

(19)



(11)

EP 2 308 556 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
30.11.2011 Bulletin 2011/48

(51) Int Cl.:
A61N 1/362 (2006.01) **A61N 1/368** (2006.01)
A61B 5/0468 (2006.01) **A61B 5/00** (2006.01)
A61B 5/00 (2006.01)

(43) Date of publication A2:
13.04.2011 Bulletin 2011/15

(21) Application number: **10001991.8**

(22) Date of filing: **25.01.2006**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

(30) Priority: **25.01.2005 US 43612**
25.01.2005 US 43780
25.01.2005 US 43804
11.05.2005 US 127370

(62) Document number(s) of the earlier application(s) in accordance with Art. 76 EPC:
06719544.6 / 1 850 909

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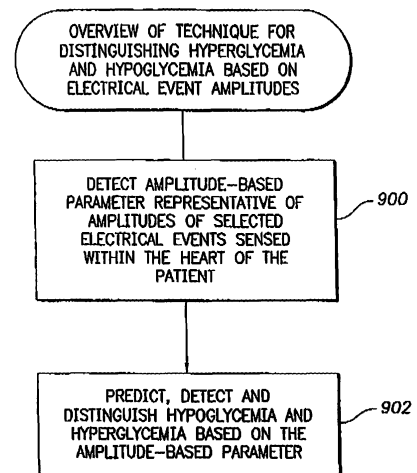
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(54) **System for detecting hypoglycemia, hyperglycemia and cardiac ischemia**

(57) Techniques are described for detecting and distinguishing among ischemia, hypoglycaemia or hyperglycemia based on intracardiac electrogram (IEGM) signals. In one technique, these conditions are detected and distinguished based on an analysis of: the interval between the QRS complex and the peak of a T-wave (QTmax), the interval between the QRS complex and the end of a T-wave (QTend), alone or in combination with a change in ST segment elevation. By exploiting QTmax and QTend in combination with ST segment elevation, changes in ST segment elevation caused by hypo/hyperglycemia can be properly distinguished from changes caused by cardiac ischemia. In another technique, hyperglycemia and hypoglycaemia are predicted, detected and/or distinguished from one another based on an analysis of the amplitudes of P-waves, QRS-complexes and T-waves within the IEGM. Appropriate warning signals are delivered and therapy is automatically adjusted.

FIG. 16



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EUROPEAN SEARCH REPORT

Application Number
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EPO FORM 1503 03/02 (P04C01)



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专利名称(译)	用于检测低血糖，高血糖和心肌缺血的系统		
公开(公告)号	EP2308556A3	公开(公告)日	2011-11-30
申请号	EP2010001991	申请日	2006-01-25
[标]申请(专利权)人(译)	标兵		
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发明人	GILL, JONG BOILEAU, PETER BHARMI, RUPINDER MIN, XIAOYI FLORIO, JOSEPH, J. BENSER, MICHAEL BORNZIN, GENE, A.		
IPC分类号	A61N1/362 A61N1/368 A61B5/0468 A61B5/00		
CPC分类号	A61B5/0452 A61B5/0468 A61B5/14532 A61N1/3621 A61N1/3627 A61N1/36557 A61N1/3925 A61N1/3962 A61N1/39622		
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摘要(译)

描述了用于基于心内电描记图 (IEGM) 信号检测和区分局部缺血，低血糖或高血糖的技术。在一种技术中，基于以下分析来检测和区分这些条件：QRS复合波与T波峰值之间的间隔 (QT-max)，QRS波群与T波末端之间的间隔。(QTend)，单独或与ST段抬高的变化相结合。通过利用QTmax和QTend结合ST段抬高，可以将由低血糖/高血糖引起的ST段抬高的变化与心肌缺血引起的变化恰当地区分开。在另一种技术中，基于对IEGM内的P波，QRS复合波和T波的振幅的分析，预测，检测和/或区分高血糖和低血糖。提供适当的警告信号并自动调整治疗。

FIG. 16

