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BIOCHEMICAL MARKERS AND CARDIAC DISEASES

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The incidence of cardiovascular disease has decreased in the recent years with a better understanding of the pathophysiology of acute coronary syndromes (ACS), widespread implementation of lipid lowering drugs, improved treatments such as stent placements, and new therapeutic regimens such as the statins, low molecular weight heparins, and platelet glycoprotein IIb/IIIa receptor inhibitors. Nevertheless, it remains today as the leading cause of morbidity and mortality in the Western world. Biochemical markers of cardiac disease continues to grow in importance in the diagnosis and management of patients with ACS, as witness by the recent incorporation of cardiac troponin into new international guidelines for patients with ACS and in the redefinition of myocardial infarction. The laboratory plays a pivotal role in proper selection and interpretation of available marker assays, depending on the creation of evidence-based knowledge on test utilization and sources of variation. Despite the success of cardiac troponin, there is still a need for development of early markers that can reliably rule out ACS from the emergency room at presentation. Furthermore, with the population getting older, and more patients are surviving episodes of ACS, the incidence of congestive heart failure is growing at a dramatic rate. This is an area where biochemical tests have traditionally not played any role. With the characterization of the natriuretic peptides, this promises to be an emerging field of Laboratory Medicine.