

UW HEALTH JOB DESCRIPTION

CARDIOVASCULAR SONOGRAPHER LEAD

Job Code: 610011	FLSA Status: Non-Exempt	Mgt. Approval: M. Chivington	Date: 5.2024
Department: Echo/Vascular Lab/14140		HR Approval: D. Ripp	Date: 5.2024

JOB SUMMARY

The Cardiovascular Imaging Lab Lead Sonographer works independently and performs the most complex professional level assessments and a variety of non-invasive studies using ultrasound and related diagnostic technology as appropriate and records the results and clinical preliminary impressions as indicated. The results of these exams are used to direct the course of patient care. The sonographer encounters difficult problems related to examination evaluations daily and must resolve them with limited supervision. There is daily contact with professionals and families.

This position is a full performance Cardiac and Vascular Sonographer with advanced knowledge of cardiac and peripheral vascular anatomy, physiology, and disease. All examinations are performed within standard protocols on adults, and occasionally on adolescents and pediatric age groups. The sonographer performs examinations in a variety of settings using both stationary and portable equipment; predominately working in the HVC Non-Invasive Diagnostic Testing Laboratory the Cath and EP Labs, and inpatient units.

The Lead Sonographer assists with transthoracic echo, transesophageal and stress testing; dobutamine, treadmill exercise stress echo, and bicycle ergometry. The sonographer will assist with peripheral non-invasive testing, carotid, transcranial duplex, aorta, renal, mesenteric, upper, and lower extremity arterial and venous studies.

There is daily contact with professionals and families. The Sonographer must solve problems related to the daily needs of patients, the department and/or clinic with professional standards on documentation of care and timeliness.

The Lead Sonographer is responsible for coordinating patient scheduling and serves as a clinical resource for sonographers. The incumbent considers factors related safety, effectiveness, and cost in planning and delivery of care. They suggest changes in procedures, policies, and quality improvement. The incumbent supports coordination of training and development in collaboration with other Lead Sonographer to maintain the highest level of competency and technical knowledge related to the fluidity of advanced technologies available in imaging. The incumbent supports departmental daily oversight, in the role of an "access champion" physically located at the UWH site on a rotational basis they assist with TAVR procedures in the invasive lab, provide clarity on ordering/scheduling questions, support overcoming barriers for inpatient access at EMH/UWH through collaborative communication with the inpatient units. Provide support an oversight on daily equipment, EMR and PAC's issues that arise.

There are five areas of primary focus available for Lead Sonographer (s) role:

1. Cardiac sonographer and/or cardiovascular sonographer onboarding/mentoring/annual competencies.
2. Vascular sonographer and/or cardiovascular sonographer onboarding/mentoring/annual competencies.
3. On-boarding /mentoring/annual competencies – site specific echo/vascular, research, pilot studies & invasive lab techniques and procedures.
4. Primary IAC Oversight – Echo & Vascular; including QI conferences, peer to peer case reviews, Echo Test and Teach & Structured Reporting.
5. Complex Cardiac Imaging: 3-D, Strain and Stress Echocardiography.

The incumbents will have focused areas of responsibility, however, will be expected support their peers to achieve success departmental success. The Cardiovascular Sonographer Leads will support the primary IAC Oversight Lead Sonographer to maintain our accreditation status and compliance with standards.

The incumbent serves as a liaison and clinical instructor for sonographer students that are supported by the UW imaging lab and participates in the instruction of fellows, residents, and visiting physicians. The sonographer may also participate in clinical research and acts as a clinical resource to staff at their own facility and throughout the system.

UW HEALTH JOB DESCRIPTION

MAJOR RESPONSIBILITIES

Operational Support:

- Coordinate, monitor and train, and serve as a technical resource.
- Provide technical and data support as need for daily operations.
- Support Manger with daily imaging operations as directed.
- Respond to, provide support for, and appropriately assist with emergent, urgent situations.
- Works independently within scope of practice to achieve clinical outcomes while executing delegation protocols.
- Maintaining a level of professional development through continued education, quality improvement initiatives, obtaining and sharing departmental/organizational information and knowledge. Serve as a mentor and resource to others.
- Implements safe, competent, and efficient patient care within policies, procedures, and standards. Provides care in an ethical, patient, family centered, culturally congruent and evidenced base manner.
- Provides expertise in decision making, problem solving, and conflict resolution and lab operations.
- Serve as a point of contact and resource for hospital and clinical personnel at imaging lab locations.
- Support training, education, and process and quality assurance program oversight in the assigned area of focus. Collaborate with other team leads to support the overall quality of the imaging lab.
- Support compliance and standards being met as directed by the IAC Echo and Vascular Accrediting bodies.
- Meet with the manager and medical directors and needed to receive assignments and to report out routinely on the status of the projects assigned to their area of focus.
- Provide input for hiring and performance evaluations.
- Support arranging for services to occur on equipment.
- Develop and maintain protocols, updating as needed in focused area.

Direct Patient Care:

Analysis and Communication:

- Extract relevant information from patient record, tailors' examination to indication and patient, selects proper supplies, equipment, and settings. Consult with interpreting clinicians responsible for imaging procedures.
- Uses two patient identifiers prior to each exam in accordance with hospital policy.
- Adhere to established protocols including documentation of appropriate measurements.
- Interact appropriately with patient and all care providers, receiving and relaying all pertinent information.
- Place EKG leads in appropriate positions for cardiac monitoring during examinations.
- Use both color flow and spectral Doppler to accurately evaluate cardiac stenotic and regurgitant lesions, and intracardiac shunts and other hemodynamically significant lesions.
- Respond to emergency examinations in the department and in the hospital setting to intensive care units, other nursing wards, emergency room, cardiac cath lab, and operating room.
- Evaluate the hemodynamic significance of various cardiac disease states using all imaging modalities available in accordance with the department's protocols.
- Calculate measurements of echocardiographic structures and Doppler signals, deriving the appropriate indices pertinent to each patient.
- Operate ultrasound system and assist exercise physiologist and RN during dobutamine and stress echocardiography.
- Perform contrast administration and agitated saline bubble studies. Support IV placement as needed for patient care.
- Inform interpreting physician if an abnormal finding and/or a hemodynamically significant change is present from previous examination.
- Process patient and submit final data.

Echocardiography:

- Perform TTE, TEE, Stress Echocardiography (treadmill and dobutamine stress echo and bicycle ergometry) to evaluate anatomy and evaluate hemodynamics.
- Perform imaging supporting advance technology skill sets to include: 3 D imaging, Strain imaging and other imaging modalities utilized by the lab.

UW HEALTH JOB DESCRIPTION

- Support structural heart cases and stress echo case as aligned by primary focused areas.

Peripheral Vascular

- Perform diagnostic vascular examinations according to standardized laboratory protocols; deviating from normal techniques when necessary to provide the best possible results.
- Perform other vascular examinations using color duplex and doppler to help the physicians assess, diagnose, and treat various complex vascular disease states and post-surgical surveillance.
- Perform non-invasive arterial Doppler studies utilizing segmental pressures, volume pulse recordings and Doppler waveform patterns at various levels in the arms and legs with occasional treadmill testing to evaluate arterial circulation.
- Perform support venous examinations of arms and legs with Doppler and color duplex scanning using compression maneuvers and imaging, for detection of deep vein thrombosis, superficial thrombophlebitis and/or valvular incompetence, which may include mapping of the superficial veins for size and depth. Support sclerotherapy and EVLT procedures. Support invasive vascular procedures as assigned by primary focused area.
- Assist the physician with thrombin injections of pseudoaneurysms, intra-operative scanning, gathering necessary materials and equipment, and properly disposing of used equipment and supplies. Observes sterile fields and techniques used in the operating room.

General Clinical Activities

- Review patient's medical record to obtain necessary clinical information including patient history, lab results, and physician orders. Obtains necessary clinical information from patients and compares requisitions to physicians' orders to ensure exam accuracy.
- End procedures and bill for imaging examinations and associated supplies in EMR navigator and/or related computer systems.
- Communicate to patient and family members in a timely and thorough manner that enhances the patient experience and promotes learning to understand procedures, symptoms, and to support health care outcomes.
- Communicate pertinent patient information to physicians and appropriate team members including abnormal critical findings and changes in test results from previous examinations.
- Provide emergency care for patients using the basic support protocols until a CODE team or EMR professional response team arrives.
- Meet the daily goals of the work group by prioritizing workflow for the care of outpatients and/or inpatients.
- Use a variety of ultrasound equipment and understands the capabilities and limitations of each piece of equipment.
- Is proficient with ancillary equipment used during imaging procedures.
- Notify COA or Manager of supply needs, equipment malfunction and necessary maintenance.
- Determines if additional technical support is required and follows the proper procedure for obtaining support.
- Adheres to established section and organizational protocols, QI guidelines and regulatory requirements.
- Clean, disinfect, and inspect equipment.
- Enter information into the HERO.
- Use PACS and Health-Link (Epic) computer systems for patient care purposes.

Intersocietal Accreditation Commission (IAC)

- Successfully pass and maintain the laboratory accreditation through the IAC (Intersocietal Accreditation Commission).
- Ensure IAC compliance of the technical staff.
- Serve as initial resource for sonographers for day-to-day quality imaging activities.
- Perform daily technical operations of the facility (i.e., quality assurance, scanning protocols, etc.).
- Work with medical director, clinic manager, medical staff, and technical staff to ensure quality of patient care.
- Collaborate with the clinic manager to develop protocols, procedures, and performance standards.
- Work with the clinic manager and the Department of Cardiology and UW Health Information Technology staff to help support the reporting tool development as needed with new and revised protocols.
- Perform all facility duties delegated by the clinic manager and medical director.
- Participate in and present at QI meetings.

UW HEALTH JOB DESCRIPTION

Education

- Identify and assist in developing and reviewing patient education material.
- Assist with the training and orientation of other sonographer along with ultrasound students, medical students, residents, fellows, and nursing students.
- Meet continuing medical education requirements according to the American Registry of Diagnostic Medical Sonographers or Cardiovascular Credentialing International Sonographers.
- Provide instructions to ultrasound students from the UW School of Ultrasound and SETI programs.

Research

- Cooperate in data collection for research activities.
- Identify actual or potential care problems and report to research coordinator.
- Participate in utilization of quality care study recommendations.
- Utilize clinical research findings to identify various intervention techniques or procedures that may need modification.
- Learn about new equipment that may be added for diagnostic use and understand the equipment functions.

ALL DUTIES AND REQUIREMENTS MUST BE PERFORMED CONSISTENT WITH THE UW HEALTH PERFORMANCE STANDARDS.

JOB REQUIREMENTS

Education	Minimum	<ul style="list-style-type: none"> • Completion of a Commission on Accreditation of Allied Health Education Programs (CAAHEP) approved ultrasound program, associate degree in Biological Sciences, Radiology, Ultrasound, and/ or relevant health sciences field.
	Preferred	<ul style="list-style-type: none"> • Bachelor's Degree in Ultrasound, Radiology, Biological Sciences, or relevant health sciences field.
Work Experience	Minimum	<ul style="list-style-type: none"> • Three (3) years of progressively responsible experience in a lab performing echocardiography and/or vascular imaging. Progressive experience with supporting successful completion of either an IAC Echo or Vascular accreditation.
	Preferred	<ul style="list-style-type: none"> • Five (5) or more years of progressively responsible experience in a lab performing echocardiography and vascular imaging. Serving in a lead role in at least one successful completion of IAC accreditation application.
Licenses & Certifications	Minimum	<ul style="list-style-type: none"> • Registered in echocardiography and vascular ultrasound (RDCE or RCS and RVT or RVS) • Basic Life Support/CPR.
	Preferred	<ul style="list-style-type: none"> • Registered in Advanced Cardiac Sonography (ACS)
Required Skills, Knowledge, and Abilities		<ul style="list-style-type: none"> • Demonstrate advanced knowledge of cardiac anatomy, physiology, and disease. • Ability to operate ultrasound equipment utilizing a variety of possible techniques, including M-mode, two-dimensional, pulsed and continuous wave Doppler flow mapping. • Ability to perform examinations, recognizing the significance of all structures that are visualized, differentiating artifacts from appropriate images, while recognizing the limitations of equipment and utilizing knowledge of anatomy and physiology. • Ability to perform echo and vascular sonography studies including complex studies: stress echocardiography, dobutamine echocardiography, and transesophageal echocardiography examinations. • Demonstrate flexibility performing tests/scans in a variety of clinical environments. • Ability to educate patients and families of safe and appropriate testing; thoroughly explaining procedures, answering questions and calming concerns. • Ability to make knowledgeable clinical assessments and judgments.

UW HEALTH JOB DESCRIPTION

	<ul style="list-style-type: none"> • Ability to use and apply clinical research findings to identify various intervention techniques or procedures that may need modification. • Ability to maintain composure under stress, using tact and good judgment. • Demonstrate analytical decision-making skills; ability to quickly assess and resolve technical and patient care problems. • Ability to select the proper transducer frequency tests performed. • Ability to work both independently and as a care team member. • Ability to interact professionally and develop effective relationships. • Excellent interpersonal skills with the ability to interact effectively with patients, families, healthcare professionals and equipment vendors. • Capable of demonstrating flexibility with demands of external/internal customers placed on operating functions of the department. • Basic computer skills. • Physical ability to lift and position patients and assist with patient transfers utilizing beds or stretchers. • Understands/Demonstrates the UW Health mission, vision and values throughout job performance. • Demonstrates critical care skills to patients with higher acuity. (ED, ICU, NICU, PICU, Intraoperative Neuro MR, OR) • Coordinated care with sedated critical timing procedures including working with the general anesthesia team.
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AGE SPECIFIC COMPETENCY (Clinical jobs only)

Identify age-specific competencies for direct and indirect patient care providers who regularly assess, manage and treat patients.

Instructions: Indicate the age groups of patients served either by direct or indirect patient care by checking the appropriate boxes below. Next,

	Infants (Birth – 11 months)	<input checked="" type="checkbox"/>	Adolescent (13 – 19 years)
<input checked="" type="checkbox"/>	Toddlers (1 – 3 years)	<input checked="" type="checkbox"/>	Young Adult (20 – 40 years)
<input checked="" type="checkbox"/>	Preschool (4 – 5 years)	<input checked="" type="checkbox"/>	Middle Adult (41 – 65 years)
<input checked="" type="checkbox"/>	School Age (6 – 12 years)	<input checked="" type="checkbox"/>	Older Adult (Over 65 years)

JOB FUNCTIONS

Review the employee's job description and identify each essential function that is performed differently based on the age group of the patient.

PHYSICAL REQUIREMENTS

Indicate the appropriate physical requirements of this job in the course of a shift. *Note: reasonable accommodations may be made available for individuals with disabilities to perform the essential functions of this position.*

Physical Demand Level	Occasional Up to 33% of the time	Frequent 34%-66% of the time	Constant 67%-100% of the time
<input type="checkbox"/> Sedentary: Ability to lift up to 10 pounds maximum and occasionally lifting and/or carrying such articles as docket, ledgers and small tools. Although a sedentary job is defined as one, which involves sitting, a certain amount of walking and standing is often necessary in carrying out job duties. Jobs are sedentary if walking and standing are required only occasionally and other sedentary criteria are met.	Up to 10#	Negligible	Negligible
<input type="checkbox"/> Light: Ability to lift up to 20 pounds maximum with frequent lifting and/or carrying of objects weighing up to 10 pounds. Even though the weight lifted may only be a negligible amount, a job is in this category when it requires walking or standing to a significant degree.	Up to 20#	Up to 10# or requires significant walking or standing, or requires pushing/pulling of arm/leg controls	Negligible or constant push/pull of items of negligible weight
<input checked="" type="checkbox"/> Medium: Ability to lift up to 50 pounds maximum with frequent lifting and/or carrying objects weighing up to 25 pounds.	20-50#	10-25#	Negligible-10#
<input type="checkbox"/> Heavy: Ability to lift up to 100 pounds maximum with frequent lifting and/or carrying objects weighing up to 50 pounds.	50-100#	25-50#	10-20#

UW HEALTH JOB DESCRIPTION

	Very Heavy: Ability to lift over 100 pounds with frequent lifting and/or carrying objects weighing over 50 pounds.	Over 100#	Over 50#	Over 20#
Other - list any other physical requirements or bona fide occupational qualifications not indicated above:				

Note: The purpose of this document is to describe the general nature and level of work performed by personnel so classified; it is not intended to serve as an inclusive list of all responsibilities associated with this position.