MENINGITIS DIAGNOSTIC AND INTERVENTION TOOL FOR EMERGENCY DISPATCH

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Technical Field

[0002] This 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 tools to assist a dispatcher during an interrogation and instruction of an emergency caller.

Summary

[0002a] According to a first aspect of this disclosure, there is provided a computer system to assist a dispatcher when communicating with a caller via telephone regarding a medical emergency of a patient, the computer system comprising: a processor; an input device in electrical communication with the processor; an output device in electrical communication with the processor; and a memory in electrical communication with the processor, and having stored thereon: an emergency dispatch protocol including a plurality of pre-scripted interrogatories for the dispatcher to ask the caller to generate an emergency dispatch response; and a diagnostic tool to assist the dispatcher in guiding the caller to obtain information that can be used by the diagnostic tool to determine a likelihood that the patient has meningitis, wherein the diagnostic tool is configured to present to the dispatcher a user interface comprising: one or more questions for the dispatcher to vocally relay to the caller over the telephone to guide the caller in identifying signs and symptoms that the patient has meningitis, one or more input components associated with the one or more questions, the input components to receive dispatcher-entered input indicative of caller-relayed information concerning the caller's observations of the patient, including signs and symptoms that indicate whether the patient has meningitis, a diagnostic indicators pane to present a listing of one or more signs and symptoms that indicate whether the patient has meningitis that are received through the dispatcher-entered input, and a criteria summary pane to present a plurality of tally fields to convey a basis for a likelihood that the patient meningitis, each tally field of the plurality of tally fields displaying a tally of signs and symptoms of a level of severity that is different from a level of severity corresponding to other of the plurality of tally fields, wherein the caller-relayed information is vocally relayed over the telephone to the dispatcher, and wherein the diagnostic tool determines the likelihood that the patient has meningitis based on tallies of signs and symptoms displayed by the plurality of tally fields on the criteria summary pane.

[0002b] According to a second aspect of this disclosure, there is provided a non-transitory computer-readable storage medium including computer-readable instructions that, when executed by a computing device, cause the computing device to perform operations to assist a dispatcher when communicating with a caller via telephone regarding a medical emergency of a patient, the operations comprising: providing on the computing device an emergency dispatch protocol to assist the dispatcher, the protocol presenting a plurality of pre-scripted interrogatories for the dispatcher to ask the caller to gather information regarding the emergency and generate an emergency dispatch response by emergency responders; initiating a diagnostic tool on the computing device, the diagnostic tool configured to assist the dispatcher in guiding the caller to obtain information that can be used by the diagnostic tool to diagnose whether the patient has meningitis; and the diagnostic tool presenting to the dispatcher a user interface comprising one or more questions for the dispatcher to vocally relay to the caller over the telephone to guide the caller in identifying signs and symptoms that the patient has meningitis comprising one or more input components associated with the one or more questions, and comprising a diagnostic indicators pane and a criteria summary pane; the diagnostic tool receiving dispatcher-entered input via the input fields of the user interface, the dispatcher-entered input indicative of caller-relayed information concerning the caller's observations of the patient, including signs and symptoms that indicate whether the patient has meningitis, wherein the caller's observations are vocally relayed over the telephone to the dispatcher; presenting, on the diagnostic indicators pane of the user interface of the diagnostic tool, a listing of one or more signs and symptoms that indicate whether the patient has meningitis that are received through the dispatcher-entered input; presenting, on the criteria summary pane of the user interface of the diagnostic tool, a plurality of tally fields to convey a basis for a likelihood that the patient meningitis, each tally field of the plurality of tally fields displaying a tally of signs and symptoms of a level of severity that is different from a level of severity corresponding to other of the plurality of tally fields; and the diagnostic tool determining the likelihood that the patient has meningitis based on the dispatcher-entered input indicative of the caller-relayed information and the tallies of signs and symptoms displayed by the plurality of tally fields.

Brief Description of the Drawings

[0003] Non-limiting and non-exhaustive embodiments of the disclosure are described, including various embodiments of the disclosure with reference to the figures, in which:

[0004] FIG. 1 is a block diagram of an emergency medical dispatch system, according to one embodiment.

[0005] FIG. 2 is a user interface of an emergency medical dispatch system, according to one embodiment.

[0006] FIGS. 3A-3C are embodiments of a user interface of a meningitis diagnostic tool.

[0007] FIG. 4 is a high-level flow diagram of a protocol 400 of a meningitis diagnostic tool, according to one embodiment.

[0008] FIG. 5 is a flow diagram of a protocol of a meningitis diagnostic tool, according to one embodiment.

Detailed Description

[0009] Emergency dispatchers handle emergency calls reporting a wide variety of emergency situations. An automated emergency dispatch system, which may be implemented on a computer, can aid a dispatcher in prioritizing the calls and processing the calls to generate an appropriate emergency dispatch response.