**Division Scope of Service**

**Division:** CAPITAL

**DHP Classification:** RADIATION PHYSICIST-MEDICAL

**Name of Dependent Healthcare Professional (DHP):**

**Radiation Physicist – Medical**
The Radiation Physicist – Medical (DHP) must have equivalent qualifications, competence and function in the same role as employed individuals performing the same or similar services at the facility, as defined by facility job description.

**Definition of Care or Service:**
The Radiation Physicist – Medical develops a comprehensive quality management program that monitors and evaluates critical imaging equipment and processes. The Radiation Physicist – Therapeutic works in the branch of physics that applied to radiation therapy. Therapeutic radiological physics involves the understanding of the radiation sources, types, and characteristics of radiation, interaction of radiation with matter, and thereafter the deposition of energy in matter. Scope of Service may include:

- In clinical practice, therapeutic radiological physics deals with the technical tasks of preparing a patient to undergo radiation therapy.
- Tasks may include assistance with simulation, patient data acquisition, individualized planning, verification, and dose delivery.
- The role of a therapeutic radiological physicist is to manage the technical aspects of patient care: providing technical expertise to the development of the institution, recommending and introducing new treatment techniques, and ensuring that all patients undergoing radiation therapy receive the best standard of care.
- Responsibilities include: protection of the patient and others from potentially harmful or excessive radiation; establishment of adequate protocols to ensure accurate patient dosimetry; the measurement and characterization of radiation used for radiotherapy; the performance and supervision of treatment planning; the determination of delivered dose; advancement of procedures necessary to ensure delivered dose integrity; the assessment and monitoring of image quality; development and direction of quality assurance programs; assistance to other health care professionals in optimizing the balance between the beneficial and deleterious effects of radiation; and compliance with applicable federal and state regulations.
- Therapeutic radiological physics deals with the therapeutic application and safe use of x rays, gamma rays, electron or other charged particle beams, neutrons, and radiation from sealed radionuclide sources used primarily in the treatment of cancer.
- Demonstrates Clinical and Service excellence behaviors to include code of HCA conduct core fundamentals in daily interactions with patients, families, co-workers and physicians

**Setting(s):**
- Healthcare facilities including but not limited to hospitals, outpatient treatment facilities, imaging centers, and physician practices
- Imaging, Cardiac Cath Lab, Surgery, Nuclear Medicine

**Supervision:**
- Reports to the Medical Director of Radiation Oncology (MD)

**Qualifications:**
- MS or Ph.D.
- Certification: American Board of Radiology or American Board of Medical Physics in Diagnostic Radiology or Medical Imaging, or Board Eligible.
State Requirements:

Experience:
A minimum of one years’ prior clinical experience as a hospital medical physicist or radiation physicist

Competencies:
The Radiation Physicist – Medical will demonstrate:
- Expertise in medical health physics
- Audits regulatory program
- Prepares RAM license and license amendments
- Calibrates equipment
- Reviews dosimetry information
- Consults on patient radiation dose and associated risks
- Infection Prevention
  - Practices consistent hand hygiene
  - Required immunizations per DHP Division requirements
  - Complies with isolation precautions
- Plans, delivers, verifies, and monitors quality assurance of radiotherapy at all levels of complexity
- Recommends an optimal modality and treatment technique for the patient; evaluating the quality, safety, and accuracy of radiation treatments planned and delivered to patients
- Evaluation that radiation dose is carried out correctly and completely
- Demonstrates the ability to safely operating all radiation planning and delivery devices
- Plans and directs specialized programs encompassing all physics and clinical aspects of external beam radiotherapy and brachytherapy treatment procedures from treatment simulation to treatment planning to the actual treatment delivery
- Provides technical oversight for the work of developmental therapeutic radiation physicists, medical dosimetrists and radiation therapists
- Oversees radiation therapy treatment planning; designs and approves treatment plans
- Monitors the accuracy of treatment data recorded in the patient’s medical records
- Provides consultation to the radiation oncologist regarding treatment cases
- Performs patient specific treatment validation measurements
- Develops medical physics policies and procedures for the delivery and quality assessment of advanced treatment modalities such as intensity modulated radiation therapy, stereotactic radiosurgery and brachytherapy
- Develops, operates and fully documents the medical physics quality assurance program
- Ensures regulatory compliance within the Radiation Safety Officer’s radiation safety program
- Verbalizes how to safely utilize and properly operate all radiation oncology equipment
- Provides education to the radiation oncology team members including radiation oncologists, radiation therapists and dosimetrists in safety issues that relate to radiotherapy planning and delivery

References:
Briefings on Credentialing White Paper – Medical Physicist
American Association of Physicists in Medicine (AAPM)
DIVISION SCOPE OF SERVICE

DHP Printed Name: _______________________  DHP Signature: _________________________

Company/ Vendor: _______________________________  Date: ____________________