STAFFING

- **1. REASON FOR ISSUE:** To add the Gastroenterology (GI) specialty area to the current Department of Veterans Affairs (VA) qualification standard for Medical Instrument Technician, GS-649, appointed under 38 U.S.C. § 7401(3).
- 2. SUMMARY OF CONTENTS/MAJOR CHANGES: This handbook contains mandatory procedures on staffing. The pages in this handbook are added to the existing Appendix G27 in Part II of VA Handbook 5005. These standards are effective on the date of issuance of this handbook. This revision adds the Gastroenterology (GI) specialty area to the existing qualification standard for Medical Instrument Technician, GS-649. These standards are effective on the date of issuance of this handbook. These changes will be incorporated into the electronic version of VA Handbook 5005 that is maintained on the Office of Human Resources Management Web site.
- **3. RESPONSIBLE OFFICE:** The Recruitment and Placement Policy Service (059), Office of the Deputy Assistant Secretary for Human Resources Management.
- **4. RELATED DIRECTIVES:** VA Directive 5005, Staffing.

5. RESCISSIONS: None.

CERTIFIED BY:

BY DIRECTION OF THE SECRETARY OF VETERANS AFFAIRS:

/s/Roger W. Baker Assistant Secretary for Information and Technology /s/John U. Sepúlveda Assistant Secretary for Human Resources and Administration

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APPENDIX G27. MEDICAL INSTRUMENT TECHNICIAN QUALIFICATION STANDARD GS-649

Veterans Health Administration

1. COVERAGE. The following are requirements for appointment as a Medical Instrument Technician (MIT) in the Veterans Health Administration (VHA). This series includes positions that perform diagnostic examinations or medical treatment procedures as part of the diagnosis and treatment of patients. The work involves operating or monitoring diagnostic and therapeutic medical instruments and equipment associated with cardiac catheterization, pulmonary examinations and evaluations, heart bypass surgery/heart-lung transplant surgery (perfusion), electrocardiography, electroencephalography, polysomnography, hemodialysis, ultrasonography, [] vascular sonography[, and gastroenterology]. Positions in this series require knowledge of the capabilities and operating characteristics of one or more kinds of instruments and a practical knowledge of human anatomy and physiology. Positions also require a practical understanding of medical data generated by patient/equipment connections. Some positions may also require a practical knowledge of chemistry, pharmacology, physics, and mathematics.

Coverage under this standard and assignment of individuals to this occupation are restricted to the specific subspecialties identified above and those DIRECTLY DERIVED from these current subspecialties. For example, electroencephalography and polysomnography technicians perform duties using the same types of equipment and measure brain waves, the primary difference being the wake or sleep state of the patient. No individual will be assigned to this series (GS-649) without an approved parenthetical title.

Any additional parenthetical specialties developed as the result of new technologies must be directly derived from current specialties and must be approved by the Office of Human Resources Management, [Recruitment & Placement Policy] Service ([059]) in VA Central Office (VACO). Only after a decision has been made to include the identified new specialty in this qualification standard, and an approved parenthetical title and code have been developed, will an individual be assigned to this series.

2. BASIC REQUIREMENTS

- a. **Citizenship.** Citizenship of the United States. (Non-citizens may be appointed when it is not possible to recruit qualified citizens in accordance with chapter 3, section A, paragraph 3g, this part.)
- b. **Education.** There are no specific educational requirements for this occupation. Education may be substituted for experience only at the GS-4 and GS-5 levels. See the grade requirements part of this standard for information regarding educational substitutions.
- c. **Licensure or Certification.** Licensure or Certification is not required for this occupation; however, it is strongly desirable at GS-6 or above as evidence of possession of the essential knowledge, skills, and abilities. For certain functional areas at the higher levels or supervisory assignments, specific certifications appropriate to the specialty are indicated in this standard under "Titles and Certification/Registrations".

3. GRADE REQUIREMENTS

a. **Definitions:** For purposes of this qualification standard the specialty areas of this occupation have been grouped into [seven] functional areas. These are:

Cardiovascular (Electrocardiograph Technician, Cardiac Catheterization Technician)

Medical (Hemodialysis Technician)

Surgical (Perfusion Technician, Anesthesia Technician)

Neurology (Electroencephalograph Technician, Polysomnography Technician)

Pulmonary (Pulmonary Function Technician)

Imaging (Diagnostic Ultrasound Technician, Echocardiograph Technician, and Vascular Technician)

[Gastroenterology (GI Technician)]

Medical Instrument Technicians at GS-6 and above will have a functional assignment and reference should be made to the appropriate appendix for qualifications evaluation.

Grade level criteria, KSAs (core competencies), and typical assignment information for all GS-4 and GS-5 levels are defined generically in this part of the qualification standard. For higher level positions where the grade level/assignment is based on supervisory and/or managerial responsibilities, criteria are also included in the general portion of this qualification standard (for individuals in multiple function assignments) and/or the specific appendices.

For non-supervisory positions at GS-6 and above and for supervisory positions in a single specialty, the grade level criteria, KSAs, and types of assignments are discussed in appendices matching the title areas listed below. Reference should be made to the appropriate appendix in evaluating the qualifications of individuals for this occupation.

- (1) **Titles and Certifications/Registrations.** All individuals assigned to this occupation MUST have an approved parenthetical title. For individuals at the GS-4 and GS-5 levels, the approved title will be Medical Instrument Technician (Trainee). For supervisory positions over two or more approved specialties, the approved title will be Supervisory Medical Instrument Technician (Multiple Function). Supervisors over a single specialty will have that specialty as the parenthetical title; for example, Supervisory Medical Instrument Technician (Cardiac Catheterization). Non-supervisory individuals whose assignments involve two or more specialty areas will be assigned the parenthetical title for the predominant specialty considering both the intended function and qualifications background of the individual.
- (a) **Anesthesia Technicians** perform logistical and technical support to anesthesiologists and nurse anesthetists. They maintain anesthesiology supplies and equipment, set-up anesthetizing locations and operate, monitor, and collect data from anesthesia related equipment. In some cases Anesthesia Technicians will perform clinical laboratory functions, equipment preventive maintenance/repair, and specialized cardiac procedures such as cardiac output measurement, intra-aortic balloon pumping, vessel cannulation, and autotransfusion services. Certification at two distinct levels is offered by the American Society of Anesthesia Technologists and Technicians (ASATT). (See Appendix A)
- (b) Cardiac Catheterization Technicians perform, under a physician's direction, diagnostic tests, both invasive and noninvasive, of the pulmonary system (lung) and the cardiovascular system (heart and circulation). They operate, monitor, and collect data from instruments used in procedures such as

- (i) **Polysomnography Technicians** operate the electroencephalograph and other devices to record the electrical activity of the brain during sleep. Registration is offered by the Board of Registered Polysomnographic Technologists (BRPT). (See Appendix I)
- (j) **Pulmonary Function Technicians** operate instruments to perform blood gas analysis; bronchoscopy with lung sampling; cardiopulmonary exercise stress tests; lung volume tests including spirometry (both pre

and post medication); total lung capacity, functional residual capacity, and flow volume loops. Certification (RPFT) is offered by the National Board of Respiratory Care. (See Appendix J)

- (k) Vascular technicians or vascular sonographers operate diagnostic equipment using ultrasound to record vascular information such as vascular blood flow, blood pressure, limb volume changes, oxygen saturation, cerebral circulation, peripheral circulation, and abdominal circulation. Registration is offered by Cardiovascular Credentialing International, (CCI) as a Registered Vascular Specialist (RVS) or by the American Registry of Diagnostic Medical Sonographers (ARDMS) as a Registered Vascular Technologist (RVT). (See Appendix K)
- [(1) **Gastroenterology** (**GI**) **Technicians** assist the practitioner in endoscopic procedures, such as esophagogastroduodenoscopy (EGD), colonoscopy, endoscopic retrograde cholangiopancreatography (ERCP), and endoscopic ultrasound. The technicians ensure proper performance of equipment, set up equipment, and reprocess endoscopic reusable medical equipment (RME). Certification is offered by the Society of Gastroenterology Nurses and Associates (SGNA) for level one and level two training. GI endoscope reprocessing certification is offered through the Certification Board of Sterile Processing and Distribution (CBSPD). (See Appendix L)]
- (2) Creditable Experience Knowledge of Current Medical Instrument Technician Practices. To be creditable, the experience must have required the use of knowledge, skills, abilities and other characteristics associated with current Medical Instrument Technician practice appropriate to the identified specialty area. [Specialized developmental experience obtained under supervision of appropriately certified individuals may be credited at higher levels and is addressed in individual appendices.]
- (3) **Quality of Experience.** Experience is only creditable if it is equivalent to at least the next lower grade level and is directly related to the position/specialty to be filled.
- (4) **Part-time Experience.** Part time experience is credited according to its relationship to a full time work week. For example, an individual employed 20 hours per week, or on a ½ time basis would receive one work week credit for each two weeks of service.
 - (5) Fellowships. N/A
 - (6) Internships. N/A
- b. **Grade Determinations.** In addition to the basic requirements for employment, the criteria discussed in the applicable headings, or that defined in the appendices, must be met when determining the grade of candidates.

- c. **Education/Training.** To be creditable, education must have been gained in an accredited Community College, College, or University.
- [(1) **Training.**] Completion of appropriate training such as in-service training programs, on the job training, training acquired while in the Armed Forces, government sponsored developmental training programs, and/or training under physicians certified in the functional area will be allowed on a month-formonth basis through the GS-5 level.
- [(2)] **Foreign Education.** To be creditable, education completed outside the U.S. must have been submitted to a private organization that specializes in the interpretation of foreign educational credentials and such education must have been deemed at least equivalent to that gained in conventional U.S. programs.

OR,

(b) **Education.** Successful completion of [4 academic years above high school leading to a bachelor's degree with courses related to the occupation, or] a bachelor's degree in a major field of study appropriate to medical instrument technician functions.

(c) Demonstrated Knowledge, Skills, and Abilities

- 1. Knowledge of standard medical terminology to interpret physician orders or instructions.
- <u>2</u>. Knowledge of common physical disabilities and ability to position patients for the examination or treatment.
- <u>3</u>. Ability to learn the normal and abnormal results for routine procedures to recognize and report obvious abnormalities.
 - <u>4</u>. Ability to operate the equipment to administer routine/standard diagnostic treatment or procedures.
- <u>5</u>. Ability to perform standard operator maintenance on the equipment including the ability to disassemble, clean, reassemble, and calibrate the machine.
- (d) **Assignment.** Medical Instrument Technicians (Trainee) at this level operate and monitor commonly used equipment performing routine procedures under normal supervision. The technician functions somewhat independently in carrying out these standardized procedures of limited complexity. Deviations from regular procedures, unanticipated problems, and unfamiliar situations are referred to the supervisor for a decision or help. Some assignments at this level also include developmental duties involving more complex procedures designed to prepare the technician for promotion to higher grades in a functional area. Such duties would be performed under closer supervision.
- e. **Non-Supervisory positions at GS-6 and above.** For medical instrument technician positions with functional specialty titles, see the appropriate appendix for creditable experience, KSAs, and assignment definitions.
- f. **Supervisory Medical Instrument Technician.** Supervisory positions in single specialties will be addressed in the applicable appendix, for example supervisory medical instrument technician (cardiac catheterization).

Typically, assignments for supervisory positions will be one grade (first line supervisor) or two grade (second line supervisor) levels above the full performance level of the employees supervised. The full performance levels are clearly identified in the separate appendices.

Supervisory medical instrument technician positions having oversight for two or more functional specialties will have "Multiple Function" as the parenthetical title. Grade levels for these positions should be determined by the full performance level of the positions supervised and other program management responsibilities. Individual appendices indicate the full performance level of identified specialties. Levels and complexity of supervisory positions are described below.

- $\underline{1}$. Advanced knowledge of complex and non-standard treatment and examination procedures and techniques.
- *2. Ability to plan and assist in the establishment of a completely integrated treatment and examination program.
- *3. Ability to evaluate new products and equipment and make recommendations concerning developments which would improve operations.
- *4. Ability to manage the fiscal matters of the functions supervised (which would include fund controls, contracts, and equipment expenditures), forecast resource and equipment needs, and administer the allocated budget.
- *5. Knowledge of and ability to provide the full range of supervisory duties which would include responsibility for assignment of work to be performed; performance evaluation; selection of staff; and recommendation of awards, advancements, and, when appropriate, disciplinary actions.
- (c) **Certification.** At this level, it is highly desirable that supervisors possess certification in two or more functional specialties. Participation in recognized professional organizations as a Board examiner, in the development of curricula for training, or testing for the Board is evidence of competence.
- (d) **Assignment.** Individuals at this level plan and direct programs at affiliated medical centers and their satellite outpatient clinics and have full supervisory responsibility for a large staff of non-supervisory personnel and at least one subordinate team leader or supervisor. Typically these duties include assigning and evaluating the work of subordinate staff resolving problems which may interfere with patient examination or treatment; providing medical instrument technician services in more complex and non-standard cases; evaluating new products and equipment and making recommendations concerning developments which would improve operations; participating as an instructor in the facility's clinical training program; making final decisions on selections based on recommendations from subordinate supervisors or leads; evaluating performance; taking disciplinary action when necessary; and identifying educational or training needs. For all assignments above the full performance level, the higher-level duties must consist of significant scope, complexity (difficulty), and range of variety, and be performed by the incumbent at least 25% of the time.

4. DEVIATIONS

- a. The appointing official may, under unusual circumstances, approve reasonable deviations to the grade determination requirements for medical instrument technicians in VHA whose composite record of accomplishments, performance, and qualifications, as well as current assignments, warrant such action based on demonstrated competence to meet the requirements of the proposed grade.
- b. [The placement of individuals in grade levels not described in this standard must be approved by the Under Secretary for Health, or designee, in VHA Central Office.]

Authority: 38 U.S.C. § 7304; 7402.

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[Appendix L – Gastroenterology (GI) Technician

- (1) **GS-6**
- (a) **Experience.** At least 1 year of experience comparable to the next lower grade level which demonstrates the knowledge, skills, and abilities related to the duties of the position to be filled. In addition, the candidate must demonstrate the following KSAs:

(b) Demonstrated Knowledge, Skills and Abilities

- <u>1</u>. Ability to set up endoscopy equipment, ensuring endoscopes and ancillary equipment functions properly.
- <u>2</u>. Ability to aid the physician with standard and routine procedures such as colonoscopy and esophagogastroduodenoscopy (EGD).
- <u>3</u>. Knowledge of medical terminology and human anatomy in order to assist practitioner with routine standardized gastroenterology procedures.
- <u>4</u>. Ability to interact with patients explaining procedures and positioning the patient for the procedure, recognizing disabilities or impaired mobility and assisting the patient as necessary.
- <u>5</u>. Ability to reprocess and maintain specialty critical reusable medical equipment (RME), following approved Standard Operating Procedures (SOPs) and universal precautions.
- <u>6</u>. Ability to use basic computer systems and programs to record patient and endoscopic data, adhering to patient privacy and information security policies.
- <u>7</u>. Ability to manually clean and disinfect non-critical reusable equipment and surfaces, dispose of one-time-use equipment and trash per facility policy, and restock supplies such as linens, suction equipment, and cleaning products.
- (c) **Certification.** No certification is required; however, it is desirable that employees at this level have Basic Life Support (BLS) certification.
- (d) **Assignment.** Technicians at this level aid the staff with procedures which are routine and standardized in nature. They explain the procedure to the patient to secure the patient's confidence and cooperation; position patients for procedures; and restock linen and consumable supplies. They set-up, clean, and ensure proper performance of the endoscopic equipment; and prepare the procedure rooms for turn-over, adhering to universal precautions and SOPs. The technician logs procedure and reprocessing data, adhering to patient privacy and information security policy. Assignments at this level require knowledge of basic medical terminology as well as common gastrointestinal anatomy.

(2) **GS-7 GI Technician (Full Performance Level)**

(a) **Experience.** At least 1 year of experience comparable to the next lower grade level which demonstrates the knowledge, skills, and abilities related to the duties of the position to be filled. This would be experience which provided knowledge of proper performance of endoscopic equipment and procedures. In addition, the candidate must demonstrate the following KSAs:

(b) Demonstrated Knowledge, Skills, and Abilities

- 1. Knowledge of endoscopic equipment and use in basic and complex endoscopic procedures.
- <u>2</u>. Knowledge of anatomy and physiology related to the GI system, with ability to recognize and report obvious abnormalities during procedures.
 - <u>3</u>. Ability to assist physician with specialized, complex procedures.
- <u>4</u>. Knowledge of universal precautions and disinfection techniques and ability to follow SOP's to clean reusable medical equipment (RME).
- <u>5</u>. Ability to collaborate, communicate, and demonstrate customer service skills and interpersonal skills with all healthcare professionals to ensure quality and continuity of care.
- <u>6</u>. Ability to use basic computer systems and programs to record patient and endoscopic data, adhering to patient privacy and information security policies.
 - 7. Ability to deliver patient care, including vital sign measurements and medication administration.
- (c) **Certification.** No certification is required; however, it is desirable that employees at this level have BLS certification.
- (d) **Assignment.** This represents the full performance level. Technicians at this level function with minimal instruction, assisting the staff with complex specialized procedures such as ERCP and endoscopic ultrasound (EUS). They are proficient with GI endoscopic equipment and ensure proper performance of endoscopic equipment; select alternate equipment or adjust equipment settings to accommodate patient needs and produce high quality technique. They collect, process, and label all specimens; train other technicians in basic endoscopic procedures; work in and outside the GI unit offering technician support during emergent and on-call endoscopic cases; and assist the nurse in patient care duties such as obtaining vital signs, dressing and documenting all pertinent information in the patient's records. They inventory and maintain par levels of specialty equipment for the endoscopy unit.

- (3) **GS-8** (Positions at this grade may be lead or non-supervisory with specialized advanced knowledge and assignments.)
- (a) **Experience.** At least 1 year of experience comparable to the next lower grade level which demonstrates the knowledge, skills, and abilities related to the duties of the position to be filled. This

would be experience which provided knowledge of advanced specialized gastroenterology procedures. In addition, the candidate must demonstrate the following technical KSAs and the potential to acquire the assignment specific KSAs designated by an asterisk (*):

- (b) **Demonstrated Knowledge, Skills, and Abilities.** KSAs 1, 2, 3, and 4 are appropriate for all positions at this level. KSA 5 is to be used as appropriate for the specific assignment.
- <u>1</u>. Knowledge of complex gastroenterology procedures, such as ERCP with spy glass, ablation procedures, mucosal resection procedures, fine needle aspiration procedures and capsule studies.
 - 2. Ability to provide briefings and orientations to hospital staff including physicians.
- <u>3</u>. Knowledge of regulatory and advisory agencies such as Joint Commission, Occupational Safety and Health Administration (OSHA), Society of Gastroenterology Nurses and Associates (SGNA), American Society for Gastrointestinal Endoscopy (ASGE), and applicable laws such as the Health Insurance Portability and Accountability Act (HIPPA).
- <u>4</u>. Knowledge of medical terminology related to GI and biliary systems used to identify pathology or for specimen identification and procedure documentation and knowledge of advanced anatomy and physiology to recognize obvious abnormalities during procedures.
 - *5. Ability to provide staff development and training.
- (c) **Certification.** No certification is required; however, it is desirable that employees at this level have SGNA core level one and two certifications (BLS and ACLS).
- (d) **Assignments.** For all assignments above the full performance level, the higher-level duties must consist of significant scope, complexity (difficulty), and range of variety, and be performed by the incumbent at least 25% of the time.
- <u>1</u>. **Advanced GI Technician.** Non-supervisory GI technicians may have assignments that because of the nature of the duties, substantially exceed the full performance level. They assist with the most highly complex procedures such as mucosal resection and ablation, fine needle aspiration, and double balloon colonoscopy, using a variety of highly complex ancillary equipment. They train technicians and other staff to assist with endoscopic procedures; may assist with daily assignments of technicians, procedural room assignments, and ordering of specialty equipment. They may trial new equipment and coordinate major repairs or installation of equipment with vendors and other facility departments; arrange vendor

training and other educational in-services for the endoscopy staff. They may serve on GI related committees, incorporating practice improvement measures.

2. **Lead GI Technician.** In certain programs, either because of size and scope or because of a lack of specific supervisory positions, lead positions may be appropriate to provide daily guidance to the GI technicians. Lead Technicians will be the "superusers" responsible for answering questions for all staff on the endoscopic equipment. They will have the responsibility for daily workload assessments, assigning work, and assuring proper staffing coverage; provide performance input for evaluation and award purposes; evaluate training records; and determine educational needs of the technician staff. They assist the practitioner with the most complex and non-standard procedures consisting of difficult endoscopic intubation through strictures. They assist special needs patients through the endoscopic procedure, ensuring those with physical or mental limitations are given the necessary physical or non-medicinal interventional support measures. They participate in quality improvement measures, recommending and implementing practice changes when indicated.

(4) GS-9 Supervisory GI Technician

(a) **Experience.** At least 1 year of experience comparable to the next lower grade level which demonstrates the knowledge, skills, and abilities related to the duties of the position to be filled. This would be experience which provided knowledge of advanced specialized gastroenterology procedures. In addition, the candidate must demonstrate the following technical KSAs and the potential to acquire the assignment specific KSAs designated by an asterisk (*):

(b) Demonstrated Knowledge, Skills, and Abilities

- $\underline{1}$. Advanced knowledge of complex gastroenterology procedures, such as ERCP with spy glass, ablation procedures, mucosal resection procedures, fine needle aspiration procedures and capsule studies.
- *2. Ability to provide briefings and orientations, staff development and training to hospital staff including physicians.
 - *3. Knowledge of professional, legal, and ethical standards inherent to patient safety and rights.
 - *4. Ability to plan and assist in the establishment of integrated treatment and examination programs.
- *5. Ability to evaluate new products and equipment and make recommendations concerning developments which would improve operations.
- *6. Ability to manage the fiscal matters of the functions supervised (which would include fund controls, contracts, and equipment expenditures), forecast resource and equipment needs, and administer the allocated budget.

- *7. Ability to provide the full range of supervisory duties which would include responsibility for assignment of work to be performed; performance evaluation; selection of staff; and recommendation of awards, advancements, and, when appropriate, disciplinary actions.
- (c) **Certification.** No certification is required; however, it is desirable that employees at this level have SGNA core level one and two certifications (BLS and ACLS).
- (d) **Assignment.** For all assignments above the full performance level, the higher-level duties must consist of significant scope, complexity (difficulty), and range of variety, and be performed by the incumbent at least 25% of the time. Individuals at this level plan and direct programs at affiliated medical centers and their satellite outpatient clinics and have full supervisory responsibility for a large staff of non-supervisory personnel. Typically these duties include assigning and evaluating the work of subordinate staff; resolving problems which may interfere with patient examination or treatment; providing GI Technician services in more complex and non-standard cases; evaluating new products and equipment and making recommendations concerning developments which would improve operations; participating as an instructor in the facility's clinical training program; making final decisions on selections based on recommendations from subordinate supervisors or leads; evaluating performance; taking disciplinary action when necessary; and identifying educational or training needs.

Authority: 38 U.S.C. §§ 7402403.]