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Only an accurate and on-time medication can help patients in maintaining functionality and a level of mental and physical activity:

Med-O-Wheel Smart ensures on-time medication administration

- home care costs cut by almost a half

According to professor Sirkka-Liisa Kivelä, an accurate timing of medication administration is useful, for example, in the home care of the elderly and it contributes to preventing medication misuses. The Finnish Med-O-Wheel Smart and its associated medicine logistics service model have been used in home nursing services in the Seinäjoki region, as well as in South Savo. With the help of the programmable Med-O-Wheel, it has been possible to cut costs in home nursing by almost a half, as well as to ensure the on-time administration of medication.

Many elderly people living at home or other patients receiving medical treatment often struggle because the medication is not taken on time, or it is taken in different amounts from what has been prescribed. Many of the patients in home nursing expect the nursing staff to also for example devote more time to actual caregiving and ensuring a good quality of life.

Professor **Sirkka-Liisa Kivelä** emphasises the importance of the personal doctor, nurse and chemist in the medical treatment of elderly people. In Kivelä's opinion, a programmable drug dispenser that reminds when is the right time to take the medication ensures efficiently and securely the medical treatment of elderly people at home, for instance. The dispenser can be re-filled either by the patient, relative, professional carer or by the chemist. This increases the possibility to arrange safe medical treatment for older patients with different levels of functionality. An accurate timing of medication administration prevents side-effects, Professor Sirkka-Liisa Kivelä says.

Studies have shown that ordinarily, only a third of drugs are taken at the right time, while a third is not taken at all. Programmable drug dispensers, such as Med-O-Wheel Smart, increase on-time use of medication to 96 per cent.

Rush peaks and costs under control

The programmable Med-O-Wheel Smart used in home nursing services in the Jyväskylä region and Mikkeli balanced the rush peaks in home nursing and increased significantly the safety and timeliness of the medication use. Home nurses or relatives no longer needed to monitor that the medication was taken on time.

Merja Jalkanen, chief executive officer of the home nursing company Harmonia, emphasises the significant cost savings that the Med-O-Wheel Smart has yielded as well as the fact that the working hours can now be focused on the caregiving. Until now, a



larger part of the home nurses' time has been spent in dosing the medication and ensuring that it has been taken on time. - Med-O-Wheel significantly eased the early and late rush hours. Until now, morning and evening hours have been very difficult in regards to resourcing because almost all of our clients have needed us at the same time. Medication has to be taken on time and in the right dose for it to help the client. Now we can focus on the actual caregiving and on ensuring a good quality of life for the patient by taking care of for example hygiene and healthy nutrition, Merja Jalkanen says.

Based on the use experience of the use of Med-O-Wheel Smart, psychiatric patients in home nursing are now also able to better take care of themselves and their own medication. Parents of young ADHD patients and epileptics, for example, were pleased they did not need to constantly worry about administering the right doses of medication. With its medication logistics model, the Med-O-Wheel Smart also resulted in a significant decrease in hospital visits and the need for home services.

Reduces medication misuse

The Med-O-Wheel Smart used in Imatra received the approval of suppliers of private home nursing services, nursing staff and relatives. – With Med-O-Wheel Smart it is easy to check for forgotten doses, for example. At the same time, it reduces medication misuse, as only one dose at a time is available from the dispenser, says care technology manager **Marko Lakanen** from Imatra's Social Welfare and Health Services for the Elderly. -Med-O-Wheel Smart certainly does not replace personal care, nor does any other nursing device, but it improves safety and supports independence. Thus, home nurses have more time for the actual caregiving of patients and for all kinds of activities together. The elderly can now take part in their own care-taking. Med-O-Wheel Smart brings content and a sense of routine. However, it is not necessarily suitable for everyone.

Most of the feedback from clients using the Med-O-Wheel Smart is positive. - The use of the dispenser requires training, in which the elderly, their relatives and professional carers can participate. I recommend the introduction of Med-O-Wheel Smart at a very early stage, before the start of services that support living at home, Lakanen says.

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Addoz Med-O-Wheel Smart and the Medication Logistics Service Model

The programmable Med-O-Wheel Smart, developed by Addoz Oy, is an intelligent dispenser for medicine in the form of tablets. Its goal is to improve the distribution of drugs and offer cost savings. Programmable in advance, the Med-O-Wheel Smart can be used either as a separate dispenser or it can be associated to a wider service package with an alert system. The implementation of the Med-O-Wheel Smart in home nursing or for persons living at home is easy. A home nurse, chemist or relative will program the medication schedule into the Med-O-Wheel Smart and it will deliver the medicine, for instance, at two-week intervals. Each day, the dispenser will sound an alarm when it's time to take the medication. This prevents, for instance, the patient from exceeding his/her dose or taking the wrong or contraindicated medication. When the Med-O-Wheel Smart alarm sounds, the patient receives the prescribed dose of medication by



pressing the dispensing button. If the patient does not take his/her medication for whatever reason, the device reminds him/her to do so with a flashing light and a warning tone.