

HOW TO IMPROVE HYPERTENSION CONTROL IN GENERAL PRACTICE TOWARDS THE LEVEL OF HYPERTENSION SPECIALISTS?

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The recent data from Dr. Cifkova's hypertension clinic team show the great difference in effective hypertension control between hypertension specialists and general practitioners in the Czech Republic (75 % vs. 38 %) in spite of optimistic results of Czech GPs in comparison with other countries. Therefore, the new methods for better knowledge implementation of 2003 ESH/ESC Hypertension Guidelines (HGL) in primary care are mandatory. The main point is to learn the correct algorithm in hypertension diagnostics, total cardiovascular risk estimation and treatment given by the HGL.

The logical structure of the decision algorithm used in HGL can be lucidly depicted by means of the GLIF model. The first simple version of GLIF browser was developed and tested on the GLIF model of 1999 WHO/ISH Hypertension Guidelines presented at the ESH Milan Meeting in 2003. A new system that uses GLIF 3.5 specification was already developed and used for formalization of 2003 ESH/ESC Hypertension Guidelines. Alternatively, it would be possible to prepare the GLIF model of a personal algorithm of a selected hypertension specialist not so wide and general in selecting a drug class, a certain drug within a class, its dose and especially in selecting a suitable drug combination with less steps to reach the optimal hypertension treatment compared to the algorithm used in HGL. Such a personal algorithm resembles decision algorithms of masters in chess.

The new system uses patients' data and goes through the GLIF model graph evaluating conditions of decision steps. If some condition could not be evaluated, as the needed data items are not available, the system stops and highlights the branch from the root to the current step. Thus it can serve as a reminder of missing data necessary for the correct decision. Then the user can input missing data manually (or simulate data) to the system to continue in visualization.

The GLIF model of formalized 2003 ESH/ESC Hypertension Guidelines offers to physicians an automated reminder system and check their decision algorithms in comparison with that of Hypertension Guidelines. In future it could gain values of GLIF model parameters directly from electronic health record (EHR).

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