(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
4 October 2001 (04.10.2001)

PCT

(10) International Publication Number
WO 01/72208 A3

(51) International Patent Classification[7]: A61B 5/00

(21) International Application Number: PCT/US01/09884

(22) International Filing Date: 29 March 2001 (29.03.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/193,037 29 March 2000 (29.03.2000) US

(71) Applicant *(for all designated States except US)*: **UNIVERSITY OF VIRGINIA PATENT FOUNDATION** [US/US]; 1224 West Main Street, Suite 1-110, Charlottesville, VA 22903 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **KOVATCHEV, Boris, P.** [BG/US]; 121 Ridge Drive, Amherst, VA 24521 (US). **COX, Daniel, J.** [US/US]; 1606 Keith Valley Road, Charlottesville, VA 22901 (US).

(74) Agent: **DECKER, Robert, J.**; University of Virginia Patent Foundation, Suite 1-110, 1224 West Main Street, Charlottesville, VA 22903 (US).

(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

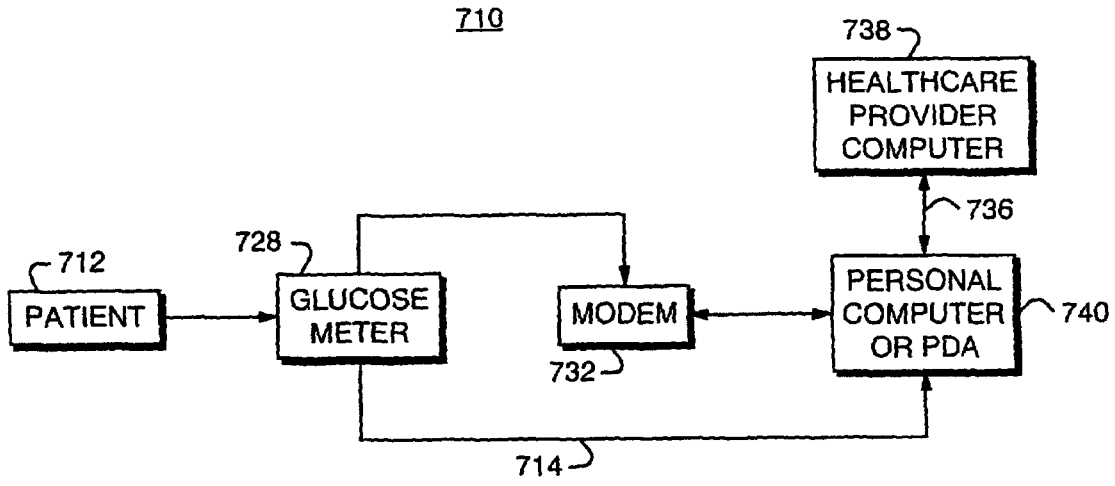
(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

(88) Date of publication of the international search report:
7 March 2002

[Continued on next page]

(54) Title: METHOD, SYSTEM, AND COMPUTER PROGRAM PRODUCT FOR THE EVALUATION OF GLYCEMIC CONTROL IN DIABETES FROM SELF-MONITORING DATA



(57) Abstract: A method, system (710), and computer program predict the long-term risk of hyperglycemia, and the long-term and short-term risks of severe hypoglycemia in diabetics, based on blood glucose readings collected by a self-monitoring blood glucose device (728). Glucose meter (728) obtains data from patien (712) and transfers it to a PC or PDA (740) via modem (732) or other communication link (714). After processing, information may be obtained from the PC (740) by a healthcare provider computer (738) via link (736). The method, system (710), and computer program enhance existing home blood glucose monitoring devices by introducing an intelligent data interpretation component capable of predicting both HbA1c and periods of increased risk of hypoglycemia. The method, and computer program enhance emerging continous monitoring devices by similar features. With these predictions, the diabetic can take steps to prevent the adverse consequences associated with hyperglycemia and hypoglycemia.

WO 01/72208 A3

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.