

STAFFING


1. **REASON FOR ISSUE:** To revise the Department of Veterans Affairs (VA) qualification standard for Biomedical Equipment Support Specialist, GS-1601, appointed under 38 U.S.C. § 7401(3), Appointments in Veterans Health Administration and 38 U.S.C. § 7405(a)(1)(B), Temporary full-time appointments, part-time appointments, and without-compensation appointments.
2. **SUMMARY OF CONTENTS/MAJOR CHANGES:** This qualification standard revises the Biomedical Equipment Support Specialist occupation under VA's title 38 hybrid excepted service employment system according to the authority established under P.L. 111-163, Caregivers and Veterans Omnibus Health Services Act of 2010. VA Secretary has authority under 38 U.S.C. § 7402 to prescribe qualifications for occupations identified in or established under 38 U.S.C. § 7401(3), Appointments in Veterans Health Administration and 38 U.S.C. § 7405(a)(1)(B), Temporary full-time appointments, part-time appointments, and without-compensation appointments. The revised standard is effective on the date of this publication. This qualification standard is maintained on the [Office of the Chief Human Capital Officer website](#) and the [Office of the Chief Human Capital Officer \(OCHCO\) \(va.gov\)](#). Significant changes include:
 - a. Revises the basic qualifications regarding Education, Experience, or Certification.
 - b. Revises all assignments.
 - c. Adds new assignments for Biomedical Equipment Support Specialist (Intensive Care), GS-12; Biomedical Equipment Support Specialist, GS-14; and Supervisory Biomedical Equipment Support Specialist, GS-14.
3. **RESPONSIBLE OFFICE:** Office of Human Resources and Administration/ Operations, Security, and Preparedness (HRA/OSP) (006), Office of the Chief Human Capital Officer (OCHCO) (05), Recruitment and Placement Policy Service (059).
4. **RELATED DIRECTIVES:** [VA Directive 5005, Staffing, April 15, 2002.](#)
5. **RELATED HANDBOOK:** [VA Handbook 5005, Staffing, Part II, Appendix G17.](#)
6. **RESCISSION:** [Former VA Handbook 5005/95, Part II, Appendix G49, dated February 7, 2018.](#)

Department of Veterans Affairs
Washington, DC 20420

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Transmittal Sheet

CERTIFIED BY:

**BY DIRECTION OF THE SECRETARY
OF VETERANS AFFAIRS:**


/s/
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Assistant Secretary for
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DISTRIBUTION: Electronic only

**BIOMEDICAL EQUIPMENT SUPPORT SPECIALIST
QUALIFICATION STANDARD
GS-1601
VETERANS HEALTH ADMINISTRATION**

1. **COVERAGE.** The following are the requirements for appointment as a Biomedical Equipment Support Specialist (BESS) in the Veterans Health Administration (VHA). These requirements apply to all BESS positions in the GS-1601 series. The work requires the application of engineering and mechanical concepts and methodology to provide life-cycle management and technical support of diagnostic, therapeutic devices, monitoring, and other equipment applicable in the practice of medicine, and to improve health service delivery systems for communities and within individual VA facilities (medical centers, outpatient clinics, domiciliaries). BESSs work requires, in addition to knowledge and skill in engineering disciplines, a background in anatomy and physiology, and a practical facility in specialized subject matter areas such as computer applications, electronics, or mathematics.
2. **AUTHORITIES.**
 - a. [P.L. 111-163, Caregivers and Veterans Omnibus Health Services Act of 2010](#)
 - b. [38 U.S.C. § 7401, Appointments in Veterans Health Administration;](#)
 - c. [38 U.S.C. § 7402, Qualifications of appointees;](#)
 - d. [38 U.S.C. § 7403, Period of appointments; promotions;](#)
 - e. [38 U.S.C. § 7405, Temporary full-time appointments, part-time appointments and without-compensation appointments\);](#) and
 - f. [38 U.S.C. § 7407, Administrative provisions for section 7405 and 7406 appointments.](#)
3. **DEFINITIONS.**
 - a. **Appointing Official.** The Human Resources Officer (HRO) is delegated appointing authority to process and authenticate notifications of personnel actions and effect management-approved employment actions on behalf of officials, employees, and facilities for which service is provided.
 - b. **Approving Official.** The Veterans Integrated Service Network (VISN) Director, Facility Director, or Under Secretary for Health or designee (for VHA central office appointments) is the approving official and will determine whether to approve or disapprove the appointment of employees in hybrid occupations.

c. **Experience.**

- (1) **Creditable Experience.** To be creditable, the experience must have required the use of knowledge, skills, and abilities associated with current health care industry and required using knowledge, skills, and abilities (KSAs) directly applicable to the assignment and associated within the scope of the BESS profession. Experience is only creditable if it was acquired in the health care industry and is either directly related to the position to be filled or a related field (for example, Biomedical Equipment Support Specialist, Biomedical Equipment Technician, Field Service Engineer, Medical Equipment Repairer, or Information Technology (IT) Specialist). Experience satisfying this requirement may be paid or non-paid employment as a BESS.
- (2) **Part-Time Experience.** Part-time experience is creditable according to its relationship to the full-time work week. For example, a BESS employed 20 hours per week, or on a half-time basis, would receive 1 full-time work week of credit for each 2 weeks of service.
- (3) **Quality of Experience.** Qualifying experience must be at a level comparable to BESS experience at the next lower level and have been in the health care industry. For all assignments above the full performance level (FPL), the higher-level duties must consist of significant scope, administrative independence, complexity, and range of variety as described in this standard at the specified grade level and performed by the incumbent at least 25% of the time.

d. **Journey Level.** The FPL for this qualification standard is the GS-11 grade level.

4. **BASIC REQUIREMENTS.** To qualify for appointment to this position, all applicants must possess the following:

- a. **Citizenship.** Be a citizen of the United States (U.S.). Non-citizens may be appointed when it is not possible to recruit qualified citizens according to 38 U.S.C. § 7407(a).
- b. **Education, Experience, or Certification.**
 - (1) Associates or higher degree in the biomedical technology or biomedical engineering field; OR
 - (2) Associates or higher degree in electronics, a field of information technology, or engineering (other than biomedical engineering) AND 1 year of creditable experience; OR
 - (3) Completion of the Department of Defense (DOD) biomedical equipment technician training program; OR

- (4) Completion of a DOD training program in repair and maintenance of electronic systems or information technology AND 1 year of creditable experience; OR
 - (5) Completion of a biomedical engineering technician or Healthcare Technology Management (HTM) certificate program that included an internship or apprenticeship; OR
 - (6) Completion of biomedical engineering technician or HTM certificate program that did not include an internship AND 1 year of creditable experience; OR
 - (7) Hold or having ever held certification as a Certified Biomedical Equipment Technician (CBET), Certified Radiology Equipment Specialist (CRES), Certified Laboratory Equipment Specialist (CLES), or Certified Healthcare Technology Manager (CHTM). Continuous maintenance of certification is not required throughout VHA employment.
- c. **Grandfathering Provision.** Employees in VHA in this occupation, under a permanent, appropriate, and legal placement on the effective date of the qualification standard are considered to have met all qualification requirements for the grade and assignment held including positive education and certification. For employees who do not meet all the basic or assignment-specific requirements in this standard, but who met the qualifications applicable to the position at the time they were appointed, the following provisions apply:
- (1) Employees may be reassigned, promoted up to and including the full performance (journey) level, or be changed to a lower grade within the occupation, but they may not be promoted beyond the journey level or be newly placed in supervisory or managerial positions.
 - (2) Employees who are appointed on a temporary basis prior to the effective date of the qualification standard may not have their temporary appointment extended or be reappointed on a temporary or permanent basis until they fully meet the basic requirements of the standard.
 - (3) Employees retained in this occupation under this provision who subsequently leave the occupation lose protected status and must meet the full VA qualification standard requirements in effect at the time of re-entry to the occupation.
- NOTE:** This provision is not intended to regularize appointments/placements.
- d. **Foreign Education.** To be creditable, education completed outside the U.S. must be deemed at least equivalent to that gained in a conventional U.S. program by a private organization specializing in the interpretation of foreign educational credentials.

- e. **Physical Requirements.** See [VA Directive and Handbook 5019, Employee Occupational Health Service](#) for requirements.
- f. **English Language Proficiency.** Candidates must be proficient in spoken and written English in accordance with 38 U.S.C. § 7403(f).

5. OFFICIAL POSITION TITLES. All official documents relating to a position (for example, functional statements and personnel actions) must use the approved official title and grade level as described below.

- a. Biomedical Equipment Support Specialist, GS-05.
- b. Biomedical Equipment Support Specialist, GS-07.
- c. Biomedical Equipment Support Specialist, GS-09.
- d. Biomedical Equipment Support Specialist, GS-11.
- e. Biomedical Equipment Support Specialist (Information Systems), GS-12.
- f. Biomedical Equipment Support Specialist (Intensive Care), GS-12.
- g. Biomedical Equipment Support Specialist (Imaging), GS-12.
- h. Lead Biomedical Equipment Support Specialist, GS-12.
- i. Supervisory Biomedical Equipment Support Specialist, GS-12.
- j. Supervisory Biomedical Equipment Support Specialist, GS-13.
- k. Biomedical Equipment Support Specialist, GS-13.
- l. Biomedical Equipment Support Specialist, GS-14.
- m. Supervisory Biomedical Equipment Support Specialist, GS-14.

6. GRADE DETERMINATIONS. In addition to the basic requirements for employment, candidates must meet the following grade-determining criteria for placement at grade levels specified.

- a. **Biomedical Equipment Support Specialist, GS-05.**
 - (1) **Experience or Education.** None beyond the basic requirements.
 - (2) **Assignment.** Employees at this grade level serve as entry-level developmental BESSs. It is expected that they receive guidance from more experienced staff members and require regular supervision. BESSs at this grade level perform basic tasks designed to prepare them for promotion.

They troubleshoot and perform planned maintenance on general medical equipment. Entry-level BESSs assist with incoming inspections and documentation.

b. Biomedical Equipment Support Specialist, GS-07.

- (1) **Experience.** One year of creditable experience equivalent to the next lower grade.
- (2) **Knowledge, Skills, and Abilities (KSAs).** In addition to the experience above, the candidate must demonstrate the following KSAs:
 - (a) Knowledge of physics, anatomy, and physiology.
 - (b) Knowledge of electronics such as analog, digital, and microprocessor theory.
 - (c) Knowledge of the use of standard level test equipment such as multi-meters, electrical safety analyzers, patient simulators, storage oscilloscopes, manometers, and tachometers.
 - (d) Knowledge of basic networking concepts, such as computer and server hardware and software functionality, information technologies and computer virus protection software, available software patches and upgrades, and information security tools (for example, Microsoft Office, Windows operating systems, and McAfee).
 - (e) Skill in documenting all services provided in support of medical equipment and clinical systems in a computerized maintenance management system.
 - (f) Ability to learn equipment operating and maintenance procedures.
- (3) **Assignment.** Employees at this grade level serve as developmental BESSs performing an increasing range of duties, under less frequent supervision, but receive guidance and direction regarding unfamiliar or unusual situations for more complex issues designed to prepare them for promotion. They troubleshoot and perform planned maintenance on general medical equipment. Developmental-level BESSs assist with incoming inspections and documentation.

c. Biomedical Equipment Support Specialist, GS-09.

- (1) **Experience.** One year of creditable experience equivalent to the next lower grade.
- (2) **Knowledge, Skills, and Abilities (KSAs).** In addition to the experience above, the candidate must demonstrate the following KSAs:

- (a) Knowledge of basic networking concepts including Access Control List (ACL), Transmission Control Protocol/Internet Protocol (TCP/IP), and Virtual Local Area Networks (VLAN).
 - (b) Knowledge of computer and server hardware and software functionality including virus protection, operating system patches and upgrades, and information security tools.
 - (c) Ability to interpret a variety of technical data such as schematic drawings, wiring diagrams, table charts, mathematical expressions, and formulas.
 - (d) Ability to use standard level test equipment including multi-meters, electrical safety analyzers, patient simulators, storage oscilloscopes, manometers, and tachometers.
 - (e) Ability to perform equipment maintenance and operating procedures.
- (3) **Assignment.** Employees at this grade level serve as a developmental BESS performing increasingly more complex tasks designed to prepare them to work independently at the full performance level. They troubleshoot and perform planned maintenance on medical equipment. Developmental-level BESSs assist with incoming inspections and documentation. BESSs in this assignment receive increasingly less frequent supervision, direction, or guidance from more experienced staff members.

d. **Biomedical Equipment Support Specialist, GS-11.**

- (1) **Experience.** One year of creditable experience equivalent to the next lower grade.
- (2) **Knowledge, Skills, and Abilities (KSAs).** In addition to the experience above, the candidate must demonstrate the following KSAs:
 - (a) Knowledge of standards including National Fire Protection Association (NFPA), Food and Drug Administration (FDA), the Joint Commission (TJC), and the Association for the Advancement of Medical Instrumentation (AAMI) for safe operation of medical equipment and clinical systems.
 - (b) Skill in using test and calibration equipment including digital multi-meters, electrical safety analyzers, defibrillator analyzers, patient simulators, manometers, tachometers, and Local Area Network (LAN) analyzers.
 - (c) Skill in interpreting a variety of technical data including schematic drawings and wiring diagrams.

- (d) Skill in applying networking principles, such as Access Control List (ACL), Transmission Control Protocol/Internet Protocol (TCP/IP), and Virtual Local Area Networks (VLAN).
 - (e) Ability to perform advanced testing to troubleshoot medical equipment and clinical system interfaces.
 - (f) Ability to maintain medical computers and software.
 - (g) Ability to manage projects involving medical equipment and clinical systems.
- (3) **Assignment.** Employees in this assignment serve as full performance level (FPL) BESSs responsible for managing multiple assignments, organizing, and independently prioritizing their work with minimal supervision. At this level, BESSs manage medical equipment and clinical systems including installation, planned maintenance, troubleshooting, repair, calibrations, electrical safety inspections, patient safety, cybersecurity, and decommissioning. They plan, implement, and provide technical and project oversight for medical equipment and clinical systems. BESSs develop technical requirements, draft requests for proposal (RFP) language, sole-source justifications, and statements of work (SOW). They conduct market research, product evaluations, evaluate contractor performance, and conduct pre-procurement assessments. They serve as a Contracting Officer Representative (COR) or Contracting Officer Technical Representative (COTR) to purchase medical equipment, maintenance and repair contracts, and facility projects as needed. BESSs conduct pre-purchase evaluations and address pre-implementation security issues to ensure medical device isolation architecture (MDIA) requirements are met. They consult with and advise clinical and administrative staff in evaluating medical equipment and clinical systems proposed for purchase. BESSs perform incoming inspections on medical equipment and systems to determine that all safety regulations, manufacturer's specifications, contract requirements, and needs of users are met, and they initiate corrective action when necessary. They provide instruction and guidance to end users on proper use and care of equipment including operator-level maintenance of equipment and accessories. BESSs partner with customers to determine the nature and scope of the customer's issues and needs, provide an appropriate response and applicable solutions, and ensure the customer is apprised of delays and significant steps until completion. They ensure inventory accuracy of networked medical equipment and clinical systems to identify and mitigate cybersecurity vulnerabilities. BESSs are responsible for monitoring system backups; data integrity; ensuring network connectivity between systems, servers, databases, and the electronic medical record; and maintain systems security and standards. In the event of a system failure, BESSs reload operating systems and clinical application software and interface with the

Office of Information and Technology (OIT) to keep systems operational. They use schematic drawings, wiring diagrams, and manufacturer service literature as guidelines to accomplish work. BESSs use specialized electronic test equipment or software to analyze, evaluate, diagnose, troubleshoot, calibrate, or repair analog and digital microprocessor controlled, computerized, or networked digital systems. BESSs coordinate and manage vendor services and review work performed to ensure defined specifications are met and documented. They respond appropriately to hazard alerts and recall notifications concerning medical equipment. BESSs investigate equipment incidents, cases of equipment damage and abuse, equipment failure reports that cannot be duplicated, and medical device security incidents. They serve as a member of a Root Cause Analysis (RCA) team as needed. BESSs determine when health care technology, instrumentation, or systems are obsolete, hazardous, or no longer cost-effective to maintain. They ensure proper disposal of medical equipment and clinical systems including removal of protected health information (PHI) and hazardous materials. BESSs document all activities and ensure the data are correctly entered into the Computerized Maintenance Management System (CMMS). They ensure compliance with all applicable standards, policies, procedures, and regulatory requirements such as National Fire Protection Association (NFPA), Food and Drug Administration (FDA), Nuclear Regulatory Commission (NRC), the Joint Commission (TJC), and the Association for the Advancement of Medical Instrumentation (AAMI). When necessary, BESSs promptly escalate issues to higher-level technical support or management.

e. **Biomedical Equipment Support Specialist (Information Systems), GS-12.**

- (1) **Experience.** One year of creditable experience equivalent to the next lower grade.
- (2) **Knowledge, Skills, and Abilities.** In addition to the experience above, the candidate must demonstrate the following KSAs:
 - (a) Knowledge of Health Level 7 (HL7) and Digital Imaging and Communications in Medicine (DICOM) standards.
 - (b) Knowledge of advanced testing methods to troubleshoot networked medical equipment and clinical system interfaces.
 - (c) Skill in maintaining computer and server based medical equipment, databases, and software.
 - (d) Skill in managing medical equipment and clinical system projects that interface with an electronic health record or other information systems.

- (e) Skill in applying cybersecurity standards to medical devices and clinical systems such as Food and Drug Administration (FDA), Federal Information Security Modernization Act (FISMA), and National Institute of Standards and Technology (NIST) guidelines.
 - (f) Ability to apply information security tools including virus protection, software updates, and operating system patches.
 - (g) Ability to establish a medical network including VLAN configuration, Internet Protocol addressing, and network security.
- (3) **Assignment.** For all assignments above the FPL, the higher-level duties must be of significant scope, administrative independence, complexity, and range of variety, as described in this standard at the specific grade level and be performed by the incumbent at least 25% of the time. At the advanced level, the BESS, in addition to the duties at the FPL, manage medical servers and networks, diagnostic software, virtual platforms, and clinical applications software. They manage projects for medical equipment and clinical systems that interface with the electronic health record or other information systems. BESSs (Information Systems) manage virtual and physical hardware components including storage, memory, processing, graphical, and network interfaces. They facilitate operating system updates, upgrades, and virus protection. BESSs (Information Systems) perform maintenance for networked systems. They leverage resources and knowledge to minimize the need for unit and intermediate-level service contracts and manufacturer or vendor expenditures for tasks that can be completed in-house. BESSs (Information Systems) identify and troubleshoot issues related to networked medical equipment and clinical systems. They evaluate compatibility and adaptability of biomedical devices for integration to the electronic health record. BESSs (Information Systems) regularly review, coordinate, and implement available software patches, updates, and system or data backups with other BESSs, manufacturers, informatics, and IT staff. They are responsible for compliance with physical security, privacy, and information standards and infrastructure standards. BESSs (Information Systems) ensure compliance of networked clinical systems to all Medical Device Protection Program (MDPP) requirements. They design, implement, and manage appropriate security measures and disaster recovery plans critical to ensure system uptime and prevent loss of patient data from critical medical equipment and clinical systems.

f. **Biomedical Equipment Support Specialist (Intensive Care), GS-12.**

- (1) **Experience.** One year of creditable experience equivalent to the next lower grade.

- (2) **Knowledge, Skills, and Abilities.** In addition to the experience above, the candidate must demonstrate the following KSAs:
- (a) Knowledge of HL7 and DICOM standards.
 - (b) Skill in applying standards including National Fire Protection Association (NFPA), Food and Drug Administration (FDA), the Joint Commission (TJC), and the Association for the Advancement of Medical Instrumentation (AAMI) for safe operation of medical equipment and clinical systems.
 - (c) Skill in operating test equipment for specialized high-risk, surgical, or intensive care medical equipment such as ventilator testers, mechanical lungs, and anesthetic gas monitors.
 - (d) Skill in maintaining specialized high-risk, intensive care, or surgical equipment such as ventilators, heart-lung bypass, anesthesia, and intra-aortic balloon pumps.
 - (e) Skill in performing advanced testing to troubleshoot specialized networked medical equipment and clinical system interfaces.
 - (f) Ability to resolve complex failures on specialized medical equipment and clinical systems.
- (3) **Assignment.** For all assignments above the FPL, the higher-level duties must be of significant scope, administrative independence, complexity, and range of variety, as described in this standard at the specific grade level and be performed by the incumbent at least 25% of the time. At the advanced level, the BESS, in addition to the duties at the FPL, leverage advanced knowledge in performing manufacturer-level maintenance on specialized high-risk surgical or intensive care medical equipment and clinical systems. This includes systems such as anesthesia, intensive care ventilator equipment, intra-aortic balloon pumps, heart-lung bypass systems, and other advanced operating room or intensive care unit equipment. They manage specialized network systems, databases, and interfaces such as Clinical Information Systems (CIS), Anesthesia Record Keeping (ARK), or other networked medical systems. BESSs (Intensive Care) use specialized diagnostic software, quality assurance tools, and test equipment. They assist in designing and implementing security measures and a disaster recovery plan to prevent loss of patient data from medical equipment and clinical systems. BESSs (Intensive Care) serve as a facility, VISN, or national subject matter expert (SME). They manage projects for specialized, high-risk, surgical, and intensive care medical equipment and clinical systems.

g. **Biomedical Equipment Support Specialist (Imaging), GS-12.**

- (1) **Experience.** One year of creditable experience equivalent to the next lower grade.
- (2) **Knowledge, Skills, and Abilities.** In addition to the experience above, the candidate must demonstrate the following KSAs:
 - (a) Knowledge of imaging principles including techniques, technologies, radiological practices, and procedures.
 - (b) Knowledge of HL7 and DICOM standards.
 - (c) Skill in applying standards for safe operation of medical equipment and clinical systems including National Fire Protection Association (NFPA), Nuclear Radiation Commission (NRC), Food and Drug Administration (FDA), the Joint Commission (TJC), and the American College of Radiology (ACR).
 - (d) Ability to resolve complex failures on imaging equipment and clinical systems.
 - (e) Ability to perform advanced testing to troubleshoot imaging equipment and clinical system interfaces.
- (3) **Assignment.** For all assignments above the FPL, the higher-level duties must be of significant scope, administrative independence, complexity, and range of variety, as described in this standard at the specific grade level and be performed by the incumbent at least 25% of the time. At the advanced level, BESSs, in addition to the duties at the FPL, manage networked imaging systems and databases and inter-connectivity with Picture Archiving and Communication Systems (PACS) related modalities and the Electronic Medical Record (EMR). They use specialized diagnostic software, quality assurance tools, and test equipment. BESSs (Imaging) assist in designing and implementing security measures and a disaster recovery plan to prevent loss of patient data from imaging systems. They leverage advanced knowledge in performing manufacturer-level maintenance on imaging systems such as radiographic, mammography, computed tomography (CT), radiation oncology, magnetic resonance imaging (MRI), and fluoroscopy. BESSs (Imaging) manage planning, acquisition, and installation of imaging projects. They submit required documentation to meet acquisition deadlines. BESSs (Imaging) coordinate with stakeholders to facilitate successful installation.

h. **Lead Biomedical Equipment Support Specialist, GS-12.**

- (1) **Experience.** One year of creditable experience equivalent to the next lower grade.

- (2) **Knowledge, Skills, and Abilities.** In addition to the experience above, the candidate must demonstrate the following KSAs:
- (a) Skill in managing projects involving medical equipment and clinical systems.
 - (b) Skill in resolving customer concerns.
 - (c) Ability to comply with standards for safe operation of medical equipment and clinical systems including National Fire Protection Association (NFPA), Food and Drug Administration (FDA), Nuclear Regulatory Commission (NRC), the Joint Commission (TJC), and the Association for the Advancement of Medical Instrumentation (AAMI).
 - (d) Ability to lead staff in managing daily work assignments and priorities.
 - (e) Ability to mentor staff in professional and technical development.
 - (f) Ability to analyze data to monitor overall program effectiveness.
- (3) **Assignment.** For all Lead assignments BESS must spend at least 25% or more of their time performing lead duties. In addition to the duties of an FPL BESS, they support the biomedical engineering management team. They work with the supervisor to distribute and prioritize work among employees, monitor progress of work assignments, and revise schedules to meet workload demands. Lead BESSs assist technicians with repairs and resolutions. They analyze data and prepare reports and plan, implement, and provide technical and project oversight for medical equipment and clinical systems. Lead BESSs instruct employees on work-related activities, and monitor compliance to policies, procedures, and goals. They provide information to management concerning performance, assignment changes, and task completion. Lead BESSs facilitate employee training to develop working knowledge of medical equipment and clinical systems. They provide mentorship and guidance to staff. Lead BESSs serve as a SME on assigned committees, projects, and workgroups. They resolve customer service concerns.

i. **Supervisory Biomedical Equipment Support Specialist, GS-12.**

- (1) **Experience.** One year of creditable experience equivalent to the next lower grade.
- (2) **Knowledge, Skills, and Abilities.** In addition to the experience above, the candidate must demonstrate the following KSAs:
- (a) Skill in managing workflow by directing the work of others to accomplish program goals and objectives.

- (b) Skill in developing policies to oversee medical equipment and clinical systems.
 - (c) Skill in managing interpersonal relationships between employees, team leaders, and managers.
 - (d) Ability to analyze data to optimize quality, efficiency, performance, and productivity.
 - (e) Ability to supervise subordinate staff (for example, plan, organize, delegate, direct, control, review activities, and performance).
 - (f) Ability to provide guidance on multiple types of medical equipment and clinical systems.
- (3) **Assignments.** For all supervisory assignments the BESS must spend 25% or more of their time providing administrative and technical supervisor and perform major duties above those at the FPL consist of significant scope, complexity, difficulty, and variety. Employees in this assignment serve as a Supervisory BESS and may also perform the duties of an FPL BESS. Supervisory BESS provide program-specific leadership and exercise a full range of supervisory and personnel management authorities and responsibilities in planning, directing, and assessing the work of subordinate staff. They establish performance standards and evaluate the overall performance of employees. Supervisory BESSs define competency requirements and identify development and training needs. They take necessary actions to ensure subordinate personnel maintain and enhance technical expertise. Supervisory BESSs ensure compliance with all applicable standards, policies, procedures, and regulatory requirements. They develop, implement, and monitor the medical equipment management program. Supervisory BESSs develop program-specific policies and procedures. They oversee administrative management of resources such as budgets, staffing, purchases, and contracts. Supervisory BESSs collaborate with executive leadership, clinical, and administrative staff regarding management of medical equipment. They solicit feedback from customers to monitor the quality of the medical equipment management program. Supervisory BESSs identify, prioritize, and coordinate training through manufacturers, vendors, VISNs, national program offices, or other sources to enhance competencies of staff members. They oversee the medical device protection program. Supervisory BESSs establish workload distribution and priorities and revise work schedules to meet workload changes. They have oversight of large-scale, complex projects involving cross-functional teams. Supervisory BESSs oversee vendor services, review work performed, and ensure defined specifications are met and documented. They investigate and document equipment incidents, damage, and abuse.

j. **Supervisory Biomedical Equipment Support Specialist, GS-13.**

- (1) **Experience.** One year of creditable experience equivalent to the next lower grade.
- (2) **Demonstrated Knowledge, Skills, and Abilities.** In addition to meeting the experience above, the candidate must demonstrate the following KSAs:
 - (a) Skill in managing workflow by directing the work of others to accomplish program goals and objectives.
 - (b) Skill in developing policies to oversee medical equipment and clinical systems.
 - (c) Skill in managing interpersonal relationships between employees, team leaders, and managers.
 - (d) Skill in applying standards for safe operation of medical equipment and clinical systems including National Fire Protection Association (NFPA), Food and Drug Administration (FDA), Nuclear Regulatory Commission (NRC), the Joint Commission (TJC), and the Association for the Advancement of Medical Instrumentation (AAMI).
 - (e) Ability to supervise subordinate staff (for example, plan, organize, delegate, direct, control, and review activities and performance).
 - (f) Ability to provide guidance on multiple types of medical equipment and clinical systems.
 - (g) Ability to analyze data to optimize quality, efficiency, performance, and productivity.
- (3) **Assignment.** For all supervisory assignments the BESS must spend 25% or more of their time providing administrative and technical supervisor and perform major duties above those at the FPL consist of significant scope, complexity, difficulty, and variety. Employees in this assignment serve as a Supervisory BESS at a facility that provides multi-faceted specialty care for both inpatient and outpatient services that may be delivered at a variety of sites. They exercise a full range of supervisory and personnel management authorities and responsibilities in planning, directing, and assessing the work and competence of subordinate staff. Supervisory BESSs may also perform the duties of FPL BESSs. Supervisory BESSs establish performance standards and evaluate the overall performance of employees. They define competency requirements and identify development and training needs. Supervisory BESSs take necessary actions to ensure subordinate personnel maintain and enhance technical expertise. They ensure compliance with all applicable standards, policies, procedures, and regulatory requirements. Supervisory BESSs develop,

implement, and monitor the medical equipment management program. They develop program-specific policies and procedures. Supervisory BESSs oversee administrative management of resources such as budgets, staffing, purchases, and contracts. They collaborate with executive leadership, clinical, and administrative staff regarding management of medical equipment. Supervisory BESSs solicit feedback from customers to monitor the quality of the medical equipment management program. They identify, prioritize, and coordinate training through manufacturers, vendors, VISNs, national program offices, or other sources to enhance competencies of staff members. Supervisory BESSs oversee the medical device cybersecurity program. They establish workload distribution, priorities, and revise work schedules to meet workload changes. Supervisory BESSs have oversight of large-scale, complex projects involving cross-functional teams. They oversee vendor services, review work performed, and ensure defined specifications are met and documented. Supervisory BESSs oversee medical device patient safety aspects of the program including investigating and documenting equipment incidents, damage, and abuse.

k. **Biomedical Equipment Support Specialist, GS-13.**

- (1) **Experience.** One year of creditable experience equivalent to the next lower grade.
- (2) **Demonstrated Knowledge, Skills, and Abilities (KSAs).** In addition to the experience above, the candidate must demonstrate the following KSAs:
 - (a) Skill in communicating technical knowledge across multiple levels of an organization.
 - (b) Skill in coordinating work across multiple sites of care such as ambulatory centers, medical centers, and health care networks.
 - (c) Skill in developing timely and economical solutions to technical issues affecting multiple sites of care.
 - (d) Skill in implementing policies pertaining to medical equipment and clinical systems.
 - (e) Skill in applying standards for safe operation of medical equipment and clinical systems including National Fire Protection Association (NFPA), Food and Drug Administration (FDA), the Joint Commission (TJC), and the Association for the Advancement of Medical Instrumentation (AAMI).
 - (f) Ability to install and configure medical equipment and clinical systems including networked interfaces.

(g) Ability to provide guidance on multiple types of medical equipment and clinical systems.

(3) **Assignment.** For all assignments above the FPL, the higher-level duties must be of significant scope, administrative independence, complexity, and range of variety, as described in this standard at the specific grade level and be performed by the incumbent at least 25% of the time. This position serves as a non-supervisory BESS typically found at the VISN or national HTM program office level. However, employees may be located at the facility level performing VISN or national project work 25% or more of the time as assigned by the VISN or national program office. They are responsible for all activities related to managing and supporting medical equipment and clinical systems including networked interfaces within a VISN or nationally. BESSs provide maintenance and technology management support to facilities both remotely and on-site. They provide technical support and guidance to the VISN or national HTM office and provide mentorship, assistance, guidance, and technical support to HTM staff across VHA. BESSs implement and monitor VISN or national HTM policies, procedures, and guidance. They support the VISN or national HTM training program including coordinating and facilitating training and identifying resources. BESSs participate in large-scale projects often involving cross-functional teams with multiple stakeholders. They coordinate and manage vendor services to ensure defined specifications are met and concerns with vendor deliverables are addressed. BESSs investigate and document equipment or medical device security incidents and implement changes based on lessons learned. They develop technical specifications and standards used in managing equipment procurement, installations, and support. BESSs provide input on medical equipment, clinical systems to committees, and workgroups. They collaborate with leadership, clinical staff, and administrative staff regarding management of medical equipment across the VISN or VHA. At the VISN level they serve as VISN POC and lead for assigned national initiatives. They ensure compliance with all applicable standards, policies, procedures, and regulatory requirements including National Fire Protection Association (NFPA), Food and Drug Administration (FDA), the Joint Commission (TJC), and the Association for the Advancement of Medical Instrumentation (AAMI).

I. **Biomedical Equipment Support Specialist, GS-14.**

(1) **Experience.** One year of creditable experience equivalent to the next lower grade.

(2) **Demonstrated Knowledge, Skills, and Abilities (KSAs).** In addition to the experience above, the candidate must demonstrate the following KSAs:

- (a) Skill in communicating technical knowledge across multiple levels of an organization.
 - (b) Skill in analyzing data to optimize quality, efficiency, performance, and productivity.
 - (c) Skill in developing timely and economical solutions to technical issues affecting multiple sites of care.
 - (d) Skill in coordinating work across multiple sites of care such as ambulatory centers, medical centers, and health care networks.
 - (e) Skill in implementing policies pertaining to medical equipment and clinical systems.
 - (f) Skill in applying standards for safe operation of medical equipment and clinical systems including National Fire Protection Association (NFPA), Food and Drug Administration (FDA), the Joint Commission (TJC), and the Association for the Advancement of Medical Instrumentation (AAMI).
- (3) **Assignment.** For all assignments above the FPL, the higher-level duties must be of significant scope, administrative independence, complexity, and range of variety, as described in this standard at the specific grade level and be performed by the incumbent at least 25% of the time. Employees in this assignment are non-supervisory and are found at the VISN or national HTM program office level and support medical equipment and clinical systems that span across a VISN or VHA. They provide mentorship, training, and technical and program support to HTM staff across VHA. BESSs develop and execute a VISN or national HTM training program, which includes identifying gaps, coordinating, and facilitating training, and identifying resources. They lead VISN or national large-scale projects and workgroups often involving cross-functional teams with multiple stakeholders. BESSs develop national or VISN policies, procedures, and guidance. They consult and partner with VISN leadership, VHA, VA program offices, and external organizations. BESSs identify and analyze systemic trends in medical equipment and clinical systems. BESSs recommend and oversee strategic remedial action that may impact multiple facilities or VISNs. They advise and support field HTM programs in resolution of technology issues and support facilities in the implementation of a HTM program that meets all applicable standards, policies, procedures, and regulatory requirements including National Fire Protection Association (NFPA), Food and Drug Administration (FDA), the Joint Commission (TJC), and the Association for the Advancement of Medical Instrumentation (AAMI).

m. **Supervisory Biomedical Equipment Support Specialist, GS-14.**

- (1) **Experience.** One year of creditable experience equivalent to the next lower grade.
- (2) **Demonstrated Knowledge, Skills, and Abilities (KSAs).** In addition to the experience above, the candidate must demonstrate the following KSAs:
 - (a) Skill in directing the work of others to accomplish program goals and objectives.
 - (b) Skill in implementing policies to oversee medical equipment and clinical systems.
 - (c) Skill in managing interpersonal relationships.
 - (d) Skill in using data to develop program goals and objectives.
 - (e) Skill in managing resources including budgets, staffing, and contracts.
- (3) **Assignment.** For all supervisory assignments, BESSs must spend 25% or more of their time providing administrative and technical supervisor and perform major duties above those at the FPL consist of significant scope, complexity, difficulty, and variety. Employees in this assignment serve as Supervisory BESSs within a VISN office or the national HTM program office. In addition to the duties of the GS-14 VISN or National BESS, Supervisory BESSs in this assignment perform a full range of supervisory and personnel management authorities and responsibilities in planning, directing, and assessing the work competence of subordinate staff. They establish goals in support of HTM strategic objectives. Supervisory BESSs are responsible for oversight and coordination of specific VISN or national program areas. They serve as a liaison between the HTM program office, VISNs, and facilities. Supervisory BESSs establish workload distribution and priorities and revise work schedules to meet anticipated and unanticipated workload changes. They oversee VISN or national large-scale projects and workgroups often involving cross-functional teams with multiple stakeholders. Supervisory BESSs define staff competency requirements and identify development and training needs. They oversee and monitor compliance with all applicable standards, policies, procedures, and regulatory requirements. Supervisory BESSs establish guidelines and monitor the effectiveness of medical equipment management programs. They oversee administrative management of resources such as budgets, staffing, purchases, and contracts. Supervisory BESSs oversee vendor services, review work performed, and ensure defined specifications are met and documented.

7. DEVIATIONS.

- a. The establishment of a position and subsequent placement of an individual in a grade or assignment not described in the hybrid title 38 qualification standard must be approved by the Under Secretary for Health or designee prior to placement.
- b. Under no circumstance will educational requirements necessary to meet basic qualifications or assignment-specific educational requirements be waived.
- c. Under no circumstance will the credential (for example, license, certification, and/or registration) requirements to meet basic qualifications or assignment-specific credentials be waived unless an exception provision is provided in the qualification standard.
- d. In rare and unusual circumstance(s), the Under Secretary for Health, or designee, may approve requests for reasonable deviations to the grade determination requirements for an individual whose composite record of experience, accomplishments, performance, and qualifications warrant such action based on demonstrated competence to meet the requirements of the grade and/or assignment.