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**(54) METER HAVING POST-MEAL TEST-TIME ALARM**

MESSGERÄT MIT TESTZEIT-ALARM NACH DEM ESSEN

APPAREIL DE MESURE DOTÉ D UNE ALARME INDIQUANT LE TEMPS DE TEST À LA SUITE D UN REPAS

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(56) References cited:  
**US-A- 4 686 624 US-A- 5 673 691**  
**US-A- 5 822 715 US-A1- 2002 087 054**  
**US-A1- 2005 038 674**

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**Description****FIELD OF THE INVENTION**

[0001] The present invention relates generally to meters and methods of using the same, and more particularly, to a meter having a post-meal test-time alarm for notifying a user when it is time to measure an analyte concentration following a meal.

**BACKGROUND OF THE INVENTION**

[0002] The quantitative determination of analytes in body fluids is of great importance in the diagnoses and maintenance of certain physiological abnormalities. For example, lactate, cholesterol, bilirubin and glucose should be monitored in certain individuals. In particular, determining glucose in body fluids is important to diabetic individuals who must frequently check the glucose concentration in their body fluids to regulate the glucose intake in their diets.

[0003] Diabetic individuals often test their blood glucose levels via a blood glucose meter. Health care professionals recognize that it is particularly important for a person with diabetes to test his or her blood glucose level about two hours after a meal. This length of time after a meal represents the time frame when blood glucose levels typically spike and can cause the most harm. Thus, it would be desirable to have a meter that provides a reminder or stimulus to the user to check his or her blood glucose level about two hours after a meal.

[0004] US 2005/0038674 A1 discloses a system and method for managing a chronic medical condition. This system includes a meter that is configured to calculate a treatment dosage by combining a plurality of patient-effected and caregiver-effected variables. One embodiment relates to a system for management of a diabetic condition in which the primary care giver is provided with glucose concentration data as well as other information relating to a diabetic condition. In one embodiment the meter includes a real time clock, and reminds the patient to take blood-analyte measurements several times throughout the day. The real-time clock allows for time data and time interval data to be stored automatically. The patient can take a glucose measurement in response to the reminder by the meter. The meter may remind the patient to take analyte concentration measurements upon waking up, upon eating breakfast, before lunch, after lunch, before dinner, after dinner and at bed time for example. The reminder routine can be configured to signal a patient by causing the meter to emit an audible, visible, and/or tactile alert signal which can be heard, seen and/or felt by the patient. The reminder routine can be modified by a patient or by a caregiver.

[0005] US 4,686,624 discloses a portable apparatus for acquiring and processing information relative to the dietetics and/or the health of a person. The portable apparatus comprises a series of alphanumeric keys for in-

putting information relative to the dietetics and/or the health of the user, at least one ROM in which are stored data and instructions in relation with this information, a display for displaying the information introduced and the indications relating to them coming from the ROM and a device for effectively inputting and refusing inputting of this information. The device also comprises a clock for dating each input of information, at least one RAM adapted to store the inputted information as well as the date thereof, a computing adapted to determine from the inputted information and from the data stored in the ROM instructions intended for the user of the apparatus and relative to the dietetics and/or health of the user; main electric power supply for the apparatus, and a communication device for transferring information stored in the RAM to an external data processing unit and in return the introduction into this RAM of instructions coming from this unit. The apparatus comprises means for inputting information formed by a keyboard with a series of alphanumeric for even numeric keys and a series of specialized keys. These specialized keys are provided for processing in the apparatus information relative to different operations either to meals or to glycemia i.e. to the glucose content of the blood or to medical treatment. Further, it is provided a validation key for validating data after a visual check on the screen of the information entered and for inputting it into the RAM. The internal clock means allows by recalling by means of a sound or visual "winking" alarm the schedule of a treatment or a glylcemic check for a diabetic, the date of the appointment for consulting a doctor etc. It is also possible to introduce values of glycemia automatically by means of a glylcemic analyzer which would be connected to a connector. The value of the glycemia appears on the screen of the calculator, whether it is introduced manually or automatically. The person concerned validates the value displayed by pressing the validation key. The results of the measurement as well as a schedule supplied by the internal clock are then stored in the RAM.

**SUMMARY OF THE INVENTION**

[0006] A meter is disclosed according to one embodiment of the present invention. The meter is adapted to determine an analyte concentration reading. The meter includes a display adapted to display information to a user of the meter. The display includes an icon representing a post-meal test-time alarm that is adapted to remind the user to obtain a post-meal analyte concentration reading. The meter includes at least one user input mechanism adapted to allow the user to activate the post-meal test-time alarm.

[0007] A method for using a meter adapted to determine an analyte concentration reading is disclosed according to one embodiment of the present invention. The meter has a display adapted to display information to a user. The method includes the acts of displaying an icon relating to a post-meal test-time alarm, activating the

post-meal test-time alarm via an input mechanism, and sounding the post-meal test-time alarm after a predetermined amount of time to remind the user to obtain a post-meal analyte concentration reading.

**[0008]** The above summary of the present invention is not intended to represent each embodiment, or every aspect, of the present invention. Additional features and benefits of the present invention are apparent from the detailed description, and figures set forth below.

### **BRIEF DESCRIPTION OF THE DRAWING**

**[0009]** FIG. 1 is a front side view of a meter having a post-meal test-time alarm feature according to one embodiment of the present invention.

### **DESCRIPTION OF ILLUSTRATED EMBODIMENTS**

**[0010]** The present invention is directed to a meter that is adapted to determine an analyte concentration in a body fluid sample which is collected with a lancing device. Examples of the types of analytes which may be collected include glucose, lipid profiles (e.g., cholesterol, triglycerides, LDL and HDL), microalbumin, hemoglobin A1C, fructose, lactate, or bilirubin. It is contemplated that other analyte concentrations may also be determined. The analytes may be in, for example, a whole blood sample, a blood serum sample, a blood plasma sample, other body fluids like ISF (interstitial fluid) and urine, and non-body fluids. As used within this application, the term "concentration" refers to an analyte concentration, activity (e.g., enzymes and electrolytes), titers (e.g., antibodies), or any other measure concentration used to measure the desired analyte.

**[0011]** One embodiment of the present invention is a meter 10 as shown in FIG. 1. The meter 10 has a display 12 that is adapted to display information to a user of the meter 10. Some of the information that may be displayed to a user includes concentration readings, time and date indicators, markers and alarms. The meter 10 also has at least one user input mechanism 15 that is adapted to allow the user to make selections relating to one or more user features. The user input mechanism 15 may include, for example, buttons, scroll bars, touch screens, or any combination of such items. The meter 10 may also have a memory device 17 that is adapted to store concentration readings, etc.

**[0012]** According to one embodiment of the present invention, the meter 10 includes a post-meal test-time alarm 18. This alarm 18 is adapted to remind a user to test his or her blood glucose concentration after a meal. Preferably, the alarm 18 reminds a user to test his or her blood glucose concentration about 1 ½ to about 2 ½ hours, and most desirably about 2 hours, after a meal. This length of time after a meal has been determined to be the most critical glucose monitoring time since it represents the time frame when blood glucose levels typically spike and can cause the most harm. While some

meters provide the capability to program test-time alarms, the present invention automatically ties the alarm to a meal marker and provides for the alarm to go off after a predetermined amount of time. While the remainder of the disclosure herein will be directed towards post-meal test-time alarms associated with glucose meters, it is to be understood that the post-meal test-time alarm may be implemented in meters used for determining other analytes.

**[0013]** Turning in more detail to FIG. 1, the display 12 shows an analyte concentration reading 16. The reading 16 includes the numerical value and the appropriate units, i.e., 180 mg/dL. The display 12 also shows an icon representing a pre-meal marker 20 and an icon representing a post-meal test-time alarm 22. Also included on the display 12 is a time and date indicator 25. Other markers and/or features may be displayed on the display 12 in addition to the items described above.

**[0014]** To illustrate the use of the meter 10 and the post-meal test-time alarm 18 according to one embodiment, once a blood glucose concentration reading 16 is obtained, the meter 10 displays certain markers and/or user features. These features may be pre-programmed into the meter 10 before it is used by a user or the meter 10 may be customized for a particular user's needs after use begins. One of the items displayed is the pre-meal marker icon 20. In the example in FIG. 1, the pre-meal marker icon 20 is represented by the shape of an apple. Upon selection of this icon 20 by a user, the meter 10 automatically responds by flashing the post-meal test-time alarm icon 22. In the example in FIG. 1, the post-meal test-time alarm icon 22 is represented by the face of a clock. The user selects the post-meal test-time alarm icon 22 using the user input mechanism 15 to activate the post-meal test-time alarm 18. In addition to the icons described above, i.e., the apple and the clock, it is contemplated that other icons may be used as indicators of the pre-meal marker and the post-meal test-time alarm.

**[0015]** In some embodiments, the alarm 18 may produce a long beeping sound or shorter successive beeping sounds that occur about 2 to about 3 hours after the pre-meal marker is selected. Ideally, the alarm 18 is sounded about 2 ½ hours after the pre-meal marker is selected based on the assumption that the pre-meal reading is actually taken ½ hour before the meal so that the insulin has time to start working. Thus, a 2 ½ hour delay from the selection of the pre-meal marker activates the post-meal test-time alarm 18 which sounds about 2 hours after the user consumes a meal. If the user does not want to activate the post-meal test-time alarm 18, the user may make other selections via the input mechanism 15 and the post-meal test-time alarm icon 22 disappears from the display 12.

**[0016]** In addition to the pre-meal marker described above, others markers may be used to activate an alarm that is associated with certain events. Some examples of other markers (not shown) that may be used with the present invention are exercise markers, medication

markers, fasting-time markers, log-book markers, and illness markers. The alarm can also be triggered after specific events such as a low or high concentration reading. For example, in one embodiment, an alarm can be triggered one hour after a low concentration reading. In another embodiment, the alarm can be triggered two hours after a high concentration reading. Additionally, the user can set an alarm to be triggered at a specific time each day, such as a noon-time alarm. While the use of the alarm is not tied to a specific event in that case, it reminds the user to take a concentration reading at a particular time each day.

**[0017]** Some commercially available meters, such as those that are manufactured and/or sold by Bayer Healthcare LLC of Tarrytown, New York, may be redesigned to incorporate the present invention, such as the Ascensia® CONTOUR® Blood Glucose Monitoring System and the Ascensia® BREEZE® Blood Glucose Monitoring System. It is contemplated that other meters, in addition to the ones listed above, may incorporate the present invention as described herein.

**[0018]** While the invention is susceptible to various modifications and alternative forms, specific embodiments and methods thereof have been shown by way of example in the drawing and are described in detail herein. Specifically, it is contemplated that many other markers may be used with the present invention to activate alarms in the same manner as described herein. It should be understood, however, that the description herein is not intended to limit the invention to the particular forms or methods disclosed, but, to the contrary, the intention is to cover all modifications, equivalents and alternatives falling within the scope of the invention as defined by the appended claims.

## Claims

1. A meter (10) adapted to determine an analyte concentration reading, the meter (10) comprising:

a display (12) adapted to display information to a user of the meter (10), and  
at least one user input mechanism (15) adapted to allow the user to activate a post-meal test-time alarm (18) that is adapted to remind the user to obtain a post-meal analyte concentration reading (16),

**characterized in that**

the display (12) includes an icon (22) representing the post-meal test-time alarm (18) and an icon (20) representing a pre-meal marker,

wherein the at least one user input mechanism (15) is further adapted to allow the user to select the pre-meal marker icon (20) and the post-meal test-time alarm icon (20), wherein upon receipt of a selection of the

pre-meal marker icon (20), the meter (10) flashes the post-meal test-time alarm icon (22), and  
wherein upon activation receipt of a selection of the post-meal test-time alarm icon (22), the post-meal test-time alarm (18) sounds after a predetermined amount of time to remind the user to obtain the post-meal analyte concentration reading.

2. The meter (10) according to claim 1, further comprising a memory device (17) adapted to store the analyte concentration reading (16).
3. The meter (10) according to claim 1, wherein the analyte concentration reading is a glucose concentration reading (16).
4. The meter (10) according to claim 1, wherein the post-meal test-time alarm (18) is adapted to remind the user to obtain the post-meal analyte concentration reading (16) after a predetermined amount of time.
5. The meter (10) according to claim 4, wherein the predetermined amount of time after which the post-meal test-time alarm (18) sounds to remind the user to obtain the post-meal analyte concentration reading (16) is about 1 ½ to about 2 ½ hours after a meal.
6. The meter (10) according to claim 5, wherein the predetermined amount of time is about 2 hours after a meal.
7. A method for using a meter (10) adapted to determine an analyte concentration reading (16), the meter (10) having a display (12) adapted to display information to a user, the method comprising the acts of:
- displaying an icon (20) representing a pre-meal marker;  
in response to a selection of the pre-meal marker icon (20), flashing an icon (22) relating to a post-meal test-time alarm (18),  
activating the post-meal test-time alarm (18) in response to a user selection of the post-meal test-time alarm icon (22) received via an input mechanism (15), and  
sounding the post-meal test-time alarm (18) after a predetermined amount of time to remind the user to obtain a post-meal analyte concentration reading (16).
8. The method according to claim 7, further comprising storing the post-meal analyte concentration reading (16).

9. The method according to claim 7, wherein the analyte concentration reading is a glucose concentration reading.
10. The method according to claim 7, wherein the sounding of the post-meal test-time alarm (18) occurs about 1 ½ to about 2 ½ hours after a meal.
11. The method according to claim 10, wherein the sounding of the post-meal test-time alarm (18) occurs about two hours after a meal.
12. The meter (10) according to claim 1, wherein the display (12) is configured to display the pre-meal marker icon (20) in response to a blood glucose concentration reading being obtained by the meter (10) from the user.
13. The meter (10) according to claim 1, wherein the at least one user input mechanism (15) is further configured to receive from the user a selection to deactivate the post-meal test-time alarm icon (22).
14. The meter (10) according to claim 1, wherein an alarm (18) is automatically activated by a high glucose reading or a low glucose reading being obtained by the meter.

#### Patentansprüche

1. Messgerät (10), das zur Ermittlung einer Analytkonzentrationsablesung eingerichtet ist, das Messgerät (10) umfassend:
- eine Anzeige (12), die zur Anzeige von Informationen für einen Benutzer des Messgeräts (10) eingerichtet ist, und mindestens einen Benutzereingabe-Mechanismus (15), der eingerichtet ist, dass der Benutzer einen Testzeitalarm nach einer Mahlzeit (18) aktivieren kann, der eingerichtet ist, den Benutzer daran zu erinnern, eine Analytkonzentrationsablesung (16) nach einer Mahlzeit zu erhalten, **dadurch gekennzeichnet, dass** die Anzeige (12) ein Icon (22) umfasst, das den Testzeitalarm nach einer Mahlzeit (18) darstellt, und ein Icon (20), das einen Marker vor einer Mahlzeit darstellt, wobei der mindestens eine Benutzereingabe-Mechanismus (15) ferner eingerichtet ist, dass der Benutzer das Marker-Icon vor einer Mahlzeit (20) und den Testzeitalarm nach einer Mahlzeit (20) auswählen kann, wobei das Messgerät (10) nach Empfang einer Auswahl des Marker-Icons vor einer Mahlzeit (20) den Testzeitalarm-Icon nach einer Mahlzeit (22) durch Blinken anzeigt, und

wobei der Testzeitalarm nach einer Mahlzeit (18) nach Empfang einer Auswahl des Testzeitalarm-Icons nach einer Mahlzeit (22) nach einer vorgegebenen Zeitspanne ertönt, um den Benutzer daran zu erinnern, die Analytkonzentrationsablesung nach einer Mahlzeit zu erhalten.

2. Messgerät (10) nach Anspruch 1, ferner umfassend eine Speichervorrichtung (17), die zum Speichern der Analytkonzentrationsablesung (16) eingerichtet ist.
3. Messgerät (10) nach Anspruch 1, wobei die Analytkonzentrationsablesung eine Glukosekonzentrationsablesung (16) ist.
4. Messgerät (10) nach Anspruch 1, wobei der Testzeitalarm nach einer Mahlzeit (18) eingerichtet ist, den Benutzer daran zu erinnern, nach einer vorgegebenen Zeitspanne die Analytkonzentrationsablesung nach einer Mahlzeit (16) zu erhalten.
5. Messgerät (10) nach Anspruch 4, wobei die vorgegebene Zeitspanne, nach der der Testzeitalarm nach einer Mahlzeit (18) ertönt, um den Benutzer daran zu erinnern, die Analytkonzentrationsablesung nach einer Mahlzeit (16) zu erhalten, etwa 1 1/2 bis etwa 2 1/2 Stunden nach einer Mahlzeit beträgt.
6. Messgerät (10) nach Anspruch 5, wobei die vorgegebene Zeitspanne etwa 2 Stunden nach einer Mahlzeit beträgt.
7. Verfahren zur Verwendung eines Messgeräts (10), das zur Ermittlung einer Analytkonzentrationsablesung (16) eingerichtet ist, wobei das Messgerät (10) eine Anzeige (12) aufweist, die zur Anzeige von Informationen für einen Benutzer eingerichtet ist, wobei das Verfahren folgende Schritte aufweist:
- Anzeigen eines Icons (20), das einen Marker vor der Mahlzeit darstellt, als Reaktion auf eine Auswahl des Marker-Icons vor der Mahlzeit (20), Anzeige eines blinkenden Icons (22) bezüglich eines Testzeitalarms nach einer Mahlzeit (18), Aktivieren des Testzeitalarms nach einer Mahlzeit (18) als Reaktion auf die Auswahl des Testzeitalarm-Icons (22), das über einen Eingabemechanismus (15) empfangen wird, durch einen Benutzer, und Ertönen des Testzeitalarms nach einer Mahlzeit (18) nach einer vorgegebenen Zeitspanne, um den Benutzer daran zu erinnern, die Analytkonzentrationsablesung (16) zu erhalten.
8. Verfahren nach Anspruch 7, ferner umfassend das Speichern der Analytkonzentrationsablesung nach

einer Mahlzeit (16).

9. Verfahren nach Anspruch 7, wobei die Analytkonzentrationsablesung eine Glukosekonzentrationsablesung ist. 5
10. Verfahren nach Anspruch 7, wobei das Ertönen des Testzeitalarms nach einer Mahlzeit (18) etwa 11/2 bis etwa 2 1/2 Stunden nach einer Mahlzeit erfolgt. 10
11. Verfahren nach Anspruch 10, wobei das Ertönen des Testzeitalarms nach einer Mahlzeit (18) etwa 2 Stunden nach einer Mahlzeit erfolgt.
12. Messgerät (10) nach Anspruch 1, wobei die Anzeige (12) zur Anzeige des Marker-Icons vor einer Mahlzeit (20) als Reaktion auf eine Blut-Glukosekonzentrationsablesung, die das Messgerät (10) von dem Benutzer erhält, eingerichtet ist. 15
13. Messgerät (10) nach Anspruch 1, wobei der mindestens eine Benutzereingabemechanismus (15) ferner zum Empfang einer Auswahl von dem Benutzer, um das Testzeitalarm-Icon nach einer Mahlzeit (22) zu deaktivieren, eingerichtet ist. 20
14. Messgerät (10) nach Anspruch 1, wobei ein Alarm (18) automatisch durch hohe Glukoseablesung oder eine niedrige Glukoseablesung, die von dem Messgerät erhalten wird, aktiviert wird. 25

### Revendications

1. Appareil de mesure (10) adapté pour déterminer un relevé de concentration en analyte, l'appareil de mesure (10) comprenant : 35
  - un écran d'affichage (12) adapté pour afficher des informations pour un utilisateur de l'appareil de mesure (10), et 40
  - au moins un mécanisme d'entrée utilisateur (15) adapté pour permettre à l'utilisateur d'activer une alarme de temps de test après repas (18), alarme qui est adaptée pour rappeler à l'utilisateur qu'il convient d'obtenir un relevé de concentration en analyte après repas (16), 45
  - caractérisé en ce que**
  - l'écran d'affichage (12) comprend une icône (22) représentant l'alarme de temps de test après repas (18) et une icône (20) représentant un marqueur avant repas, 50
  - appareil dans lequel le mécanisme d'entrée utilisateur (15) au moins au nombre de un est en outre adapté pour permettre à l'utilisateur de sélectionner l'icône de marqueur avant repas (20) et l'icône d'alarme de temps de test après repas (22), 55

dans lequel, lors de la réception d'une sélection de l'icône de marqueur avant repas (20), l'appareil de mesure (10) fait clignoter l'icône d'alarme de temps de test après repas (22), et dans lequel, lors de la réception d'une sélection de l'icône d'alarme de temps de test après repas (22), l'alarme de temps de test après repas (18) se déclenche après un laps de temps prédéterminé, pour rappeler à l'utilisateur qu'il convient d'obtenir le relevé de concentration en analyte après repas.

2. Appareil de mesure (10) selon la revendication 1, comprenant en outre un dispositif de mémoire (17) adapté pour stocker en mémoire le relevé de concentration en analyte (16).
3. Appareil de mesure (10) selon la revendication 1, dans lequel le relevé de concentration en analyte est un relevé de concentration en glucose (16). 20
4. Appareil de mesure (10) selon la revendication 1, dans lequel l'alarme de temps de test après repas (18) est adaptée pour rappeler à l'utilisateur, après un laps de temps prédéterminé, qu'il convient d'obtenir le relevé de concentration en analyte après repas (16). 25
5. Appareil de mesure (10) selon la revendication 4, dans lequel le laps de temps prédéterminé, après lequel l'alarme de temps de test après repas (18) se déclenche pour rappeler à l'utilisateur qu'il convient d'obtenir le relevé de concentration en analyte après repas (16), est compris entre 1,5 heure environ et 2,5 heures environ après un repas. 30
6. Appareil de mesure (10) selon la revendication 5, dans lequel le laps de temps prédéterminé est environ de 2 heures après un repas.
7. Procédé pour utiliser un appareil de mesure (10) adapté pour déterminer un relevé de concentration en analyte (16), l'appareil de mesure (10) comprenant un écran d'affichage adapté pour afficher des informations pour un utilisateur, le procédé comprenant les actions telles que :

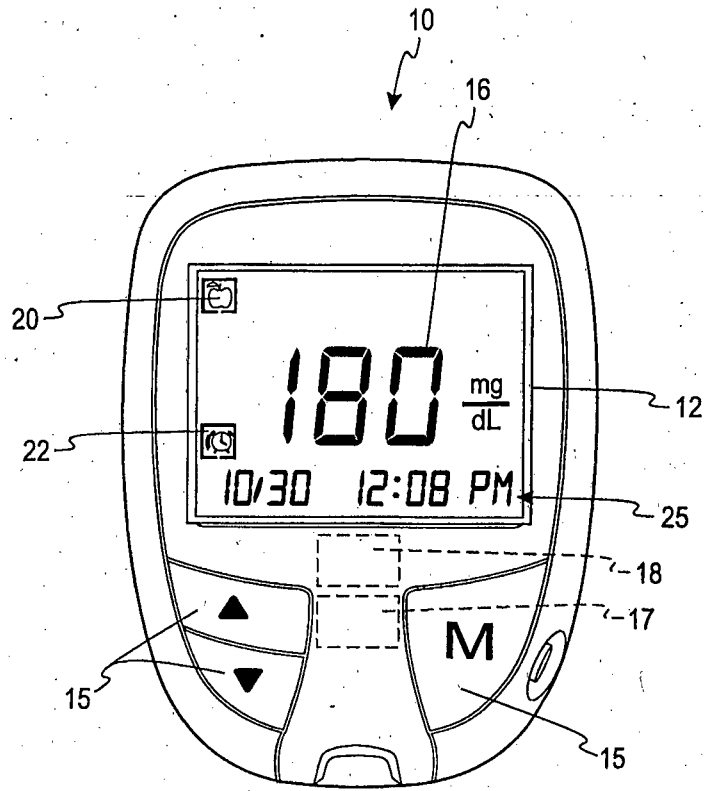
l'affichage d'une icône (20) représentant un marqueur avant repas ;  
 en réponse à une sélection de l'icône de marqueur avant repas (20), le clignotement d'une icône (22) concernant une alarme de temps de test après repas (18),  
 l'activation de l'alarme de temps de test après repas (18) en réponse à une sélection, par l'utilisateur, de l'icône d'alarme de temps de test après repas (22) reçue via un mécanisme d'entrée (15), et

- le déclenchement de l'alarme de temps de test après repas (18) après un laps de temps prédéterminé, pour rappeler à l'utilisateur qu'il convient d'obtenir un relevé de concentration en analyte après repas (16). 5
8. Procédé selon la revendication 7, comprenant en outre le stockage en mémoire du relevé de concentration en analyte après repas (16). 10
9. Procédé selon la revendication 7, dans lequel le relevé de concentration en analyte est un relevé de concentration en glucose.
10. Procédé selon la revendication 7, dans lequel le déclenchement de l'alarme de temps de test après repas (18) se produit entre 1,5 heure environ et 2,5 heures environ après un repas. 15
11. Procédé selon la revendication 10, dans lequel le déclenchement de l'alarme de temps de test après repas (18) se produit environ deux heures après un repas. 20
12. Appareil de mesure (10) selon la revendication 1, dans lequel l'écran d'affichage (12) est configuré pour afficher l'icône de marqueur avant repas (20), en réponse à un relevé de concentration en glucose dans le sang, ledit relevé étant obtenu par l'appareil de mesure (10), à partir de l'utilisateur. 25  
30
13. Appareil de mesure (10) selon la revendication 1, dans lequel le mécanisme d'entrée utilisateur (15) au moins au nombre de un est configuré en outre pour recevoir de l'utilisateur, une sélection pour désactiver l'icône d'alarme de temps de test après repas (22). 35
14. Appareil de mesure (10) selon la revendication 1, dans lequel une alarme (18) est automatiquement activée par un relevé de glucose élevé ou par un relevé de glucose bas, relevé qui est obtenu par l'appareil de mesure. 40

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*Fig. 1*

**REFERENCES CITED IN THE DESCRIPTION**

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**Patent documents cited in the description**

- US 20050038674 A1 [0004]
- US 4686624 A [0005]

专利名称(译)	仪表有餐后测试时间报警		
公开(公告)号	<a href="#">EP1913508B1</a>	公开(公告)日	2016-06-22
申请号	EP2006789466	申请日	2006-08-04
[标]申请(专利权)人(译)	拜尔健康护理有限责任公司		
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发明人	POWER, BARRY, D. CULVER, JEFFREY, A		
IPC分类号	G06F19/00 A61B5/00		
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代理机构(译)	COHAUSZ & FLORACK		
优先权	60/705957 2005-08-05 US		
其他公开文献	EP1913508A1		
外部链接	<a href="#">Espacenet</a>		

摘要(译)

一种用于使用仪表和仪表 ( 10 ) 的方法，其适于确定分析物浓度读数，该仪表包括适于向仪表的用户显示信息的显示器 ( 12 )，该显示器包括针对餐后测试的信息。 - 时间警报 ( 22 )，其适于提醒用户获得餐后分析物浓度读数;以及至少一个用户输入机构 ( 15 )，其适于允许用户激活餐后测试时间警报。

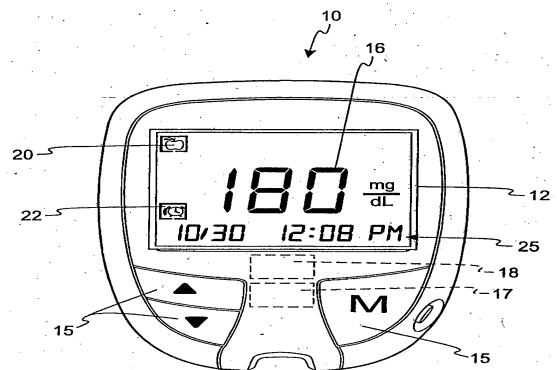


Fig. 1