CLAIMS

1. A system for consolidating medical data from multiple devices involved in an encounter between a patient and an emergency healthcare provider, the system comprising:

a plurality of medical devices each having one or more identifiers and being configured to:

obtain case data related to the encounter between the patient and the emergency healthcare provider, and

transmit the obtained case data to a server as one or more medical device case files;

a mobile computing device having a medical device interface and a user interface, the mobile computing device configured to:

acquire, via the medical device interface, one or more representations of the one or more identifiers of each medical device of the plurality of medical devices,

generate association information comprising the one or more identifiers, and

transmit the association information to the server; and

the server comprising at least one processor and memory to execute instructions for associating the one or more medical device case files, the server configured to be communicatively coupled with the plurality of medical devices and the mobile computing device, the server further configured to:

receive and store the one or more medical device case files from the plurality of medical devices,

receive the association information from the mobile computing device,

generate at least one search criterion based at least in part on the association information to relate the one or more medical device case files to one another,

identify the related one or more medical device case files based on the generated at least one search criterion,

consolidate the one or more medical device case files to produce an integrated data source encounter structure comprising case data from the related one or more medical device case files, and

transmit the integrated data source encounter structure for review of the encounter between the patient and the emergency healthcare provider to a receiving computing device.

2. The system of claim 1, wherein the receiving computing device comprises one or more of:
the mobile computing device; and wherein the mobile computing device is further configured to render at least a portion of the integrated data source encounter structure via the user interface; and

at least one medical device of the plurality of medical devices.

3. The system of any preceding claim, wherein the integrated data source encounter structure comprises information other than patient information.

6. The system of claim 1 or claim 3, wherein the receiving computing device comprises a computing device within an emergency response center;

wherein the association information comprises a token to access the integrated data source encounter structure and the server is further configured to receive the token from the computing device within the emergency response center, wherein to transmit comprises to automatically transmit the integrated data source encounter structure to the computing device in response to reception of the token; And

wherein the mobile computing device is configured to transmit the token to the computing device within the emergency response center.

7. The system of any preceding claim, wherein to transmit the one or more medical device case files comprises to transmit one or more streams of the obtained case data to the one or more medical device case files; and, optionally, the integrated data source encounter structure comprises the one or more streams of the obtained case data from the one or more medical device case files.

8. The system of any preceding claim, further comprising a computing device comprising at least one user interface and configured to:

receive the integrated data source encounter structure; and

render, subsequent to the encounter, at least a portion of the integrated data source encounter structure via the at least one user interface.

9. The system of any preceding claim, wherein the plurality of medical devices comprises one or more of: a defibrillator, a patient monitor, an automated external defibrillator, a ventilator, an automated chest compression device, and a wearable defibrillator.

10. The system of any preceding claim, wherein the association information comprises one or more of:

patient information, optionally comprising one or more of patient name, patient identifier, age, gender, weight, height, and past medical history;

timestamp information indicating when at least a portion of the one or more medical device case files was created;

timestamp information indicating when the one or more representations of the one or more identifiers of each medical device were acquired;

geolocation information indicating where the mobile computing device was located when the one or more representations of the one or more identifiers of each medical device were acquired; and

geolocation information indicating where the mobile computing device was located during the encounter.

11. The system of any preceding claim, wherein tile medical device interface comprises at least one of: a camera, a near-field communication sensor, a radio frequency identification sensor, a universal serial bus connector, an infrared sensor, a personal area network sensor, a proximity detector, a geolocation detector, and a wireless network connector.

12. The system of any preceding claim, wherein the medical device interface comprises a camera, and the one or more identifiers comprise one or more of a quick response code, a bar code, and a device identifier.

13. The system of any preceding claim, wherein the one or more identifiers of each medical device correspond to one or more unique device identifiers.

14. The system of any preceding claim, wherein the mobile computing device is further configured to generate one or more log entries of the encounter; andwherein the mobile computing device is configured to transmit the one or more log entries to the server for inclusion in the integrated data source encounter structure.

15. The system of any preceding claim, wherein the obtained case data comprises one or more of:

physiological data comprising one or more of: ECG data, oxygen saturation data, capnographic data, and blood pressure data;

ECG data comprising 12-lead ECG data report;

ECG data comprising 12-lead ECG data report wherein the 12-lead ECG data report comprises electrical waveforms and an interpretation of one or more of the electrical waveforms;

treatment data comprising one or more of: defibrillation data, drug infusion data, chest compression data, and ventilation data;

performance data comprising one or more of: chest compression performance data and ventilation performance data; and

protected health information.

16. The system of any preceding claim, wherein the plurality of medical devices are configured to automatically transmit the obtained case data to the server as one or more medical device case files without receiving a request from the server for the case data.

17. An associating server for consolidating medical data from an encounter between a patient and an emergency healthcare provider, the server comprising:

a memory storing at least one database configured to store case data from a plurality of medical device case files recorded during the encounter between the patient and the emergency healthcare provider;

a network interlace; and

at least one processor communicatively coupled with the memory and the network interface, the at least one processor configured to:

receive, via the network interface, the plurality of medical device case files from a plurality of medical devices used to neat the patient during the encounter,

store the case data from the plurality of medical device case files in the at least one database,

receive, via the network interface, association information from a mobile computing device, the association information comprising at least one identifier of each medical device of the plurality of medical devices,

generate at least one search criterion based at least in part on tire association information to relate the plurality of medical device case files to one another,

identify the related plurality of medical device case files based on the generated at least one search criterion,

consolidate the related plurality of medical device case files to produce an integrated data source encounter structure comprising at least a portion of the case data from the plurality of medical device case files from the at least one database, and

transmit the integrated data source encounter structure for review of the encounter between the patient and the emergency healthcare provider to a receiving computing device.

18. A mobile computing device for consolidating case data from an encounter between a patient and an emergency healthcare provider, the mobile computing device comprising:

a memory;

a user interface configured to receive user input concerning the encounter,

a medical device interface configured to acquire a representation of an identifier of a medical device;

a network interface; and

at least one processor communicatively coupled with the user interface, the medical device interface, the network interface, and the memory, the at least one processor being configured to:

receive, via the user interface, input to acquire a plurality of representations of a plurality of identifiers of a plurality of medical devices involved in the encounter,

store the acquired plurality of representations of the plurality of identifiers in the memory,

generate association information comprising the plurality of identifiers, and

transmit the association information to a saver for associating and consolidating the case data from at least one medical device case file generated by the plurality of medical devices during the encounter.

19. The mobile computing device of claim 18, wherein the medical device interface comprises at least one of: a camera, a near-field communication sensor, a radio frequency identification sensor, a universal serial bus connector, an infrared sensor, a personal area network sensor, a proximity detector, a geolocation detector, and a wireless network connector.

20. The mobile computing device of claim 18, wherein the medical device interface comprises a camera, and the plurality of identifiers comprises one or more of: a quick response code, a bar code, and a device identifier.

21. A computer implemented process for consolidating case data from an encounter between a patient and an emergency healthcare provider, the computer implemented process comprising:

receiving, via a user interlace, input to acquire a plurality of representations of a plurality of identifiers of a plurality of medical devices involved in the encounter,

storing the acquired plurality of representations of the plurality of identifiers in a memory of the computer,

generating association information comprising the plurality of identifiers, and

transmitting, via a network interface of the computer, the association information to a server for associating and consolidating the case data from at least one medical device case file generated by the plurality of medical devices during the encounter.