CLAIMS

1. A medical apparatus comprising:

a radiation source for emitting electromagnetic radiation towards an area to be treated of a patient;

a mount element arranged to be worn by the patient for positioning the radiation source in a predetermined position relative to the area to be treated; and

a controller for controlling the duration or time that the radiation source emits electromagnetic radiation, and for varying the intensity, waveform, frequency or pulse modulation of electromagnetic radiation emitted in accordance with predetermined parameters.

2. A medical apparatus as claimed in claim 1, wherein the controller is adapted to vary the intensity, waveform, frequency or pulse modulation of radiation emitted in accordance with a treatment program corresponding to the predetermined parameters, the program received at an input terminal.

3. A medical apparatus as claimed in claim 2 wherein the input terminal is a user interface provided on the apparatus, or a receiver element arranged to receive a signal from a remote device.

4. A medical apparatus as claimed in claim 2 or 3 wherein the treatment program comprises an increase in intensity and a decrease in intensity.

5. A medical apparatus as claimed in claim 1 or 2 wherein the controller is provided remotely to the mount element.

6. A medical apparatus as claimed in any preceding claim wherein the treatment program is predetermined based on a patient's personal needs.

7. A medical apparatus as claimed in claim 6 wherein the treatment program is predetermined based on a set of data previously logged from said patient.

8. A medical apparatus as claimed in any preceding claim further comprising a clock device for providing a timing signal to the controller.

9. A medical apparatus as claimed in claim 8 further comprising an alarm for making an indication to the patient at a predetermined wake up time.

10. A medical apparatus as claimed in any preceding claim wherein the controller gradually changes the intensity, waveform, frequency or pulse modulation of radiation emitted over the first period of treatment and gradually changes the intensity, waveform frequency or pulse modulation over the final period of treatment, wherein the first period of treatment and the final period of treatment are between about 30 minutes and 1 hour.

11. A medical apparatus as claimed in any of claims 2, 3, or 4, wherein the input terminal, or a further input terminal, is configured for receiving patient data indicative of real time information associated with the patient and sending the patient data to the controller to actively control the radiation source.

12. A medical apparatus as claimed in claim 11 further comprising an alarm system connected to the input terminal or further input terminal for indicating when patient data has surpassed a predetermined boundary or boundaries.

13. A medical apparatus as claimed in any preceding claim, wherein the controller is further arranged to actively control the wavelength of electromagnetic radiation emitted

14. A medical apparatus as claimed in claim 13, wherein the controller is arranged to control the intensity of the electromagnetic radiation emitted between 30 and 100 cd/m$^2$.

15. A medical apparatus as claimed in any preceding claim, wherein the radiation source comprises at least one organic light emitting diode (OLED).

16. A system comprising:

a patient data monitoring apparatus for taking readings of a parameter associated with a patient; and

a treatment apparatus for being worn by the patient, comprising:

a radiation source for emitting electromagnetic radiation towards an area to be treated of a patient;

a mount element for positioning the radiation source in a predetermined position relative to the area to be treated; and

a controller for controlling the intensity, waveform, frequency or pulse modulation of electromagnetic radiation emitted;

wherein the treatment apparatus is arranged to receive patient data, indicative of the readings or a proportion of the readings, from the patient data monitoring apparatus, and

wherein the controller is arranged to vary the intensity, waveform, frequency or pulse modulation of the electromagnetic radiation emitted in accordance with the patient data.

17. A system as claimed in claim 16, wherein the patient data monitoring apparatus is arranged to send data indicative of the readings or a proportion of the readings directly to a receiver on the treatment apparatus.

18. A system comprising:

a treatment apparatus for being worn by a patient, comprising

a radiation source for emitting electromagnetic radiation towards an area to be treated of a patient, and

a mount element for positioning the radiation source in a predetermined position relative to the area to be treated; and

a controller for generating signals to control and vary the intensity, waveform, frequency or pulse modulation of electromagnetic radiation emitted by the radiation source, in accordance with predetermined parameters.

19. A system as claimed in claim 18 wherein the controller is adapted to vary the intensity, waveform, frequency or pulse modulation of radiation emitted in accordance with a treatment program corresponding to the predetermined parameters.

20. A method of manufacturing a medical apparatus comprising:

providing a radiation source for emitting electromagnetic radiation;

providing a mount element to be worn by a patient for positioning the radiation source in a predetermined position; and

providing a controller for controlling the duration or time that the radiation source emits electromagnetic radiation, and varying the intensity, waveform, frequency or pulse modulation of electromagnetic radiation emitted in accordance with predetermined parameters.

CLAIMS

1. A medical apparatus comprising:

a radiation source for emitting electromagnetic radiation towards an area to be treated of a patient;

a mount element arranged to be worn by the patient for positioning the radiation source in a predetermined position relative to the area to be treated; and

a controller for controlling the duration or time that the radiation source emits electromagnetic radiation, and for varying the intensity, waveform, frequency or pulse modulation of electromagnetic radiation emitted in accordance with predetermined parameters.

2. A medical apparatus as claimed in claim 1, wherein the controller is adapted to vary the intensity, waveform, frequency or pulse modulation of radiation emitted in accordance with a treatment program corresponding to the predetermined parameters, the program received at an input terminal.

3. A medical apparatus as claimed in claim 2 wherein the input terminal is a user interface provided on the apparatus, or a receiver element arranged to receive a signal from a remote device.

4. A medical apparatus as claimed in claim 2 or 3 wherein the treatment program comprises an increase in intensity and a decrease in intensity.

5. A medical apparatus as claimed in claim 1 or 2 wherein the controller is provided remotely to the mount element.

6. A medical apparatus as claimed in any preceding claim wherein the treatment program is predetermined based on a patient's personal needs.

7. A medical apparatus as claimed in claim 6 wherein the treatment program is predetermined based on a set of data previously logged from said patient.

8. A medical apparatus as claimed in any preceding claim further comprising a clock device for providing a timing signal to the controller.

9. A medical apparatus as claimed in claim 8 further comprising an alarm for making an indication to the patient at a predetermined wake up time.

10. A medical apparatus as claimed in any preceding claim wherein the controller gradually changes the intensity, waveform, frequency or pulse modulation of radiation emitted over the first period of treatment and gradually changes the intensity, waveform frequency or pulse modulation over the final period of treatment, wherein the first period of treatment and the final period of treatment are between about 30 minutes and 1 hour.

11. A medical apparatus as claimed in any of claims 2, 3, or 4, wherein the input terminal, or a further input terminal, is configured for receiving patient data indicative of real time information associated with the patient and sending the patient data to the controller to actively control the radiation source.

12. A medical apparatus as claimed in claim 11 further comprising an alarm system connected to the input terminal or further input terminal for indicating when patient data has surpassed a predetermined boundary or boundaries.

13. A medical apparatus as claimed in any preceding claim, wherein the controller is further arranged to actively control the wavelength of electromagnetic radiation emitted.

14. A medical apparatus as claimed in claim 13, wherein the controller is arranged to control the intensity of the electromagnetic radiation emitted between 30 and 100 cd/m$^2$.

15. A medical apparatus as claimed in any preceding claim, wherein the radiation source comprises at least one organic light emitting diode (OLED).

16. A system comprising:

a patient data monitoring apparatus for taking readings of a parameter associated with a patient; and

a treatment apparatus for being worn by the patient, comprising:

a radiation source for emitting electromagnetic radiation towards an area to be treated of a patient;

a mount element for positioning the radiation source in a predetermined position relative to the area to be treated; and

a controller for controlling the intensity, waveform, frequency or pulse modulation of electromagnetic radiation emitted,

wherein the treatment apparatus is arranged to receive patient data, indicative of the readings or a proportion of the readings, from the patient data monitoring apparatus, and

wherein the controller is arranged to vary the intensity, waveform, frequency or pulse modulation of the electromagnetic radiation emitted in accordance with the patient data.

17. A system as claimed in claim 16, wherein the patient data monitoring apparatus is arranged to send data indicative of the readings or a proportion of the readings directly to a receiver on the treatment apparatus.

18. A system comprising:

a treatment apparatus for being worn by a patient, comprising

a radiation source for emitting electromagnetic radiation towards an area to be treated of a patient, and

a mount element for positioning the radiation source in a predetermined position relative to the area to be treated; and

a controller for generating signals to control and vary the intensity, waveform, frequency or pulse modulation of electromagnetic radiation emitted by the radiation source, in accordance with predetermined parameters.

19. A system as claimed in claim 18 wherein the controller is adapted to vary the intensity, waveform, frequency or pulse modulation of radiation emitted in accordance with a treatment program corresponding to the predetermined parameters.