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(54) Title: SYSTEMS AND METHODS FOR DETECTION AND PREVENTION OF EMERGENCE OF AGITATION

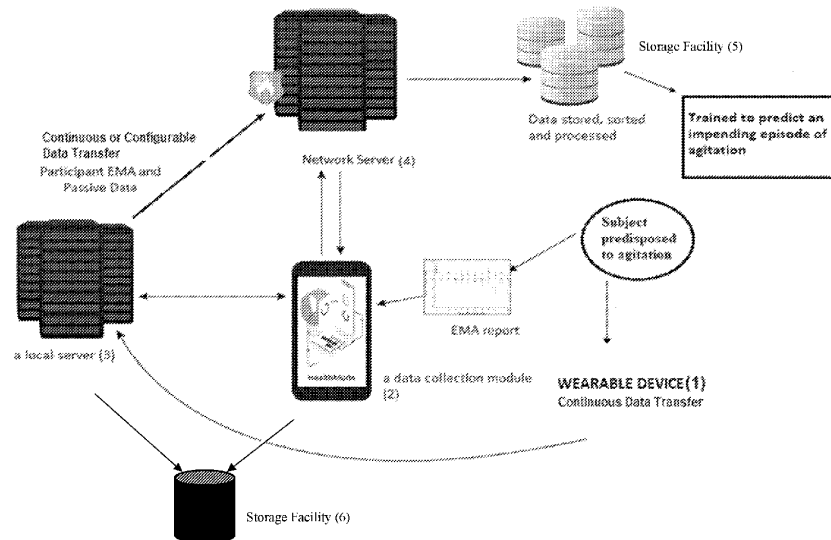


Figure 1

(57) **Abstract:** Disclosed in the present disclosure is a method, system and apparatus for prediction, estimation and prevention of occurrence of agitation episode in a subject predisposed to agitation. The method comprises receiving, from a first monitoring device attached to a subject, physiological data of sympathetic nervous system activity in the subject and activity data of the subject; receiving, from a computing device, a plurality of indications associated with a plurality of agitation episodes of the subject; analyzing, using at least one machine learning model, the physiological data, the activity data, and the plurality of indications to determine a probability of an occurrence of an agitation episode of the subject; and sending a signal to a second monitoring device to notify the second monitoring device of the probability of the occurrence of the agitation episode of the subject such that treatment can be provided to the subject to decrease sympathetic nervous system activity in the subject.

[Continued on next page]

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