

LABORATORY MEDICAL SPECIALIST

This is advanced professional work in a medical laboratory in the performance of sophisticated, complex procedures, providing clinical interpretation of these test results, and working as a lead worker. Tests are performed to aid in the diagnosis of disease and treatment of patients and animals. These positions are located in a very sophisticated, complex laboratory or section, such as the Blood Bank at the North Carolina Memorial Hospital or the Microbiology Laboratory in the State Health Services Laboratory, Department of Human Resources. Employees in this class have advanced knowledge of the work area, typically even more than the clinician, and they advise and consult with clinicians on diagnosis and treatment. In many cases, there is immediate and/or life threatening consequence in decisions. Work may include other related duties as determined by management. Work is supervised by higher level medical laboratory personnel.

I. DIFFICULTY OF WORK:

Variety and Scope - Employees perform complex and specialized procedures in their particular area of assignment. The variety of these procedures may be considered limited due to the specialty area, but the intricacy and test procedures and in-depth knowledges required to interpret results require the employees to possess a broad knowledge and complete understanding of work area. Within the area of blood banking, a wide variety of antibody-antigen relationships exist which the employees must identify before patients can be transfused. The microbiology procedures require the employees to research bacteriological inoculation and growth processes, and identify unknown organisms. Employees may also assist in developing containment strategies with local health officials.

Intricacy - Test procedures at this level are more specialized and complex because of the numerous variables affecting identification (i.e., antibody-antigen relationships, isolation and identification of unknown organisms), the advanced application of knowledges to resolve the identification, the proper isolation and identification of unknowns, and advising clinicians on treatment. Employees are a resource for staff because of their expertise that is typically broader than that of the medical laboratory supervisor. Completion of procedures requires considerable study and analyses; and, unusual and novel cases may arise requiring detailed research.

Subject Matter Complexity - Work requires advanced knowledge and expertise of the medical technological specialty area and the laboratory operational policies and procedures. Employees possess a broad theoretical knowledge of test results related to the pathophysiological processes of the assigned area that enhances the clinical interface.

Guidelines - Test procedures and guides are available in the laboratory procedure manual. Employees frequently utilize appropriate textbooks, manuals, literature, and resource personnel to resolve technical problems. Due to the nature of work, employees are involved in research and development to identify unknowns.

II. RESPONSIBILITY:

Nature of Instructions - Overall work assignments and goals are generally planned with the supervisor, and independently performed on a daily basis. The employee sets work priorities based on daily workload and goals and objectives.

Nature of Review - Upon request, work is reviewed by higher level medical laboratory personnel or clinician. Problems associated with abnormal or unusual test results, procedure troubleshooting, and quality control require the employees to research and resolve the situation independently or in conjunction with a technical supervisor.

Scope of Decisions - Employees perform a variety of complex tests on hospital patients and local health department clients. The employees' performance of tests and accurate interpretation of results directly affect these individuals. In the area of microbiology, interpretation of test results has impact upon the community on such matters as food poisoning outbreaks.

Consequence of Decisions - Inaccurate test results could result in an inappropriate, or lack of, treatment for the patient, or death. The impact is increased substantially at this level due to the interpretation of test results to clinicians, and the laboratory-wide technical scope.

III. INTERPERSONAL COMMUNICATIONS:

Scope of Contacts - Work contacts are usually with laboratory personnel, students, and clinicians to discuss the capabilities and results produced by these techniques. There will be contact with the patients if technologists gather specimens.

Nature and Purpose - Interactions with laboratory personnel and students are to receive, convey, instruct, and resolve work assignments and problems. Interactions with clinicians are to discuss test results and their significance, and to consult on diagnosis and treatment.

IV. OTHER WORK DEMANDS:

Work Conditions - Work is performed in a medical laboratory where conditions are generally agreeable.

Hazards - Employees may be exposed to infectious organisms, dangerous chemicals, high voltage electrical equipment, fumes, and odors.

V. RECRUITMENT STANDARDS:

Knowledges, Skills, and Abilities - Thorough knowledge of the variety of laboratory procedures applicable to the area(s) of work. Thorough knowledge of laboratory equipment, instrumentation, and terminology. Thorough knowledge of the physiological processes being monitored and how the medical laboratory science is applied. Considerable knowledge of quality control standards and procedures. General knowledge of laboratory operational policies and procedures. Skill in the use of laboratory equipment and in the performance of procedures. Ability to make accurate observations and written instructions. Ability to instruct medical technology students and other health professionals in laboratory procedures and instrumentation. Ability to supervise the work of others and to participate in work planning. Ability to research and develop procedures, methods, and training materials, and to implement necessary changes. Ability to advise and consult with clinicians on diagnosis and treatment.

Minimum Education and Experience - Bachelor's degree in medical technology, microbiology, chemistry or closely related scientific field from an appropriately accredited institution and three years of experience in a medical laboratory; or an equivalent combination of education and experience.