CLAIMS

1. A medical device programming system for programming a medical treatment parameter to an infusion device configured to receive a programming key, the system 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 a digital key, a priming sequence and 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 means, 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 is configured to occupy a shape formed by the infusion device and the locking means 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 system 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 means configured to engage with a corresponding means 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 system 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 means 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 system 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 system according to claim 1, the system 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 system according to claim 5, wherein the data hub device is configured to encode the digital key, the priming sequence and 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 system according to claim 1, the system 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 system 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 system 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 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 digital key, a priming sequence and 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 means 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 digital key, the priming sequence and the medical treatment parameter to the infusion device, and

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

11. A method according to claim 10 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.