

SONOGRAPHER SERIES

Code No.	Class Title	Occ. Area	Work Area	Prob. Period	Effective Date	Last Action
4616	Sonographer I	02	447	6 mo.	00/00/00	Revised
4617	Sonographer II	02	447	6 mo.	00/00/00	Revised
4618	Sonographer III	02	447	6 mo.	00/00/00	Revised

Promotional Line: 63

Series Narrative

Sonographers operate specialized equipment that transmits high frequency, ultrasound waves through a patient's body in order to produce images of the areas scanned. The sonographs allow a physician or technologist to detect structural and/or functional abnormalities of organs (such as the heart, spleen, liver, pancreas, uterus, kidneys, or thyroid) and are used for the study and diagnosis of diseases or problems.

DESCRIPTION OF LEVELS OF WORK

Level I: Sonographer I

4616

Employees in positions allocated to this level of the series administer standard ultrasound and/or echocardiographic scans of patients and perform other basic duties related to the examination. They work under direct supervision of higher level personnel.

A Sonographer I typically –

1. schedules patients for ultrasound and/or echocardiographic scans
2. positions patients for scans; sets up and adjusts equipment for each scan
3. performs standard/routine scans
4. interprets standard scans and ensures that they provide physicians with required information
5. assists higher level sonographers in clinical training of medical, sonography, and radiologic technology students and radiology residents in the performance of routine scans
6. assists senior sonographers, radiologists, and/or physicians in more complex examinations
7. prepares, updates, and files records of procedures performed and related materials; collects studies or materials for teaching or referral purposes; copies reports for use by higher level sonographers
8. prepare preliminary reports for doctor's review
9. performs other related duties as assigned

Level II: Sonographer II**4617**

Employees in positions allocated to this level of the series administer complex ultrasound and/or echocardiographic procedures that require delicate or exacting steps and seasoned judgment. They work under general supervision of higher level personnel.

A Sonographer II typically –

1. administers and monitors complex scans (such as upper abdomen liver, and pancreas; ~~or~~ those which differentiate pathology, two-dimensional echocardiograms utilizing saline contrast and conventional M-mode and two-dimensional echocardiographic scans)
2. interprets complex scans and ensures that they provide physicians with required information
3. distributes and explains ultrasound and/or echocardiographic scan records to staff members
4. trains lower level sonographers and other staff members in scanning procedures and techniques
5. assists with advanced or highly technical scans
6. explains principles of ultrasound and/or echocardiography technology to students and staff
7. maintains medical records, records of ultrasound procedures performed, and others as required
8. performs minor maintenance and repair of equipment (such as ultrasound and/or echocardiographic equipment and video tape recorders)
9. provides technical assistance to researchers conducting studies using ultrasound and/or echocardiographic techniques
10. performs the duties of a Sonographer I as needed
11. performs other related duties as assigned

Level III: Sonographer III**4618**

Employees in positions allocated to this level of the series supervise an ultrasound and/or echocardiographic laboratory; train or advise students and/or staff in ultrasound and/or echocardiographic procedures; and perform advanced ultrasound and/or echocardiographic procedures. They work under direction from higher level administrators.

A Sonographer III typically –

1. coordinates the operations of an ultrasound and/or echocardiographic laboratory and supervises its staff:
 - a. reviews, arranges, and (as necessary) makes changes in patient examination schedule
 - b. assigns, directs, schedules, checks, and evaluates the work of sonography staff; selects employees in conjunction with supervising physician
 - c. assures completion of patient records, patient billing, requisitions, and vouchers

- d. prepares daily and monthly reports on procedures performed in the laboratory
 - e. assists in the development and implementation of new procedures and technical operations used in the laboratory; assists in the evaluation of current procedures and operations
 - f. monitors the operation and calibration of laboratory equipment; makes moderate repairs; defines and arranges for more complex repairs when needed
2. conducts training programs in ultrasound and/or echocardiographic procedures:
 - a. trains sonography staff in established ultrasound and/or echocardiographic procedures or new procedures being implemented in the laboratory; advises them on individual examinations as needed
 - b. orients, supervises, and evaluates the performance of students or residents in ultrasound and/or echocardiographic procedures in the laboratory
 - c. explains ultrasound and/or echocardiographic techniques to medical or paramedical staff receiving in-service training in sonography and/or echocardiography
 3. performs advanced ultrasound and/or echocardiographic procedures (such as biopsy scans; additional scanning of patients with pathology; test-scanning objects for quality assurance, calibration, or alignment; utilization of cardiographic intervention during echocardiography and the application of pulse and continuous wave cardiac doppler simultaneously with two-dimensional echocardiography)
 4. assists medical personnel in conducting research into new ultrasound and/or echocardiographic techniques and technology
 5. performs other related duties as assigned

MINIMUM ACCEPTABLE QUALIFICATIONS REQUIRED FOR ENTRY INTO: ALL LEVELS

Level I: Sonographer I

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CREDENTIALS TO BE VERIFIED BY PLACEMENT OFFICER

1. (A) Satisfactory completion of an AMA-approved (American Medical Association/Joint Review Committee) program in diagnostic medical sonography
- OR
- (B) Possession of American Registry of Diagnostic Medical Sonographers (ARDMS) credentials
2. Additional education, training and/or work experience in the area of specialization inherent to the position may be required.

PERSONAL ATTRIBUTES NEEDED TO UNDERTAKE JOB

1. Knowledge of conventional ultrasound diagnostic equipment producing static images.

2. Knowledge of terminology and techniques used in diagnostic medical sonography.
3. Knowledge of real-time equipment used in diagnostic medical sonography.
4. Knowledge of sectional and cross-sectional anatomy.
5. Ability to keep records and write reports.
6. Ability to work effectively with patients and their families, medical staff, and others.
7. Ability to follow oral and written instructions.
8. Ability to read and interpret patient's clinical history.
9. Ability to perform and interpret non-complex scans.
10. Manual dexterity.

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

1. (A) Satisfactory completion of an AMA-approved (American Medical Association/Joint Review Committee) program in diagnostic medical sonography

OR

(B) Possession of American Registry of Diagnostic Medical Sonographers (ARDMS) credentials
2. Two years of experience performing duties comparable to those of the first level of this series, of which one year included the operation of real-time equipment
3. Additional education, training and/or work experience in the area of specialization inherent to the position may be required.

PERSONAL ATTRIBUTES NEEDED TO UNDERTAKE JOB

1. Knowledge of cross-sectional anatomy, physiology, and pathology as related to real-time equipment.
2. Skill in the operation and maintenance of standard ultrasound and/or echocardiographic equipment
3. ability to produce specialized non-routine ultrasound recordings (such as those on obese patients or organs that are diseased or obscure)
4. ability to examine and evaluate technical aspects of complex ultrasound scans
5. ability to operate advanced ultrasound equipment

6. ability to interpret requests and instructions from medical staff
7. Ability to train technologists and medical, sonography, and radiologic technology students in scanning and operational technique of equipment in a clinical setting
8. Ability to perform minor repair on equipment.

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

1. Four years of diagnostic medical sonography experience, of which two years were comparable to that gained at the second level of this series

PERSONAL ATTRIBUTES NEEDED TO UNDERTAKE JOB

1. Extensive knowledge of pathology reflected in ultrasound scans
2. Knowledge of how to calibrate ultrasound equipment
3. Ability to produce complex and specialized scans (such as those performed on critically ill and post-surgery patients)
4. Ability to examine and evaluate technical aspects of advanced ultrasound scans
5. Ability to perform administrative duties
6. Supervisory ability
7. Ability to instruct medical, sonography, and radiologic technology students and/or staff in such subjects as ultrasound physics, ultrasound anatomy, pathology, or administrative duties in a clinic or classroom setting
8. Ability to perform minor to moderate repairs on ultrasound equipment