

cational materials may be sent via e-mail to the patient's smart device. The patient may respond to the diabetes care provider with comments or questions, thereby providing for an ongoing dialogue. The timely access to the diabetes care provider and the prompts to review educational material are important to educate patients as they encounter new health issues or problems related to diabetes.

[0030] The system and methods of the present invention may provide notification controls that allow not only for real-time communication between a patient and diabetes care provider, but also asynchronous communication, as not every diabetes reading or patient question can or should be immediately answered.

C. Graphical User Interface of Smart Device

[0031] As noted above, an administrative version of the app may be provided to a diabetes care provider for installation on his or her smart device. In specific embodiments, the administrative version of the app may allow a diabetes care provider to switch between two or more patients, for example via a pop-up menu. Thus, the administrative version of the app for diabetes care providers allows switching between different patients and, in embodiments, may allow for assigning patients to different providers within a clinic or hospital.

[0032] The administrative app may also automatically notify a diabetes care provider (e.g., via e-mail, phone, text, smart phone banners or alerts, etc.) in real-time that readings from a patient's at least one diabetes device have been transmitted.

[0033] In embodiments, the patient version of the app allows a patient to only see only his or her own diabetes readings and communications, for example, in different tabs provided by the app. The patient app may also allow for multiple family members to view the same account data, depending on administrative controls set up by the patient.

D. Notes in Electronic Medical Record and Billing Module

[0034] In an embodiment of the present invention, the administrative version of the app may aggregate 1) any part, or all, of a secure communication between a patient and a diabetes care provider and 2) transmitted readings for a given time period (e.g., daily, weekly, etc.). The aggregated data may be automatically sent, or may be manually sent by the diabetes care provider, to a patient's electronic medical record, for example, at a diabetes clinic or hospital. The aggregated data may be in the form of a new note and, in specific embodiments, may use the Health Level 7 (HL7) standard format or other similar standardized and compatible formats.

[0035] For example, a patient may ask for renewal of medicines via the secure communications module and a diabetes care provider may communicate back confirming that the medicines will be ordered. The conversation may appear as a new note in the patient's electronic medical record, to which physicians or diabetes care providers can add orders, write more notes, and sign and send for billing.

[0036] In specific embodiments, the administrative version of the app may have a secure billing module for generating billing codes. The billing module may comprise Current Procedural Terminology (CPT) codes for analysis of diabetes information transmitted to the diabetes care provider or physician.

[0037] For example, a diabetes care provider or physician may analyze transmitted blood sugar logs and post a recommended change to the patient's diabetes plan. The secure billing module may generate Relative Value Units (RVU's) using CPT Code 99091 (Collection and interpretation of physiological data digitally stored and/or transmitted by the patient and/or caregiver to the physician or other qualified health care professional) or similar codes as necessary for updated billing requirements.

E. Example System

[0038] FIG. 1 is a schematic diagram of a system **100** according to an example embodiment of the present invention. The system comprises at least one diabetes device for a patient (patient 1) **105**, but may also include diabetes devices for a plurality of patients **n**, **110**. Readings from the at least one diabetes device are transmitted wirelessly to a secure server **112** via patients' respective smart devices, **115**. The smart devices each have an app for receiving, transmitting, and displaying the readings and which also provides a secure messaging or chat module **120** to display messages between a patient and a diabetes care provider in a graphical user interface **125**.

[0039] A smart device **130** of a diabetes care provider may also be in wireless communication with the secure server **112**. The smart device **130** of the diabetes care provider may have an administrative version of the app, which not only provides a secure messaging or chat module **120** for displaying messages in a graphical user interface **125**, but also provides a billing module **135**.

[0040] The system **100** allows for the aggregation of diabetes readings and chat between a patient and diabetes care provider for creating of a note in a patient's electronic medical record **140** at a clinic or hospital.

[0041] The diabetes readings that have been transmitted to the secure server **112** may be posted from the secure server to a secure website **145** that is accessible by plurality of computers **150** via a network **155**.

F. Example Graphical User Interface on Smart Device

[0042] FIG. 2 is an illustration of a graphical user interface (GUI) **200** of a smart device according to an example embodiment of the present invention. The GUI is of an administrative version of the app on a diabetes care provider's smart device. The GUI has icons **205** that allow a diabetes care provider to see transmitted readings from a plurality of diabetes devices. The GUI has an icon **210** allowing for access to secure messaging between the diabetes care provider and a patient, thereby providing for a dialogue **215** in the GUI as shown.

G. Example Method

[0043] FIG. 3 is a flowchart showing a method **300** according to an example embodiment of the present invention. Diabetes readings from a patient's at least one diabetes device **305** are transmitted wirelessly via the patient's smart device to a secure server **310**. If the transmitted readings are above a preset or predetermined threshold, a message is automatically sent to the patient's smart device **312**.

[0044] A diabetes care provider is notified of the new transmitted readings **315**. The patient and diabetes care provider have a communication via a secure communication or chat module on the patient's and diabetes care provider's respective smart devices **320**. The transmitted readings and mes-