

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 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 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) 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 care system further comprising a patient therapy software and/or hardware component having at least one interactive module selected from the group of physiological monitoring modules, training modules, information modules and psychological monitoring modules, wherein the reports component is 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 efficacy of the medical treatment.
2. Patient care system according to claim 1, wherein the patient therapy software resides on the patient's user interface device or on the medical device or is a web-based program which resides on the application server.
3. Patient care system according to any preceding claim, wherein the patient care software components are configured to receive patient therapy data from the patient therapy module and reports component is further configured display adherence to the compliance measurement to the patient therapy modules.
4. Patient care system according to any preceding claim, further comprising a central therapy software control module, configured to extract result information from individual modules and identify need of other training modules.
5. 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.
6. Patient care system according to the preceding claim, wherein the patient therapy software and/or hardware component is configured to generate recommendations to the patient and/or health care professionals, based on data from the patient therapy software, said recommendations being sent by notification services software component to the patient and/or health care professionals.
7. Patient care system according to any preceding claim, wherein the patient therapy software and/or hardware components comprises a cognitive remediation training module, the cognitive remediation training

module being accessible from the user interface device (UID), the cognitive remediation training module comprising a processor configured to run a patient adapted program with training exercises, a results analyser and a memory to store past results.

8. Patient care system according to any preceding claim, wherein the patient therapy software and/or hardware components comprises a cognitive depression management module, the cognitive depression management module being accessible from the user interface device (UID) and comprises a depression evaluation algorithm, a processor configured to run a patient adapted program with training exercises configured based on data from the depression evaluation algorithm, results analyser and a memory to store past results.

9. Patient care system according to any preceding claim, wherein the patient therapy software and/or hardware components comprises a cognitive sleep management module, the cognitive sleep management module being accessible from the user interface device (UID) and comprises training exercises, a results analyser and a memory to store past results.

10. Patient care system according to claim 7 or 8, wherein the processor is configured to iteratively adapt the cognitive training program during a training session, such that the patient adapted program can change based on the information entered by the patient.

11. Patient care system according to any preceding claim, wherein the server system further comprises patient therapy software and/or hardware components including a physiological monitoring module, configured to measure the physiological state of a patient.

12. Patient care system according to the preceding claim, wherein the physiological monitoring module comprises at least one interactive physiological test selected from the group of vision tests, walking tests, mobility tests and muscular force test.

13. Patient care system according to any preceding claim, wherein the server system further comprises patient therapy software and/or hardware components comprises an activity tracking module configured to track an amount of exercise performed.

14. Patient care system according to any preceding claim, wherein the server system further comprises a rehabilitation training module and a processing unit to calculate the trajectory of each marker with based on gait assessment for assessing, planning and treating inability to walk for patients having Multiple Sclerosis.

15. Patient care system according to any preceding claim, wherein the server system further comprises patient therapy software and/or hardware components including an information module configured to receive information requests from a user and to send responses on the user interface device (UID).

16. Patient care system according to any preceding claim, wherein said information module comprises drug information.

17. Patient care system according to any preceding claim, wherein the medical device comprises a reader configured to recognize the drug located inside from information on the drug container and a processing unit configured to send identification information about the drug to the remote server.

18. Patient care system according to any preceding claim, wherein patient information management program further comprises calendar software components (32g), and wherein said calendar software components are configured to prompt the patient to take drugs or take a patient therapy module.
19. Patient care system according to claim 18, wherein the calendar software components comprise a system of reminders and alerts, whereby reminders for next dose, appointments and training modules are sent to the display of the user interface device (UID).
20. Patient care system according to any preceding claim, wherein the patient information management program is configured to analyse entered data from patient outcome reports, training module and physiological measuring module and send triggers for further follow-up to a health care professional.
21. Patient care system according to any preceding claim, wherein the patient information management program comprises follow-up programs which can be selectively activated by a HCP, said follow-up programs comprising measurement of physiological parameters and pain ratings.
22. 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.
23. Patient care system according to claim 1, 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 adherence to the treatment regimen with the patient outcome report over a period of time.
24. 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.
25. A method of monitoring treatment and providing care to a patient suffering from a chronic disease or condition, comprising:
- providing a medical device for administering a treatment drug to the patient,
 - providing a computerized patient care system comprising a server system configured to receive and transmit data via a communications network to and from users including patients and health care professionals, the server system comprising a database configured to store data related to the patient, an application server including patient care software components for disease management and patient information management, a communication server for data transfer through the communications network, the patient care software components further comprising a patient therapy software and/or hardware component,
 - processing and storing data related to patient care on the server system,
 - transferring medical device usage data comprising data on the usage of said medical device through the communications network to the server system,
 - transferring usage data of the patient therapy software and/or hardware component through the communications network to the server system, and

- processing said medical device usage data and patient therapy software and/or hardware component usage data in conjunction with patient data to generate a report or a plurality of reports related to the treatment of the patient, providing remote access to the reports via the communications network to registered users of the patient care system as a function of respective roles and privileges of the registered users stored in the server system, wherein the reports component is 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.

26. Method for evaluating the efficacy of a treatment regimen for a chronic condition or disease comprising:

- providing a medical device to deliver a medicament,
- providing at least one therapy software on a user interface display,
- transmitting usage data of the medical device to a computing system,
- transmitting adherence to the therapy software module
- calculating adherence to a treatment regimen based on a prescribed treatment regimen data and said usage data,
- transmitting to the computing system a patient reported outcome,
- generating in the computing system a report comprising a first graphical representation of the adherence to a treatment regimen and a second graphical representation of the patient reported outcome, said first and second graphical representations comprising a common time scale
- rendering said report accessible to a health care professional for display on a screen of a user interface device, wherein said first and second graphical representations are simultaneously displayed.

27. Method according to claim 25 or 26 wherein the computing system or the computerized patient care system is a server system of a patient care system according to any of claims 1-24.