Medical Xpress

The app capable of halving medication errors

February 6 2015

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The aim of a mobile application called Alicia, developed by the Calité Research group at the Miguel Hernández University (UMH) of Elche, is to help patients over 65 years with multiple pathologies to administer their own medication at home. This app has been tested on 99 patients from Alicante and was able to reduce medication mistakes in up to 41.2% of cases. It is available for iPhone, iPad and Android.

The most frequent causes of mishaps in drug self-administration, according to the team's data are: 36% forgetfulness, 21% lack of medicines at home, 20% natural products are used without informing the doctor and 16% choose to drop medication without telling the doctor. During the control tests, carried out over several months, the researchers also proved that 94% of users who tested the application considered it easy to use.

Professor Mira explains that a previous analysis found that a high number of patients were confused with their medication, especially the elderly, multiplying the possibility of errors. "With this system, both family and doctor can establish a control of the medication in the interest of patient safety," says the professor. The application alerts the patient when it is time to take a dose or a walk or any other activity complementary to treatment. The development of Alicia has received funding from the Ministry of Health and has the approval of the various ethics and control bodies.

Alicia was developed on an experimental basis. Due to personalization requirements, the design is complex and requires having constant updates of maintenance codes, which has so far hampered its availability on the App Store. According to Mira, to make it available to the public requires receiving support that enables its transfer and ensures its protection on the market. "Our main goal was to find out if an application of this nature could be useful for these pluri-medicated senior citizens and if they were able to use it. Indeed, Alicia improves compliance and safety in medication regimens," says the professor. He adds: "It reduced the repetition of mistakes in almost half of cases and increased involvement in self-care."

Provided by Asociacion RUVID