

second characteristic determining device and the sensor data signals from the at least one characteristic sensor.

[0016] In particular embodiments, the at least one characteristic sensor is remotely located from the medical device module, and the sensor receiver receives the sensor data signals as wireless signals from the remotely located at least one characteristic sensor. In other embodiments, the medical device module further includes a transmitter coupled to the processor for transmitting the processed sensor data signals to another data receiving device. In additional embodiments, the medical device module uses a display of the PDA to show the determined quantity of the analyte from the second characteristic determining device and the processed sensor data signals from the at least one characteristic sensor. In further embodiments, the processor monitors the sensor data signals from the sensor receiver to determine when the second characteristic determining device is to be used to perform calibration of the sensor data signals.

[0017] In other embodiments, the medical device module further includes a memory to store the determined quantity of the analyte from the second characteristic determining device and the processed sensor data signals from the at least one characteristic sensor. In still other embodiments, the sensor data signals are received by the sensor receiver continuously, near continuously or intermittently.

[0018] In yet another embodiments, the second characteristic determining device is a second medical device module that utilizes a second characteristic sensor. In these embodiments, the determined quantity of the analyte from the second characteristic determining device is determined continuously, near continuously or intermittently. In a further embodiment, the second medical device module and the second characteristic sensor use a different sensing technology from that used by the at least one medical device module and the characteristic sensor.

[0019] In still yet another embodiment of the present invention, the second characteristic determining device utilizes a discrete sample to determine the quantity of the analyte. In further embodiments, the second characteristic determining device utilizes a test strip to analyze the sample to determine the quantity of the analyte. In still further embodiments, the at least one medical device is an infusion device, an analyte sensor patch and/or more than one medical device.

[0020] Still other preferred embodiments of the present invention are directed to a personal data assistant (PDA) for interfacing with at least one medical devices described above. In these embodiments, the medical device module operatively couples with the PDA and the PDA includes a housing adapted to receive the medical device module.

[0021] Further preferred embodiments of the present invention are directed to a medical device module for use in a system with a personal data assistant (PDA) with at least one characteristic sensor that produces a signal indicative of a characteristic of a user. The medical device module includes a housing, a test strip receptacle, a sensor receiver and a processor. The housing is adapted to operatively couple with the PDA. The test strip receptacle for receiving and testing a test strip exposed to an analyte to determine the quantity of the analyte. The sensor receiver is for receiving sensor data signals produced from the at least one charac-

teristic sensor. The processor is coupled to the sensor receiver and the test strip receptacle to process the determined quantity of the analyte from the test strip receptacle and the sensor data signals from the at least one characteristic sensor, and the processor is capable of interfacing with the PDA.

[0022] In particular embodiments, the at least one characteristic sensor is remotely located from the medical device module, and wherein the sensor receiver receives the sensor data signals as wireless signals from the remotely located at least one characteristic sensor. In other embodiments, the medical device module further includes a transmitter coupled to the processor for transmitting the processed sensor data signals to another data receiving device. Preferably, the transmitter transmits the processed sensor signals by radio frequencies. In additional embodiments, the transmitter transmits through a relay device between the transmitter and a remotely located processing device. Preferably, the relay device increases a maximum distance by amplifying the processed sensor data signals from the transmitter to be received by the remotely located processing device. Alternatively, the relay device enables the remotely located processing device to be located in a different room than the transmitter. In other alternative embodiments, the relay device includes a telecommunications device, and when the transmitter generates an alarm the telecommunications device transmits the alarm to a remotely located receiving station.

[0023] In further embodiments, the processor of the medical device module further includes the ability to program other medical devices, and wherein the transmitter transmits a program to the other medical devices. In still other embodiments, the medical device module further includes a data receiver, and the data receiver receives program instructions from other processing devices.

[0024] In yet another embodiment, the medical device module uses a display on the PDA to show the determined quantity of the analyte from the test strip receptacle and the processed sensor data signals from the at least one characteristic sensor. In still other embodiments, the processor of the medical device module the sensor data signals from the sensor receiver to determine when the test receptacle is to be used to perform calibration of the sensor data signals.

[0025] Additional embodiments of the medical device module further include a memory to store the determined quantity of the analyte from the test strip receptacle and the processed sensor data signals from the at least one characteristic sensor. In particular embodiments, the sensor data signals are received by the sensor receiver continuously, near continuously or intermittently.

[0026] Other features and advantages of the invention will become apparent from the following detailed description, taken in conjunction with the accompanying drawings which illustrate, by way of example, various features of embodiments of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0027] A detailed description of embodiments of the invention will be made with reference to the accompanying drawings, wherein like numerals designate corresponding parts in the several figures.