



POLICY AND PROCEDURE MANUAL
DUKE UNIVERSITY HEALTH SYSTEM



Clinical Engineering Policy CE-037
Periodic Maintenance

POLICY:

Maintain a comprehensive Periodic Maintenance Program that will include a testing and maintenance program for all equipment included in the program.

Clinical Engineering and EOC/ Safety Committee determine the interval of periodic maintenance inspections by using Risk assessment, Data Driven (Corrective Maintenance) Information, Industry Standards, Manufacturer Recommendations, and Facility experience.

Periodic Maintenance documentation is stored in the Computerized Maintenance Management System (CMMS) database.

Equipment will be included in this program if it meets one or more of the following criteria:

1. The equipment is essential for life support.
2. The equipment requires testing due to CAP/ mandatory regulations.
3. The equipment requires a more intensive maintenance schedule, by reason of its complexity or extended use schedule.
4. The incident of failure history indicates that the equipment is in need of an intensified schedule of preventive maintenance.
5. The equipment is supplied by or maintained by outside vendor.
6. The equipment is under lease and the periodic maintenance schedule is part of said lease. (Some Rental/Leased PM's are by agreement the rental/lease company's responsibility. Reports are provided to us as to the PM task, schedule and completion of these PM's).
7. The equipment is under warranty covering service parts only. (Required periodic maintenance will be completed by the Clinical Engineering Department)
8. If maintenance history is tracked. (Some equipment maintained under contract and/or history is not tracked may not be included in the PM Program).

PROCEDURE:

1. During the middle of the month prior to PM due date, PM's are automatically generated by the Computerized Maintenance Management System (CMMS). This allows prior review of due equipment to ensure necessary PM parts are ordered and available. This schedule will cover all equipment to receive a periodic maintenance inspection. The work schedule will be broken down to assign units or devices to specific biomedical technicians. Work orders will be generated and distributed to the assigned technician.



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2. Maintenance is performed in accordance with the established periodic maintenance procedure. These procedures are based on manufacture protocols and/ or facility experience. The assigned engineer or technician shall document the maintenance, including any pertinent observations on the work order. The equipment under test receives a PM sticker. When maintenance and documentation is completed the work order is subsequently updated in the CMMS.
3. If scheduled work cannot be completed or performed (i.e., parts are needed, equipment is in use), the reason is documented in a work order. Steps will be taken to insure that the necessary parts, etc. are ordered to complete the work order.
4. If scheduled maintenance is being handled by an outside vendor, the Clinical Engineering Department will notify the vendor and schedule the PM service. When maintenance and documentation is completed the work order is subsequently updated in the CMMS.
5. Life Support Equipment This classification of equipment requires a 100% PM completion percentage. However, there are times when removing a piece of equipment from a patient only for PM completion purposes may compromise patient safety. When equipment is in use and cannot be removed, Clinical Engineering will work closely with the user department to ensure that the equipment is inspected once it is removed from the patient.
6. Non Life Support Equipment This classification of equipment requires a 95% or greater completion percentage.
7. PM work orders which cannot be completed during PM can be completed as “Could Not Locate” only after the following three steps have been followed and documented in order. 1) the technician has made a concerted effort to locate the equipment during the month due 2) the assistance of the equipment owner department has been requested and received. The technician will obtain the help of clinical department supervision/ staff for difficult to locate equipment 3) and if approved by a Clinical Engineering Operations Manager after another concerted effort was made to locate the equipment.
8. If a piece of equipment cannot be located for two (2) consecutive PM cycles it will be removed from service and deactivated in the CMMS.
9. Management rounding may be used as a means of ensuring technician competency and that correct PM procedures and actions are taken.
10. PM completion percentage is reported to the relevant EOC/ Safety Committee on at least a quarterly basis.
11. Longer or shorter periodic maintenance intervals are adopted after documented justification based on previous safety testing records.