American Heart Association | American Stroke Association

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Key Concepts
Wearable Cardioverter-Defibrillator Therapy for the Prevention of Sudden Cardiac Death

1. Sudden cardiac death (SCD) remains an important and preventable cause of death.
2. Despite their obvious benefits, current defibrillator technologies have limitations and risks.
3. Transient contraindications to implanted device therapy commonly arise in clinical practice.
4. Wearable cardioverter-defibrillators (WCDs) can serve as a temporary means of preventing arrhythmic death without the need for bystander response to cardiac arrest.
5. WCDs use vector analysis of surface electrocardiographic signals to detect life-threatening ventricular arrhythmias.
6. Patient compliance is an integral part of successful WCD therapy.
7. Observational data suggest that the WCD can successfully identify and terminate ventricular arrhythmias.
8. WCD use is reasonable when there is a clear indication for an implantable cardioverter-defibrillator (ICD) in the presence of a transient contraindication to an ICD.
9. WCD use may be appropriate in clinical circumstances associated with transient increased arrhythmic risk.
10. Risk counseling and discussion of patient preferences are integral parts of patient care and WCD therapy.

Piccini JP Sr, Allen LA, Kudenchuk PJ, Page RL, Patel MR, Turakhia MP; on behalf of the American Heart Association Electrocardiography and Arrhythmias Committee of the Council on Clinical Cardiology and Council on Cardiovascular and Stroke Nursing. Wearable cardioverter-defibrillator therapy for the prevention of sudden cardiac death: a science advisory from the American Heart Association [published online ahead of print March 28, 2016]. Circulation. doi: 10.1161/CIR.0000000000000394.