

A NEW GENERATION WEB-BASED MEDICAL EQUIPMENT MANAGEMENT SYSTEM

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Healthcare delivery, today, is entirely technology-oriented and medical equipment plays a major role in improving the quality of patient care. However, the increased number of medical equipment installed in hospitals leads to problems associated with their proper management. In such an environment, with strong demands for high level health services and as low as possible costs, the rational management of medical equipment becomes particularly crucial. Therefore Clinical Engineering Departments (CEDs) in hospitals need to implement comprehensive Medical Technology Management programs, which should be able to address complex and multidimensional tasks requiring special expertise and dedicated tools in order to achieve the best results.

In order to satisfy these needs CEDs have turned towards computerization as the only viable solution. This implies the use of software tools, specifically designed and developed for medical equipment management [1].

This work presents a new generation of medical equipment management software system, specifically designed and developed for this purpose, with emphasis on safety, efficiency and effectiveness in medical equipment in use. It is based on more than 20 years of experience in this field and it is being continuously updated to meet the new demands and take advantage of new ICT means. The system provides capabilities to monitor and follow all the procedures related to the medical equipment life-cycle and to collect, store, retrieve and analyze the relevant information. It gives the ability to assess the overall condition of medical equipment and facilitate decision-making process towards the improvement of medical equipment management. The system is multilingual, web-based and explores the latest technology in the field of web development and services. It offers a 24/7 access to the medical equipment data, from any desktop, notebook, tablet PC or even a smart phone, connected to the Internet.

In addition, the work also presents the first experience of the system adaptation installation and usage by the Biomedical Technology Department of “Mother & Child” hospital in Chisinau, Moldova.

The system presented, namely WEB-PRAXIS, is designed to assist CEDs in their daily-routine activities and expected to adequately face the new trends and increased needs in the changing healthcare environment in Moldova.

References:

- [1] Z. Bliznakov, P. Malataras, N. Pallikarakis, Biomedical Technology Management: WEB-PRAXIS – Medical Equipment Management System, 4th Pan-Hellenic Conference on Biomedical Technology (ELEBIT 2013), 20 - 21 January 2012, Athens, Greece