

6th International Conference on

Medical Informatics & Telemedicine

July 05-06, 2018 | Berlin, Germany

INCREASING THE AVAILABILITY OF REHABILITATION FOR STROKE PATIENTS BY USE OF COMPUTER GAMES

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Strokes are the second cause of mortality in the world, the third in Poland and in Europe and the first cause of disability of people over 40 years of age. The social and economic consequences are enormous because about 70 percent of patients who survived stroke remain disabled. This is why the additional support of rehabilitation is very important for patients. It can be made possible by the application of computer games in rehabilitation of patients after stroke. The interactive computer games allow the patients to perform rehabilitation exercises, which are an integrated part of the game's scenario. During the treatment, the type of the game and its level of difficulty are selected depending on the degree of paresis of the upper limbs and predisposition of the patient. Two groups of patients with a comparable degree and type of post-stroke effects participated in the study, one of them was rehabilitated in a traditional way and the other one was rehabilitated using the FizoGame system. Obtained results from both quantitative monitoring of progress parameters in rehabilitation with the use of computer games, and the evaluation of this medical technology by patients in questionnaire surveys, indicate that, facing the rising costs of care of patients with stroke and the indication for rapid rehabilitation, telerehabilitation may be considered as an integral element of the management/self management of patients after stroke. The knowledge about sustainable integrated health and social care, lessons learned from CareWell Project, has generated a model that can be applied in any European regions, within the personalization process. It has successfully demonstrated that personalized care can significantly increase the quality of life.

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