

Claims

1. Patient care system comprising a medical device (1) for administering a medical treatment to a patient (15a) and a server system (6) configured to receive and transmit data via a communications network (16) to and from users including patients (15a) and health care professionals (15b), the server system further configured to process and store data related to patient care, wherein the server system comprises a database (6c) configured to store data related to patient care, an application server (6b) including patient care software components for disease management (36) and patient information management program (32), a communication server (6a) including a web server software application for data transfer through the internet, the patient care software components configured to receive medical device usage data comprising data on the usage of said medical device transferred through the communications network, and further configured to process said medical device usage data in conjunction with patient data (32c) which patient data is collected in real time using a mobile user interface device, to generate a report (32f) or a plurality of reports related to the treatment of the patient, the reports being accessible remotely via the communications network by registered users of the patient care system as a function of respective roles and privileges of the registered user stored in the server system, the patient information management program comprising a reports component configured to generate reports, in the form of tables, charts, lists, diagrams or graphical representations based on information selected from drug administration history, adherence data, patient outcome reports, patient health reports, patient physiological data reports, medical device settings, treatment regimen data, and any combination of aforesaid information, the reports component being configured to form composite reports for simultaneous display on a user interface device (UID) display, including composite adherence and patient outcome reports to facilitate evaluation of the effects of non-adherence to the treatment regimen or the efficacy of the medical treatment, and wherein the system is operable to time stamp the medical device usage data, first data, such that the time and/or date of use of the medical device is recorded; and wherein in the system is operable to time stamp the patient data, second data, such that the time and/or date of a physiological state of a patient is recorded, and wherein the composite adherence report is displayed on a first time scale and the patient outcome report is displayed on a second time scale, wherein the first and second time scales are aligned and simultaneously displayed such that the composite adherence report and the patient outcome report are displayed for a common time interval, such that an operator can compare and/or correlate the adherence the treatment regimen to the patient outcome report over a period of time.
2. Patient care system according to claim 1, wherein the communication server further comprises a remote service data upload software application (26) configured for wireless telecommunication technology (WTT) data transfer.
3. Patient care system according to claim 2, further comprising a medical device connection station (22) comprising a wireless telecommunication technology (WTT) transmitter configured for connection to the server system via a wireless telecommunications network, the medical device connection station configured to interconnect to the medical device and to directly upload medical device

usage data to the patient information management program application via the WTT remote service data upload application on the server system.

4. Patient care system according to any preceding claim further comprising a client side software application installable on a mobile user interface device (UID) (18b, 18c), such as a phone or computer tablet, configured to upload medical device usage data to the patient information management program application via ~~the~~ a WTT remote service data upload application on the server system.

5. Patient care system according to claim 1, wherein the medical device incorporates a wireless telecommunication technology (WTT) transmitter configured for connection to the server system via a wireless telecommunications network, the medical device configured to upload medical device usage data to the patient information management program application via a WTT remote service data upload application (26) on the server system.

6. Patient care system according to claim 1, wherein the adherence to the treatment regimen is represented by a first graphical representation, and the patient outcome report relates to a physiological state of a patient and is represented by a second graphical representation, the first and second graphical representations having a common time scale such that an operator can compare the adherence to the treatment regimen and the physiological state of the patient.

7. Patient care system according to claim 1, wherein the composite adherence report is displayed on a first time scale and at least one patient outcome report is displayed on a second time scale, wherein the first and second time scales are displaced in relation to each other, such that the patient outcome report is compensated for a time delay in noticeable/measurable patient outcome, such that an operator can compare and/or correlate the adherence to the patient outcome report over a period of time.

8. Patient care system according to any one of claims 6 - 7, wherein the time scale displays adherence data and patient outcome reports per hour, day, week, month, year or any combination thereof

9. Patient care system according to any preceding claim, wherein the server system further comprises a notification services software component (30b) configured to transmit email and/or SMS (Short Message Service) notifications to patients and optionally other users of the system, notifications selected from a group including alarms, visit reminders, treatment regime information, health information, drug information.

10. Patient care system according to any preceding claim, wherein the server system further comprises patient therapy services software components including tests (40a) accessible online by patients, the software component configured to capture results of tests, such as vision and walking tests, and feed them into the reports software component.

11. Patient care system according to any preceding claim, wherein the server system further comprises patient therapy services software components including training exercises (40b) accessible online by patients, including training exercises selected from cognition training and mobility training.
- 5 12. Patient care system according to either of the directly two preceding claims, patient therapy services may further be configured to receive data from sensors relating to physiological measurements of the patient's measured physiological data captured automatically by sensors and transmitted to the server system via the patient's user interface device (18) and/or medical device (1) and/or by the sensing or training device, physiological data selected from body temperature, blood pressure, pulse rate,
10 galvanic skin response, surface electromyography, electroencephalography measurements, oculography measurements, electrocardiography measurements, breathing sensor measurements, blood sugar sensor measurements.
13. Patient care system according to claim 1, wherein the patient care system is configured for a
15 patient with multiple sclerosis.
14. Patient care system according to claim 1, wherein the patient care system is configured for a patient with growth hormone deficiency.
- 20 15. Patient care system according to claim 1, wherein the patient care system is configured for a patient with rheumatoid arthritis, or for a patient with juvenile rheumatoid arthritis, or for a patient with psoriasis, or for a patient with plaque psoriasis, or for a patient with Crohn's disease, or for a patient with juvenile Crohn's disease, or for a patient with asthma, or for a patient with psoriatic arthritis, or for a patient with ulcerative colitis, or for a patient with systemic lupus erythematosus, or for a patient with
25 ankylosing spondylitis.