niCE-life Newsflash Nr. 2

Intelligent monitoring platform (OT.2.1)

Pilot testing of the intelligent monitoring platform in Brno, CZ

niCE-life
Development of an integrated concept for the deployment of innovative technologies and services allowing independent living of frail elderly

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Project partners

- Petrzalka Municipal District of Bratislava - the Capital of Slovakia (Lead partner)
- Brno University of Technology, CZ
- The University Hospital Olomouc, CZ
- Slovak University of Technology in Bratislava, SK
- LEPIDA SCPA, IT
- Local Health Authority of Bologna, IT
- Institute for elderly care and shelter, IT
- Samaritan Burgenland, Department of Home Care, AT
- The City of Warsaw, PL
- National Institute of Public Health, SI

INTELLIGENT MONITORING PLATFORM

- The online sleep monitoring system that leverages the use of smart wearables (specifically, an actigraph bracelet), digital signal processing, and state-of-the-art machine learning, to analyse sleep remotely in an objective, fast and low-cost mode.
- Designed as a client server web-application that enables remote assessment and monitoring of sleep.

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Intelligent monitoring platform

> The Intelligent monitoring tool was developed at the Brno University of Technology, CZ. The tool was tested and is currently deployed and extensively used at the St Anne's University Hospital Brno and the Central European Institute of Technology.

MAIN GOAL OF THE TOOL

- To enable objective, fast and low-cost online monitoring and remote diagnosis of sleep disorders, which are the early markers of α-synucleopathies, it could be used during the prodromal diagnosis of e.g. PD.
- To allow timely intervention and more effective treatment of sleep disorders.

BENEFITS

Primary

- Improved quality of life of patients with sleep disorders
- Timely intervention (treatment) of patients thanks to the remote, easy-to-use and early diagnosis of sleep disorders due to identification of the early marker of α-synucleopathies.

Secondary

- Effective work of experts - thanks to the remote mode of sleep analysis, the experts will not have to invite patients to hospitals frequently. Also, due to the 7-day monitoring, they will have much better and complete picture of a pathology.
- Reduced costs related to the management of diseases associated with sleep alterations - thanks to the remote monitoring, the Intelligent monitoring tool will reduce number of patients in hospitals, examination time of experts, and costs related to traveling to hospitals.

FIND MORE ABOUT niCE-life
Project webpage: https://www.interreg-central.eu/Content.Node/niCE-life.html
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