

DEPARTMENT OF THE ARMY
RAYMOND W. BLISS ARMY HEALTH CENTER
Fort Huachuca, Arizona 85613-7079

MEDDAC Memo
No. 750-5

21 March 2008

Maintenance of Equipment
MEDICAL MAINTENANCE POLICIES AND PROCEDURES

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1. **HISTORY.** This is the first printing of this publication.

2. **PURPOSE.** This publication is a directive establishing policies, responsibilities, and procedures for the maintenance and repair, installation and removal of medical equipment, and for reporting medical equipment failure to the Medical Maintenance Branch, Logistics Division, Raymond W. Bliss Army Health Center (RWBAHC).

3. **APPLICABILITY.** This publication applies to all sections and departments within the RWBAHC Health Care Delivery System and to all units and activities aligned with RWBAHC for logistical support.

4. **REFERENCES.**
 - 4.1 AR 750-1, Army Materiel Maintenance.
 - 4.2 AR 40-61, Medical Logistics Policies.
 - 4.3 TB 38-750-2, Maintenance Management Procedures for Medical Equipment.
 - 4.4 TB MED 7, Maintenance Expenditure Limits for Medical Equipment.

4.5 TB MED 521, Occupational and Environmental Health Management and Control of Diagnostic, Therapeutic, and Medical Research X-Ray Systems and Facilities

4.6 TB MED 750-1, Operating Guide for Medical Equipment Maintenance.

4.7 RWBAHC Memo 385-1, The Safety Program.

4.8 Health Care Facilities NFPA 99 for 2005.

4.9 Medical Device Reporting under the SMDA.

4.10 Joint Commission (JC) Standards for Ambulatory Care.

4.11 Safe Medical Devices Act (SMDA) of 1990.

5. EXPLANATION OF ABBREVIATIONS AND TERMS. Appendix B.

6. BACKGROUND. This publication provides the Commander's Maintenance Program for all medical equipment maintained by the RWBAHC Medical Maintenance Branch. This includes all supported units requesting medical maintenance support. This publication informs the supported activities of available services.

7. RESPONSIBILITIES. The Commander is responsible for the Total Maintenance Management Program within the activity and for support to authorized units in our assigned geographical areas.

7.1 The Commander, RWBAHC will:

7.1.1 Provide, from available resources, funds essential for the Medical Maintenance Branch to accomplish its mission.

7.1.2 Ensure that clinical services and departments establish operator maintenance training programs that include initial orientation, periodic training, and standing operating procedures for operator level equipment maintenance and clinical intervention when equipment fails during use.

7.1.3 Establish periodic in-service and/or formal training in before operation, during operation, and after operation maintenance programs for equipment operators (EO).

7.1.4 Program periodic in-service, formal Army training, and/or manufacturer training for Medical Equipment Repair Specialists (MERS), particularly for new equipment introduced into the activity.

7.1.5 Program and make available tools and test equipment necessary to maintain new equipment introduced into the activity.

7.1.6 Provide maintenance services to active duty Army activities on a scheduled basis rather than on a convenience basis.

7.1.7 Program sufficient travel funds so that maintenance personnel may perform required preventive maintenance services at satellite activities.

7.1.8 Determine when a waiver of the Maintenance Expenditure Limit (MEL) established by the MEDCOM may be granted to allow repair of critical items of medical equipment over the Medical Care Support Equipment (MEDCASE) Program threshold (>\$250,000).

7.1.9 Authorize stockage of critical items of medical equipment in the Medical Standby Equipment Program (MEDSTEP).

7.1.10 Authorize stockage of mission essential repair parts required to support critical items of medical equipment.

7.1.11 Designate critical and non-critical patient care areas for the purpose of establishing maintenance priorities and the level of electrical safety testing.

7.2 The Chief of Logistics, RWBAHC will:

7.2.1 Be responsible for the implementation of the Commander's directive and will frequently update the Command on the status of medical equipment maintenance and associated programs.

7.2.2 Ensure adequate funding is available and that personnel are properly utilized.

7.2.3 Review maintenance policies, standards, reports, and quality assurance controls to evaluate the effectiveness of the Medical Equipment Maintenance Program.

7.2.4 Ensure that requested tools and test equipment are given adequate priority for CEEP and MEDCASE procurements.

7.2.5 Ensure that training objectives are established for medical equipment maintenance personnel and that tuition and TDY estimates are included in the annual Logistics Division Budget.

7.2.6 Use assigned MERS primarily for medical maintenance duties and limit additional duties that may adversely affect the maintenance of medical equipment.

7.2.7 Determine when a waiver of the MEL established by MEDCOM may be granted to allow repair of critical items of medical equipment for medical equipment less than the MEDCASE program threshold.

7.3 The Chief, Medical Maintenance Branch, Logistics Division, RWBAHC will:

7.3.1 Maintain and service medical equipment for all units, organizations and activities at RWBAHC, FT Huachuca, AZ and those aligned with RWBAHC for logistical support.

7.3.2 Schedule and accomplish Preventive Maintenance Checks & Services (PMCS), inspections, unscheduled services (repairs), and service procedures on medical equipment IAW procedures outlined in AR 40-61, TB MED 750-1, TB MED 521, NFPA 99, Joint Commission (JC) Manual, and the manufacturer specifications.

7.3.3 Will perform an inspection and report compliance of the clinic's Competency Assessment File (CAF) folders at the time the DD Label 2163, Calibration/Verification/Certification, or DA Label 175, Defibrillator Energy Output Certification sticker is updated to ensure all end users have documentation of equipment training.

7.3.4 Implement and manage the Medical Equipment Management Program.

7.3.5 Formally monitor Army owned or supported medical equipment throughout its life cycle.

7.3.6 Provide guidance and assistance to other organizational elements that do not have database tracking capabilities for medical equipment.

7.3.7 Provide recommendations to the MEDDAC staff for the MEDCASE Program and to the CEEP Manager concerning medical equipment replacement requirements.

7.3.8 Monitor medical equipment recalls and equipment/operator errors and report findings to the Environment of Care (EOC) Committee.

7.3.9 Conduct an annual evaluation of the Medical Equipment Management Program and report conclusions to the EOC and the Executive Committees.

7.4 The Chief of each clinical department will:

7.4.1 Have direct responsibility for ensuring that all end users of calibrated medical equipment have documentation of training and orientation for use of that equipment documented in their CAF folders.

7.4.2 Analyze their respective medical equipment program with emphasis on equipment availability for patient care.

7.4.3 Work in conjunction with the MEDCASE/CEEP Manager and the Chief, Medical Maintenance Branch, to implement the five-year replacement plan.

7.5 The OICs and NCOICs of patient care areas will:

7.5.1 Notify Equipment Management Branch, which consists of the Property Management Branch and the Medical Maintenance Branch, before any purchase, rental, lease, cost-per-test, or borrowing agreement is made. All medical equipment utilized within RWBAHC must be documented as functional and safe by the Medical Maintenance Branch. The use of personal electrical equipment by patients and staff is prohibited unless such equipment has been approved as safe by the Medical Maintenance Branch and/or by the Safety Section personnel prior to its use as designated by the hospital safety committee. Items prescribed by a physician for home use can accompany the patient into RWBAHC for short terms, but should also be reviewed to insure safety. All equipment intended to be here for any patient use (even if it is for one (1) day) in this facility and its satellite activities must be inspected by the Medical Maintenance Branch to insure safety and possible inclusion onto the Property Book to document scheduled service requirements and maintenance.

7.5.2 Notify Property Management Branch of any medical equipment that is loaned from this command to other Medical Treatment Facilities (MTF) or received from another command. Accountability and serviceability must be accomplished prior to the loan agreement.

7.5.3 Ensure that all medical equipment is listed on the Defense Medical Logistics Standard Support (DMLSS) System hand receipt and that discrepancies are reported to the Property Management Branch.

7.5.4 Secure, tag and notify the Medical Maintenance Branch immediately of medical equipment malfunctions as soon as they occur.

7.5.5 Ensure that at least one copy of operator literature or locally developed procedure is on hand for each type of medical equipment on the hand receipt.

7.5.6 Train their subordinates in JC and EOC standards, utilizing the JC Standards for Ambulatory Care, manufacturer's literature, clinic Standing Operating Procedures

(SOPs), Contingency Plans, Emergency Management Plans (EMP), and any other relevant training information.

7.5.7 Turn in excess medical equipment to Property Management Branch.

7.5.8 Ensure that medical equipment orientation and operator training is conducted. Ensure that operator training has been successfully concluded prior to that individual being allowed to operate medical equipment in the performance of providing health care to a patient. This must be performed initially when new equipment or new personnel are added to the mission and a record must be maintained as a JC documented requirement. Refresher training must also be performed annually at a minimum. Medical Maintenance will perform PMCS training if requested and will help to coordinate additional manufacturer's operator training at the section supervisor request.

7.5.9 Implement operator preventive maintenance before, during, and after use of each piece of equipment:

7.6 The medical equipment operator's will do the following:

7.6.1 Perform before, during, and after operator maintenance daily and IAW manufacturer's instructions (see Appendix C and D for complete details).

7.6.2 Suspend from service, label equipment suspected as being defective and notify supervisory personnel immediately when equipment is suspected of not functioning IAW the manufacturer's specifications. Ensure the turn-in of unserviceable medical equipment to the Medical Maintenance Branch. The operator will in turn, receive a copy of the DMLSS Automated Maintenance Request, insure accuracy and completeness, and retain this copy for receipt of equipment.

7.6.3 Verify and inspect to ensure that all required medical equipment accessories are available and in good working condition.

7.6.4 Ensure that sufficient operator replaceable accessories for proper equipment operation are available.

7.6.5 Check equipment electrical power cords for cracks and frays and for physical displacement of cords from plug receptacles.

7.6.6 Continually monitor Medical Equipment Verification/Certification labels, DD Form 2163, for expired dates.

7.6.7 Review operator manuals to insure use of proper techniques.

7.6.8 Not attempt any unauthorized repairs or design and/or install any modifications or operate equipment when it is in an unserviceable condition.

7.6.9 Ensure that all equipment delivered to Medical Maintenance has been cleaned using accepted infection control precautions currently authorized by this Command. No contaminated equipment will be turned in for repair, scheduled services and/or as excess.

7.6.10 Promptly pick up repaired medical equipment from the Medical Maintenance Branch upon notification.

7.6.11 Promptly turn-in equipment identified as excess or equipment declared unserviceable/uneconomically repairable by the Medical Maintenance Branch to the Property Management Branch

7.6.12 Immediately notify the Property Management Branch, by memorandum, of the need for replacement of emergency medical equipment.

7.6.13 Make equipment available to the MERS during PMCS visits unless in use on a patient. Notify the Medical Maintenance Branch when the equipment is available.

8. ADMINISTRATIVE DETAILS.

8.1 Medical Maintenance Branch operating hours are:

8.1.2 Normal operating hours are 0730 to 1630, Monday through Friday, excluding federal holidays and command directed training holidays.

8.1.3 During other than normal duty hours, contact the RWBAHC Administrative Officer of the Day (AOD), for emergency assistance.

8.2 Procedures for routine repair of medical equipment:

8.2.1 Operator (Hand Receipt Holder or designated representative) will, if equipment is portable or mobile, deliver equipment and accessories to the Medical Maintenance Branch. A copy of the work order will be furnished to the customer to be used as a receipt. The operator will, upon notification from Medical Maintenance Branch, pick up the item, sign and obtain a completed copy of the work order.

8.2.2 On-site repair of medical equipment: Medical equipment that is non-portable installed or of a fixed nature will be repaired on site. The Medical Maintenance Branch will coordinate with the activity to have equipment removed if evacuation of equipment for repair is necessary. The operator will report problems to the Medical Maintenance Branch at telephone 533-3712.

8.3 Emergency repair services:

8.3.1 Requests for emergency repair will be justified only by the failure or malfunction of medical equipment that is being used to save a life, prevent loss of limb or alleviate suffering. Further, the availability of serviceable like items through lateral transfer from another activity within this center should be considered prior to an emergency classification. The nature of repairs required and nonavailability of repair parts may preclude immediate repair; therefore, every effort should be made to obtain serviceable substitute equipment. Emergency priority requests are not to be used to support normal operations.

8.3.2 The equipment operator requests emergency repairs as follows:

8.3.2.1 Contact the Medical Maintenance Branch. Operators are responsible for coordinating with the Equipment Management Branch to arrange for loaned equipment or an emergency replacement if the equipment cannot be repaired promptly.

8.3.2.2 Prepare an emergency maintenance request memorandum signed by the Division Chief for submission as soon as possible. Work will not be delayed while waiting for this memorandum. All emergency repairs will be assigned a priority of Emergency.

8.3.2.3 Call the Administrative Officer of the Day (AOD) and request emergency medical equipment repair service during other than normal duty hours. The telephone number for the AOD/AAOD is 533-2963.

8.3.2.4 The Medical Maintenance Branch, RWBAHC, will dispatch a MER to effect necessary repairs. The equipment operator will be advised to return emergency replacement equipment to the loaner upon successful completion of repairs.

8.4 Contract and/or warranty maintenance services: Medical Maintenance manages the contracts and warranty files for maintenance services from commercial vendors. The Medical Maintenance Branch is responsible for monitoring vendor performance and acceptance of their services. Equipment operators or other staff members are NOT authorized to request commercial contract/warranty services and are cautioned that such an action could possibly result in an unauthorized commitment of government funds. Request for commercial services is determined by the Chief of the Medical Maintenance Branch ONLY.

8.4.1 All service contractors must be sent to the Medical Maintenance Branch to verify they are authorized to work on medical equipment prior to their start on any service and or repair.

8.4.2 The equipment operator of the medical equipment covered by a service contract must call the work order desk at 533-3712 during normal duty hours; after duty hours use the procedures in 8.1.3 above.

8.4.3 The Medical Maintenance Branch will verify contract coverage for the service requested and promptly call the vendor, within the limits of the contract, upon receiving a request for repair covered by a service contract.

8.5 Areas of service and location of the Medical Maintenance Shop

<u>AREAS OF SERVICE</u>	<u>SHOP LOCATION</u>	<u>ROOM LOCATION</u>
All RWBAHC units and supported activities	RWBAHC Bldg 45001	GROUND LEVEL RM B6

8.6 Key maintenance personnel may be reached by calling the office of the Chief of the Medical Maintenance Branch or the MERS. Their telephone numbers are 533-2836/3712, respectively.

8.7 Removal and installation of medical equipment: The removal and installation of medical equipment will be accomplished as follows:

8.7.1 Removal: The using activity will submit a memorandum to Property Management Branch requesting removal of equipment. The memo will contain all necessary information concerning equipment to be removed (ECN, desired date of service, building and room number). The Property Management Branch and Medical Maintenance Branch will coordinate with the requesting activity and Facilities Branch (if necessary) to meet the request.

8.7.2 Installation: Installation requirements will be determined prior to equipment being ordered. Medical Maintenance Branch will:

8.7.2.1 Verify equipment specifications.

8.7.2.2 Coordinate with Facilities Branch to jointly inspect the proposed site location and determine the availability of utilities, suitability of site to accommodate equipment, and if preparation or modification of the site will be required prior to installation.

8.7.2.3 Determine if a contractor installation will be required.

8.7.2.4 Effect coordination between Equipment Management Branch (consists of Medical Maintenance Branch and Property Management Branch), using activity,

Contracting, and Facilities Management Branch to ensure installation of equipment will not be delayed after receipt.

8.7.2.5 Coordinate action through Facilities Management Branch in instances where facility engineering support is required for installation or removal of medical equipment.

8.8 Unserviceable, uneconomically repairable items:

8.8.1 A repair of equipment that exceeds the MEL as established by MEDCOM will require a waiver before repairs can be initiated.

8.8.2 When customers receive the request for waiver memorandum, they should decide:

8.8.2.1 If this item so critical to the mission that repairs are still required.

8.8.2.2 If a new item needs to be ordered and the broken item turned in.

8.8.2.3 If a repair is required, the department chief must submit to the Commander, a request to waive the limit.

8.8.2.4 If a waiver has been approved for a repair action to exceed the MEL, by regulation the Hand Receipt Holder must start the documentation process to generate the replacement request for the equipment involved.

8.8.2.5 If a repair is not required, the NCOIC or Hand Receipt Holder may check the appropriate box, sign the form, and return it to the Medical Maintenance Branch.

9. IMPLEMENTATION PLAN.

9.1 This MEDDAC Memo is new and represents current guidance. The memo, once approved, will be added to the RWBAHC Intranet.

9.2 There are no additional resources required to implement this memo.

9.3 The clinic/ward supervisors are responsible for ensuring this publication is enforced.

9.4 There is a refresher training requirement for this memo. All section OICs and NCOICs are required to ensure their personnel are familiar with the requirements and guidance set forth by this publication.

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□ The proponent of this memorandum is the Logistics Division. Operators are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) to the CMDR, RAYMOND W. BLISS ARMY HEALTH CENTER, ATTN: MCXJ-LOG, Fort Huachuca, Arizona 85613.

FOR THE COMMANDER:

OFFICIAL:

GREGORY A. SWANSON
LTC, MS
Deputy Commander for Administration

ROBERT D. LAKE
Information Management Officer

DISTRIBUTION: E

APPENDIX A

Explanation of Abbreviations and Terms

1. ABBREVIATIONS.

- a. AOD – Administrative Officer of the Day
- b. AR - Army Regulation
- c. CAF – Competency Assessment File
- d. DCA - Deputy Commander for Administration
- e. DCCS - Deputy Commander for Clinical Services
- f. DMLSS – Defense Medical Logistics Standard Support
- g. ECN – Equipment Control Number
- h. EMB – Equipment Management Branch
- i. FDA- Food and Drug Administration
- j. JC - Joint Commission
- k. MEDCOM - Medical Command
- l. MEL – Maintenance Expenditure Limit
- m. MERS - Medical Equipment Repair Specialist
- n. NCOIC - Noncommissioned Officer In Charge
- o. NFPA - National Fire Protection Association
- p. OIC – Officer in Charge
- q. PMCS - Preventive Maintenance, Checks and Services
- r. RWBAHC - Raymond W. Bliss Army Health Center
- s. SMDA- Safe Medical Devices Act
- t. TB - Technical Bulletin

u. TM – Technical Manual

v. USAMMA - United States Army Medical Materiel Agency

2. TERMS:

a. Organizational Maintenance: The activity provided by specially trained Medical Equipment Repair Specialists (MERS) assigned to the medical facility for the maintenance, repair, inspection, installation, and removal of items of medical equipment used in the Health Care Delivery Program.

b. Preventive Maintenance, Checks and Services (PMCS): The systematic care, servicing, and inspection of equipment periodically for the purpose of maintaining it in serviceable condition and detecting and correcting incipient failures before they develop into major defects.

c. Operator Maintenance: Operator instructed inspection, testing, cleaning, and adjusting as directed by appropriate manufacturer's literature, TM, or maintenance staff.

d. Unscheduled Services (repairs): Actions that are taken when an item has become nonfunctional, or with unacceptable results, to bring it back to a serviceable condition by the Medical Maintenance Branch staff.

e. End Item: Any single piece of equipment or item consisting of a combination of components, assemblies, and/or parts, which is ready for use.

f. No Fault Found (NFF): During initial visual, operational, and testing analysis, the equipment fault is verified. The repair service work order is designated as a NFF if the fault cannot be duplicated.

APPENDIX B

Operator/Operator Maintenance Program

1. The volume, variety, and complexity of medical equipment used to provide health care require operators and their supervisors to be responsible for a portion of the Medical Maintenance Program.
2. The maintenance performed by the operator and their supervisors is critical to the overall Medical Maintenance Program. Due to their frequent contact with the equipment, the operator and supervisor are in the best position to detect any deficiencies. Proper use and care will prolong equipment life, reduce costly repairs, provide more dependable operation, and comply with JC requirements.
3. Equipment with DD Label 2163, Calibration/Verification/Certification, or DA Label 175, Defibrillator Energy Output Certification should be checked periodically to ensure the unit is within calibration. Responsibilities are outlined below:
 - a. Supervisory personnel:
 - (1) Must know correct techniques of operation and operator maintenance procedures.
 - (2) Ensure equipment under their control is maintained in proper condition at all times. Copies of completed scheduled services listings for a one year period, RWBAHC Memo 750-2 (this publication) will be maintained in the Medical Maintenance (blue) 6-sided Folder. This Folder shall be accessible to all staff members at all times.
 - (3) Ensure malfunctioning equipment is promptly reported to the supporting Medical Maintenance Branch. Questions? Call 533-3712, Medical Maintenance Work Order Desk.
 - (4) Ensure a DMLSS Automatic Maintenance Request is initiated in a timely manner for maintenance services beyond those authorized as part of daily operations by the operator.
 - (5) Ensure only authorized Medical Equipment Repair Technicians perform repair actions beyond those authorized as operator maintenance.
 - (6) Ensure operator personnel receive adequate training prior to utilizing equipment.
 - (7) Ensure equipment publications (Operators' Manuals) are obtained and maintained for all technical items of equipment in their area of responsibility, as required by JCAHO.

(8) Request, by memorandum, assistance in obtaining technical training for operator maintenance and/or operation of equipment to the Chief, Medical Maintenance Section when receiving new, unfamiliar equipment or guidance and procedures if the manufacturer's literature is inadequate.

(9) The Medical Maintenance External Customer Standing Operating Procedure (Customer SOP). This can be obtained either in person at the Medical Maintenance Help Desk or a copy should be in your blue Medical Maintenance folder. See your Section Chief.

b. Operator:

(1) Ensure performance of tasks consisting of routine daily inspections, care and cleaning of exterior surfaces, components, and accessories, replacement of bulbs, tubing, etc., that are easily accessible and do not require tools or equipment are performed IAW the manufacturer's directions.

(2) Perform before, during, and after operation maintenance tasks IAW manufacturer's literature and the following routine procedures:

(a) Before Operation Maintenance: Determine the adequacy of accessories and supplies. Defects such as frayed cords, cracked connectors, or broken glass should be detected and reported for correction to the supervisor. It is important to determine that equipment can be used safely and can be reasonably expected to function properly when placed into operation.

(b) During Operation Maintenance: Investigate and report, to the supervisor, abnormalities indicated by erratic meter responses, electrical flashing or arcing, unusual grinding sounds of gears, or other evidence of improper operation. Unusual odors, noises, or heat require investigation. Operators should be familiar with the normal equipment sounds so they may detect the abnormal. Suspend from service, label suspected equipment as defective and notify supervisory personnel immediately when equipment is suspected of not functioning IAW the manufacturer's specifications.

(c) After Operation Maintenance: Equipment and accessories must be cleaned. Stains, gels, solutions, powder deposits, etc., should be removed. Some accessories may require sterilization. Batteries should be checked and, if weak, changed or replaced. Fluid levels may require replenishing or draining. Pressures may require reduction to remove stress on gaskets or diaphragms. Switches must be turned off and line cords disconnected and stored. The equipment should be properly stored and protected following the after operation maintenance.

(3) Suspend from service, secure all components/supplies in an inaccessible area, label as defective, and immediately report the suspected equipment malfunction to the supervisor.

APPENDIX C

Preventive Maintenance, Checks & Service (PMCS)

1. Wards, clinics, departments scheduled for PMCS visits will be notified at least one week prior to services being started. The MERS will report to the hand receipt holder at the start of the PMCS period. An alternate schedule can be requested if servicing the equipment during normal duty hours will greatly interfere with patient care.

2. Every effort to service all equipment will be made. Equipment identified with maintenance deficiencies and as Unable to Locate (UL), or In Use (IU) will be reported to the hand receipt holder or OIC/NCOIC for appropriate action (see para 4).

3. Definitions.

a. Preventive Maintenance: All actions performed in an attempt to retain an item in a specified condition by providing systematic inspections, detection, and prevention of incipient failures.

b. Calibration: The comparison of an instrument of unverified accuracy to an instrument with its calibration traceable to the National Institute of Standards and Technology, to detect and correct, if necessary, any deviation from requisition performance specifications.

c. Verification: To determine or test the accuracy of, as by comparison, investigation or reference.

d. Certification: To attest an instrument's function to a certain standard.

e. Electrical Safety Testing: Safety tests provide information to the repairer that describes electrical current flow characteristics of the equipment. Deteriorated power cords are the most common cause of failed electrical safety tests. The test verifies that the path of least resistance for current flow is through the power cord rather than the human body.

4. Medical equipment which the Food & Drug Administration (FDA) mandates will be tracked and the maintenance activity will pursue relentlessly when NOT LOCATED is:

a. Defibrillators

b. Anesthesia machines

c. Ventilators

d. Infusion and patient controlled analgesia, (PCA) pumps

5. The Medical Maintenance Branch will take the following actions on equipment identified with deficiencies and action codes of IU and UL:

a. A memorandum will be sent to the appropriate hand receipt holder (H/R) noting all deficiencies and corrective actions required upon completion of PMCS service.

b. IU equipment must be turned in for service as soon as it's no longer in use on the patient.

c. H/R holder will be given a 5-working day suspense to take action on locating UL equipment and bring the item(s) to the Medical Maintenance Branch for service.

d. Notification of equipment that can not be located (UL) at the end of the suspense will be forwarded to the Chief, Property Management Branch for Financial Liability Investigation action.

6. Staff members and equipment operators must be assured the medical equipment they are about to use is in good working order and has had scheduled services performed within a reasonable time period. The following steps should be followed to verify the completion of scheduled services:

a. Inspect your equipment daily at the beginning of your shift for visible signs of damage and perform a function test for proper operation.

b. Look for an up to date DD Form 2163 on medical equipment that requires calibration or calibration verification (see listing at the end of this Appendix). For defibrillators, check for an up to date DA Label 175 in lieu of the DD Form 2163.

c. In the event there is no sticker or label, record the ECN number on the item of equipment and look the ECN number up on the most recent scheduled services listing. That list shall be located in Appendix N of the Green RWBAHC Safety Binder.

d. If you are still unsure about the item of equipment, call the Medical Maintenance Work Order Desk at 533-3712, give them the ECN number and they will verify the date the item was last serviced and advise you when the next service is due.

e. Above all else, if you are unsure about an item of medical equipment's serviceability, remove it from service and call the Medical Maintenance Branch.

7. Medical Equipment Requiring Calibration/Verification/Certification (CVC) Services: This listing is generic in nature and is to be used only as a guideline and is not all-inclusive. The final decision for CVC services is based on manufacturer's literature, Federal and Army Regulations, and experience of the Senior Maintenance Manager at RWBAHC.

Amalgamator (some)
Analyzer, Blood Gas/pH / Analyzer, Pulmonary Function
Anesthesia Apparatus (all)
Apnea Monitor
Audiometer
Auditory Function Screening Device
Balance, Electronic / Balance, Mechanical
Cardiac Output Unit
Centrifuge, Laboratory, Floor / Laboratory High Speed / Laboratory Table Top
Computer Assisted Tomography (CAT) Scanners
Refrigerated Chromatography Equipment, Gas
Counter, Blood Cell / Counter, Cell / Counter, Gamma
Defibrillator (Requires DA Label 175)
Densitometer, Recording
Diathermy Unit
Diathermy Unit, Ultrasonic
Electrocardiograph
Electroencephalograph
Electromyograph
Electronystagmograph
Electrosurgical Unit
Fetal Heart Detector
Fetal Monitor
Gamma Cameras
Hemodialysis Unit
Hood, Chemical / Hood, Fume / Hood, Isolation, Laminar Air Flow / Hood
Microbiological
Hypo/Hyperthermia Unit
Incubator, Infant / Incubator, Infant Transport
Injector, Angiographic
Laser, Argon / Laser, Nd: YAG
Lithotripter, Ultrasonic
Magnetic Resonance Imaging, (MRI) Units
Monitor, Fetal Heart / Monitor, Pressure / Monitor, Pulse / Monitor, Respiration
Nitrous Oxide Analyzer
Oximeter, Pulse
Oxygen Analyzer
Photometer, Flame
Physiologic Monitor
Pump, Infusion / Pump, PCA
Radiographic Units (all)
Radiation Therapy Units (all)
Spectrometer, Mass

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Spectrophotometer
Spirometer
Stimulator, Nerve
Treadmill
Tympanometer
Ultrasonic Unit, Diagnostic / Ultrasonic Unit, Therapeutic
Urodynamic Measurement
Vectorcardiograph
Ventilator, Anesthesia Unit
Ventillator
Warmer, Blood

APPENDIX D

Reporting and Investigating Equipment Problems, Failures, and Operator Errors

1. No Fault Found (NFF) work orders will normally be assessed on a monthly basis looking for trends, which indicate equipment management problems, failures, and operator errors. All NFF work orders are presented at the EOCC meeting for informational purposes only. Any significant concentration or trend in any area or with any group of machines will be analyzed and reported. Numerically, two or more related NFF could require a report. Continuation of any trend or series of NFF will require evaluation by the Chief, Medical Maintenance Branch.
2. Reporting significant concentration or trend of NFF will be as follows:
 - a. The first report will be to the OIC/NCOIC of the department. The supervisor will take corrective actions to ensure staff personnel are properly trained on equipment.
 - b. The second report will be to the Deputy Commander for that Department. The report will note the deficiencies in detail and recommend operator training be accomplished.
 - c. The third and subsequent reports will be through the Safety Officer to the Environment of Care Committee.
3. Specific requirements related to problems, failures, and operator errors of medical equipment are:
 - a. Monitoring and acting on equipment hazard notices and recalls.
 - b. Monitoring and reporting incidents in which a medical device is connected to the death, serious injury, or serious illness of any individual, as required by the Safe Medical Devices Act of 1990.
 - c. Reporting and investigating equipment management problems, failures, and operator errors.
4. Medical Equipment Incident Complaints.
 - a. Equipment found to be injurious or unsatisfactory will be reported on DA Form 4106 (Incident Report).
 - b. The Medical Maintenance Branch will assist in the completion of appropriate actions with hospital staff to meet the requirements of the Safe Medical Devices Act (SMDA) of 1990.

5. Materiel Complaints reportable to United States Army Medical Materiel Agency (USAMMA) via the USAMMA Web Site at www.usamma.army.mil then click on DOD SF380:

a. Type I Complaints. Complaints on supplies or equipment determined by use or testing to be harmful or defective to the extent that its use has or may cause death, injury or illness.

(1) Immediate action must be taken to report such items and suspend their use.

(2) Only the chief medical or dental officer familiar with the details can initially classify a Type I complaint.

b. Type II Complaints. Complaints used to report material other than equipment that is suspected of being harmful, defective, deteriorated, or otherwise unsuitable for use.

c. Type III Complaints. Complaints relating to equipment determined to be unsatisfactory because of malfunction, design, workmanship or performance. A Type III Complaint does not require suspension of the item.

6. Submitting Material Complaints via the USAMMA web page.

a. When submitting complaints on SF 380, the routing identifier code of the complaint will be shown in the "NO" block (upper right hand corner). Reference Defense Logistics Agency Customer Assistance Handbook.

b. Complaints on nonstandard items procured through DSCP will cite the purchase order number and document number.

c. Type III complaints will include photographs and drawings of equipment when they will help describe the complaint.

d. Send five copies of the SF 380 to Defense Supply Center, Philadelphia, ATTN: DSCP-MQAA, 2800 South 20th St., Philadelphia, PA 19145-5099.

e. Information copies of all complaints will be sent to:

(1) Staff Director, DMSB, Fort Detrick, Frederick, MD 21701-5001.

(2) Commander, USAMMA, ATTN: SGMMA-O, Fort Detrick, Frederick, MD 21701.

(3) Chief, Materiel Branch, Logistics Division, RWBAHC, Ft. Huachuca, AZ 85613.