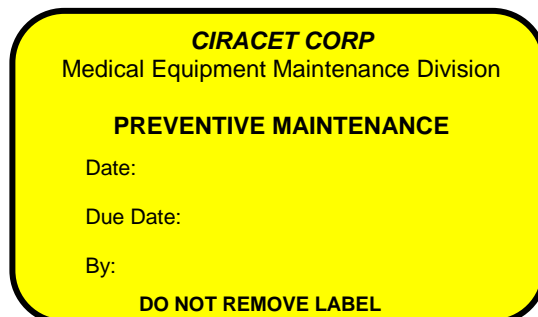


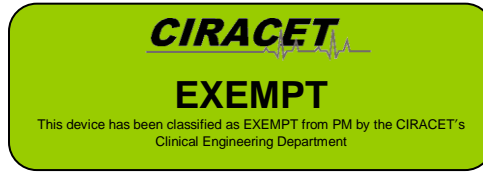
## Preventive Maintenance Policy

All preventive maintenance work (PM's) is completed on a timely fashion and meet manufacturer's specifications for performance and electrical safety.

1. CIRACET will evaluate manufacturer's recommended preventive maintenance tasks as well as those from regulating agencies and associations like the NFPA, JCAHO, ECRI and the AHA and will develop its own comprehensive preventive maintenance for each device class and model included.
2. Details about the preventive maintenance work performed and/or the different results obtained will be captured in each preventive maintenance log. Both electronic and one a hard copy will be kept by CIRACET. A summary will be made available to the Hospital as part of the monthly reports.
3. A complete PM will include an external cleanup and evaluation, performance verification, system calibration if needed and an electrical safety check. However, a device may be considered exempt of an electrical safety test if it is never in direct contact with a patient or if it uses only batteries. (Such a decision will be made by CIRACET certified clinical engineers following JCAHO recommendations.)
4. Upon program (EMMP) inception CIRACET will perform an evaluation of each medical device included in the inventory and will assign a preventive maintenance frequency based on the risk assessment. A device preventive maintenance frequency can change based on the number of repairs needed and on requests made by clinical department heads.
5. The assigned preventive maintenance frequency cannot be less than the recommended frequency of parts replacement.
6. If a PM was completed successfully CIRACET staff will place a yellow sticker, which will indicate when a preventive maintenance was done, the date, the name of the biomedical technician that did the work and when is the next inspection date. If equipment is exempt from preventive maintenance a green label with the word "EXEMPT" will be placed on the equipment.



Preventive Maintenance Label



Exempt Label

7. If a device is not found during PM rounds or it is not available for the work to be performed the biomedical technician will indicate this on the respective form and will put his or her initials. A department representative should also sign the form in the comments/signature section. If a device is not found or not available twice during the first month the job will be closed documented respectively (“unit not available” or “unit not located”). It will become a PM Priority for the next month. (A PM Priority is a preventive maintenance that was not performed during the month that was scheduled because the unit was not available, not located, under repair, or there were insufficient man hours.) A list of these PMs will be generated and should be performed prior to performing the scheduled PMs for the month. PM priorities will not affect the scheduled PM frequency of the units.) A unit not available or not located will be searched once for two more months. If the device is not found after these three consecutive months the device will be classified as inactive equipment. As a condition for closing a PM under such clauses the preventive maintenance form must be signed by the department director or supervisor.
  
8. It is expected that all scheduled preventive maintenance will be completed within the month due. **The percent of completed preventive maintenance for any given month should be equal or greater than 90% of the scheduled total as a general performance indicator.** (Although this is a measured on a month by month basis results for any internal or external audit will always be presented on a year long basis.) All remaining work, not closed as unit not available or unit not located, will be closed as insufficient man hours and it will also be considered as PM Priority for the next month. It is important to notice that a PM will be considered completed if the technical personnel job was actually performed or if the job was closed as a unit not available or unit not located.

$$\text{Percent of completed PMs} = \frac{\text{No. of completed PMs} + \text{unit not located} + \text{unit not available}}{\text{Total No. of PMs scheduled that month}} \times 100$$

9. In order to determine each device PM frequency a strict risk analysis is used. However, in order to monitor the effectiveness of the assigned frequencies it is necessary to periodically evaluate the quality of the program based on the percent of failed preventive maintenances each month. **At the end of the period the percent of failed preventive maintenance should not exceed 5% of the scheduled total for that period.** A failed PM immediately results in a Repair Work Order. A PM fails if one or more of its qualitative or quantitative tests fail. Compliance with this indicator will be monitored monthly.



$$\text{Percent of failed PMs} = \frac{\text{No. of failed PMs}}{\text{Total No. of PMs completed that month - unit not located - unit not available}} \times 100$$

10. If a specific device fails its preventive maintenance consecutively the respective preventive maintenance frequency should be evaluated.
- 11. Every time a preventive maintenance fails CIRACET's technical staff will fill out a Repair Request Form and obtain a work order number under which the repair will be performed.**
12. Preventive Maintenance work is also performed during initial incoming equipment evaluation, or under OEM or third party repair service. All department heads are encouraged to contact CIRACET biomedical staff as soon as new equipment is received. Once proper functional and electrical tests are performed, devices can be made available to the clinical areas. This PM is subject to Purchasing or Department supervisor informing of the new equipment arrival.