Abstract: P708

Mortality following first-time hospitalization with acute myocardial infarction in Norway, 2001-2014: time trends, underlying causes and death setting

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Background: Acute myocardial infarction (AMI) is a well-defined, life-threatening condition that requires immediate treatment and is associated with considerable mortality and disability rates.

Purpose: To explore trends in 28-day and one-year mortality (by underlying case and death setting) following first-time hospitalization with an incident acute myocardial infarction (AMI) in Norway 2001-2014.

Methods: Information on hospitalizations was obtained from the Cardiovascular Disease in Norway Project. Information on deaths (underlying cause and death setting - in hospital versus outside a hospital) was obtained from The Cause of Death Registry. Trends in mortality were analyzed using Cox proportional hazards models and results expressed as average annual changes in rates over the study period.

Results: Of 176 320 subjects [mean (SD) age, 72.3 (13.9) years; 61.0% men] included in the study, 14.5% died within 28 days of AMI admission. The 28-day mortality declined by 4.6% per year (P<0.001). Of the 141 139 patients surviving first 28 days, 12.8% died within one year of AMI admission. Cardiovascular disease (CVD) mortality declined by 5.8% per year while non-CVD mortality increased by 1.2% (both P<0.001), mainly influenced by increasing risk of dying due to neoplasms (1.3% per year), respiratory conditions (1.9% per year) and infectious diseases (3.7%) (all P<0.001).

Analyses stratified by death setting revealed a decline by 4.7% and 0.8% per year in the risk of dying in a hospital or outside of a hospital, respectively (both P<0.001).

Over the study period, we observed a shift toward more non-CVD deaths, and deaths occurring outside hospitals, especially in nursing homes.

Conclusions: We observed a continuous decline in 28-day mortality following an incident AMI in Norway during 2001-2014. Longer-term mortality declined for CVD while increasing for non-CVD conditions. In-hospital declined more than out-of-hospital mortality.