CLAIMS

1. A medical device programming assembly for programming a medical treatment parameter to an infusion device configured to receive a programming key, the assembly comprising;

a programming key configured to mate with the infusion device, the programming key further comprising,

a cover for supporting one or more programming key components, the components comprising,

a programmable, non-transitory, computer readable storage device affixed to the cover and encoding one or more medical treatment parameters for operating the infusion device,

a data connector electrically connected to the storage device and configured to mate with a corresponding data connector on the infusion device for the transfer of data from the storage device to the infusion device, and

a fastener coupling providing a locking mechanism, the fastener coupling affixed to the storage device and configured to mate with a corresponding coupling on the infusion device when the data connector is connected with the corresponding data connector on the infusion device;

wherein the programming key storage device is configured to occupy a shape formed by the infusion device and the locking mechanism is configured to lock the cover and the infusion device when the programming key data connector and fastener coupling are mated with the corresponding data connector and fastener coupling on the infusion device.

2. A medical device programming assembly according to claim 1, wherein the fastener coupling comprises a tongue and groove sliding fastener, and the cover further comprises;

a substantially planar portion configured to cover the shape formed within the infusion device, terminating in a tongue or groove portion formed at one or more edges of the substantially planar portion configured to mate with a corresponding tongue or groove partially defining the shape within the infusion device, and

the locking mechanism configured to engage with a corresponding mechanism on the infusion device to secure the sliding fastener in position when the data connector and fastener coupling are mated with the corresponding data connector and fastener coupling on the infusion device.

3. A medical device programming assembly according to claim 1, wherein the data connector comprises;

a unique data connector configured to impede mating with commonly available data connectors, and

a fastener coupling configured to mate with a corresponding coupling on the infusion device and configured to form a substantially non-releasable locking mechanism between the storage device data connector and the infusion device data connector and thereby a substantially non-tamperable engagement between the programming key and the infusion device.

4. A medical device programming assembly according to claim 1, wherein the conformation or shape of the fastener coupling is configured to cover a priming mechanism of the infusion device, to form a substantially non-tamperable engagement between the programming key and the infusion device, and to enable the operation of a priming sequence upon engagement of the programming key with the infusion device.

5. A medical device programming assembly according to claim 1, the assembly comprising;

a data hub device being adapted to

receive data transmitted from the infusion device

receive data including the one or more medical treatment parameters for operating the infusion device, encoded by the programmable, non-transitory, computer readable storage device,

store the data, and

process the data, display the data or communicate the data to the same or another electronic device.

6. A medical device programming assembly according to claim 5, wherein the data hub device is configured to encode the one or more medical treatment parameters for operating the infusion device to the programmable, non-transitory, computer readable storage device of the infusion device.

7. A medical device programming assembly according to claim 1, the assembly comprising;

a central processing unit, and

an infusion device comprising,

a fastener coupling configured to mate with a corresponding coupling on the programming key, and

a storage device reader comprising a data connector configured to mate with a corresponding data connector on the programming key

wherein the infusion device is configured to define a shape for receiving the programming key when the data connector and fastener coupling on the infusion device are mated with the corresponding data connector and fastener coupling of the programming key.

8. A medical device programming assembly according to claim 7, wherein the infusion device is configured to be activated when the data connector is connected with the corresponding data connector on the programming key.

9. A medical device programming assembly according to claim 5, wherein the data hub device comprises a server or a router for communicating the data including the one or more medical treatment parameters for operating the infusion device to another electronic device.

10. A method of manufacturing a medical device programming assembly according to claim 1.

11. A method of assembling a medical device programming assembly according to claim 4, wherein the method comprises the steps of;

obtaining a programmable, non-transitory, computer readable storage device comprising a data connector wherein the data connector is configured to mate with a corresponding data connector on the infusion device,

programming the programmable, non-transitory, computer readable storage device to encode one or more medical treatment parameters for operating the infusion device, and

affixing the storage device to a fastener coupling providing a locking mechanism and being configured to mate with a corresponding coupling on the infusion device when the data connector is connected with the corresponding data connector on the infusion device.

12. A method of assembling a medical device programming assembly according to claim 11, wherein the step of programming the programmable, non-transitory, computer readable storage device comprises the additional step of rendering the medical treatment parameter substantially non-editable.

13. A system for programming a medical treatment parameter on an infusion device configured to receive a programming key, the system comprising;

a programming key adapted to mate with the infusion device the programming key further comprising,

a cover for supporting programming key components, the components comprising,

a programmable, non-transitory, computer readable storage device affixed to the cover encoding one or more medical treatment parameters for operating the infusion device,

a data connector electrically connected to the storage device and configured to mate with a corresponding data connector on the infusion device for the transfer of data from the storage device to the infusion device, and

a fastener coupling providing a locking mechanism affixed to the storage device and configured to mate with a corresponding coupling on the infusion device when the data connector is connected with the corresponding data connector on the infusion device,

wherein the programming key storage device is configured to occupy a shape formed by the infusion device and the locking mechanism is configured to lock the cover and the infusion device when the programming key data connector

and fastener coupling are mated with the corresponding data connector and fastener coupling on the infusion device.

14. The system for programming a medical treatment parameter according to claim 13 comprising;

a data hub device adapted to

receive data transmitted from the infusion device, and

receive data including the one or more medical treatment parameters for operating the infusion device, encoded by the programmable, non-transitory, computer readable storage device,

store the data, and

process the data, display the data or communicate the data to the same or another electronic device.

15. The system for programming a medical treatment parameter according to claim 13 comprising;

a central processing unit, and

an infusion device comprising,

a fastener coupling configured to mate with a corresponding coupling on the programming key, and

a storage device reader comprising a data connector configured to mate with a corresponding data connector on the programming key

wherein the infusion device is configured to define a shape for receiving the programming key when the data connector and fastener coupling on the infusion device are mated with the corresponding data connector and fastener coupling of the programming key.

16. A method for the transfer of data from a programmable, non-transitory, computer readable storage device to a data hub device comprising the steps of;

obtaining a programming key further comprising,

a cover for supporting one or more programming key components,

a programmable, non-transitory, computer readable storage device affixed to the cover and encoding a medical treatment parameter for operating an infusion device, a data connector electrically connected to the storage device and configured to mate with a corresponding data connector on the infusion device for the transfer of data from the storage device to the infusion device, and

a fastener coupling providing a locking mechanism affixed to the storage device and configured to mate with a corresponding coupling on the infusion device when the data connector is connected with the corresponding data connector on the infusion device,

obtaining a central processing unit, and

obtaining the infusion device further comprising,

a fastener coupling configured to mate with a corresponding coupling on the programming key, and

a storage device reader comprising a data connector configured to mate with a corresponding data connector on the storage device,

mating the storage device data connector with the infusion device data connector,

communicating the medical treatment parameter to the infusion device, and

communicating the medical treatment parameter from the infusion device to the data hub device.

17. A method according to claim 16, wherein;

the step of communicating the medical treatment parameter to the infusion device is followed by the step of sensing a medical treatment parameter during or following the medical treatment, and

the step of communicating the medical treatment parameter from the infusion device to the data hub device further comprises the step of communicating the sensed medical treatment parameter to the data hub device.