

## **Acute Myocardial Infarction - Epidemiology, Risk Factors and Management**

Akaki Kapanadze

The University of Georgia, School of Health Sciences and Public Health  
MA Student, Public Health and Health Care Policy

Acute myocardial infarction has traditionally been divided into ST elevation or non-ST elevation myocardial infarction; however, therapies are similar between the two, and the overall management of acute myocardial infarction can be reviewed for simplicity. Acute myocardial infarction remains a leading cause of morbidity and mortality worldwide, despite substantial improvements in prognosis over the past decade. The majority of cardiovascular disease (CVD) is caused by risk factors that can be controlled, treated or modified, such as high blood pressure, cholesterol, overweight/obesity, tobacco use, lack of physical activity and diabetes. However, there are also some major CVD risk factors that cannot be controlled. In terms of attributable deaths, the leading CVD risk factor is raised blood pressure (to which 13 % of global deaths is attributed), followed by tobacco use (9%), raised blood glucose (6 per cent), physical inactivity (6 %) and overweight and obesity (5 %). In the European Union, death rates related to CAD dropped by almost 30% between the mid 1960s to the mid and late 1990s; however, within Eastern European countries, there was an increase in death rates related to acute MI in the early 1990s, followed by a subsequent decline. In the Russian Federation, cardiovascular mortality remained the same. The incidence of coronary artery disease (CAD) and related mortality is expected to rise dramatically in other developing countries including India, Latin America, the Middle East and Sub-Saharan Africa, with an estimated 80% increase, from approximately 9 million in 1990 to a projected 20 million by 2020. It is believed that these international trends in the incidence of CAD and subsequent acute MI are largely related to consequences of social and economic changes in these countries, resulting in better healthcare access and increases in life expectancy, in addition to adoption of westernized diets, reduction in physical activity, and higher rates of smoking. The progress is a result of several major trends, including improvements in risk stratification, more widespread use of an invasive strategy, implementation of care delivery systems prioritising immediate revascularization through percutaneous coronary intervention (or fibrinolysis), advances in antiplatelet agents and anticoagulants, and greater use of secondary prevention strategies such as statins.

**Abbreviations:** CVD-cardiovascular disease, CAD- coronary artery disease.

**Key Words:** Acute Myocardial Infarction, Risk Factors, Management