

## CARDIAC SONOGRAPHER SERIES

<b>Code No.</b>	<b>Class Title</b>	<b>Occ. Area</b>	<b>Work Area</b>	<b>Prob. Period</b>	<b>Effective Date</b>	<b>Last Action</b>
4781	Cardiac Sonographer Technologist	02	447	6 mo.	10/01/18	Rev.
4782	Cardiac Sonographer Specialist	02	447	6 mo.	10/01/18	Rev.
4783	Cardiac Sonographer Manager	03	447	6 mo.	10/01/18	Rev.

### *Promotional Line: 377*

#### Series Narrative

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.

#### DESCRIPTION OF LEVELS OF WORK

#### Level I: Cardiac Sonographer Technologist 4781

Employees in positions allocated to this level of the series perform standard echocardiographic scans of patients and perform other routine duties related to the examination.

A Cardiac Sonographer Technologist typically:

1. performs standard scans and ensures physicians are provided with required information;
2. positions patients for scans; sets up and adjusts equipment for each scan;
3. prepares supplies, instruments, equipment, and assists physicians during related procedures;
4. selects and adjusts equipment and transducers to appropriate settings to obtain, record, store, transmit and print optimal images;
5. confers with physician to determine if additional images or information is required;
6. reviews patient history, including prior test results or information from physical examinations;
7. assures the completion of patient records and patient charges;
8. communicates with other departments to successfully schedule various exams for the patients and schedule of same day add-on patients;
9. maintains adequate supplies in rooms and informs the supervisor when supplies are depleted;
10. provides technical assistance and instructions to students, employees, and medical residents;
11. performs other related duties as assigned.

**Level II: Cardiac Sonographer Specialist****4782**

Employees in positions allocated to this level of the series perform primarily scan the heart muscle, heart valves, and the large vessels originating from the heart.

A Cardiac Sonographer Specialist typically:

1. administers and monitors scans such as, two-dimensional echocardiograms utilizing saline and pharmacological contrast, conventional M-mode;
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: Cardiac Sonographer Manager****4783**

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 cardiac sonographers. They may also initiate and conduct research studies involving sonography services.

A Cardiac Sonographer 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: Cardiac Sonographer Technologist**

**4781**

CREDENTIALS TO BE VERIFIED BY PLACEMENT OFFICER:

1. High school graduate or equivalent.
2. Current/valid registration, certification or licensure in **ANY** of the following in Echocardiography:
  - Registered Cardiac Sonographer (RCS) or Registered Congenital Cardiac Sonographer (RCCS) from Cardiovascular Credentialing International (CCI)
  - Advanced Cardiac Sonographer (ACS) from Cardiovascular Credentialing International (CCI)
  - Registered Diagnostic Cardiac Sonographer (RDMS) from American Registry of Diagnostic Medical Sonography (ARDMS)
3. Current Cardiopulmonary Resuscitation (CPR) Certification.

KNOWLEDGE, SKILLS AND ABILITIES (KSAs)

1. Knowledge of conventional cardiac sonography equipment.
2. Knowledge of health care facilities' computer systems.
3. Knowledge of principles and processes for providing excellent patient care.
4. Knowledge of anatomy and physiology; knowledge of human psychology.
5. Knowledge of administrative and clerical procedures and systems for proper documentation of results including reports, charts, etc.

6. Knowledge of all patient safety procedures.
7. Demonstrate basic competencies in processing images and troubleshooting; performs minor trouble shooting operations.
8. Skill in conducting patient education regarding procedures.
9. Ability to follow oral and written instructions.
10. Ability to communicate effectively in both oral and written form.
11. Ability to train students or residents.

**Level II: Cardiac Sonographer Specialist****4782**CREDENTIALS TO BE VERIFIED BY PLACEMENT OFFICER:

1. High school graduate or equivalent.
2. Current/valid registration, certification or licensure in ANY of the following in Echocardiography:
  - Registered Cardiac Sonographer (RCS) or Registered Congenital Cardiac Sonographer (RCCS) from Cardiovascular Credentialing International (CCI)
  - Advanced Cardiac Sonographer (ACS) from Cardiovascular Credentialing International (CCI)
  - Registered Diagnostic Cardiac Sonographer (RDMS) from American Registry of Diagnostic Medical Sonography (ARDMS)
3. Two (2) years (24 months) of progressively more responsible work experience in the designated area of specialty.
4. Current Cardiopulmonary Resuscitation (CPR) Certification.

\*Note: A Bachelor's degree in Cardiac Sonography may be substituted for one (1) year or Twelve (12) months of experience.

## KNOWLEDGE, SKILLS AND ABILITIES (KSAs)

1. Advanced knowledge of conventional cardiac sonography equipment.
2. Knowledge of health care facilities' computer systems.
3. Knowledge of principles and processes for providing excellent patient care.
4. Knowledge of anatomy and physiology; knowledge of human psychology.
5. Knowledge of administrative and clerical procedures and systems such as word processing and managing files and records.

6. Knowledge of all patient safety procedures.
7. Demonstrate basic competencies in processing images and troubleshooting; performs minor trouble shooting operations.
8. Skill in conducting patient education regarding procedures.
9. Skill in proper documentation of results including preparing clear and concise reports, charts, and other written material.
10. Ability to coordinate workflow and operations of department, in the absence of the supervisor.
11. Ability to follow oral and written instructions.
12. Ability to communicate effectively in both oral and written form.
13. Ability to train students and residents.

**Level III: Cardiac Sonographer Manager****4783**CREDENTIALS TO BE VERIFIED BY PLACEMENT OFFICER:

1. High school graduate or equivalent.
2. Current/valid registration, certification or licensure in **ANY** of the following in Echocardiography:
  - Registered Cardiac Sonographer (RCS) or Registered Congenital Cardiac Sonographer (RCCS) from Cardiovascular Credentialing International (CCI)
  - Advanced Cardiac Sonographer (ACS) from Cardiovascular Credentialing International (CCI)
  - Registered Diagnostic Cardiac Sonographer (RDCS) from American Registry of Diagnostic Medical Sonography (ARDMS)
3. Four (4) years (48 months) of progressively more responsible work experience in the designated area of specialty.
4. Current Cardiopulmonary Resuscitation (CPR) Certification.

\*Note: A Bachelor's Degree in Cardiac Sonography may be substituted for one (1) year or Twelve (12) months of experience.

## KNOWLEDGE, SKILLS AND ABILITIES (KSAs)

1. Knowledge of the operations and mechanics of all cardiac sonography 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 cardiac 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 cardiac sonographic examinations.
15. Ability to prepare technical reports.