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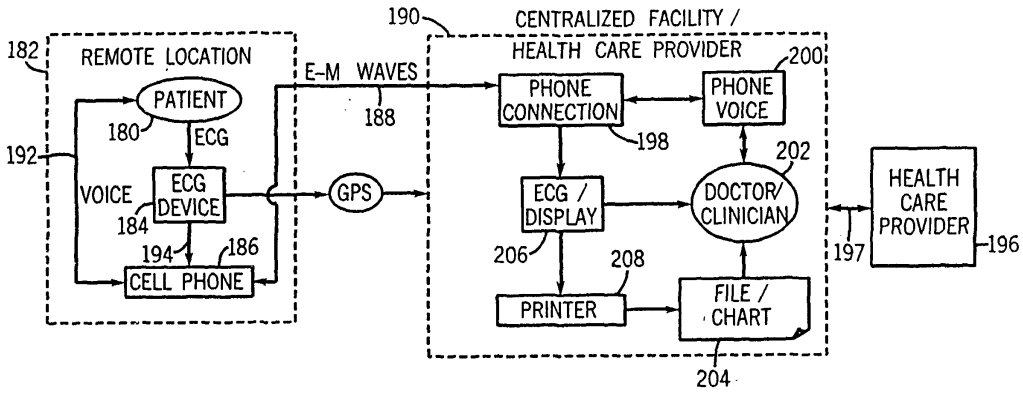
(54) Portable ECG device with wireless communication interface to remotely monitor patients and method of use

(57) A portable ECG monitor (184) and an overall system for remotely monitoring cardiac function of a patient (180) is disclosed, together with a method of use. The portable ECG (184) includes a multi-lead, multi-channel ECG monitor and a wireless communication device (186) connected to the ECG monitor to receive patient ECG data (194) and transmit the patient ECG data (194) to a centralized facility (190), such as a hospital. The wireless communication device can include a mobile phone (186) and/or an interactive Internet appliance. A method of remotely monitoring ECG data (194) is also disclosed. The method and apparatus are particularly useful with patients (180) experiencing symptomatic ischemia. The method includes providing a portable ECG device (184) with wireless communication (186) capabilities to such a patient (180), acquiring ECG data (194) from the patient (180) at a location (182) remote from a health care facility (196), then transmitting the ECG data (194) to the centralized facility (190), and assessing the ECG data (194) at the centralized facility (190). The patient (180) is then provided with instructions based on the ECG assessment. The centralized facility (190) and the health care facility (196) may be one and the same, or may be two different and distinct facilities.

FIG. 3



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EUROPEAN SEARCH REPORT

Application Number
EP 01 30 7734

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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X	US 5 544 661 A (LONG PAUL V ET AL) 13 August 1996 (1996-08-13) * column 2, line 57 - column 8, line 61; figures 1,2 *	1,2,5,7, 8,10	
X	WO 99 14882 A (GEORGIA TECH RES INST) 25 March 1999 (1999-03-25) * page 4, line 23 - page 7, line 7 * * page 9, line 18 - page 10, line 2 *	1-3,5	
A	US 6 102 856 A (MULVANEY PAUL L ET AL) 15 August 2000 (2000-08-15) * column 2, line 66 - column 4, line 57 *	1,2,5,8	
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			A61B G06F

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
MUNICH	19 March 2003	Artikis, T

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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L : document cited for other reasons

& : member of the same patent family, corresponding document

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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 01 30 7734

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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19-03-2003

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EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

专利名称(译)	具有无线通信接口的便携式ECG设备，用于远程监控患者和使用方法		
公开(公告)号	EP1188412A3	公开(公告)日	2003-05-14
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[标]申请(专利权)人(译)	GE医疗系统信息技术公司		
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CPC分类号	A61B5/0006 G16H40/67 G16H50/20		
优先权	09/661064 2000-09-13 US		
其他公开文献	EP1188412A2 EP1188412B1		
外部链接	Espacenet		

摘要(译)

公开了一种便携式ECG监视器（184）和用于远程监视患者（180）的心脏功能的整体系统以及使用方法。便携式ECG（184）包括多引线，多通道ECG监视器和连接到ECG监视器的无线通信设备（186），以接收患者ECG数据（194）并将患者ECG数据（194）发送到集中式设施（190），例如医院。无线通信设备可以包括移动电话（186）和/或交互式互联网设备。还公开了一种远程监测ECG数据的方法（194）。该方法和装置对于经历症状性局部缺血的患者（180）特别有用。该方法包括向这样的患者（180）提供具有无线通信（186）能力的便携式ECG设备（184），在远离医疗机构的位置（182）从患者（180）获取ECG数据（194）。（196），然后将ECG数据（194）发送到集中设施（190），并评估集中设施（190）处的ECG数据（194）。然后向患者（180）提供基于ECG评估的指令。集中设施（190）和医疗保健设施（196）可以是同一个，或者可以是两个不同且不同的设施。

FIG. 3