



(12) **United States Patent**  
**Volpe et al.**

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(54) **SELECTION OF OPTIMAL CHANNEL FOR RATE DETERMINATION**

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See application file for complete search history.

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(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

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American Journal of Respiratory and Critical Care Medicine, vol. 166, pp. 111-117 (2002), American Thoracic Society, ATS Statement: Guidelines for the Six-Minute Walk Test, available at <http://ajrccm.atsjournals.org/cgi/content/full/166/1/111>.

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(51) **Int. Cl.**

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(57) **ABSTRACT**

According to at least one example, an ambulatory medical device is provided. The device includes a plurality of electrodes disposed at spaced apart positions about a patient's body and a control unit. The control unit includes a sensor interface, a memory and a processor. The sensor interface is coupled to the plurality of electrodes and configured to receive a first ECG signal from a first pairing of the plurality of electrodes and to receive a second ECG signal from a second pairing of the plurality of electrodes. The memory stores information indicating a preferred pairing, the preferred pairing being either the first pairing or the second pairing. The processor is coupled to the sensor interface and the memory and is configured to resolve conflicts between interpretations of first ECG signal and the second ECG signal in favor of the preferred pairing.

(52) **U.S. Cl.**

CPC ..... **A61B 5/04288** (2013.01); **A61B 5/0245** (2013.01); **A61B 5/046** (2013.01);  
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(58) **Field of Classification Search**

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**20 Claims, 6 Drawing Sheets**

