



OVERVIEW: ACUTE CORONARY SYNDROMES IN OLDER ADULTS

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Acute coronary syndromes (ACS) are common in older adults and threaten health and independence. Safe and effective management of ACS in this population requires consideration of antithrombotic and revascularization options in the context of individual risk/benefit and goals of care. Accordingly, it is important to recognize the differences in presentation, to understand evidence for effective therapies, and recognize likely health outcomes among older adults with ACS. At discharge, discharge planning is particularly important in optimizing medication safety and returning to independent function.

Approximately 35% of MIs occur in patients age 75 years or older, and 11% of patients with MI are >85 years. This is in contrast to the proportion of patients in clinical trials who are older than age 75. The FDA published “Guidelines for the Study of Drugs Likely to Be Used in the Elderly” back in 1989 stating that “the population studied should reflect the population treated...” Nevertheless, nearly 30 years later many clinical trials exclude patients based upon age, or have exclusion criteria which are more commonly met by older adults. Fewer than half of the major clinical trials which form the basis for the evidence for contemporary ACS care enrolled any patient over age 75 years, so extrapolation of evidence to this age group is necessary. In general, as risk increases, so does the benefit from therapies intended to reduce risk. However, understanding aging heterogeneity is also necessary. Those over age 75 demonstrate a wider range of health states for the same chronologic age than do younger individuals, with a rising prevalence of comorbid illness.

Advancing age is a powerful independent risk for adverse outcomes following myocardial infarction after adjustment. Complications after myocardial infarction increase with age even with optimal treatment. Potential explanations include a time delay in hospital presentation, atypical symptoms of myocardial ischemia delaying recognition, a greater burden of pre-existing medical comorbidity with less organ function reserve and important physiologic changes in the older adult. Despite better outcomes among those given ACC/AHA guideline therapies during acute myocardial infarction, the elderly are less likely to receive recommended treatments (errors of omission) and more likely to experience treatment related complications when they do (errors of commission). However, those who receive recommended therapies demonstrate better outcomes than those who do not. Among older adults, non-ST segment elevation MI is more often seen than ST segment elevation MI. This may be due to a higher proportion of older adults who have complex, calcified coronary disease, prior revascularizations, or who present with secondary ACS due to other non-cardiac medical illnesses such as pneumonia, falls, gastrointestinal bleeding, or sepsis.

As a general rule, when AMI care is delivered in a manner which is process driven but also allows for individualization, older adults benefit. Systems of care for acute reperfusion, geriatric dosing, avoidance of bleeding complications, early mobilization and referral to cardiac rehabilitation, are particularly important for older adults presenting with acute myocardial infarction.