

INDICATOR	Met	Not Met	Comments
GENERAL			
Patient valuables and clothing is stored in a secure location during exam.			
Area is clean and free of dust and debris. Countertops and furniture is in good repair.			
Staff can verbalize the fire alarm response process and the process for evacuating patients who are unable to evacuate themselves.			
Resuscitation equipment is available for use. Staff are trained.			
MEDICAL RECORDS			
The radiation dose index (computed tomography dose index [CTDIvol], dose length product [DLP], or size-specific dose estimate [SSDE]) is documented on every study produced during a diagnostic computed tomography (CT) examination. The radiation dose index must be exam specific, summarized by series or anatomic area, and documented in a retrievable format. (This requirement does not apply to dental cone beam CT radiographic imaging studies performed for diagnosis of conditions affecting the maxillofacial region).			
All prescreening is conducted prior to exam and documents complete.			
Prior to conducting a diagnostic imaging study, the hospital verifies the following: <ul style="list-style-type: none"> • Correct patient • Correct imaging site • Correct patient positioning • Correct imaging protocol • Correct scanner parameters 			
Imaging reports include documentation of radiopharmaceutical dose received.			
LICENSE			
Certifications and licenses are posted and up to date.			
FACILITIES AND EQUIPMENT			
Equipment is cleaned per policy and the manufacturer IFU. Expectations are that staff have access to the equipment IFU and are following the cleaning and disinfection procedures listed there. Staff should be utilizing disinfectant wipes as per			

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policy and with appropriate contact times as defined by the IFU.			
All equipment daily/weekly/monthly quality control checks are completed and documented.			
<p>A diagnostic medical physicist conducts a performance evaluation of all imaging equipment at least annually. Results of the evaluation along with recommendations for correction, are documented. (Evaluations are conducted for all image types produced clinically by each scanner and include the use of phantoms to assess for the following imaging metrics:</p> <ul style="list-style-type: none"> • Image uniformity • Scout prescription accuracy • Alignment light accuracy • Table travel accuracy • Radiation beam width • High-contrast resolution • Low-contrast detectability • Geometric or distance accuracy • CT number accuracy and uniformity • Artifact evaluation 			
<p>The annual performance evaluation conducted by the diagnostic medical physicist includes testing of image acquisition display monitors for:</p> <ul style="list-style-type: none"> • Maximum and minimum luminance • Luminance uniformity • Resolution • Spatial accuracy 			
Prior to installation of new imaging equipment, replacement of existing imaging equipment, or modification to rooms where ionizing radiation will be emitted or radioactive materials will be stored, a medical physicist or health physicist conducts a structural shielding design assessment to specify required radiation shielding.			
After installation of imaging equipment or construction in rooms where ionizing radiation will be emitted or radioactive materials will be stored, a medical physicist or health physicist conducts a radiation protection survey to verify the adequacy of installed shielding prior to clinical use of the room.			

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Shielding equipment/garb is stored in a manner that reduces damage to the equipment/garb. For example, lead aprons, and thyroid shields are not folded. Each item/garb contains a unique identifier for the inspection process.			
Lead Apron/Shielding Garb Inventory assessment and inspection for cracks, tears, integrity is up to date. Actions taken based upon findings.			
RADIATION PROTECTION			
ALARA (as low as reasonably achievable) is incorporated into CT Scan services.			
Dosimetry badges are routinely worn by all staff assigned to work in the vicinity where exposure may occur.			
Dosimetry badge result monitoring is completed on a quarterly basis by the physicist/Radiation Safety Officer per policy			
Results of dosimetry badge monitoring are posted for staff review. Variations in results are reviewed with individual badge wearers as warranted.			
New dosimetry badges are issued per policy.			
Staff follow the process for protection of patients from radiation hazards, including screening for high-risk patients (for example, possible pregnancy, multiple imaging studies, children, etc.).			
CLINICAL POLICIES AND PROTOCOLS			
Are all policies up to date and periodically reviewed according to the organization's timeframes?			
The hospital establishes diagnostic computed tomography (CT) imaging protocols based on current standards of practice, which address key criteria including the following: <ul style="list-style-type: none"> Clinical indication Contrast administration Age (to indicate whether the patient is pediatric or an adult) Patient size and body habitus Expected radiation dose index range 			
Patients are screened for kidney function prior to studies that require administration of contrast. This could include: <ul style="list-style-type: none"> Advising the patient to hold Metformin doses. Review of kidney function lab work. 			

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Patients who will be receiving contrast are assessed for their blood glucose level to avoid hyperglycemia associated with contrast administration.			
CT contrast is stored according to IFU. Contrast is secured from unauthorized access. Pharmacy conducts inspection of contrast storage.			
Staff adhere to written procedures or protocols for reporting critical testing results.			
There are CT policies and procedures that take into consideration classes of patients (women, pregnant, children, geriatric) who may be at higher risk for over-exposure.			
Imaging protocols are reviewed and kept current with input from an interpreting physician, medical physicist, and lead imaging technologist to make certain that they adhere to current standards of practice and account for changes in CT imaging equipment. These reviews are conducted at time frames identified by the hospital.			
QUALITY ASSURANCE AND PERFORMANCE IMPROVEMENT			
The hospital identifies quality control and maintenance activities to maintain the quality of CT images produced. The hospital identifies how often these activities should be conducted.			
At least annually, a diagnostic medical physicist does the following: <ul style="list-style-type: none"> Measures the radiation dose (in the form of volume computed tomography dose index [CTDIvol]) produced by each diagnostic CT imaging system for the following four CT protocols: adult brain, adult abdomen, pediatric brain, and pediatric abdomen. If one or more of these protocols is not used by the hospital, other commonly used CT protocols may be substituted. Verifies that the radiation dose (in the form of CTDIvol) produced and measured for each protocol tested is within 20 percent of the CTDIvol displayed on the CT console. The dates, results, and verifications of these measurements are documented. 			

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Data is collected on the timeliness of reporting critical results of tests and diagnostic procedures. Opportunities for improvement are addressed.			
The hospital reviews and analyzes incidents where the radiation dose index (computed tomography dose index [CTDIvol], dose length product [DLP], or size-specific dose estimate [SSDE]) from diagnostic CT examinations exceeded expected dose index ranges identified in imaging protocols. These incidents are then compared to external benchmarks.			
STAFF COMPETENCIES AND QUALIFICATIONS			
There is evidence of Medical Staff approval of the qualifications of the radiology staff who use equipment and administer procedures.			
Diagnostic medical physicists who support computed tomography services have been verified to have documentation of board certification in diagnostic radiologic physics or radiologic physics by the American Board of Radiology, or in Diagnostic Imaging Physics by the American Board of Medical Physics, or in Diagnostic Radiological Physics by the Canadian College of Physicists in Medicine, or meet all of the following requirements: <ul style="list-style-type: none"> • A graduate degree in physics, medical physics, biophysics, radiologic physics, medical health physics, or a closely related science or engineering discipline from an accredited college or university • College coursework in the biological sciences with at least one course in biology or radiation biology and one course in anatomy, physiology, or a similar topic related to the practice of medical physics • Documented experience in a clinical CT environment conducting at least 10 CT performance evaluations under the direct supervision of a board-certified medical physicist 			
Individuals who perform diagnostic computed tomography (CT) examinations have been verified that have documentation that they participate in ongoing education that includes annual training on the following:			

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<ul style="list-style-type: none"> Radiation dose optimization techniques and tools for pediatric and adult patients addressed in the Image Gently® and Image Wisely® campaigns Safe procedures for operation of the types of CT equipment they will use 			
Employees or contractors, who inspect, test, calibrate, and maintain CT services equipment are qualified to perform these actions.			
<p>Technologists who perform diagnostic computed tomography exams have advanced-level certification by the American Registry of Radiologic Technologists (ARRT) or the Nuclear Medicine Technology Certification Board (NMTCB) in computed tomography or have one of the following qualifications:</p> <ul style="list-style-type: none"> State licensure that permits them to perform diagnostic CT exams and documented training on the provision of diagnostic CT exams Registration and certification in radiography by ARRT and documented training on the provision of diagnostic CT exams Certification in nuclear medicine technology by ARRT or NMTCB and documented training on the provision of diagnostic CT exams 			
<p>Review staff members' qualifications to ensure they are trained/competent to perform their duties. This could include:</p> <ul style="list-style-type: none"> Operating all equipment Starting IVs Selecting appropriate contrast per protocol Recognition of signs and symptoms of allergic reactions and emergency action plan Demonstration of provision of patient education/discharge instructions. 			