PANDEMIC PROTOCOL FOR EMERGENCY DISPATCH

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Technical Field

[0002] The present disclosure relates to computer systems and methods for providing medical protocol interrogation, instruction, and emergency dispatch. More specifically, the disclosure is directed to computer-implemented protocols to enable a dispatcher to process emergency calls in an accurate, consistent, and systematic manner by guiding the dispatcher during interrogation and instruction of an emergency caller.

Summary of Invention

[0002a] In an aspect of the present disclosure, there is provided a computer-implemented method to guide a dispatcher when communicating vocally with a caller via a communication device regarding a medical emergency involving a patient manifesting symptoms of a pandemic illness and for dispatching an emergency response by emergency responders. The computer-implemented method comprises: receiving on a dispatch center computer device a locally designated pandemic triage level; automatically shunting to a pandemic protocol based on the pandemic triage level; presenting on the dispatch center computer device, automatically based on the locally designated pandemic triage level, the pandemic protocol including a pre-scripted interrogation comprising a plurality of preprogrammed inquiries for the dispatcher to ask the caller to systematically obtain a description of the medical emergency including information concerning symptoms of the pandemic illness that the patient is manifesting, the description of the medical emergency comprising caller responses to the plurality of preprogrammed inquiries, wherein the pre-scripted interrogation is initiated in response to a primary interrogation; receiving dispatcher-entered input on the dispatch center computer device representative of caller responses to the preprogrammed inquiries of the pre-scripted interrogation; the dispatch center computer device operating a diagnostic tool to determine whether the patient likely is infected with the pandemic illness based on the responses to the preprogrammed inquiries and the locally designated pandemic triage level; determining, by the dispatch center computer device, one of a plurality of pre-established determinant values based on the received dispatcher-entered input; assigning on the dispatch center computer

device the determined pre-established determinant value; and generating an emergency medical dispatch response by emergency responders based on the assigned pre-established determinant value.

[0002b] In another aspect of the present disclosure, there is provided a computer system to guide a dispatcher when communicating with a caller vocally via a communication device regarding a medical emergency involving a patient manifesting symptoms of a pandemic illness and for dispatching an emergency response by emergency responders. The computer system comprises: a processor; an output device in communication with the processor; an input device in communication with the processor; a memory in communication with the processor, the memory comprising: a pandemic protocol module configured to: receive, on a dispatch center computer device, a locally designated pandemic triage level, automatically shunt to a pandemic protocol based on the locally designated pandemic triage level, present on the output device, automatically based on the locally designated pandemic triage level, the pandemic protocol including a pre-scripted interrogation comprising a plurality of preprogrammed inquiries for the dispatcher to ask the caller to systematically obtain a description of the medical emergency including information concerning symptoms of the pandemic illness that the patient is manifesting, wherein the description of the medical emergency comprises caller responses to the plurality of preprogrammed inquiries, wherein the pre-scripted interrogation is initiated in response to a primary interrogation, receive via the input device dispatcher-entered input representative of caller responses to the preprogrammed inquiries of the pre-scripted interrogation, operate a diagnostic tool to determine whether the patient likely is infected with the pandemic illness based on the responses to the preprogrammed inquiries and the locally designated pandemic triage level, determine one of a plurality of pre-established determinant values based on the received dispatcher-entered input, and assign on the output device the determined pre-established determinant value.

[0002c] In yet another aspect of the present disclosure, there is provided a computer-readable storage medium including computer-readable instruction code for a dispatch center computer performing a method to assist a dispatcher when communicating vocally with a caller via a communication device regarding a medical emergency of a patient. The method comprises: receiving on a dispatch center computer device a locally designated pandemic triage level; automatically shunting to a pandemic protocol based on the pandemic triage level; presenting on the dispatch center computer device, automatically based on the locally designated pandemic triage level, the pandemic protocol including a pre-scripted interrogation comprising a plurality of preprogrammed inquiries for the dispatcher to ask the caller to systematically obtain a description of the medical emergency including information concerning symptoms of the pandemic illness that the patient

is manifesting, the description of the medical emergency comprising caller responses to the plurality of preprogrammed inquiries, wherein the pre-scripted interrogation is initiated in response to a primary interrogation; receiving dispatcher-entered input on the dispatch center computer device representative of caller responses to the preprogrammed inquiries of the pre-scripted interrogation; the dispatch center computer device operating a diagnostic tool to determine whether the patient likely is infected with the pandemic illness based on the responses to the preprogrammed inquiries and the locally designated pandemic triage level; determining, by the dispatch center computer device, one

Claims

1. A computer-implemented method to guide a dispatcher when communicating vocally with a caller via a communication device regarding a medical emergency involving a patient manifesting symptoms of a pandemic illness and for dispatching an emergency response by emergency responders, the computer-implemented method comprising:

receiving on a dispatch center computer device a locally designated pandemic triage level;

automatically shunting to a pandemic protocol based on the pandemic triage level;

presenting on the dispatch center computer device, automatically based on the locally designated pandemic triage level, the pandemic protocol including a pre-scripted interrogation comprising a plurality of preprogrammed inquiries for the dispatcher to ask the caller to systematically obtain a description of the medical emergency including information concerning symptoms of the pandemic illness that the patient is manifesting, the description of the medical emergency comprising caller responses to the plurality of preprogrammed inquiries, wherein the pre-scripted interrogation is initiated in response to a primary interrogation;

receiving dispatcher-entered input on the dispatch center computer device representative of caller responses to the preprogrammed inquiries of the pre-scripted interrogation;

the dispatch center computer device operating a diagnostic tool to determine whether the patient likely is infected with the pandemic illness based on the responses to the preprogrammed inquiries and the locally designated pandemic triage level;

determining, by the dispatch center computer device, one of a plurality of pre-established determinant values based on the received dispatcher-entered input;

assigning on the dispatch center computer device the determined pre-established determinant value; and

generating an emergency medical dispatch response by emergency responders based on the assigned pre-established determinant value.

2. The computer-implemented method of claim 1 wherein the primary interrogation comprises gathering initial patient information and symptom information.

3. The computer-implemented method of claim 2 wherein the gathering of the initial patient information and symptom information comprising collecting at least one complaint of the patient, the age of the patient, a breathing status of the patient, and/or a consciousness status of the patient.

4. The computer-implemented method of any of the preceding claims further comprising providing on the dispatch center computer device instructions to the dispatcher, including

instructions to inquire for specific information from the caller and to provide input to the dispatch center computer device corresponding to the specific information received from the caller.

5. The computer-implemented method of claim 4, wherein the instructions to the dispatcher provided by the dispatch center computer device include an instruction to enter the locally designated pandemic triage level.

6. The computer-implemented method of any of the preceding claims, wherein determining the one of a plurality of pre-established determinant values includes determining from dispatcher-entered input whether the patient's most prominent complaint is one of a headache, difficulty breathing and chest pain, and if so, the pre-scripted interrogation includes presenting preprogrammed inquiries for the dispatcher to ask the caller to systematically obtain additional description relating to the most prominent complaint.

7. The computer-implemented method of claim 6, wherein if the most prominent complaint of the patient is a headache, the preprogrammed inquires of the pre-scripted interrogation include asking the caller to indicate whether the headache occurred as a sudden onset of severe pain.

8. The computer-implemented method of claim 6, wherein if the most prominent complaint of the patient is difficulty breathing, the preprogrammed inquires of the pre-scripted interrogation include:

asking the caller to identify the quality of the patient's breathing; and

asking the caller whether the patient has had any prior flu symptoms.

9. The computer-implemented method of claim 6, wherein if the most prominent complaint of the patient is chest pain and the patient is thirty-five years old or older, the preprogrammed inquires of the pre-scripted interrogation include:

asking the caller whether the patient is vomiting; and

asking the caller whether the patient has chills or sweats.

10. The computer-implemented method of claim 1, wherein the preprogrammed inquires of the pre-scripted interrogation include:

asking the caller whether the patient is completely awake; and

asking the caller whether the patient is changing color.

11. The computer-implemented method of claim 1, wherein the preprogrammed inquires of the pre-scripted interrogation include inquiries asking the caller to identify whether the patient has flu symptoms including: vomiting, sweats or chills, fever, recent onset of coughing, sore throat, body aches, runny or stuffy nose, diarrhea, and headache.

12. A computer system to guide a dispatcher when communicating with a caller vocally via a communication device regarding a medical emergency involving a patient manifesting symptoms of a pandemic illness and for dispatching an emergency response by emergency responders, the computer system comprising:

a processor;

an output device in communication with the processor;

an input device in communication with the processor;

a memory in communication with the processor, the memory comprising:

a pandemic protocol module configured to:

receive, on a dispatch center computer device, a locally designated pandemic triage level,

automatically shunt to a pandemic protocol based on the locally designated pandemic triage level,

present on the output device, automatically based on the locally designated pandemic triage level, the pandemic protocol including a pre-scripted interrogation comprising a plurality of preprogrammed inquiries for the dispatcher to ask the caller to systematically obtain a description of the medical emergency including information concerning symptoms of the pandemic illness that the patient is manifesting, wherein the description of the medical emergency comprises caller responses to the plurality of preprogrammed inquiries, wherein the pre-scripted interrogation is initiated in response to a primary interrogation,

receive via the input device dispatcher-entered input representative of caller responses to the preprogrammed inquiries of the pre-scripted interrogation,

operate a diagnostic tool to determine whether the patient likely is infected with the pandemic illness based on the responses to the preprogrammed inquiries and the locally designated pandemic triage level,

determine one of a plurality of pre-established determinant values based on the received dispatcher-entered input, and

assign on the output device the determined pre-established determinant value.

13. The computer system of claim 12, wherein the primary interrogation comprises gathering initial patient information and symptom information.

14. The computer system of claim 13, wherein the initial patient information and symptom information gathered in the primary interrogation comprises at least one complaint of the patient, the age of the patient, a breathing status of the patient, and/or a consciousness status of the patient.

15. The computer system of any of claims 12 to 14, wherein the pandemic protocol module is further configured to provide on the output device instructions to the dispatcher, including instructions to inquire for specific information from the caller, and to provide input to the computer system corresponding to the specific information received from the caller.

16. The computer system of claim 15, wherein the instructions to the dispatcher include an instruction to enter the locally designated pandemic triage level.

17. The computer system of any of claims 12 to 16, wherein the pandemic protocol module determining the one of a plurality of pre-established determinant values includes determining from dispatcher-entered input whether the patient's most prominent complaint is one of a headache, difficulty breathing and chest pain, and if so, the pre-scripted interrogation includes presenting preprogrammed inquiries for the dispatcher to ask the caller to systematically obtain additional description relating to the most prominent complaint.

18. The computer system of claim 17, wherein if the most prominent complaint of the patient is a headache, the preprogrammed inquires of the pre-scripted interrogation include asking the caller to indicate whether the headache occurred as a sudden onset of severe pain.

19. The computer system of claim 17, wherein if the most prominent complaint of the patient is difficulty breathing, the preprogrammed inquires of the pre-scripted interrogation include:

asking the caller to identify the quality of the patient's breathing; and asking the caller whether the patient has had any prior flu symptoms.

20. The computer system of claim 17, wherein if the most prominent complaint of the patient is chest pain and the patient is thirty-five years old and older, the preprogrammed inquires of the pre-scripted interrogation include:

asking the caller whether the patient is vomiting; and

asking the caller whether the patient has chills or sweats.

21. The computer system of claim 12, wherein the preprogrammed inquires of the pre-scripted interrogation include:

asking the caller whether the patient is completely awake; and

asking the caller whether the patient is changing color.

22. The computer system of claim 12, wherein the preprogrammed inquires of the pre-scripted interrogation include inquiries asking the caller to identify whether the patient has flu symptoms including: vomiting, sweats or chills, fever, recent onset of coughing, sore throat, body aches, runny or stuffy nose, diarrhea, and headache.

23. The computer system of claim 12, the memory further comprising a pandemic diagnostic tool.

24. The computer system of any of claims 12 to 23, the memory further comprising a case entry protocol module, wherein the case entry protocol module is configured to carry out the primary interrogation.

25. A computer-readable storage medium including computer-readable instruction code for a dispatch center computer performing a method to assist a dispatcher when communicating vocally with a caller via a communication device regarding a medical emergency of a patient, the method comprising:

receiving on a dispatch center computer device a locally designated pandemic triage level;

automatically shunting to a pandemic protocol based on the pandemic triage level;

presenting on the dispatch center computer device, automatically based on the locally designated pandemic triage level, the pandemic protocol including a pre-scripted interrogation comprising a plurality of preprogrammed inquiries for the dispatcher to ask the caller to systematically obtain a description of the medical emergency including information concerning symptoms of the pandemic illness that the patient is manifesting, the description of the medical emergency comprising caller responses to the plurality of preprogrammed inquiries, wherein the pre-scripted interrogation is initiated in response to a primary interrogation;

receiving dispatcher-entered input on the dispatch center computer device representative of caller responses to the preprogrammed inquiries of the pre-scripted interrogation;

the dispatch center computer device operating a diagnostic tool to determine whether the patient likely is infected with the pandemic illness based on the responses to the preprogrammed inquiries and the locally designated pandemic triage level;

determining, by the dispatch center computer device, one of a plurality of pre-established determinant values based on the received dispatcher-entered input; and

assigning on the dispatch center computer device the determined pre-established determinant value; and

generating an emergency medical dispatch response by emergency responders based on the assigned pre-established determinant value.