

Summary

A field covering generation and evaluation of the medical information is a broad one. During my doctoral studies I focused on medical information mainly using the evidence-based medicine (EBM) principles. This approach leads to the use of currently best available medical data in the treatment of patients. The EBM methodology might be classified into two basic groups: afferent and efferent one. The afferent part is focused on development of information resources whereas the efferent one promotes optimal use of these resources and a critical application of the retrieved facts.

Due to practical reasons (to limit extent of the text) I concentrated in the thesis on only one field of my activity. The text deals mainly with afferent part of EBM, namely with formation of a qualitative and quantitative synthesis of knowledge through compilation of a systematic review and meta-analysis. Compilation of systematic reviews of prognostic markers is discussed in a detail. It is a field not appropriately covered in the Czech literature. The practical outcome documented in the thesis is a description of the systematic review of immunohistochemical prognostic markers in intracranial ependymomas that was created and published by our research team. Compilation of this systematic review and meta-analysis was one of the projects aimed at complex evaluation of health-care related information resources conducted at the Department of Medical Informatics at the 2nd Medical School of Charles University.

During my doctoral studies I employed myself in EBM in number of ways. I participated in description of application of EBM within particular medical fields (paediatrics, neonatology, ENT), in promoting EBM amongst specialists and teaching through distant electronic tools. Besides adjustment of the methodology for compilation of the above mentioned systematic review, I took part in development of meta-analysis of the effects of thioctidase used in diabetic neuropathy and compilation of guidelines in patients with deep vein thrombosis based on EBM theory. Possibly useful in systematic reviews' compilation is the study mapping randomized clinical studies presented in the journals published by the Czech Medical Society JEP. Evaluation of the health-care related information in the Internet was another field I covered during the studies. I participated in setting up of the system Rankmed that is focused on formal evaluation of web presentations of health-care institutions (hospitals, faculties, pharmaceutical companies) and in designing, development and management of semi-automatic online database Citmed. It contains hundreds of medical information resources ranked according to the defined quality criteria. My research within these areas is briefly summarized in the following text and documented at the list publications.