitalization rate for non-ST-elevation myocardial infarction increased by about 70%, with a parallel decrease in hospitalizations for unstable angina, whereas the hospitalization rate for ST-elevation myocardial infarction remained unchanged. These trends are likely influenced by the new diagnostic criteria for acute myocardial infarction. At the end of the study period, although the main patient characteristics did not vary substantially, the pattern of care turned out to be more aggressive.

CONCLUSIONS: Despite some limitations, our results indicate that the new diagnostic criteria for acute myocardial infarction have a major impact on epidemiological evaluation. These data may be relevant when comparing epidemiological data of different periods and planning healthcare policies. Further studies are needed in order to evaluate the accuracy of ICD-9-CM codes in the diagnosis of ACSs.