

DIFFERENCES IN ACUTE CORONARY SYNDROME MORTALITY RATES BETWEEN THE ADMINISTRATIVE REGIONS IN SERBIA, 2006-2022

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Acute coronary syndrome (ACS) is a common causes of chest pain, emergency admission and sudden cardiac death in developed and developing countries. In the last decade, the Serbian healthcare system has notable improve cardiological health care regarding ACS, including the establishment of additional percutaneous coronary intervention facilities. However, a comprehensive and continuous analysis of ACS mortality is often lacking. This study aimed to analyze the trends in ACS mortality in Serbia from 2006 to 2022 by administrative regions.

This is a descriptive epidemiological study. Annual ACS mortality data (ICD X revision: I21, I22, I20.0) were used from Serbian acute coronary syndrome Registry, for the period 2006-2022. Age-adjusted mortality rates (AAMR) were calculated for people of 20+ years of age by direct standardization, using the standard European population. Mortality trends were assessed using jointpoint regression analysis by calculating the annual percentage change (APC) across of administrative regions of Serbia: Belgrade, Vojvodina, Southern and Eastern Serbia and Sumadija and Western Serbia Regions.

In Belgrade and Southern and Eastern Serbia Regions AAMR have shown stable significant decrease through all observed period, with APC of -5,6 for Belgrade Region, and APC of -5,2 for Southern and Eastern Serbia Region.

The Vojvodina Region initially exhibited an increase in the AAMR between 2006 and 2008, with APC=15,4 ($p=0,018$). After that, the decrease of AAMR was recorded in period 2008-2022, APC=9,9 ($p<0,001$).

The different situation was observed in Sumadija and Western Serbia Region. Initially, the AAMR have shown the decrease, followed by an increase. In period 2006-2016 APC was -5,5 ($p<0,001$), and in period 2016-2022 APC was 5,0 ($p<0,001$).

In Serbia, AAMR generally tend to fall in all, except for the Sumadija and Western Serbia Region. The reasons of AAMR increase are multicausal and depend on numerous factors that need to be explored more deeply.

Keywords: acute coronary syndrome, mortality, administrative regions, annual percentage change