

SOFTWARE SYSTEMS FOR PSYCHIATRIC DISORDERS AND BEHAVIOR FIGHTING IN EPILEPSY

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The research consists of the following main stages:

- Developing National Clinical Protocol „Mental and Behavioral Disorders in Epilepsy” (NCP MBDE);
- developing an expert system for diagnosing MBDE;
- Develop a support system for developing treatment programs MBDE;
- Intelligent processing of data from over 100 patients in remission with MBDE;
- Development of e-Learning systems for training health professionals and improving discipline MBDE;
- development of software systems for informing the population on the issue MBDE.

NCP MBDE reflect the experience of over 25 years accumulated by one of the authors (psychiatrist epileptologist) to treat MBDE and experience of over 10 years of research with the assistance of computer in collaboration with specialists in artificial intelligence and genetics of mechanisms development, evolution and rational treatment the MBDE. These researches, completed with practical results, are oriented to achieve therapeutic remission and achieve a new level of quality of life for patients with MBDE.

NCP MBDE pursuit the following aims: (a) facilitating the diagnosis of MBDE; (b) enhancing the quality of management, treatment and quality of life of patients with MBDE; (c) the early detection of patients with insidious start of the MBDE; (d) avoiding handicapping and stigmatization of patients with MBDE.

NCP MBDE was designed with a convenient structure for the further development of appropriate systems of artificial intelligence. NCP MBDE used herein the following classes of frames: boxes, tables, algorithms of health professionals' behavior, base rule and guide for patients, relatives and people who assist them etc.

At the moment, the authors of the research have developed NCP MBDE and some experimental versions: (a) expert system; (b) support system for diagnosing and development of treatment programs for patients with MBDE; (c) e-Learning system for training the course MBDE and (d) system for informing the population on the issue MBDE.

The Expert System is designed to distinguish based on 132 symptoms, MBDE in the range F00-F09 according to ICD-10 Branch of the World Health Organization [1].

The support for diagnosis and treatment development programs of MBDE uses knowledge of: (a) laboratory investigations; (b) consultations provided by specialist doctors; (c) treatment schemes; (d) the daily dosage; (e) costs.

[1] *The ICD-10 Classification of Mental and Behavioural Disorders. Clinical descriptions and diagnostic guidelines.* - World Health Organization. - 267 p., <http://www.who.int/classifications/icd/en/bluebook.pdf>