PATIENT SAFETY AND MEDICAL DEVICE MAINTENENCE

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Medical technology plays an important role health care according to consisting general accepted standards. Purchase and operation thereby represent an important economic position and both are subject of everyday optimization attempts. All hospitals want to get the most out of their investments. To enable them to do so, they need to actively manage health service assets, ensuring that they are used efficiently and optimally. For this purpose by now exists a huge number of tools which conduce more likely to a complexness of the problem by a comprehensive implementation.

Medical equipment risk assessment is part of an overall medical devices management program for a healthcare facility or system. A complete program includes corrective maintenance or repair, equipment control, asset management, health care technology planning, education, and activities directed toward improving medical device-related patient safety.

Most medical devices require regular and effective maintenance to operate correctly and meet their design specifications. The consequences of ineffective maintenance can be huge in terms of patient safety. Also is very important that all medical devices to be tested periodically. This task can be performed only by specialized entities such as accredited laboratories and it is necessary to be reglemented.

Because health service providers have thousands of medical devices to correctly maintain these devices can be difficult or impossible without a formalized computerized scheduling system. In this manner work orders requiring parts, procedures, documents, skills or specialist test equipment can easily be focused. According the classification of medical device there are different approaches with regard to the operational costs and the technologic effort concerning the service management maintenance. Risk Based Inspection Planning reduces maintenance costs and improving efficiency. It is becoming ever more important for medical devices and their component parts to work longer at a minimal increase to costs, improving patient safety with higher levels expected in terms of reliability and quality

- [1] Corciovă C., Turnea M., Ciorap R., Risk Management for Medical Devices, *Advances in Biomedicine and Health Science* 2013, p. 51-56
- [2] Corciova C., Andritoi D., Ciorap R., Elements of Risk Assessment in Medical Equipment, *The 8th International Symposium on ADVANCED TOPICS IN ELECTRICAL ENGINEERING*, Bucharest, MAY 23-25, 2013, p. 372-375
- [3] Andritoi D., Luca C., Corciova C., Ciorap R., Predictive Maintenance Application for Health Technology Management, *The 8th International Symposium on ADVANCED TOPICS IN ELECTRICAL ENGINEERING*, Bucharest, MAY 23-25, 2013, p.390-393
- [4] Luca C., Ciorap R., Software System for Medical Device Management and Maintenance, 3rd International Conference on Advancements of Medicine and Health Care through Technology, Cluj-Napoca, Romania 29 August-2 Septembrie 2011, p. 84-89