Wireless Dispensing Device Monitor

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Technology description

A method to track and log patient use of medication from a variety of medication dispensing devices. By using a plurality of RFID tags, it is possible to wirelessly and autonomously detect the dispensing of medication to better analyze and monitor patient usage. The RFID tags also allow the recording of data related to the administering of the medications and the transmission of the data via an electronic link to a collecting device. This can aid healthcare professionals, hospitals, and family members in maintaining proper administering as well as prevent potentially harmful misuse of medication. This method is easily integrated into many existing dispensers allowing for immediate and hassle free adoption. Furthermore, this innovation could improve communication between patients and their healthcare provider as well as improve quality treatment.

Background

Patient compliance is vital when prescribing pharmaceuticals to ensure their effectiveness. Patient compliance deals with patients taking the proper dosages of a medication at proper time intervals. Medication non-adherence in patients can lead to substantial worsening of disease, death, and increased health care costs. Failure to comply is a serious problem that not only affects the patient, but also the health care system. Non-adherence is a common phenomenon in all patients whether it is intentional or unintentional. While most, if not all, interested parties agree that patient compliance is crucial, there are not many widely used systems to insure patent compliance. Pre-printed blister cards that are clearly marked with the designated time to be take the medication are common in the industry; however, that type of system is prone to errors, specifically human error. Currently, there are no methods available to detect the administration of medication from a dispensing device. Thus, there is a current market need for an automated tracking device for medications in order to increase patient compliance.

Technology Description

Researchers at the University of New Mexico have developed a method to track and log patient use of medication from a variety of medication dispensing devices. By using a plurality of RFID tags, it is possible to wirelessly and autonomously detect the dispensing of medication to better analyze and monitor patient usage. The RFID tags also allow the recording of data related to the administering of

the medications and the transmission of the data via an electronic link to a collecting device. This can aid healthcare professionals, hospitals, and family members in maintaining proper administering as well as prevent potentially harmful misuse of medication. This method is easily integrated into many existing dispensers allowing for immediate and hassle free adoption. Furthermore, this innovation could improve communication between patients and their healthcare provider as well as improve quality treatment.

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Application area

Wireless, autonomous, and easy to integrate
Monitors patient compliance with a prescribed treatment regarding the consumption, frequency, and amount of medicine taken
Prevents potentially harmful misuse of medication
Capable of recording data related to consumption of the medication, such as time and date of administration
Transmits data to a collecting device which aids healthcare professionals, hospitals, and family members in monitoring proper medication usage

Institution

The University of New Mexico

Inventors

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