

# Initial Acceptance, Evaluation, and Inventory of Medical Equipment

1. Purpose: To establish policy and procedures for inspection and inventory of newly acquired medical equipment.
2. Policy: Newly acquired medical equipment shall be initially inspected for safety and performance, shall be evaluated for inclusion in the equipment management program, and shall be placed in the Medical Center's computerized equipment inventory (AEMS/MERS or Maximo).
3. Responsibilities:
  - a. The Chief, Biomedical Engineering has overall responsibility for the pre-delivery inspection (PDI) and inventory of all medical equipment in the Medical Center.
  - b. The Clinical Engineer/Biomedical Equipment Support Specialist (BESS) Leader is responsible or modifying this policy as governing regulations and standards change, for maintaining the accuracy of the medical equipment inventory, for evaluating equipment for inclusion into the PM program, and for ensuring that all documentation is complete and recorded accurately.
  - c. BESS are responsible for performing the PDI of equipment, for developing and maintaining PM protocols for equipment categories for which they are responsible, and for providing complete documentation.
  - d. Clinical Engineer shall review all PDIs to ensure documentation is complete and accurate.
  - e. Clinical Engineer and/or Administrative Support are responsible for data entry of equipment records in AMES/MERS or Maximo and for making changes as instructed.
4. Procedures:
  - a. Initial Acceptance: Before a piece of medical equipment is delivered to the Using Service, a PDI shall be performed to determine if the equipment is electrically safe and when required, performs to manufacturer's specifications. The process for placing incoming medical equipment into service is as follows:
    - i. Engineering receives an electronic work order request from the warehouse or logistics for PDI. If no electronic work order is received, it is the responsibility of the BESS to generate a PDI work order when a new piece of equipment arrives.
    - ii. BESS fills out PDI form (PWS Exhibit K), ensuring that equipment received matches all the items in the purchase order.
    - iii. BESS shall confirm that the equipment category is correct and place Equipment Entry (EE) label on equipment. If equipment category is not correct, BESS shall contact Clinical Engineer to correct.
    - iv. Service manuals shall be reviewed to determine if the manufacturer's technical specifications and service documentation are complete. If no service manual is

provided, it is the responsibility of the BESS to gather the information required, i.e. talk with vendor or search CEOSH database.

- v. Electrical safety testing shall be performed to ensure compliance with current VA safety standards and NFPA 99. Equipment will not need electrical inspection if it is non-electrical, battery-operated, or double insulated with a two-prong plug.
  - vi. A functional check shall be performed on all equipment. A more detailed performance verification shall be performed on medical equipment that:
    - 1. Is considered Life Support Equipment
    - 2. Is clinical lab equipment subject to CAP accreditation
  - vii. A label indicating completion of inspection shall be placed on the equipment. Use VA's green label for all medical equipment that requires routine inspection. Use VA's "loaner" label to identify clinical loaner equipment. "Valid Until" date shall reflect expected length of stay at medical center and not exceed 3 months.
- b. PM Program Inclusion Evaluation:
- i. The Clinical Engineer shall verify all category names and equipment types for inclusion into PM program by risk assessments, manufacturer recommendations, ECRI standards, local standards, and equipment history (if applicable).
  - ii. For new equipment that meets the inclusion criteria for the PM program, its equipment inventory field JCAHO shall be set to YES and a PM schedule and protocol shall be created. For equipment that does not meet the inclusion criteria, the field is set to YES and the PM Schedule shall be set to NONE.

**All equipment managed by Biomedical Engineering shall have the responsible shop assigned as well as the PM schedule.**

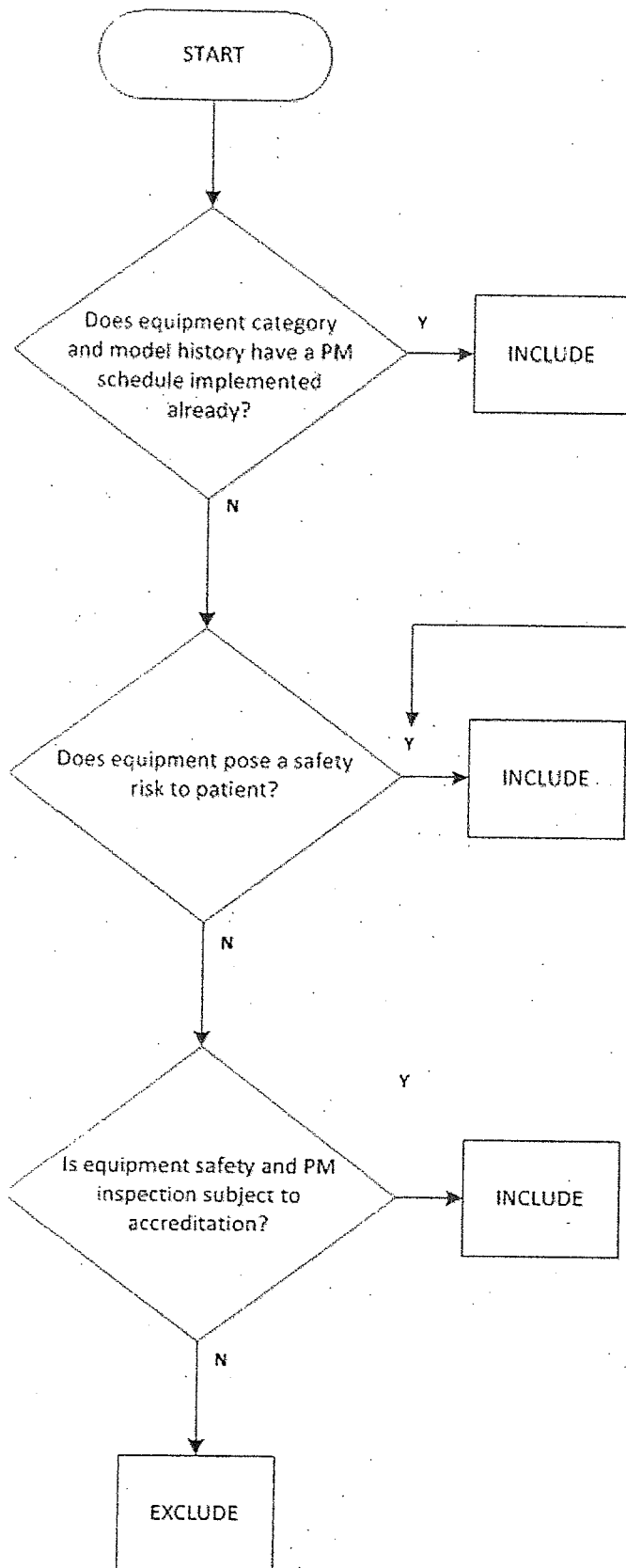
- iii. All biomedical assigned equipment in Laboratory services shall be included in the PM program based on the requirements from CAP and/or AABB.
  - iv. Exceptions: Most research equipment is not included in the PM program even if equipment may have the same category name as items in the PM program. Items currently included in the Research PM program include: CO2 incubators, Defibrillators, Analytical Balances.
- c. Inventory:
- i. Engineering Service administrative support shall enter in AEMS/MERS or Maximo all PDI information in accordance with Joint Memorandum 138-90-01, Equipment Inventory Management.
  - ii. Biomedical Engineering will work with Logistics to locate and document all equipment that is found in use but marked as turned in or lost/stolen in AEMS/MERS or Maximo. A PDI work order request will be generated with the comment FOUND IN USE: NEEDS RE-INSPECTION and completed before placing back into service.

- iii. Biomedical Engineering will work with Logistics to locate and document all equipment that is found in use but has entered the hospital through unconventional means and has not yet been inventoried in AMES/MERS or Maximo. Once the equipment is entered into AEMS/MERS or Maximo, a PDI work order request will be generated with the comment FOUND IN USE: REQUEST PDI and completed before placing back into service.

5. References:

- a. Current edition, Joint Commission Accreditation of Organizations Manual.
- b. Current edition, National Fire Protection Association NFPA 99.
- c. Joint Memorandum 138/90-01, Equipment Inventory Management.

## EVALUATION FOR INCLUSION INTO THE MEDICAL EQUIPMENT PREVENTIVE MAINTENANCE PROGRAM



PM protocols and schedules are developed from original equipment manufacturer's recommendations, ECRI Inspection and Preventative Maintenance System Manual, VA San Francisco Local Preventative Maintenance Manual, and from guidelines/standards from NFPA 99, AAMI, ECRI, CAP, AABB, AHA, and VA. Inclusion into the PM program is also based on Risk Score Criticality, weighing out equipment function, clinical risk, and maintenance requirements.

**Safety risk to patient is posed when at least one of the following applies (following statements apply for medical equipment used for treatment, diagnosis, and/or therapy):**

- Equipment is life-support or key resuscitation equipment
- Equipment is used for treatment in critical care areas
- Equipment is involved in critical or constant monitoring of patients and may contain clinical alarms for patient safety
- Equipment presents direct physical or electrical contact to the patient's body through interfacing devices such as electrodes, needles, metallic surfaces, and transducers
- Equipment delivers potentially harmful levels of energy or substances, causing injury or death
- Equipment may require extensive or above average maintenance and downtime of equipment will cause interruptions to continuation of care

Accrediting bodies are agencies such as Joint Commissions, CAP, AA.BB.