

## CLAIMS

1. A system for controlling distribution of a medication for treating symptoms of epilepsy, the system comprising:

a data storage facility comprising a database of patient records, each patient record having a medication authorization field for entering a first prescription of an epilepsy medication;

a central controller having one or more processors coupled to a communication network; which central controller is coupled to the data storage facility to read and write data to the data storage facility via the network; and

which controls transmission and receipt of data to and from the data storage facility via the network,

the central controller being programed to output via the network a first authorization of a first prescription of epilepsy medication to a specific patient previously subjected to one or more initial medical tests, each providing an initial medical test result,

wherein the initial medical test is selected from the group consisting of a clinical examination by a physician, a genetic test, a physiological function test, and a medical imaging test,

wherein output of the authorization is dependent upon the results of one or more initial tests, and

further programed to schedule a one or more subsequent tests for the patient prior to allowing entry of a prescription for epilepsy medication in the medication authorization field, wherein at least one of said subsequent medical tests is an echocardiographic imaging test.

2. The system according to claim 1, further comprising:

a drug storage facility having epilepsy medication stored therein;

wherein the central controller of the system is programed to monitor drug inventory in the drug storage facility and further programed to control dispatch of medication from the drug storage facility to fulfil and enter into the medication authorization field.

3. The system according to either of claims 1 or 2,  
wherein the central controller is programed to authorize prescription related information selected from the group consisting of dosage, volume, count, regime, concentration and intended time period of use by the patient for a specified medication or active ingredient; and further  
wherein the central controller instructs and/or coordinates the genetic test for the patient and subsequent tests for the patient.
4. The system according to any one of claims 1, 2, or 3,  
wherein the central controller is programed to prescribe a data format for test results for each patient, the data format being aligned with test data fields for each patient; and further  
wherein the central controller is programed to log test results for each patient over time, and to generate a plot showing a trend for each patient.
5. The system according to any one of claims 1-4, wherein the central controller is programed to predict future test results and categorizes patient test data by reference to a predetermined model.
6. The system according to any one of claims 1-5, wherein the subsequent test is selected from the group consisting of a physiological test, and an echocardiography.
7. The system according to any one of claims 1-6, wherein the central controller is programed to output a time period over which use of the medication by a patient is authorized and beyond which subsequent test results for the patient are required to be received before authorizing additional medication for the patient, and further wherein the central controller is programed to authorize an additional prescription, a change to the prescription and output of a proposal for cessation of the prescription dependent upon subsequent test results.
8. The system according to any one of claims 1-7, wherein the central controller is programed to  
monitor a patient monitoring device;  
collect data related to patient treatment;

analyze the data collected;  
 determine patient response to treatment; and  
 determine occurrence of and type of seizures.

9. The system according to any one of claims 1-8, wherein,  
 the patient database contains delivery address details for the patient,  
 the central controller is programed to:
  - act as a centralized pharmacy for the medication and,
  - confirm receipt of the medication at the delivery address ..
10. The system according to any one of claims 1-9, further comprising:  
 a portable electronic device carried or worn by the patient for monitoring patient health,  
 the electronic device comprising a sensor for measuring information selected from the group  
 consisting of blood pressure, electrocardiography (ECG), heart rate, blood oxygen, temperature,  
 and lung function, and  
 wherein the electronic device is arranged to provide sensor readings in a format  
 compatible with the central controller.
11. The system according to any one of claims 1-10,  
 wherein an output from the electronic device is used by the central controller to  
 determine at least one of a change to a scheduled medical test for the patient and a change to a  
 medication prescription for the patient; and further  
 wherein the central data store comprises a database of authorized medical professionals,  
 the central controller outputting authorization of one or more medical professionals upon  
 completion of one or more data fields indicative of the reputation of the medical professional in  
 the field of epilepsy.
12. The system according to any one of claims 1-11, for controlling distribution of  
 medicaments in the treatment of symptoms of Dravet Syndrome.

13. A method of controlling distribution of a medication in the treatment or prevention of epilepsy, the method comprising:

maintaining a central data storage facility including a database of patient records, each patient record comprising a medication authorization field,

outputting from a central controller coupled to a communications network and to the data storage facility, an authorization of a first prescription of epilepsy medication to a patient over the communications network only in response to the results of a patient medical test selected from the group consisting of clinical examination by a physician, genetic test, physiological function test and medical imaging test;

scheduling by the central controller one or more subsequent tests for the patient prior to authorization of one or more subsequent prescriptions of epilepsy medication.

14. The method of controlling distribution of a medication of claim 13, further comprising:

monitoring by the central controller drug inventory in a drug storage facility, and controlling dispatch of medications to fulfil prescriptions.

15. A data carrier comprising non-transitory machine readable storage media storing instructions for the control of one or more processors to function as a central controller of epilepsy medication by:

controlling reading and writing of data to a central data storage facility including a database of patient records, each patient record comprising a medication authorization field;

outputting from the central controller over a communications network an authorization of a first prescription of epilepsy medication to a patient only in response to the results of medical test selected from the group consisting of clinical examination by a physician, genetic test, physiological function test and medical imaging test for that patient being logged in the patient database;

automatically scheduling one or more subsequent tests for the patient prior to authorization of one or more subsequent prescriptions of epilepsy medication; and

controlling monitoring by the central controller of drug inventory in a drug storage facility and controlling dispatch of the medications to fulfil the prescriptions.

16. A system for controlling distribution of a medication for treating symptoms of epilepsy, the system comprising:

a data storage facility including a database of patient records, each patient record having a medication authorization field for entering a first prescription of an epilepsy medication;

a central controller having one or more processors coupled to a communication network, which controls transmission and receipt of data via the network and which is coupled to the data storage facility to read and write data to the data storage facility;

the central controller being programed to output via the network an authorization of a first prescription of epilepsy medication to a specific patient dependent upon the results of a medical test for that patient, wherein the medical test is selected from the group consisting of a genetic test, an echocardiography test, a physiological function test, and a medical imaging test, and further programed to schedule a subsequent test for the patient prior to allowing entry of a prescription for a disease medication in the medication authorization field.

17. The system of claim 16, wherein the epilepsy is a specific designated subtype of epilepsy.

18. The system as claimed in claim 17, wherein the subtype of epilepsy is refractory epilepsy.

19. The system as claimed in claim 17, wherein the subtype of epilepsy is Dravet syndrome.

20. The system as claimed in claim 17, wherein the subtype of epilepsy is Lennox-Gastatut syndrome.

21. The system as claimed in claim 17, wherein the subtype of epilepsy is West syndrome.

22. The system as claimed in claim 17, wherein the subtype of epilepsy is Doose syndrome.

23. The system as claimed in claim 16 wherein the medical test is an echocardiograph test.
24. The system of claim 16, wherein the medication stimulates a 5-HT receptor.
25. The system as claimed in claim 24, wherein the 5-HT receptor is in a family of receptors selected from the group consisting of 5-HT1, 5-HT2, 5-HT3, 5-HT4, 5-HT5, 5-HT6 and 5-HT7.
26. The system as claimed in claim 24, wherein the 5-HT receptor is in the 5-HT1 receptor family and is selected from the group consisting of 5-HT1A, 5-HT1B, 5-HT1C, 5-HT1D, 5-HT1E and 5-HT1F.
27. The system as claimed in claim 24, wherein the 5-HT receptor is in the 5-HT2 receptor family and is selected from the group consisting of 5-HT2A, 5-HT2B and 5-HT2C.
28. The system as claimed in claim 24, wherein the 5-HT receptor is in the 5-HT3 receptor family and is selected from the group consisting of 5-HT3A and 5-HT3B.
29. The system of claim 24, wherein the medication is fenfluramine or a pharmaceutically acceptable salt thereof.
30. The system as claimed in claim 29, wherein the fenfluramine or pharmaceutically acceptable salt thereof is administered in a dose of 0.5 mg/kg/day to 0.01 mg/kg/day to the patient.
31. The system as claimed in claim 29 wherein the medical test is an echocardiograph test.

32. The system as claimed in claim 16, wherein the genetic test results relate to a test for a mutation which is selected from the group consisting of SCN1A, SCN1B, SCN3A, SCN9A, GABRG2, GABRD and PCDH19.
33. The system as claimed in claim 16, wherein the patient is 18 years old or younger.