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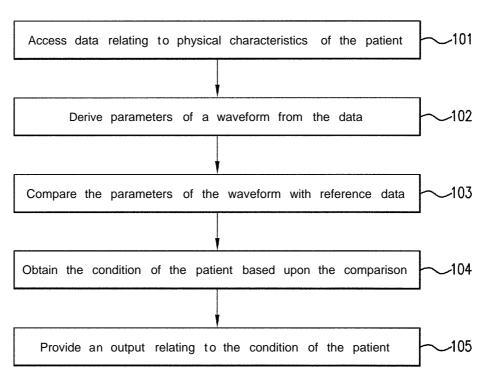
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(54) Title: SYSTEM AND METHOD FOR DIAGNOSING A CONDITION OF A PATIENT



(57) Abstract: Systems and methods of diagnosing a condition of a patient are provided. The disclosed subject matter accesses data relating to physical characteristics of the patient, deriving parameters of a waveform from the data, comparing the parameters of the waveform with reference data, obtains the condition of the patient based upon the comparison, and provides an output relating to the condition of the patient.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER					
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B. FIELDS SEARCHED					
B. FIELDS SEARCHED					
Minimum documentation searched (classification system followed by classification symbols)					
U.S.: 600/300-301, 508-509, 528;					
Documentation searched other than minirrium documentation to the extent that such documents are included in the fields searched					
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)					
C. DOCU	MENTS CONSIDERED TO BE RELEVANT				
Category *	Citation of document, with indication, where a	nnronriate	of the relevant passages	Relevant to claim No.	
X	US 5,687,738 (SHAPIRO et al) 18 November 1997 (18. 11.199	/), entire document.	1-3, 8, 9, 13-15, 17 and	
				19	
X	US 6,643,548 B1 (MAI et al) 04 November 2003 (04	1. 11.2003),	entire document.	1-6, 8-14, 16, 17, 19	
and 20					
X US 2005/0090755 A1 (GUION et al) 28 April 2005 (28.04.2005), entire document. 1-3, 7, 13-17 and 19					
Y					
	19, paragraphs 226-255.				
X US 2005/0197865 A1 (JORDAN) 08 September 2005 (08.09.2005), entire document. 2 L, 22, 24 and 25					
l v	Y US 2006/0047213 A1 (GAVRIELY et al) 02 March 2006 (02.03.2006), entire document. 23				
	25				
Further	documents are listed in the continuation of Box C		See patent family annex.		
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