

Application of Information Technology in data management of Anaesthesia and Intensive Therapy on National Level. The advantages and results of Web based system development.

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In the dissertation we summarised the results of the usage of data-collection in anaesthesiology and intensive therapy with the contribution of information technology and using the developed web-based system on a nationwide level. We have reached our goals the following ways:

1. The system utilizes the most advanced methods of IT. These methods were pioneer during the development period but nowadays became generally used, not only for the direct health care data collecting, but also in the use of multicentre studies.
2. All the data was built into the system according to the international code systems. Although the coding of anaesthetic complications has not been standardized internationally, the similar seriousness system like the CISS was used before.
3. The results can be matched on national levels - the method of code integration is mentioned in the second point.
4. Although the system has been introduced with wide professional consensus and conciliation, we had to modify it in order to create the exact human resource map. To determine the anaesthesiology and intensive care work places and headcount data, we used the validation provided by ICT since 2005. This step was only taken after the new consensus conference, which was held on the regional leader supervisor meeting.
5. The system approach is in accordance with the modern anaesthesia workplace data management criteria and requirements. We already received ideas from our colleagues who evaluate our web-based data collection system about this connection, which could be working between the NRS (National Reporting System) and the electronic anaesthesia record keeping data. Actually, the records are still being written by hand.
6. The data collection became more easy and simple for the local data suppliers, as the web based questionnaire confirmed.
7. The data's summarization works automatically. Without it's help, we could not have proceeded to the data mass, which is needed for the analysis. This function is provided by the NRS's analysis module which is accessible with adequate authorisation process.
8. Finally with the help of the analysis, we have evaluated of the functionality of our profession and the map of human resources. The important conclusions are the following:
 - The data of our procedures and critical incidents are fit to international trends.
 - The data of human resource management shows decreasing a number of specialists
 - The acceptance of the developed system was measurable on a national level with positive outcome and the qualification of NRS occurred in European level because the system is part of the best practice of eHealth report.

Key words: anaesthesia, audit, intensive care, web based data collection
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