β-Blockers and Sudden Cardiac Death

Objective: To 1) consider the problem of sudden death from heart disease and the role of β-blockers and other agents in preventing sudden death and 2) review perceived problems with β-blocker therapy, such as effects on blood lipids, complications in diabetes, and adverse effects on heart failure and quality of life.

Data Sources: MEDLINE and EMBASE searches done from July 1994 on, and recognized texts.

Study Selection: More than 400 original and review articles were evaluated, of which the most relevant were selected.

Data Extraction: Data were extracted and reviewed by two authors. Accuracy was confirmed, when necessary, by the other authors.

Data Synthesis: Of all of the therapies currently available for the prevention of sudden cardiac death, none is more established or more effective than β-blockers. Indeed, the evidence that β-blockers have a cardioprotective effect is compelling. They probably reduce the rate of atheroma formation; they reduce the risk for ventricular fibrillation in animal models of myocardial ischemia; they appear to reduce cardiac mortality in primary prevention trials; and they reduce mortality, particularly from sudden death, in patients who have had infarction. Moreover, withholding β-blockers because of problems perceived to be associated with them is usually not warranted and may frequently prevent their use in those who will benefit most from them.

Conclusion: Clinicians should reappraise the evidence for the significant effect of β-blockers on morbidity and mortality, and they should recognize the importance of initiating and maintaining β-blocker therapy when the less well-informed might suggest otherwise.
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Beta blockers are a group of drugs that inhibit the sympathetic activation of β-adrenergic receptors. Cardioselective blockers (e.g., atenolol, bisoprolol) pr... Caused by sudden termination of β blockers. Clinical features: tachycardia, tachyarrhythmia, hypertension, acute coronary syndrome, sudden cardiac death. Prevention: taper dose over 7–10 days before discontinuing. Beta blocker overdose. Sudden cardiac death in the community remains a major public health problem. The purpose of this article is to outline the epidemiology, pathophysiology, and immediate treatment of the cardiac arrest victim. The subsequent in-hospital diagnostic evaluation and management will then be discussed with an emphasis on the role of the implantable cardioverter-defibrillator. Sudden cardiac death is defined as unexpected natural death due to cardiac causes, heralded by abrupt loss of consciousness, and occurring within one hour of the onset of acute symptoms. It is estimated that approximately 300,000 cases of sudden cardiac death occur per year in the United States with about 50,000 cases per year in the United Kingdom. However, treatment should always begin with β-blockers, unless there are valid contraindications. If the patient has one or more syncopal episodes despite a full dose β-blockade, left cardiac sympathetic denervation (LCSD) should be performed without hesitation and implantable cardioverter-defibrillators (ICDs) should always be considered, with the final decision being based on the individual patient characteristics, presence of ECG signs – including 24-hour Holter recordings – indicating high electrical instability. The two cardinal manifestations of LQTS are syncopal episodes, that may lead to cardiac arrest and sudden cardiac death, and...