

# 2018 - THE LIFEVEST® WEARABLE DEFIBRILLATOR IN THE PREVENTION OF RISK FOR SUDDEN CARDIAC ARREST

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**Introduction:** The LifeVest® jacket is manufactured by ZOLL Medical Corporation and is designed to prevent sudden cardiac arrest (SCA), secondary to malignant ventricular arrhythmias (ventricular tachycardia or ventricular fibrillation) that are a serious threat to life and the main reversible cause of sudden cardiac death (SCD). These dangerous cardiac rhythms are eliminated by delivering an electric shock to the heart.

The jacket has three main components: the garment itself that surrounds the thorax, the incorporated electrode belt, which detects if the heart rate suddenly has a dangerous rhythm and applies the shock, and a monitor that is also connected to the electrodes, and which constantly records the heart rate to provide digitalised ECG data for medical review.

**Aims:** To evaluate the effectiveness, safety, and efficiency of the LifeVest® jacket for the prevention of sudden cardiac death due to ventricular tachyarrhythmias, in comparison to regular treatments.

**Methods:** A systematic search of the medical literature was carried out in September 2017 using the main biomedical databases, such as PubMed, Embase, ISI Web of Knowledge, and Cochrane. This was completed with a search of databases from studies currently underway, a general search of the Internet, and a manual review of the bibliography. Independent evaluators read and selected the articles according to previously established selection criteria. The information was obtained using a pre-established formula, and summarised in evidence tables. The quality was evaluated using different scales, based on the type of study, and evaluation of the strength of evidence was carried out using the GRADE System for evaluating evidence and presenting recommendations.

**Results, discussion and conclusions:** See pdf below

## DOCUMENTOS RELACIONADOS

PDF summary

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