Position Classification Standard for Medical Technician Series, GS-0645

Table of Contents

SERIES DEFINITION	2
EXCLUSIONS	2
SPECIALIZATIONS AND TITLES	3
OCCUPATIONAL INFORMATION	4
CLASSIFICATION CRITERIA	4
EVALUATION NOTES	5
MEDICAL LABORATORY AID, GS-0645-01	7
MEDICAL LABORATORY AID, GS-0645-02	7
MEDICAL LABORATORY AID, GS-0645-03	8
MEDICAL TECHNICIAN (APPROPRIATE SPECIALIZATION), GS-0645-04	9
MEDICAL TECHNICIAN (APPROPRIATE SPECIALIZATION), GS-0645-05	11
MEDICAL TECHNICIAN (APPROPRIATE SPECIALIZATION), GS-0645-06	13
MEDICAL TECHNICIAN (APPROPRIATE SPECIALIZATION), GS-0645-07	14

SERIES DEFINITION

This series includes positions which involve nonprofessional technical work in clinical (medical) laboratories in performing tests and examinations in one or more areas of work such as chemistry, blood banking, hematology, or microbiology. The reports of findings of tests and examinations may be used by physicians in diagnosis, care and treatment of patients, or in support of medical research. The work requires a practical knowledge of the techniques of medical laboratory practice in one or more areas of clinical laboratory work (e.g., blood banking, chemistry, hematology, microbiology) and of the chemistry, biology and anatomy involved.

This standard revises and supersedes the standard for the Medical Technician Series, GS-0645, issued in June 1968.

EXCLUSIONS

Positions involving the following types of work are excluded from this series:

- 1. Positions which require professional knowledges and skills are classified in the appropriate professional series, e.g., medical technology, chemistry, microbiology. For a full discussion of distinctions between medical technologist and medical technician positions, see the position-classification standard for the <u>Medical Technologist Series</u>, <u>GS-0644</u>.
- 2. Positions which primarily involve technician work in (a) preparing and microscopically screening samples of body fluids or tissues to detect abnormalities in the cell structures that are warning signs of cancer or other conditions; and/or (b) cutting very thin samples of tissues suspected of being diseased; staining these specimens for microscopic examination by physicians specializing in anatomical pathology are classified in the Pathology Technician Series, GS-0646.
- 3. Positions which primarily involve technician work in biological research laboratories working primarily with animals, or with specimens of animal blood, urine, and other substances and materials are classified in the Biological Laboratory Technician specialization of the Biological Science Technician Series, GS-0404. Positions which involve work with both animal and human specimens in a medical laboratory -- whether clinical or research -- are classified in the series of the primary function, i.e., animal to the Biological Technician Series, GS-0404, or human to the Medical Technician Series, GS-0645. The distinction is not dependent upon a determination of whether the position is in a clinical laboratory or a research laboratory.
- 4. Positions which primarily involve radioisotope technician duties are classified according to the skills and qualifications required for their successful performance. Positions which primarily involve duties which are closely related to those of medical radiology technicians and include as the principal duty the operation of radioisotope scanners are classified in the medical Radiology Technician Series, GS-0647. Positions which involve primarily

- scintillation studies, blood volume studies, etc., are classified in the Medical Technician Series, GS-0645. Positions involving a combination of both these areas of work, neither of which is paramount, are classifiable to the Health Aid and Technician Series, GS-0640.
- 5. Positions the paramount requirements for which are skill and experience in trades, crafts, or manual labor occupations are exempt from the General Schedule System. Duties reflected in this standard at the GS-1 and GS-2 levels generally require the application of manual skills as the primary feature of the position. However, when such positions are established by management as a part of a career ladder in training for the skilled technician positions requiring the specialized knowledges outlined in the series definition, they are included under the General Schedule System.

SPECIALIZATIONS AND TITLES

Medical Laboratory Aid applies to positions at grades GS-1, GS-2, and GS-3.

Medical Technician applies to all positions at GS-4 and above involving performance of work at the same grade level in two or more specializations or positions for which none of the specialization designations is appropriate.

The Specializations listed and defined below are to be used at grades GS-4 and above as parenthetical suffixes to the *Medical Technician* title.

Chemistry includes positions in which the duties, knowledges, and skills involve performing chemical analysis of blood, urine, and other body fluids and substances. These positions also involve the use of techniques and equipment applicable to chemical analysis of body fluids and substances.

Blood Banking includes positions in which the duties, knowledges, and skills relate to techniques and procedures peculiar to a blood bank. For example, these positions involve drawing, typing, preserving, storing, crossmatching, and recommending a specific issuance of blood for transfusion, and preparing, and issuing plasma and other blood products.

Hematology includes positions in which the duties, knowledges, and skills relate to the study of the morphology of constituents of human blood and related hematological procedures. Technicians specializing in this area collect blood specimens and perform blood counts and perform tests to determine bleeding time, coagulation time, sedimentation rate, and prothrombin time.

Microbiology includes positions in which the duties, knowledges, and skills cover the techniques and procedures used in bacteriologic, mycologic, parasitologic and/or serologic tests and examinations and in testing the efficacy of antibiotics against various pathogenic organisms. Technicians specializing in this area prepare and stain slides for study, apply sensitivity discs to culture plates and record results, and prepare specimens. Specifically included are positions

involving performance of serological tests and examination as an aid in the physician's diagnosis and treatment of syphilis.

In the case of a position at grade GS-4 or above for which one of the above specializations is not appropriate, the appropriate basic title is to be used with no parenthetical addition to it.

If a position involves work and qualification requirements typical of two or more specializations, it should be classified to the specialization which represents the paramount requirement, or (if no one specialization is paramount) it should be classified to the basic title of *Medical Technician* with no parenthetical addition.

Supervisory positions are not described in this standard although they are included in this series. When supervisory duties and responsibilities constitute a substantial, regular part of a technician's work and are of such significance as to require supervisory qualifications, the word "Supervisory" should be used as a prefix to the position title, and the position should be evaluated by the criteria in the General Schedule Supervisory Guide.

OCCUPATIONAL INFORMATION

Medical laboratory technicians use microscopes, centrifuges, incubators, balances, spectrophotometers, and similar instruments in laboratory tests to analyze body fluids and other substances to aid pathologists and other physicians in determining the presence of disease or other abnormal conditions. Technicians prepare samples, take blood samples, and prepare slides and smears for microscopic study. Most technicians work in clinical laboratories where the work is in support of patient treatment. Some work in research projects. In addition to performing laboratory tests, technicians also store and label plasma; clean and sterilize equipment, glassware, and instruments; prepare solutions following standard formulas and procedures; keep records of tests; identify specimens; and write reports on test results.

CLASSIFICATION CRITERIA

This standard provides grade-level guides for nonsupervisory medical technician positions. It is written to apply directly to clinical laboratory work. It applies to such work which is either in direct support of patient care or in support of medical research.

Two factors differentiate among grade levels of medical laboratory and technician positions: *Nature of the Assignment* and *Control over the Work*.

Qualifications Required and Personal Work Contacts are taken into account and reflected in the other factors. For example, many medical technician positions involve contacts with patients to collect specimens (e.g., blood samples). Such contacts are inherent in the nature of the work and are so related to the techniques involved in collecting the specimens and performing the tests and examinations on the specimens that it is not feasible to separate them from the complexity and

responsibility of the assignment. Therefore, *Qualifications Required* and *Personal Work Contacts* are not treated under separately identified factors.

1. Nature of the Assignment

This factor measures the difficulty and complexity of the test and examination procedures performed. It also covers the skills, knowledges, and judgment required to perform them. The nature of assignment includes such elements as the technical complexity of the procedures, the level of knowledges and skill required, and the significance and influence of the test results. For example, test and examination procedures range from relatively simple qualitative urinalysis to fluorescent antibody treponemal antibody absorption tests.

An individual job is evaluated in terms of the actual difficulties and responsibilities involved in that assignment rather than in terms of the function of the particular laboratory or laboratory section in which it is located. For example, a position located in a reference laboratory or in a laboratory having the full range of laboratory services may, in fact, involve performing relatively routine tests and examinations.

2. Control over the Work

This factor covers the availability of guidelines and instructions, and the direction, control, and guidance exercised by pathologists, medical technologists, and/or supervisory medical technicians. It includes the kind and degree of supervision over work during its performance and the nature and extent of the review of reports of tests, examinations, and determinations performed.

The pathologist has the ultimate responsibility for the laboratory findings and for any decision made within the laboratory based on these findings. Therefore, all laboratory work is subject to review by the pathologist. The extent of this review varies with the kind of test involved, and confidence and reliance the pathologist places on the individual technician and on any intermediate professional supervisor. As the individual technician demonstrates proficiency, skill, competence, and reliability, he is accorded more and more freedom and finality. He is held responsible for the accuracy and reliability of the results of the tests he performs. However, this does not relieve his supervisor and/or the pathologist of responsibility.

EVALUATION NOTES

1. Specific Grade-level Coverage

This standard includes criteria for use in classifying nonsupervisory clinical laboratory aid and technician positions from GS-1 through GS-7. This range portrays nonsupervisory performance level typical of the occupation as a whole. Those positions which clearly and significantly exceed the criteria for the grade GS-7 level as depicted in the standard may be classified by extension of this material.

2. Automated Test and Examinations

The trend toward automation of medical laboratory tests and examinations is having a definite impact on medical laboratory positions. Responsibility for monitoring a machine which performs one or more tests and examinations may very well be a different kind and level job than responsibility for performing the same tests and examinations manually. The grade levels in the standard are based on the difficulty and complexity involved in performing the test and examinations manually, and the level of skills and knowledges required. The appropriate level for monitoring the automated processes depends upon the relative difficulty and complexity of the duties involved. Does the technician push a button and read the results? Or must the technician calibrate the equipment? What is his/her role in installing new automated equipment? Is there a difference in the knowledge level in installing the equipment than in operating and maintaining it? Is the level in either case different from the level of performing the tests manually? The diversity of equipment, the kinds of tests which have been automated, and the probable accelerated pace of automation in the near future makes impractical the development of evaluation criteria for automated procedures at the present time.

3. Concepts of Illustrative Examples of Work

- A. At each of the technician grade levels, the grade-level definition is supplemented in terms of illustrative examples of tests and examinations characteristic of the level of difficulty and responsibility at the grade. These illustrations are not intended to be restrictive or complete. Future technological and automation developments may alter the level of difficulty or responsibility for the technician performing the work. New tests will certainly be added and established ones may be discontinued. The character of the difficulty and complexity of the work rather than any specific illustration should be given primary attention in evaluating any particular job.
- B. Most position-classification standards attempt to avoid the technical language of the occupation and favor instead language which is easily understood by nontechnical people as well as those in the occupation. There is always a need to be both brief and precise. Because of the nature of medical laboratory work, it is virtually impossible to achieve both by expressing in plain language the tests and examinations which are typical of a particular grade level. Therefore, in this standard, grade levels are first defined in nontechnical descriptive language and then illustrated using technical terminology. The technical terms used are in common use in medical laboratories. They are also well understood by personnel specialists who serve the laboratories.

MEDICAL LABORATORY AID, GS-0645-01

GS-1 medical laboratory positions require no previous experience. Tasks are simple and repetitive and frequently designed to include continuing training for assignments at the next higher grade.

Nature of the Assignment

GS-1 medical laboratory aids perform a few specifically prescribed tasks of a routine nature. For example, GS-1 laboratory aids

- -- sort and count clearly marked packages and containers of laboratory supplies and materials as directed and replenish designated areas of storage cabinets or replenish laboratory work tables with supplies and materials;
- -- clean glassware, clean microscopic slides, etc.;
- -- pick up specimens for emergency work from the wards;
- -- sort laboratory reports alphabetically by name of patient;
- -- keep work benches and reagent bottles free of dust;
- -- as knowledge of work increases, learn to clean glassware which requires special cleaning procedures to assure that glass is free of micro amounts of contamination, residues, etc., operate sterilizing equipment.

Control over the Work

GS-1 laboratory aids receive detailed instructions and training in specific duties which are clearly defined. Oral instructions are given at the beginning of each new task and work is closely checked for accuracy and neatness progress. After initial training, they are given specific directions to perform particular tasks which they carry out in the prescribed manner.

MEDICAL LABORATORY AID, GS-0645-02

Positions at this level differ from those at the GS-1 level in that the GS-2 aid performs a greater number of procedures requiring a greater knowledge of laboratory material, equipment, and practices. These procedures require strict adherence to guidelines and precise attention to detail. The instructions covering the procedures are more numerous and varied than apply at grade GS-1. GS-2 positions typically include assignments which provide training for higher level work.

Nature of the Assignment

The following examples are representative of work at this level:

- 1. Acid-cleaning laboratory glassware.
- 2. Preparing commonly used culture media by weighing or measuring ingredients, combining them in designated order, and sterilizing them.
- 3. Operating a sterilizer to sterilize laboratory glassware and equipment.
- 4. Operating automatic pipetting machine, centrifuge to prepare specimens for testing or examination by others specifically prescribed by the supervisor or a higher-grade technician.
- 5. Adding preservative to specimens as prescribed in the laboratory procedure manual.
- 6. Setting up collection trays with supplies necessary for collection of blood and other specimens.

Control over the Work

At the beginning of each new task, receives instructions concerning work methods and procedures to be followed. For those tasks covered by specific instructions with no leeway for deviation the GS-2 medical laboratory aid receives increasingly less specific guidance as his knowledge of the work and the procedures grows and he performs the work under general supervision following the established guides, with only occasional spot check of work during progress.

For training assignments, the supervisor instructs the aid in the higher level work, demonstrates the techniques and procedures, closely supervises the work in progress, and reviews the completed work.

MEDICAL LABORATORY AID, GS-0645-03

GS-3 medical laboratory aids differ from those at GS-2 in that they perform a variety of standardized basic tests and examinations under close and continual supervisory control, whereas at GS-2 the aids perform tasks that are preparatory to or auxiliary to the tests and examinations.

Nature of the Assignment

GS-3 medical laboratory aids usually perform a variety of standardized tests, examinations and procedures. The work processes and techniques are well-established but they require a number of sequential steps which must be done painstakingly to complete a test.

The illustrative examples of tests, examinations, and determinations listed at grade GS-4 are also applicable at GS-3. (As indicated at GS-4, the principal difference is the control over the work.)

Control over the Work

GS-3 medical laboratory aids use laboratory manuals which give detailed instructions regarding techniques, procedures, reagents, stains, controls, normal values, etc. The supervisor observes and reviews the work in progress, especially at critical steps in tests. He gives demonstrations and detailed instructions on any new test on instruments. He very carefully evaluates the aid's ability to recognize various abnormal test results, use of controls, etc. He closely reviews reports of test results. Often he performs parallel tests on the same specimen.

MEDICAL TECHNICIAN (APPROPRIATE SPECIALIZATION), GS-0645-04

GS-4 medical laboratory technicians differ from those at GS-3 primarily in that they perform a variety of standardized tests and examinations under "normal" technical supervision. At GS-3 the technician is under close and continuing technical supervision.

Nature of the Assignment

Some GS-4 technicians work in a specialized area of the laboratory, e.g., blood banking. Others perform tests in several areas of the laboratory, e.g., chemistry, blood banking, microbiology, hematology, and serology. Some of the rotational assignments may also include technician functions in histopathology and cytology. In any case, the technician performs a variety of relatively standardized tests, examinations, and determinations. The procedures and techniques are well-established but involve many meticulous sequential steps to complete a test.

The following tests, examinations, and determinations, when performed under the conditions outlined under "Control over the Work" below, are illustrative (but not all-inclusive) of GS-4 assignments:

Chemistry

Blood urea nitrogen
Total protein
Chlorides, blood and spinal fluid
Bilirubin, direct and indirect
Bromsulfalein
Cholesterol, free and ester
Creatinine
Cephalin flocculation test
Glucose
Quantitative urine analyses
Feces fat (qualitative)
Fecal occult blood

Hematology

Hemoglobin, hematocrit, white cell count, and differential Red blood cell count Tests for coagulation such as Lee White, prothrombin time, prothrombin consumption Reticulocyte count Red cell indices such as mean corpuscular hemoglobin concentration, color index Erythrocyte sedimentation rate

Microbiology

Latex fixation tests

Work in identification of a few common pathogenic organisms when this does not include such additional procedures and determinations as the subculturing of organisms but allowing for a primary isolation up to a presumptive diagnosis. Treponemal antigen tests for syphilis; VDRL flocculation slide test, complement fixation test, qualitative and quantitative.

Blood Bank

Screen donors for histories

Draw blood by specially prescribed method for blood donor centers

Do preliminary blood grouping and typing on drawn blood Special packing of blood for shipment

Control over the Work

The GS-4 technician follows written procedures which give carefully detailed instructions on each step of the assigned test and examinations including the techniques, procedures, stains, reagents, chemicals, temperatures, measurements, controls to use and observe, machine settings, etc.

The supervisor is available for technical advice and assistance. He/she resolves problems encountered in the work (e.g., findings are abnormal). He/she introduces "unknown" control specimens into the workload. "Unknown" specimens are those which have previously been examined or tested and the results verified. Thus they have "known" or validated values to the supervisor. These control specimens are used to check the validity of the technician's test results.

The supervisor typically reviews the technician's reports of findings and occasionally runs duplicate tests on some specimen to assure the continuing reliability of the test results.

MEDICAL TECHNICIAN (APPROPRIATE SPECIALIZATION), GS-0645-05

GS-5 medical laboratory technicians differ from those at GS-4 primarily in the complexity of the tests, examinations and determinations. At GS-5 they are typically complex because of the number and interrelationships of the steps involved, whereas at GS-4 the tests (including all of the processes and steps) are standardized.

Nature of the Assignment

Some GS-5 medical technicians perform tests and examinations primarily in one area of the laboratory (e.g., microbiology or blood banking) while others are assigned on a rotational basis to most of the areas. In any case, the GS-5 usually performs a variety of tests and examinations which individually and collectively are difficult and complex although typically they are covered by laboratory manuals and written instructions. During the course of the tests and examinations, there is often a need for a number of additional tests because of the results of early phases or stages of the test. There are also determinations and examinations which involve the use of complex equipment. The tests require fine and precise measurements or delicate equipment control adjustments, or both.

The following examples illustrate assignments which, when under the kind and level of "Control over the Work" described below, are typical of grade GS-5:

1. Conducts tests to identify a variety of commonly encountered or expected pathogenic bacteria and fungi for identification to genus and species. This involves examining morphological, cultural (e.g., aerobic or anaerobic, gram positive or negative, spore forming or vegetative) metabolic, biochemical, and other characteristics. Selects methods for obtaining pure

cultures of suspected pathogens found on preliminary culture. After incubating inoculated culture media, examines cultures and makes tentative determinations of pathogens present upon basis of colony morphology and correlation with results of microscopic examinations of smears. Utilizing standard biochemical and serological procedures, identifies organism as to species. Selects basic tests to be used and determines need for additional tests to furnish positive identification. Writes report of findings and submits to supervisor. The technician must recognize atypical reactions and forms.

- 2. In blood banking, performs cross-matching or compatibility testing of blood or issuance to a specific patient. Although these tests have to be verified and signed by the supervisor or a physician, the technician has initial responsibility for selecting the type blood requested, performing the necessary minor and major cross-matching tests, rejecting specific blood which is not compatible with that of the patient's, and making necessary setups for verification or confirmation of the supervisor or the physician. Technicians having this type of assignment often also participate in processing prospective donors. They interview donors to secure information in accordance with established donor criteria (when atypical information is secured consults with supervisor as to acceptability of donor), take blood pressure, pulse, and temperature; make hemoglobin determination, take blood in accordance with established procedures, notifying supervisor if donor has reactions; determine the specific blood group, and Rh-type as well as other blood factors when necessary, and determine issoglutinin titer in group O blood, record results and label specimens.
- 3. Performs serological tests for syphilis on specimens of blood and spinal fluids using cariolipin microflocculation antigen, tests serum specimens. On weak or questionable positive findings performs further tests such as cardiolipin complement fixation. Performs quantitative microflocculation tests on positive specimens. Tests specimens of spinal fluids by the VDRL slide-flocculation test, and the Kolmer complement fixation test (where test results are desired quickly by the attending physician, the VDRL test is performed because it does not require overnight incubation). Also, may make emergency serological test for syphilis.
- 4. Performs more advanced analyses, such as protein electrophoresis, etc. Checks quality control standards and charts results. Daily calibrates laboratory equipment against standards.

Control over the Work

The GS-5 technician uses laboratory manuals or follows instructions which give detailed information on procedures, reagents, instruments, equipment, normal values, precautions, etc.; performs his assignment with a high degree of experienced judgment; exercises this judgment in recognizing technical irregularities, atypical findings, and other comparable problems; secures confirmation or guidance from his supervisor.

The supervisor spot checks the work occasionally during progress, uses quality control techniques, samples test findings, and may introduce "unknown" specimens into the workload. (Unknown specimens are those which have been previously tested and for which the results are

known and agreed upon; they are used by the supervisor to validate the accuracy of the technician's findings.)

Examples of this level of supervisory control include:

- -- In microbiology, the supervisor discusses the technician's determinations in identifying bacteria and fungi, in terms of the need for additional tests to furnish positive identification and also as to the nature of the specific tests to substantiate or validate atypical findings.
- -- In blood banking, either the supervisor or a physician confirms compatability test or cross-matching results and recommendations regarding which blood should be issued for a specific patient.
- -- In microbiology, when the attending physician's request shows only the source of the specimen and a tentative diagnosis, the supervisor outlines the system of study (type and extent of cultures, methods, tests, etc. to be used). However, when the request from the attending physician specifies the test desired, the technician must proceed with the test following established procedures.
- -- In serology, the supervisor uses quality control techniques in running positive control serum tests daily as a typical means of checking test results.

For many types of tests and examinations performed on an emergency basis, the GS-5 may be responsible for telephoning the results to the wards as soon as all tests in a specific category are completed, for telephoning some test results to the attending physician immediately whenever the results exceed the established tolerances. For other types the technician must, in accordance with established procedures, confirm the results with the supervisor before reporting them to the wards.

MEDICAL TECHNICIAN (APPROPRIATE SPECIALIZATION), GS-0645-06

GS-6 medical laboratory technicians differ from GS-5 technicians in that they perform a wide variety of laboratory tests, examinations, and determinations of a complex and responsible nature every aspect of which is not covered in detail in the instructions or guidelines. GS-5 technicians perform complex tests which are covered in commonly accepted and understood instructions, guidelines, or laboratory manuals.

Nature of the Assignment

GS-6 medical technicians perform a variety of tests and examinations which are difficult and complex. Typically, each of the tests and examinations involves many steps with the approaches and procedures in the later stages dependent upon the findings of the early steps.

Most GS-6 positions are, in a sense, "specialist" in nature. They involve either a high degree of specialization, the ability to perform difficult tests in a narrow area (e.g., blood banking) or an unusual breadth of assignments, and the versatility and skill to perform tests in a full range of areas (microbiology, hematology, chemistry, blood banking).

Control over the Work

Local laboratory manuals and instructions do not cover every aspect of the work assigned to GS-6 technicians. Technical supervisory advice and guidance is always available. Because of the complexity and newness of many of the procedures, the supervisor spot checks the work and occasionally observes the work in progress.

MEDICAL TECHNICIAN (APPROPRIATE SPECIALIZATION), GS-0645-07

The principal difference which distinguishes GS-7 medical technicians from those at GS-6 is their relative independence in performing very difficult and complex tests and examinations which often are not covered in detail by instructions and guidelines or in the laboratory procedures manual. The GS-6 level involves tests, etc., which may be not quite so difficult and complex but are performed less independently.

Nature of the Assignment

GS-7 medical technicians perform difficult and complex laboratory tests and examinations for which procedures and instructions have not been standardized locally. The tests are relatively new and involve very fine distinctions. There are typically very many extremely delicate and exacting steps, the instrumentation is elaborate and complex, and the settings and measurements are very fine. Typically, the level of expertise required to perform the variety or the complexity of GS-7 "specialist" assignments involved is developed only through extensive and intensive experience and on-the-job training.

At this level, the work typically involves significant personal work contacts with pathologists, other physicians, and with patients.

Illustrative examples of tests and examinations (under the type and level of "Control over the Work" described below) which are characteristic of grade GS-7 include:

- -- In chemistry (typically in the specialized chemistry unit of the section), Protein Bound Iodin (either by semi-automated instrumentation or by the traditional instrumentation), 17 keterosteroids, 17 hydroxycorticoids, total lipid, iron binding capacity.
- -- In microbiology, specializes in performing fluorescent antibody tests such as the fluorescent treponemal antibody absorption test, a serologic test for syphilis, and the fluorescent antibody test for lupus erythematosus.
- -- In hematology, ferrohemoglobin solubility hemoglobilin electrophoresis.
- -- In blood banking, performs specialized procedures in detection of antibodies such as enzyme testing, antibody absorption tests, evaluation of material sensitization and similar tests in the study of transfusion reactions of other cases of incompatible blood matches.
- -- In microbiology, performs a variety of diagnostic tests and makes macroscopic and microscopic examinations of cultures of numerous species of bacteria for the purpose of positive identification.

Control over the Work

GS-7 technicians typically report to a supervisory technologist or a pathologist or senior scientist. In any case the guidance, direction and review is general rather than close and technical. The pathologist or senior scientist, of course, has the ultimate responsibility for the review of all of the tests and examinations, for the accuracy and reliability of the results, and for all decisions made in the laboratory. Because of the demonstrated expertise of the GS-7 technician, the pathologist and/or other professional supervisor places great reliance, trust, and confidence in him and in the accuracy and dependability of the results of his work. The pathologist typically approves reports of tests and examinations with only cursory review and very infrequent spot check of individual tests and examinations. The technician is expected to recognize and solve most problems, only very occasionally requesting supervisory assistance.

The local laboratory manuals, instructions, and guidelines do not completely cover all aspects of the tests and examinations because of the difficulty, the great number of variables, and the variety of instruments and equipment.

The position that involves a "floater" assignment, filling in wherever needed, and regularly having responsibility for the full range of laboratory work on evening, night, and weekend duty, typically functions without immediate on-site supervisory control. In such a situation a pathologist or supervisory technologist is accessible only by telephone.