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.

~~3. The system of claim 2,~~ 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.

43. The system of any preceding claim 1, wherein the integrated data source encounter structure comprises information other than patient information.

5. The system of claim 1, wherein the receiving computing device comprises at least one medical device of the plurality of medical devices.

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

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7. The system of claim 6, 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

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8. The system of claim 7, wherein the mobile computing device is configured to transmit the token to the computing device within the emergency response center.

97. The system of any preceding claim 1, 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,

10. The system of claim 9, wherein 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.

118. The system of any preceding claim 1, 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.

129. The system of any preceding claim 1, 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.

~~13~~10. The system of any preceding claim ~~1~~, wherein the association information comprises one or more of:

patient information, optionally comprising~~.~~

~~14. The system of claim 13, wherein the patient information comprises~~ one or more of patient name, patient identifier, age, gender, weight, height, and past medical history;~~.~~

~~15. The system of claim 1, wherein the association information comprises~~ timestamp information indicating when at least a portion of the one or more medical device case files was created;~~.~~

~~16. The system of claim 1, wherein the association information comprises~~ timestamp information indicating when the one or more representations of the one or more identifiers of each medical device were acquired;~~.~~

~~17. The system of claim 16, wherein the association information comprises 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.~~

~~18. The system of claim 1, wherein the association information comprises~~ 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~~.~~

~~19. The system of claim 1, wherein the association information comprises~~ geolocation information indicating where the mobile computing device was located during the encounter.

~~20~~11. The system of any preceding claim ~~1~~, 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.

~~21~~12. The system of any preceding claim ~~1~~, 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.

~~22~~13. The system of any preceding claim ~~1~~, wherein the one or more identifiers of each medical device correspond to one or more unique device identifiers.

~~23~~14. The system of any preceding claim ~~1~~, wherein the mobile computing device is further configured to generate one or more log entries of the encounter~~.~~; and

~~24. The system of claim 23,~~ wherein 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.

~~25. The system of claim 1, wherein the server is remote from the mobile computing device.~~

~~26~~15. The system of any preceding claim ~~1~~, 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;

~~27. The system of claim 1, wherein the obtained case data comprises~~ treatment data comprising one or more of: defibrillation data, drug infusion data, chest compression data, and ventilation data;~~.~~

~~28. The system of claim 1, wherein the obtained case data comprises~~ performance data comprising one or more of: chest compression performance data and ventilation performance data;~~.~~ and

~~29. The system of claim 1, wherein the obtained case data comprises~~ 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.

~~30~~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.

~~31. The associating server of claim 30, wherein to transmit the integrated data source encounter structure comprises to transmit the integrated data source encounter structure to the mobile computing device.~~

~~32. The associating server of claim 30, wherein the integrated data source encounter structure comprises information other than patient information.~~

~~33. The associating server of claim 30, wherein to transmit the integrated data source encounter structure comprises to transmit the integrated data source encounter structure to at least one medical device of the plurality of medical devices.~~

~~34. The associating server of claim 30, wherein to transmit the integrated data source encounter structure comprises to transmit the integrated data source encounter structure to a computing device within an emergency response center.~~

~~35. The associating server of claim 34, wherein the association information comprises a token to access the integrated data source encounter structure and the at least one processor 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.~~

~~36. The associating server of claim 30, wherein to receive the plurality of medical device case files comprises to receive a plurality of streams of case data from the plurality of medical devices.~~

~~37. The associating server of claim 36, wherein the integrated data source encounter structure comprises the plurality of streams of case data from the plurality of medical devices.~~

~~38. The associating server of claim 30, wherein the association information comprises patient information.~~

~~39. The associating server of claim 38, wherein the patient information comprises one or more of: patient name, patient identifier, age, gender, weight, height, and past medical history.~~

~~40. The associating server of claim 30, wherein the association information comprises timestamp information indicating when at least a portion of the plurality of medical device case files was recorded.~~

~~41. The associating server of claim 30, wherein the association information comprises timestamp information indicating when one or more representations of the at least one identifier of each medical device were acquired.~~

~~42. The associating server of claim 41, wherein the association information comprises geolocation information indicating where tile mobile computing device was located when the one or more representations of the at least one identifier of each medical device were acquired.~~

~~43, The associating server of claim 30, wherein the association information comprises geolocation information indicating where the mobile computing device was located when one or more representations of the at least one identifier of each medical device were acquired.~~

~~44. The associating server of claim 30, wherein the association information comprises geolocation information indicating where the mobile computing device was located during the encounter.~~

~~45. The associating server of claim 30, wherein the one or more identifiers of each medical device correspond to one or more unique device identifiers.~~

~~46. The associating server of claim 30, wherein the server is remote from the mobile computing device.~~

~~47. The associating server of claim 30, wherein the case data comprises physiological data comprising one or more of: ECG data, oxygen saturation data, capnographic data, and blood pressure data.~~

~~48. The associating server of claim 30, wherein the case data comprises treatment data comprising one or more of: defibrillation data, drug infusion data, chest compression data, and ventilation data.~~

~~49. The associating server of claim 30, wherein the case data comprises performance data comprising one or mom of: chest compression performance data and ventilation performance data.~~

~~50. The associating server of claim 30, wherein the case data comprises protected health information,~~

~~51~~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.

~~52. The mobile computing device of claim 51, wherein the at least one processor is further configured to:~~

~~receive, via the network interface, an integrated data source encounter structure comprising at least a portion of the case date from the at least one medical device case file; and~~

~~render, via the user interface, at least a portion of the integrated date source encounter structure.~~

~~53. The mobile computing device of claim 52, wherein the integrated data source encounter structure comprises information other than patient information.~~

~~54. The mobile computing device of claim 52, wherein the portion of the case data comprises physiological data comprising one or more of: ECG data, oxygen saturation data, capnographic data, and blood pressure data.~~

~~55. The mobile computing device of claim 52, wherein the portion of the case data comprises treatment data comprising one or more of: defibrillation date, drug infusion data, chest compression data, and ventilation data.~~

~~56. The mobile computing device of claim 52, wherein the portion of the case data comprises performance data comprising one or more of: chest compression performance data and ventilation performance data.~~

~~57. The mobile computing device of claim 52, wherein the portion of the case data comprises protected health information.~~

~~58. The mobile computing device of claim 51, wherein the association information comprises patient information.~~

~~59. The mobile computing device of claim 58, wherein the patient information comprises one or more of: patient name, patient identifier, age, gender, weight, height, and past medical history.~~

~~60. The mobile computing device of claim 51, wherein the association information comprises timestamp information indicating when at least a portion of the at least one medical device case file was generated.~~

~~61. The mobile computing device of claim 51, wherein the association information comprises timestamp information indicating when the plurality of representations of the plurality of identifiers of the plurality of medical devices were acquired.~~

~~62. The mobile computing device of claim 61, wherein the association information comprises geolocation information indicating where the mobile computing device was located when the plurality of representations of the plurality of identifiers of the plurality of medical devices were acquired.~~

~~63. The mobile computing device of claim 51, wherein the association information comprises geolocation information indicating where the mobile computing device was located when the plurality of representations of the plurality of identifiers of the plurality of medical devices were acquired.~~

~~64. The mobile competing device of claim 51, wherein the association information comprises geolocation information indicating where the mobile computing device was located during the encounter.~~

~~65. The mobile computing device of claim 51, wherein the association information comprises a token to access an integrated data source encounter structure comprising at least a portion of the case data from the at least one medical device case file and the at least one processor is configured to transmit the token to a computing device within act emergency response center.~~

~~66~~19. The mobile computing device of claim ~~51~~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.

~~67~~20. The mobile computing device of claim ~~51~~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.

~~68. The mobile computing device of claim 51, wherein the plurality of identifiers of the plurality of medical devices correspond to one or more unique device identifiers.~~

~~69. The mobile computing device of claim 51, wherein the at least one processor is further configured to generate one or more log entries of the encounter.~~

~~70. The mobile computing device of claim 69, wherein the at least one processor is configured to transmit the one or more log entries to the server for inclusion in an integrated data source encounter structure comprising at least a portion of the case data from the at least one medical device case file.~~

~~71. The mobile computing device of claim 51, wherein the mobile computing device is remote from the server.~~

~~72~~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.

~~73. The computer implemented process of claim 72, further comprising:~~

~~receiving, via the network interface, an integrated data source encounter structure comprising at least a portion of the case data from the at least one medical device case file; and~~

~~rendering, via the user interface, at least a portion of the integrated data source encounter structure.~~

~~74. The computer implemented process of claim 73, wherein receiving the integrated data source encounter structure comprises receiving information other than patient information.~~

~~75. The computer implemented process of claim 73, wherein rendering the at least a portion of the case data comprises rendering physiological data comprising one or more of: ECG data, oxygen saturation data, capnographic data, and blood pressure data.~~

~~76. Tito computer implemented process of claim 73, wherein rendering the at least a portion of the case data comprises rendering treatment data comprising one or more of: defibrillation data, drug infusion data, chest compression data, and ventilation data.~~

~~77. The computer implemented process of claim 73, wherein rendering the at least a portion of the case data comprises rendering performance data comprising one or more of: chest compression performance data and ventilation performance data.~~

~~78. The computer implemented process of claim 73, wherein rendering the at least a portion of the case data comprises rendering protected health information.~~

~~79. The computer implemented process of claim 72, wherein transmitting the association information comprises transmitting patient information.~~

~~80. The computer implemented process of claim 79, wherein transmitting the patient information comprises transmitting one or more of: patient name, patient identifier, age, gender, weight, height, and past medical history.~~

~~81. The computer implemented process of claim 72, wherein transmitting the association information comprises transmitting timestamp information indicating when at least a portion of the at least one medical device case file was generated.~~

~~82. The computer implemented process of claim 72, wherein transmitting the association information comprises transmitting timestamp information indicating when the plurality of representations of the plurality of identifiers of the plurality of medical devices were acquired.~~

~~83. The computer implemented process of claim 82, wherein transmitting the association information comprises transmitting geolocation information indicating where the mobile computing device was located when the plurality of representations of the plurality of identifiers of the plurality of medical devices were acquired.~~

~~84. The computer implemented process of claim 72, wherein transmitting the association information comprises transmitting geolocation information indicating where the mobile computing device was located when the plurality of representations of the plurality of identifiers of the plurality of medical devices were acquired.~~

~~85. The computer implemented process of claim 72, wherein transmitting the association information comprises transmitting geolocation information indicating where the mobile computing device was located during the encounter.~~

~~86. The computer implemented process of claim 72, wherein transmitting the association information comprises transmitting a token to access an integrated data source encounter structure comprising at least a portion of the case data from the at least one medical device case file and the computer implemented process further comprises transmitting, via die network interface, the token to a computing device within an emergency response center.~~

~~87. The computer implemented process of claim 72, wherein receiving input to acquire the plurality of representations comprises receiving input via 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.~~

88. The computer implemented process of claim 72, wherein receiving input to acquire the plurality of representations comprises receiving input via a camera, and the plurality of identifiers comprises one or more of: a quick response code, a bar code, and a device identifier.

89. The computer implemented process of claim 72, wherein receiving input to acquire the plurality of representations of the plurality of identifiers comprises receiving input to acquire a plurality of representations of a plurality of unique medical device identifiers.

90. The computer implemented process of claim 72, further comprising generating one or more log entries of the encounter.

91. The computer implemented process of claim 90, further comprising transmitting die one or more log entries to the server for inclusion in an integrated data source encounter structure comprising at least a portion of the case data from the at least one medical device case file.

92. A non-transitory computer-readable storage medium storing instructions configured to execute the computer implemented process of any of claims 72 through 91.

93. A mobile computing device comprising the non-transitory computer-readable storage medium of claim 92, wherein the mobile computing device is remote from the server.

94. The system of claim 26, wherein the ECG data comprises a 12-lead ECG data report.

95. The system of claim 94, wherein the 12-lead ECG data report comprises electrical waveforms and an interpretation of one or more of the electrical waveforms.

96. The system of claim 1, 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.

97. The associating server of claim 47, wherein the ECG data comprises a 12-lead ECG data report.

98. The associating server of claim 97, wherein the 12-lead ECG data report comprises electrical waveforms and an interpretation of one or more of the electrical waveforms.

99. The associating server of claim 30, wherein the at least one processor is configured to automatically receive the plurality of medical device case files from the plurality of medical devices without sending a request for the plurality of medical device case files.

100. A system for transmitting medical data reports, the system comprising: a medical device configured to: obtain medical data from a patient, generate a medical report based at least on a portion of the obtained medical data, and transmit the medical report to a total computing device, the local computing device being configured to automatically receive the medical report without sending a request to the medical device for the medical report, wherein one or both of the medical device or the local computing device is further configured to transmit the medical report to one or more remote computing devices via a communication network, the one or more remote computing devices being configured to access and display medical date associated with the medical report.

101. The system of claim 100, wherein the medical report comprises a 12-lead EGG report.

102. The system of claim 101, wherein the 12-lead ECG report is one report of an integrated data source encounter structure.

103. The system of claim 101, wherein (he 12-lead ECG report comprises electrical waveforms and an interpretation of one or more of the electrical waveforms.

104. The system of claim 100, wherein the medical device is configured to transmit the medical report to the local computing device using a wireless local area network.

105. The system of claim 100, w herein the medical device is configured to transmit the medical report to the local computing device using a personal area network.

106. The system of claim 100, wherein the medical device or the local computing device is configured to transmit the medical report to the one or more remote computing devices using a cellular network.

107. The system of claim 100, wherein the medical report is encrypted before it is transmitted by the medical device to the local computing device.

108. The system of claim 100, wherein the local computing device is configured to opt out of receiving communications from the medical device.

~~109. The system of claim 100, wherein the medical device comprises: a defibrillator, a patient monitor, an automated external defibrillator, a ventilator, an automated chest compression device, or a wearable defibrillator.~~

~~110. The system of claim 100, wherein the one or more remote computing devices are configured to display a list of received medical reports.~~

~~111. The system of claim 110, wherein the one or more remote computing devices are configured to filter the list of received medical reports based on timestamps associated with the medical reports.~~
~~112, A mobile computing device configured to receive and transmit medical data reports, the mobile computing device comprising: a memory; a user interface; a network interface; and at least one processor communicatively coupled with the user interface, the network interface, and the memory, the at least one processor being configured to: automatically receive a medical report transmitted from a medical device without sending a request to the medical device for the medical report; provide access to the medical report via the user interlace; and transmit the medical report to one or more remote computing devices.~~

~~113. The mobile computing device of claim 112, wherein the medical report comprises a 12- lead ECG report~~

~~114. The mobile computing device of claim 113, wherein the 12-lead ECG report is one report of an integrated data source encounter structure.~~

~~115. The mobile computing device of claim 113, wherein the 12-lead ECG report comprises electrical waveforms and an interpretation of one or more of the electrical waveforms.~~

~~116. The mobile computing device of claim 112, wherein the medical report is automatically received via a wireless local area network.~~

~~117. The mobile computing device of claim 112, wherein the medical report is automatically received via a personal area network.~~

~~118. The mobile computing device of claim 112, wherein the at least one processor is configured to transmit the medical report to the one or more remote computing devices using a cellular network.~~

~~119. The mobile computing device of claim 112, wherein the medical report is encrypted before being received.~~

120. The mobile computing device of claim 112, wherein the at least one processor is configured to opt out, via the user interface, from receiving communications from the medical device.

121. The system of claim 112, wherein the medical device comprises: a defibrillator, a patient monitor* an automated external defibrillator, a ventilator, an automated chest compression device, or a wearable defibrillator.

122. A computer implemented process for receiving and transmitting medical data reports, the computer implemented process comprising: automatically receiving a medical report transmitted from a medical device without sending a request to the medical device for the medical report; providing access to the medical report via a user interface; and transmitting the medical report to one or more remote computing devices.

123. The computer implemented process of claim 122, further comprising displaying one or more waveforms associated with (he medical report via a display,

124. The computer implemented process of claim 122, wherein the medical report comprises a 1.2-lead ECG report.

125. The computer implemented process of claim 124, wherein the 12-lead ECG «port is one report of an integrated data source encounter structure.

126. The computer implemented process of claim 124, wherein the 12-leadECG report comprises electrical waveforms and an interpretation of one or more of the electrical waveforms.

127. The computer implemented process of claim 122, wherein the automatically receiving comprises automatically receiving the medical report via a wireless near area network.

128. The computer implemented process of claim 122, wherein the automatically receiving comprises automatically receiving the medical report via a personal area network. 129, The computer implemented process of claim 122, wherein the transmitting comprises transmitting the medical report to the erne or more remote computing devices using a cellular network.

130. The computer implemented process of claim 122, further comprising decrypting the medical report after receiving the medical report.

~~131. The computer implemented process of claim 122, further comprising receiving an input from a user via the user interface and ceasing the automatic receiving of any further medical reports in response to the input~~

~~132. A non-transitory computer-readable storage medium storing instructions configured to execute the computer implemented process of any one of claims 122 – 131.~~

~~133. A mobile computing device comprising the non-transitory computer-readable storage medium of claim 132.~~