**WEARABLE CARDIOVERTER-DEFIBRILLATOR –WHERE ARE THE CLINICAL GUIDELINES?**

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*Objective:* To propose a set of guidelines based on literature review on wearable cardioverter defibrillator (WCD) use for the management of patients with/or at risk for ventricular arrhythmias (VA) and/or sudden cardiac death (SCD).

*Background*: Implantable cardiac defibrillator (ICD) is an invasive, device based management option for patients with VA and at risk for SCD. In 2002, a non invasive alternative, WCD was FDA approved for potential use in such patient population. Since then, it has been used in a wide variety of challenging clinical settings like post myocardial infarction, post-coronary artery bypass grafting or percutaneous coronary intervention, and those with severe left ventricular dysfunction (LVd) secondary to different cardiac non-ischemic pathologies. Despite this, no clear consensus or guidelines exist to date. Although indications for intervention are continually evolving and further research is certainly warranted, this review aims at summarizing the clinical data and possible indications in a more robust manner.

*Discussion*: Currently extensive clinical data exist highlighting WCD indications in scenarios like post myocardial infarction (MI), awaiting heart transplantation or ICD placement, conditions requiring ICD explantation (infections, cardiac thrombi), newly diagnosed cardiomyopathies resulting in severe LVd (non- ischemic, inherited, congenital) etc. Potential hurdles for more effective use are inappropriate shocks, practical cosmetic/comfort issues, high cost and compliance. Formal clinical guidelines have yet to be presented and importantly no large-scale clinical trial has shown mortality benefit with WCD. Therefore, our detailed literature review will help build guidelines with a cohesive set of indications.

*Conclusion*:- WCD use should be considered in 1) early-post acute MI or early post-CABG/PCI, 2) preclusions to ICD placement, 3) ICD explantation, and 4) prolonged clinical workup of disorders (non-ischemic cardiomyopathies) predisposing high-risk VA. Adverse events, practical and financial issues need to be properly addressed. Multicenter randomized clinical trials are indicated.