

# **Guideline for MEDICAL EQUIPMENT MANAGEMENT PROGRAMS (MEMPs)**

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## **PREAMBLE**

This document provides an overview of the Medical Equipment Management Program (MEMP). It covers the organization, components and the qualifications of the manager of the MEMP. Although this document calls for a MEMP manager to be a clinical engineer, there are many MEMPs that are managed by Biomedical Equipment Technicians (BMETs). This may be a better option for smaller hospitals and the hospitals that are managed by the Independent Service Organizations (ISOs). In the case of smaller hospitals the clinical engineering support may be provided by outside clinical engineering consultants and for the hospitals that are managed by ISOs the clinical engineering support should be provided by corporate clinical engineers.

## **QUALIFICATIONS**

Health care institutions are increasingly recognizing the need to be in compliance with a variety of mandated and voluntary codes and standards not the least of which is that of the Joint Commission on Accreditation of Healthcare Organizations. Among the JCAHO standards for accreditation, a Medical Equipment Management Program to assure the efficacy and safety of medical technologies and to provide an effective and efficient management system is described. Adherence to these codes and standards not only helps assure an improved quality of health care delivery, but also may reduce expenses through a reduction in liability incidents and better asset management.

Clinical Engineers responsible for the operation of Clinical Engineering departments in hospitals will have a primary function of meeting the mandated and voluntary requirements for the testing and maintenance of medical equipment. The choice of describing such a comprehensive operational program as a "Medical Equipment Management Program" (MEMP) is in recognition of the wide acceptance by healthcare of the voluntary compliance with the requirements set forth by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). To assure an adequate organization and execution of an MEMP, the responsible Clinical Engineer must follow sound engineering, management, and ethical practices. The practice of engineering in any discipline may result in adverse events due to errors or omissions. The adverse events may be damage, injury, or death (infant death in an incubator due to hyperthermia caused by defective design, patient death due defibrillator failure caused by poor maintenance on batteries), or even the failure to provide an improvement to life. Clinical Engineering is unique in all engineering disciplines in that a proactive treatment to prolong life could become ineffective or dangerous should the practice of Clinical Engineering be lacking or in error. Training and qualification in the practice of Clinical Engineering prepares the individual to understand the practice and potential consequences, and gives the knowledge and skills to perform competently in providing the required services.

## **GUIDELINES**

- The manager (director) of the MEMP shall be a Certified Clinical Engineer, licensed Professional Engineer, or be otherwise qualified by enough education, training, and experience to qualify for clinical engineering or professional engineer examinations.
- The manager shall have had progressively increasing responsibility under the supervision of a more senior manager or through an internship program or mentoring for a minimum of five years.
- The manager shall be able to describe in detail all staff positions within a program, their qualifications, responsibilities and relationships within a department organization chart.
- The manager shall assure that MEMP elements meet local, state, and national mandates.
- The manager shall maintain a current knowledge of the standards of practice for MEMP's through peer contact and review and continuing education.
- The manager shall maintain a knowledge of labor-management relationship and practices and workplace safety requirements.

## **ORGANIZATION OF THE MEMP**

The MEMP shall be organized to:

- Maintain a comprehensive and complete inventory of all diagnostic, therapeutic, monitoring and IT equipment
- Assume total responsibility for maintenance management of aforesaid equipment
- Participate in an advisory role in the acquisition, retirement and replacement of aforesaid equipment

## **COMPONENTS OF A MEMP**

- Written guidelines determining equipment to be included in the MEMP
- Procedures for evaluating the effectiveness of the MEMP and compliance with required codes and standards
- A review process to determine strategies to correct problems and improve performance
- A reporting process to keep management informed of performance, problems and needed support
- Representation in the institution's equipment acquisition program
- Representation in the institution's equipment related incident investigation program
- The MEMP should be reviewed and updated annually

## **REFERENCES**

- Accreditation Manuals of the Joint Commission on Accreditation of Health Care Organizations
- NFPA-99
- Federal, state and local requirements

## **APPROVAL DATE (ACCE board)**

January 27, 2006

## **REVIEW DATE**

January 12, 2007

## **ADDENDUM**