

New technologies for supporting patients and caregivers

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Recently information & communication technology (ICT) has played a crucial role in supporting patients with Alzheimer's disease (AD) and mild cognitive impairment (MCI) and caregivers in Greece. A large number of research projects have validated novel ICT solutions. Computerized cognitive exercises have been used to enhance cognitive functioning. A wide range of exercises from language and multi-domain exercises to exercises in virtual environments have been implemented. At the same time physical exercises have been administered through ICT in an effort to improve strength and balance. Various smart home systems and wearables have been tested in an effort to support autonomous living of patients and provide useful data to specialists and caregivers. Robotics applications, ranging from tangible robotic interfaces for cognitive training to robotic assistants and software solutions, have also been trialed. ICT has also been used in diagnosis. Apart from traditional computerized tests, novel augmented reality neuromotor markers have been assessed and virtual reality (VR) applications have been used, for the first time, to reliably detect MCI. Caregiver support has been implemented through online portals and videoconferencing. In an effort to integrate and better use available ICT solutions, various platforms have been used for collecting, analyzing and presenting relevant data. Despite the abundance of relevant research projects and their results, wider implementation of ICT solutions is still lacking. Organizations such as the Panhellenic Federation of Alzheimer's Disease and Related Disorders are taking steps to ensure wider ICT implementation and dissemination of research results.