

Title (en)
SYSTEM AND METHOD FOR PREDICTING VENTRICULAR TACHYCARDIA.

Title (de)
SYSTEM UND VORHERSAGE VENTRIKULARER TACHYKARDIE.

Title (fr)
SYSTEME ET PROCEDE DE PREVISION DE TACHYCARDIE VENTRICULAIRE.

Publication
EP 0137769 A4 19870122 (EN)

Application
EP 83901024 A 19830214

Priority
US 8300186 W 19830214

Abstract (en)
[origin: WO8403032A1] An electrocardiology system and method for predicting potential ventricular tachycardia in a patient. Each of a patient's X, Y, and Z electrocardiographic signals (100, 101, 102) are converted from analog to digital values (120), and stored (130), and are then processed to select only normal or typical QRS waveforms. The selected waveforms are signal averaged over several hundred beats to obtain a relatively noise-free composite QRS. The latter portions of the X, Y and Z digital QRS signals are then applied in either forward or reverse time order to an adaptive finite impulse response high pass filter (170). The finite impulse response filter processing enables the ringing artifact to be eliminated from the filter's output. The resulting filtered outputs are combined to create a composite filtered QRS waveform. The last (40) (or so) milliseconds of the filtered composite is isolated and measured to obtain an indication of the level of high frequency energy content indicative of a propensity for episodes of ventricular tachycardia (200). The overall QRS waveform is also processed in the same time order to determine its total duration (210) which provides a second indication of propensity for Ventricular Tachycardia.

IPC 1-7
A61B 5/04

IPC 8 full level
A61B 5/0245 (2006.01); **A61B 5/0452** (2006.01); **A61B 5/0464** (2006.01); **A61B 5/363** (2021.01); **G06F 17/00** (2006.01)

CPC (source: EP)
A61B 5/363 (2021.01); **A61B 5/7203** (2013.01); **A61B 5/7239** (2013.01)

Citation (search report)
EP 0052512 A1 19820526 - UNIVERSITY PATENTS INC [US]

Designated contracting state (EPC)
BE DE FR GB NL SE

DOCDB simple family (publication)
WO 8403032 A1 19840816; AU 1336983 A 19840830; AU 561744 B2 19870514; EP 0137769 A1 19850424; EP 0137769 A4 19870122; JP S60500599 A 19850502

DOCDB simple family (application)
US 8300186 W 19830214; AU 1336983 A 19830214; EP 83901024 A 19830214; JP 50103183 A 19830214