POLICY:

Patients and employees of Imaging Services shall be protected from unnecessary radiation.

PROCEDURE:

- The x-ray equipment shall be installed following the manufacturers specifications. The equipment has appropriate collimation, which will limit the size of the useful beam to the area of clinical interest. This equipment has filtration, which will remove unnecessary low energy radiation from the x-ray beam and which shall not be removed or altered.

  - **Patient Safety:**
    - Pregnancy warning signs shall be placed in a conspicuous area on each unit using ionizing radiation.
    - All female patients of child-bearing age shall be asked if there may be a possibility that they are pregnant. If affirmative, the referring physician shall be notified before any x-rays are performed. The procedures shall be postponed until it is determined that it is safe.
    - The decision to perform a scan using ionizing radiation, especially on patients of child-bearing age, shall be at the discretion and upon the order of the radiologist and/or referring physician.
    - A consent form shall be required prior to any scan of a pregnant patient to ensure that the patient realizes the risks involved.
    - Patient must be shielded as much as possible.

  - **Employee Safety:**
    - Technologist or nursing staff MUST NOT remain in the exposure area unless assisting the radiologist or technologist; then they must be adequately shielded.
    - A radiation monitoring device shall be worn by Imaging Services staff at all times while on duty and will be checked routinely once a month.
PURPOSE:

(organization name) shall maintain the quality of the diagnostic computed tomography (CT), positron emission tomography (PET), magnetic resonance imaging (MRI), nuclear medicine (NM) and fluoroscopic services images produced through annual equipment testing by appropriately qualified staff.

POLICY:

- At least annually, a diagnostic medical physicist or individual(s) who have the required training and skills, as determined by the physicist, shall:
  - Measure the radiation dose (in the form of volume computed tomography dose index [CTD\text{Dvol}]) produced by each diagnostic CT imaging system for the following four (4) CT protocols: adult brain, adult abdomen, pediatric brain and pediatric abdomen.
    
    Note: If one or more of the above protocols are not used by this hospital, substitute protocols may be used.
  - Verify that the radiation dose (in the form of CTD\text{Dvol}) produced and measured for each protocol tested is within 20 percent of the CTD\text{Dvol} displayed on the CT console.
  - The dates, results and verifications of these measurements must be documented.

- At least annually, a diagnostic medical physicist or individual(s) who have the required training and skills, as determined by the physicist, shall conduct a performance evaluation of all CT imaging equipment. The evaluation results, along with recommendations for correcting any problems identified, shall be documented. The evaluation shall include the use of phantoms to assess the following imaging metrics:
  - Image uniformity
  - Scout prescription accuracy
  - Alignment light accuracy
  - Table travel accuracy
POSITION DESCRIPTION / PERFORMANCE EVALUATION

Job Title: Imaging Services Manager
Supervised by: Administrator/COO
Prepared by: __________________________
Approved by: _______________________
Date: __________________________
Date: _________________________________

Job Summary: Responsible for planning, organizing and directing the overall operation of the Imaging Services Department. Ensures compliance with patient care quality standards as it relates to the care provided to all age groups of patients ranging from newborn to elderly. Maintains performance improvement activities within the department and participates in CQI activities. Assures competency of all staff. Assists in formulating the budget. Maintains efficient and effective department operation while requiring compliance with all accrediting organization, state, federal and local regulatory laws, standards and protocols.

DUTIES AND RESPONSIBILITIES:

<table>
<thead>
<tr>
<th>3 = Exceeds Performance</th>
<th>2 = Expected Performance</th>
<th>1 = Needs Improvement</th>
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Demonstrates Competency in the Following Areas:

- Works with hospital administration on planning, organizing and directing Imaging Services operations and ensuring compliance with all local, state and federal regulations. 3 2 1
- Makes daily rounds in Imaging Services to judge effectiveness of operation, utilization of staff and supplies, and general ethical and professional atmosphere. 3 2 1
- Secures and maintains the physical facilities, equipment and supplies which are required to carry out effective patient care and create an optimum physical environment. 3 2 1
- Carries on continuous analysis, evaluation and audit of Imaging Services. 3 2 1
- Initiates and actuates improved methods of imaging services and directs their implementation. 3 2 1
- Prepares department budgets for staff, operating expenses and capital equipment. Responsible for fiscal operation of the department. 3 2 1
- Communicates appropriately and clearly to physicians, staff and administration. 3 2 1
- Interacts professionally with patient/family. Consults other departments, as appropriate, to collaborate in patient care and performance improvement activities. 3 2 1
- Performs all aspects of patient care in an environment that optimizes patient safety and reduces the likelihood of medical/health care errors. 3 2 1
- Supports and maintains a culture of safety and quality. 3 2 1
- Ensures that the staff technicians are not allowed to perform independent fluoroscopic examinations. 3 2 1
- Delegates authority and responsibility to the Imaging Services staff. 3 2 1
- Establishes and maintains standards of performance. 3 2 1
- Directs and participates in the human resource management function for the department by coordinating the selection, promotion, orientation and performance appraisal processes. 3 2 1
- Coordinates the department’s inservice training. 3 2 1
POLICY:

____________________ (organization name) shall assure patient safety by ensuring the use of uncontaminated ultrasound gel products.

PROCEDURE:

- Prior to using ultrasound gel, the need for sterile or nonsterile gel shall be determined and the proper gel shall be selected.

- Once a container of sterile or nonsterile ultrasound gel is opened, it is no longer sterile and contamination during ongoing use is possible.

- Open containers of ultrasound gel may be used promptly for low-risk procedures on intact skin and for low-risk patients.

- **Sterile Gel:**
  - The only ultrasound gel that is sterile is unopened ultrasound gel containers/packets labeled as sterile. Ultrasound gel products that are labeled as nonsterile or that are not labeled at all with respect to sterility are **NOT** sterile.
  - Sterile gel shall be used for all invasive procedures in which a device is passed through tissue (e.g., needle aspiration, needle localization, tissue biopsy), for all procedures involving a sterile environment or non-intact skin, and for all procedures on neonates.
  - Sterile gel shall be used in patients with immunodeficiencies or on immunosuppressive therapy.
  - Sterile gel shall be used for procedures with mucosal contact where biopsy is not planned but any possible added bioburden would be undesirable or mucosal trauma is likely (e.g., transesophageal echocardiography (TEE) procedures, transvaginal ultrasound procedures without biopsy, transrectal ultrasound procedures without biopsy).
  - Aseptic technique shall be used when using sterile gel.
POLICY:

- The Patient Screening Form shall be reviewed for completeness and patient's signature prior to entry into the scan room.
  - Non-emergent patients shall be screened twice, providing two (2) separate opportunities for them to answer questions about any metal objects they may have on them, any implanted devices, drug delivery patches, tattoos and any electrically, magnetically or mechanically activated devices they may have.
  - The American College of Radiology recommends that implanted cardiac pacemakers and implantable cardioverter/defibrillators should be considered a relative contraindication for MRI.
  - If it is discovered during the patient screening that the patient has a pacemaker or implantable cardioverter/defibrillator, the screener shall notify the Radiologist immediately. Each patient shall be considered on a case-by-case basis.
    - If the attending physician and Radiologist agree to proceed with the MRI scan, appropriate clinical and medical staff must be immediately available to respond to a patient emergency.
  - If the patient is unconscious or unable to answer questions, question the patient's family member or surrogate decision maker.
  - In cases where patient history is unclear or if the patient/patient representative is unsure, other means shall be used to determine if the patient has implants or other devices that could be negatively affected by the MRI scan, including:
    - Look for scars or deformities
    - Scrutinize the patient's medical record