



Tablets in the right dosage at the right time

University of Stuttgart and partners develop intelligent medication intake system

The majority of the over sixties take two to three medicines parallel every day, with rising tendency. Mistakes in taking medicines are thereby common, with considerable consequences for the patients as well as for the health system. Two institutes at the University of Stuttgart are jointly researching together with the company CompWare Medical an innovative, IT-supported tablet intake system that is to ensure more safety.

Chronic illnesses, a growing number of allergies and the increase in the average age in the population have made the intake of medicines rocket in recent years. In the group of over 60-year olds around two thirds of people already receive two to three different medicines at the same time. Yet according to current studies up to 50 percent of the patients take their medicines incorrectly or not at all. The necessary subsequent or emergency treatments cost around 10 billion Euros annually.

Against this background the new tablet intake system going by the project name "Tantum" is to enable a regular and precise medicine intake system. The research project is supported by the Federal Ministry for Economic Affairs and Energy, funded with a volume of around 500,000 Euros by the Institute of Industrial Automation and Software Engineering (IAS, Head Prof. Dr Michael Weyrich) and the Institute for Engineering Design and Industrial Design (IKTD, Head Prof. Dr Thomas Maier) at the University of Stuttgart as well as the medical technology company CompWare Medical with headquarters in Gernsheim am Rhein. The goal is to automate the processes with everything to do with preparing medicine and the supply process in order to simplify everyday life for patients, relatives as well as care providers and to

University Communication

**Head of University Communication
and Press Spokesperson**
Dr Hans-Herwig Geyer

Contact
T 0711 685-82555

Contact person
Andrea Mayer-Grenu

Contact
T 0711 685-82176
F 0711 685-82291
hkom@uni-stuttgart.de
www.uni-stuttgart.de



make it safer. The reliability of the medicinal therapy is to be considerably increased and facilitate living a self-determined life at home possible, particularly for older patients.

“Tantum” comprises a tablet dispenser, a safety and communication center, an app and a chemist assembly system. The essential innovation of “Tantum” is the overall system concept: the device prepares the medicines at the prescribed time in the exact dosage, reminds the patients to take the medicines via an optical or acoustic signal and upon request informs the carer resp. relative if the patient has not taken the medicines. A further step also comprises involving the chemist shops that prepare the required medicines.

Partners with different competences and backgrounds have got together in order to implement “Tantum”. They combine electronics know-how, expertise in the development of software for pharmacy and medicine as well as in the development of age-related products. The important thing for all those involved is that the system is based on ergonomic standards and can be safely and intuitively operated by lay people as well.

Professional contact:

Dr Nasser Jazdi, University of Stuttgart, Institute of Industrial Automation and Software Engineering, Tel. +49 (0)711 685 67303, email: nasser.jazdi (at) ias.uni-stuttgart.de

Peter Schmid, University of Stuttgart, Institute for Engineering Design and Industrial Design, Research and subject area of technical design, Tel. +49 (0)711 685 66650, email: peter.schmid (at) iktd.uni-stuttgart.de

Press contact:

Andrea Mayer-Grenu, University of Stuttgart, University Communication, Tel.: +49 (0)711/685 82176, email: andrea.mayer-grenu (at) hkom.uni-stuttgart.de