

## Technical Standards and Essential Functions

The Technical Standards and Essential Functions are expectations in the field of medical imaging; they are the tasks, duties, and responsibilities that comprise the means of accomplishing the job's purpose and objectives. The expectations in the field of medical imaging are listed below and other duties, responsibilities and requirements may be added by the employer. The following Technical Standards / Essential Functions have been established through consultation of various sources such as the American Society of Radiologic Technologists (ASRT) Practice Standards, and the American Registry of Radiologic Technologists (ARRT) Task Inventory for Radiography which applies to the ARRT Clinical Competency Requirements and Content Specifications, and the Occupational Outlook Handbook,

The following statements concern several important considerations for the prospective student. Each of these may provide significant insight in the choice of Radiography as a career option. They are for information purposes only. After being accepted, and prior to entrance into the Radiologic Technology program, a medical release (covering physical, emotional, and academic abilities) must be completed by your health care provider. If you have concerns regarding anything in this document, please contact your personal health care provider, the Dean of Allied Health and Nursing and/or the Radiologic Technology Program Director. The Radiologic Technologist should be able to do the following.

### **Accomplish the mental and concentration demands of imaging.**

- Concentrate / work effectively for extended period of time amidst on-going distractions.
- Learn and retain new information.
- Apply theoretical concepts underlying the clinical practice of radiology imaging.
- Assume responsibility for one's actions and the patient's needs during exams.
- Gather, analyze and correctly interpret information.

### **Communicate effectively in hand written, electronic and verbal modes (in person or on phone)**

- Communicate in English effectively and professionally with patients and their families, medical staff and providers, co-workers;
  - To provide information regarding the exam and related patient education.
  - Confirm the identity of the patient and explain exam procedures to reduce anxieties and obtain patient cooperation.
  - Assess the patient's condition by asking questions and listening to and responding to inquiries.
  - Explain and direct the patient in the breathing instructions required for an exam.
- Maintain accurate records/documentation, including the ability to fill out patient histories on requisition forms and other written communications in an understandable fashion

### **Professionalism**

- Adhere to national, organizational and departmental standards, protocols, policies and procedures regarding radiologic technology; established practice standards of the profession
- Respect of the patient's right to privacy and confidentiality within HIPPA requirements
- Perform safe, ethical and legal practices.
- Practices accepted radiation protection techniques for patient, technologist and others.
- Provide patient-centered, clinically effective care for all patients regardless of age, gender, disability, special needs, ethnicity or culture.
- Adapt to changes and varying clinical situations by applying critical thinking skills and professional judgment to organize and complete multiple tasks accurately and within an assigned time that will improve the therapeutic outcome.

- Work within a clinical environment, which involves exposure to persons with physical and mental disabilities; and to pain, death, stress, communicable diseases, blood and body fluids, toxic substances and noxious odors.
- Respects cultural variations and provide patient care and service free from bias or discrimination
- Comprehension
  - The ability to understand and follow basic instructions and guidelines.
  - The ability to understand, remember and communicate routine, factual information.
  - The ability to understand complex problems and to collaborate and explore alternative solutions.

### **Vision and Hearing**

- Read typewritten, handwritten and computer information.
- Distinguish colors and opacity.
- Depth perception and acuity to judge distances and spatial relationships.
- Ability to observe patients directly during the imaging process to ensure the patient's well-being. To recognize emergency situations such as adverse reactions to contrast administration, breathing difficulty, cardiac arrest, diabetic-related problems, shock, etc.
- Work effectively in areas with varying light levels from bright to dim.
- Vision, correctable to a level sufficient to read normal print, observe patients, manipulate equipment and accessories, evaluate radiographs for quality, and function with computers.
  - To detect, interpret and appropriately respond to non-verbal communication, acoustically generated signals (call bells, monitors, phones, alarms)
- Hearing, correctable to a level to detect specific noises, proper equipment operation, and communicate effectively with patients and members of the health care team on the telephone or when your back is turned.
  - The ability to read lips is not sufficient as masks may be worn, obstructing other's lips from view.
  - Background or distracting noise may be present in the examination or work area.

### **Physical (stamina, manual dexterity and agility factors)**

- Stamina to stand or walk throughout the workday (8 to 10 hours) with and without radiation safety devices on, such as a lead apron.
- Stand, crouch, stoop, bend, balance, twist, and reach/grasp in front of body, to sides of body and below knees. Reach above shoulder and head to manipulate the x-ray tube and equipment.
- Bending body downward and forward by bending spine to aid in patient transfer, lifting image receptors, accessories and moving the x-ray tube and objects horizontally from one position to another
- Ability to walk within a small confined area so that sterile trays or patients will not be disturbed in small rooms.
- Moderate strength is required in order to frequently lift and carry/transport 15-50 pounds (or more) routinely from one location to another. Includes items such as accessory equipment, mobile units, wheelchairs, stretchers and immobilization devices.
- Display physical strength to move patients and assist patients with medical equipment and respond to their needs of safety, comfort and modesty.
- Manual dexterity and eye-hand coordination to manipulate the imaging table, position the patient properly on the imaging table, operate associated equipment (beam restriction, cart, wheelchair, oxygen tank, etc.) and manage equipment controls.
- Must use eyes, hands and fingers with skill in a limited time period to set the technical factors at the generator console and to deliver the radiation.

- Sufficient gross and fine motor coordination to manipulate equipment and accessories and respond promptly to a patient medical emergency, including CPR.
- Sufficient fine motor coordination to perform venipuncture and maintain venous access.
- Maintain sterile or aseptic technique in patient care, medication administration, venipuncture, vital signs and infection control.
- Ability to administer first aid and/or provide life support.