CLAIMS

1. An infusion planning system for scheduling medical events including medial infusions, comprising:

a control system including a processor, memory, and data bus that:

receives a plurality of medication event orders associated with one or more patients including at least a plurality of medication infusion orders for administration by one or more infusion pumps including delivery parameters for each medication infusion order;

assigns at least one medication safety parameter to each medication infusion order;

associates any related medication infusion orders and assigned medication safety parameters with one another; and

receives patient information specific to the one or more patients from a hospital information services database;

a medical caregiver device operatively coupled to the control system; and

a graphical user interface (GUI) displayed on the caregiver device including a plurality of infusion delivery profile graphics corresponding to the plurality of medication infusion orders, each of the profile graphics presenting visual information corresponding to both a quantity of medication to be delivered and an amount of time for fluid delivery;

wherein the GUI includes a schedule timeline permitting user manipulation of the infusion delivery profile graphics on the schedule timeline to assign and revise times for administration of the medication event orders.

2. An infusion planning system according to claim 1, wherein the medical caregiver device is a PC workstation, a laptop, an electronic tablet, or a smart phone.

3. An infusion planning system according to claim 1, wherein color-coded scales are provided on the GUI reflecting acceptable fluid delivery ranges for infusions scheduled.

4. An infusion planning system according to claim 1, wherein the GUI displays a graphic to indicate related medication infusion orders.

5. An infusion planning system according to claim 1, wherein the GUI displays real-time updates of infusion delivery profile graphics as changes occur over time.

6. An infusion planning system according to claim 1, wherein the medication infusion orders are not the only medication event orders received by the data bus.

7. An infusion planning system according to claim 1, wherein the control system controls a smart pump stack comprising a plurality of infusion pumps.

8. A graphical user interface (GUI) for scheduling patient care events including scheduling a plurality of infusions delivered by at least one infusion pump, the GUI comprising:

a time schedule display comprising a plurality of columns representing time intervals during at least one particular date;

a plurality of infusion bars each representing an ordered infusion or medication for administration;

an infusion delivery profile graphic associated with each ordered infusion that depicts both the amount of medication to be delivered to a patient and the length of time period needed for delivery;

wherein the infusion delivery profile graphics are configured for movement within the infusion bar associated with the corresponding ordered infusion, such that the profile graphic is aligned with the columns representing the time intervals over which the ordered infusion is scheduled for delivery.

9. A graphical user interface (GUI) according to claim 8, wherein a total infusion bar is included depicting the cumulative total of the ordered infusions during the time intervals displayed on the chart.

10. A graphical user interface (GUI) according to claim 8, wherein a graphic is used to depict the ordered infusions that are linked to one another.

11. A graphical user interface (GUI) according to claim 8, wherein real-time updates of changes are shown on the display.

12. A graphical user interface (GUI) according to claim 8, wherein medical events are displayed for the one or more patients not related to medication infusion therapies.

13. A graphical user interface (GUI) according to claim 8, wherein a color-coded scale is provided reflecting acceptable ranges of fluid delivery adjacent at least one of the plurality of infusion bars.

14. A non-transitory data storage media, storing computer-usable instructions embodied thereon that cause a computing device to perform a method for scheduling infusion and medication delivery, the method comprising:

receiving a plurality of medication event orders associated with one or more patients including a plurality of medication infusion orders for administration by one or more infusion pumps including delivery parameters for each medication infusion order;

assigning medication safety parameters to each medication infusion order;

associating any related medication infusion orders and assigned medication safety parameters;

receiving patient information from a hospital information services database specific to the one or more patients;

creating a graphical user interface, including a display having a plurality of infusion bars set on a common scheduling timeline, each infusion bar associated with a type of medication infusion order and including a first ordinate representative of infusion amount and a second ordinate representative of time;

displaying an infusion delivery profile graphic for each infusion bar which has a shape that visually depicts the amount of infusion fluid for delivery and the time length of infusion for the medication infusion order associated with that infusion bar; and

enabling user manipulation of the infusion delivery profile graphic within the infusion bar to schedule the timing for a corresponding medication infusion.

15. The method of claim 14, wherein a record of actual infusion and medication delivery for each of the one or more patients is made.

16. The method of claim 15, wherein the display of the graphical user interface is updated in real-time.

17. The method of claim 14, wherein the graphical user interface includes a total infusion bar depicting cumulative amounts of infusion fluid delivered during an interval of time.

18. A method for planning infusion treatments for a patient at a medical facility, comprising

accessing a database of timeline-based, graphical patient infusion records;

filtering graphical patient infusion records with the aid of search software using parameters associated with a patient profile matching those of the patient to locate a set of relevant infusion timeline records;

reviewing the set of relevant infusion timeline records to obtain information related to treatment individuals matching the patient profile;

determining one or more patient infusion orders for the patient in view of the review of the set of relevant records;

submitting the one or more patient infusion orders electronically to an infusion planning system responsible for scheduling and recording infusion treatments for the patient within the medical facility.

19. The method of claim 18, wherein the infusion planning system assigns the one or more patient infusion orders specific rules restricting the scheduling of the various infusion orders relative to each other.

20. The method of claim 19, wherein the parameters include one or more patient characteristics including one or more of: age, weight, gender, ethnicity.

21. The method of claim 20, wherein the parameters include one or more treatment characteristics including one or more of: ICD-9 code, ICD-10 code, drug type, care area, treating physician, number of treatments, procedure code.

22. The method of claim 21, wherein the parameters include one or more patient physiological measurements including one or more of: blood pressure, heart rate, CO2 level, O2 level, ECG, BIS, or pain response meter reading.

## CLAIMS

1. An infusion planning system for visually scheduling medical events including medical infusions, comprising:

a control system including a processor, memory, and data bus that:

receives a plurality of medication event orders associated with one or more patients including at least a plurality of medication infusion orders for administration by one or more infusion pumps including delivery parameters for each medication infusion order;

assigns at least one medication safety parameter to each medication infusion order;

associates any related medication infusion orders and assigned medication safety parameters with one another; and

receives patient information specific to the one or more patients from a hospital information services database;

a medical caregiver device operatively coupled to the control system; and

a graphical user interface (GUI) displayed on the caregiver device including a plurality of infusion delivery profile graphics corresponding to the plurality of medication infusion orders, each of the profile graphics presenting visual information corresponding to both a quantity of medication to be delivered and an amount of time for fluid delivery;

wherein the GUI includes a schedule timeline of segments of time, each for a particular time of day on a particular date, permitting user manipulation of the infusion delivery profile graphics on the schedule timeline to assign and revise times for administration of the medication event orders.

2. An infusion planning system according to claim 1, wherein the medical caregiver device is a PC workstation, a laptop, an electronic tablet, or a smart phone.

3. An infusion planning system according to claim 1, wherein color-coded scales are provided on the GUI reflecting acceptable fluid delivery ranges for infusions scheduled.

4. An infusion planning system according to claim 1, wherein the GUI displays a graphic to indicate related medication infusion orders.

5. An infusion planning system according to claim 1, wherein the GUI displays real-time updates of infusion delivery profile graphics as changes occur over time.

6. An infusion planning system according to claim 1, wherein the medication infusion orders are not the only medication event orders received by the data bus.

7. An infusion planning system according to claim 1, wherein the control system controls a smart pump stack comprising a plurality of infusion pumps.

8. A graphical user interface (GUI) for visually scheduling patient care events including scheduling a plurality of infusions delivered by at least one infusion pump, the GUI comprising:

a time schedule display comprising a plurality of columns representing time intervals for particular times of day during at least one particular date;

a plurality of infusion bars each representing an ordered infusion or medication for administration;

an infusion delivery profile graphic associated with each ordered infusion that depicts both the amount of medication to be delivered to a patient and the length of time period needed for delivery;

wherein the infusion delivery profile graphics are configured for movement within the infusion bar associated with the corresponding ordered infusion, such that the profile graphic is aligned with the columns representing the time intervals over which the ordered infusion is scheduled for delivery.

9. A graphical user interface (GUI) according to claim 8, wherein a total infusion bar is included depicting the cumulative total of the ordered infusions during the time intervals displayed on the chart.

10. A graphical user interface (GUI) according to claim 8, wherein a graphic is used to depict the ordered infusions that are linked to one another.

11. A graphical user interface (GUI) according to claim 8, wherein real-time updates of changes are shown on the display.

12. A graphical user interface (GUI) according to claim 8, wherein medical events are displayed for the one or more patients not related to medication infusion therapies.

13. A graphical user interface (GUI) according to claim 8, wherein a color-coded scale is provided reflecting acceptable ranges of fluid delivery adjacent at least one of the plurality of infusion bars.

14. A non-transitory data storage media, storing computer-usable instructions embodied thereon that cause a computing device to perform a method for visually scheduling infusion and medication delivery, the method comprising:

receiving a plurality of medication event orders associated with one or more patients including a plurality of medication infusion orders for administration by one or more infusion pumps including delivery parameters for each medication infusion order;

assigning medication safety parameters to each medication infusion order;

associating any related medication infusion orders and assigned medication safety parameters;

receiving patient information from a hospital information services database specific to the one or more patients;

creating a graphical user interface, including a display having a plurality of infusion bars set on a common scheduling timeline of segments of time, each for a particular time of day on a particular date, each infusion bar associated with a type of medication infusion order and including a first ordinate representative of infusion amount and a second ordinate representative of time;

displaying an infusion delivery profile graphic for each infusion bar which has a shape that visually depicts the amount of infusion fluid for delivery and the time length of infusion for the medication infusion order associated with that infusion bar; and

enabling user manipulation of the infusion delivery profile graphic within the infusion bar to schedule the timing for a corresponding medication infusion.

15. The method of claim 14, wherein a record of actual infusion and medication delivery for each of the one or more patients is made.

16. The method of claim 15, wherein the display of the graphical user interface is updated in real-time.

17. The method of claim 14, wherein the graphical user interface includes a total infusion bar depicting cumulative amounts of infusion fluid delivered during an interval of time.