

SONOGRAPHER/ULTRASOUND SERIES

Code No.	Class Title	Occ. Area	Work Area	Prob. Period	Effective Date	Last Action
4616	Sonographer/Ultrasound Technologist	02	447	6 mo.	03/15/15	Rev.
4617	Sonographer/Ultrasound Specialist	02	447	6 mo.	03/15/15	Rev.
4618	Sonographer/Ultrasound Manager	03	447	6 mo.	03/15/15	Rev.

Promotional Line: 63

Series Narrative

Sonography specialty areas includes cardiac (echo), medical, and vascular sonography.

Employees perform sonography duties based on specific training, education, and experience. These employees primarily complete ultrasound exams on patients based on their area of specialty. They may develop, direct, and coordinate sonography programs and departmental activities in a health care facility. They may also initiate and conduct research studies involving sonography services.

Cardiac Sonographers operate specialized diagnostic equipment to produce pictures of the heart by means of echocardiography, a method for transmitting high frequency ultrasound beams around the heart area. Sonographers in this series primarily scan the heart muscle, heart valves, and the large vessels originating from the heart.

Medical Sonographers operate specialized equipment that transmits high frequency, ultrasound waves in order to produce images of the areas scanned. Sonographers in this series primarily scan abdominal, pelvic, lower and upper extremities areas of the body (such as the spleen, liver, pancreas, uterus, kidneys, or thyroid, etc.), or perform OB/GYN related procedures.

Vascular Sonographers operate specialized equipment that produces pictures of the vascular system using ultrasound technology. They scan primarily arterial and venous blood vessels.

DESCRIPTION OF LEVELS OF WORK

Level I: Sonographer/Ultrasound Technologist **4616**

Employees in positions allocated to this level of the series perform standard ultrasound scans of patients and perform other basic duties related to the examination. Employees scan abdominal and pelvic areas of the body such as the spleen, liver, pancreas, uterus, kidneys, or thyroid, breast heart muscle, heart valves, and the arterial and venous blood vessels large vessels originating from the heart.

DESCRIPTION OF LEVELS OF WORK:

A Sonographer/Ultrasound Technologist typically

1. performs ultrasound scans providing complete and accurate imaging for diagnostic assessment.

2. operates ultrasound equipment to produce and record images of the motion, shape, and composition of blood, organs, tissues, or bodily masses, such as fluid accumulations; observes screen during scan to ensure that image produced is satisfactory for diagnostic purposes, making adjustments to equipment as required.
3. determines which images to include, looking for differences between healthy and pathological areas.
4. prepares patient for exam by explaining procedure, transferring patient to ultrasound table, scrubbing skin and applying gel, and positioning patient properly.
5. observes and cares for patients throughout examinations to ensure their safety and comfort.
6. reviews patient history, including prior test results or information from physical examinations.
7. may assist physicians with invasive and non-invasive procedures.
8. assures the completion of patient records and patient charges.
9. maintains adequate supplies.
10. performs other related duties as assigned.

Level II: Sonographer/Ultrasound Specialist**4617**

Employees in positions allocated to this level of the series perform advanced ultrasound scans that require delicate or exacting steps and seasoned judgment.

A Sonographer/Ultrasound Specialist typically

1. independently performs advanced ultrasound procedures.
2. evaluates exam results to ascertain the required information was obtained and to determine if outcomes indicate if additional testing is necessary.
3. assists medical personnel in conducting research into new ultrasound techniques and technology.
4. monitors the operation and calibration of laboratory equipment; makes moderate repairs.
5. participates in quality assurance activities.
6. trains staff in established procedures and new procedures being implemented in the laboratory; advises them on individual examinations as needed.

7. may act as a supervisor/manager including overseeing work, providing technical and operational assistance, and assigning daily work schedules.
8. orientates, supervises, and evaluates the performance of students or residents in procedures in the laboratory.
9. organizes and coordinates overall patient/research subjects flow (out patients/subjects as well as scheduling the in-patients/subjects for the day).
10. assists with accreditation process.
11. performs duties at the lower level of this series, as required.
12. performs other related duties as assigned.

Level III: Sonographer/Ultrasound Manager**4618**

Employees in positions allocated to this level of the series supervise ultrasound programs and departmental activities in a health care facility. They direct, coordinate, and evaluate the work of lower level sonographers. They may also initiate and conduct research studies involving sonography services.

A Sonographer/Ultrasound Manager typically

1. plans the scope, emphasis, and objectives of program
 - a. confers with administrators and medical staff to ascertain their needs and recommends methods to meet those needs
 - b. coordinates the department's technical operations with those of other departments to ensure prompt, efficient, and complete patient care
 - c. establishes procedures to incorporate hospital regulations and professional standards; directs the technical activities of departmental staff and students to ensure compliance with established procedures; ensures that technical personnel are aware of current policies and procedures regarding patient exposure and protective regulations
 - d. researches and studies trends and developments in sonographic practices and techniques; develops operational manuals such as developing emergency procedures; and provides manpower in disaster situations; develops and enforces policies and procedures related to the electronic medical records relating to new employee training, employee errors, employee termination, etc.
 - e. initiates specific research projects, determining the nature of research to be performed, and assigns specific projects to staff members
2. participates in personnel actions such as hiring, transfers, promotions, training, and discipline
 - a. assumes responsibility for performance evaluation of all sonographers

- b. resolves problems and outlines policies, procedure, and methods for resolving departmental problems
 - c. designs in-service training programs and keeps abreast of new procedures and equipment; assists with the coordination of continuing education to meet the requirements set forth by regulatory and accrediting agencies
 - d. schedules, organizes, coordinates and supervises staff sonographers
3. serves as technical consultant and advisor to the department head in regards to budget and equipment
 - a. assists in the preparation of budget estimates of personnel, supplies and equipment, contractual services, and upgrading of facilities; prepares bid specifications for technical items; reviews bids; prepares statistical reports of activities and expenditures
 - b. initiates and participates in testing of new types of equipment; evaluates test results and makes recommendations for the purchase of new equipment; interviews sales and technical representatives from equipment and pharmaceutical companies
 - c. regulates supplies and equipment, making adjustments with ordering and budgets, and testing new products
4. performs administrative duties including developing and updating department policy, procedures and protocols; maintains and updates protocol manuals.
5. responsible for quality control of sonographic images for department; designs and conducts quality improvement studies for department; prepares and maintains documentation necessary to meet state annual inspection criteria for equipment and personnel as well as accreditation.
6. customizes the clinical content of the electronic medical records, designing and entering all set-up information (e.g., tests, services, service providers, referral forms, letters, handouts, etc.).
7. creates reports using various software.
8. monitors and troubleshoots sonography equipment, picture archiving and communication systems (PACS) and web viewing services ensuring that all components are functioning and all external sites are able to connect to these services.
9. develops objectives and defines mission statement for the department; devises plans for new construction or renovation of existing department, or formulating plans for new or improved services.
10. performs duties at lower level of this series, as required.
11. performs other related duties as assigned.

MINIMUM ACCEPTABLE QUALIFICATIONS REQUIRED FOR ENTRY INTO:

Level I: Sonographer/Ultrasound Technologist

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CREDENTIALS TO BE VERIFIED BY PLACEMENT OFFICER:

1. High school graduate or equivalent.
2. Current/valid registration, certification or licensure in one or more of the following areas of specialty, as applicable:
 - Medical Sonography, accreditation in sonography by the American Registry for Diagnostic Medical Sonography (RDMS).
 - Vascular Sonography, accreditation in sonography by the American Registry for Diagnostic Medical Sonography (RVT).
 - Cardiac Sonography, accreditation in sonography by the American Registry for Diagnostic Medical Sonography (RDCS) or Cardiovascular Credentialing International (RCS or RCCS) or Associate degree in Diagnostic Cardiac Sonography with eligibility to take the board exam for RDCS, RCS, or RCCS.

*Note: Based on specific area of specialty, each Employer will make final determination on necessary certification/licensure required for each position.

KNOWLEDGE, SKILLS AND ABILITIES (KSAs)

1. Knowledge of conventional ultrasound equipment.
2. Knowledge of health care facilities' computer systems.
3. Knowledge of principles and processes for providing excellent patient care.
4. Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.
5. Knowledge of anatomy and physiology; knowledge of human psychology.
6. Knowledge of administrative and clerical procedures and systems such as word processing and managing files and records.
7. Knowledge of all patient safety procedures.
8. Demonstrate basic competencies in processing images and troubleshooting; performs minor trouble shooting operations.
9. Ability to operate and control equipment or systems.
10. Skill in conducting patient education regarding procedures.

11. Skill in proper documentation of results including preparing clear and concise reports, charts, and other written material.
12. Ability to follow oral and written instructions.
13. Ability to perform CPR.
14. Ability to use logical reasoning for simple and complex problem solving.
15. Ability to train students or residents.

Level II: Sonographer/Ultrasound Specialist**4617**CREDENTIALS TO BE VERIFIED BY PLACEMENT OFFICER:

1. High school graduate or equivalent.
2. Current/valid registration, certification or licensure in one or more of the following areas of specialty, as applicable:
 - Medical Sonography, accreditation in sonography by the American Registry for Diagnostic Medical Sonography (RDMS).
 - Vascular Sonography, accreditation in sonography by the American Registry for Diagnostic Medical Sonography (RVT).
 - Cardiac Sonography, accreditation in sonography by the American Registry for Diagnostic Medical Sonography (RDCS) or Cardiovascular Credentialing International (RCS or RCCS).
3. Two (2) years (24 months) of progressively more responsible work experience in the designated area of specialty.

*Note: A Bachelor's degree in a health care related field may be substituted for one (1) year (12 months) of experience.

*Note: Based on specific area of specialty, each Employer will make final determination on necessary certification/licensure required for each position.

KNOWLEDGE, SKILLS AND ABILITIES (KSAs)

1. Advanced knowledge of conventional ultrasound equipment.
2. Knowledge of health care facilities' computer systems.
3. In the absence of the supervisor, ability to coordinate workflow and operations of department.
4. Knowledge of principles and processes for providing excellent patient care.

5. Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.
6. Knowledge of anatomy and physiology; knowledge of human psychology.
7. Knowledge of administrative and clerical procedures and systems such as word processing and managing files and records.
8. Knowledge of all patient safety procedures.
9. Demonstrate basic competencies in processing images and troubleshooting; performs minor trouble shooting operations.
10. Ability to operate and control equipment or systems.
11. Skill in conducting patient education regarding procedures.
12. Skill in proper documentation of results including preparing clear and concise reports, charts, and other written material.
13. Ability to follow oral and written instructions.
14. Ability to perform CPR.
15. Ability to use logical reasoning for simple and complex problem solving.
16. Ability to train students and residents.

Level III: Sonographer/Ultrasound Manager**4618****CREDENTIALS TO BE VERIFIED BY PLACEMENT OFFICER:**

1. High school graduate or equivalent.
2. Current/valid registration, certification or licensure in one or more of the following areas of specialty, as applicable:
 - Medical Sonography, accreditation in sonography by the American Registry for Diagnostic Medical Sonography (RDMS).
 - Vascular Sonography, accreditation in sonography by the American Registry for Diagnostic Medical Sonography (RVT).
 - Cardiac Sonography, accreditation in sonography by the American Registry for Diagnostic Medical Sonography (RDCS) or Cardiovascular Credentialing International (RCS or RCCS).

3. Four (4) years (48 months) of progressively more responsible work experience in the designated area of specialty.

*Note: A Bachelor's Degree in health care related field may be substituted for one (1) year (12 months) of experience.

*Note: Based on specific area of specialty, each Employer will make final determination on necessary certification/licensure required for each position.

KNOWLEDGE, SKILLS AND ABILITIES (KSAs)

1. Knowledge of the operations and mechanics of all ultrasound equipment.
2. Knowledge of health care facilities' computer systems.
3. Skill in conducting patient education.
4. Skill in proper documentation of results.
5. Skill in utilizing computers and associated specialized application software for sonographic examination and evaluation.
6. Skill in the effective, efficient and safe use of equipment.
7. Skill in preparing clear and concise reports, charts and other written material.
8. Ability to perform administrative duties.
9. Ability to evaluate and determine priorities of patients' care.
10. Ability to quickly respond to patients' needs in an emergency situation.
11. Ability to organize, direct, and evaluate the activities of students and departmental staff members.
12. Ability to conduct cost analysis and studies on ultrasound equipment.
13. Ability to act as consultant to medical personnel.
14. Ability to conduct research studies and devise new methods for sonographic examinations.
15. Ability to prepare technical reports.