Radiology Ordering Guide

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PATIENT SYMPTOMS		DIAGNOSTIC EXAM
Headache	Low clinical suspicion, no focal signs	CT without contrast
	High clinical suspicion, focal neuro signs	MRI without contrast
	Concern for aneurysm	MRA of Brain
Trauma	Acute	CT without contrast
	Subacute or chronic	MRI without contrast
Stroke / Ischemia	Acute	MRI with diffusion images
	Chronic	MRI without contrast
	Versus neoplasm	MRI with & without contrast
	Venous sinus thrombosis	MRV and MRI
Multiple Sclerosis		MRI with & without contrast (include sagital flair)
Dementia		MRI without contrast
Carotid Disease		Doppler Ultrasound
Hydrocephalus		MRI without contrast
Hemorrhage	Including subarachnoid, subdural, and parenchymal	CT without contrast
Seizures		MRI with & without contrast
Neoplasm		MRI with & without contrast
Metastasis		MRI with & without contrast
Acoustic neuroma/hearing loss		MRI with & without contrast (Brain & IACs protocol)
Cranial nerve deficit		MRI with & without contrast

(HEAD CONTINUED)

PATIENT SYMPTOMS	DIAGNOSTIC EXAM
Bone lesions including tumors & other defects	CT skull without contrast
Congenital craniofacial malformation including craniosynostosis	3D-CT without contrast
AIDS	MRI with & without contrast; PET/CT
Encephalitis	MRI with & without contrast
Pituitary gland imaging	MRI with & without contrast (pituitary protocol)

ORBITS

PATIENT SYMPTOMS	DIAGNOSTIC EXAM
Proptosis, Optic neuritis, Tumor, Pseudotumor, Inflammation	MRI Orbits & MRI Brain, with & without contrast
Foreign body, Trauma, Bony Anomaly	CT without contrast

TEMPORAL BONES

PATIENT SYMPTOMS	DIAGNOSTIC EXAM
Acoustic neuroma	MRI with & without contrast (IAC protocol)
Otosclerosis, Congenital malformations	CT Temporal bones without contrast
Chronic infection or hearing loss	CT Temporal bones without contrast
Mastoiditis	CT Temporal bones without contrast

FACIAL

PATIENT SYMPTOMS		DIAGNOSTIC EXAM
Sinuses		CT without contrast
TMJ	Trauma	CT without contrast
	Meniscal derangement	MRI without contrast (TMJ protocol)
	Non-traumatic TMJ pain	MRI without contrast (TMJ protocol)

NECK

PATIENT SYMPTOMS	DIAGNOSTIC EXAM
Mass (non-thyroid)	CT with contrast
Lymphadenopathy	CT with contrast
Cancer staging & restaging	PET / CT
Carotid blood vessels	Doppler ultrasound
Thyroid Nodule	Ultrasound

CHEST

INDICATION / SYMPTOMS	DIAGNOSTIC EXAM
Lung Mass	CT with contrast
Cancer Restaging	CT with contrast
Lymphoma (Thoracic)	CT with contrast
Adenopathy	CT with contrast
Infection / Pneumonia	CT with contrast
Pulmonary Obstructive Disease	CT with contrast

(CHEST Continued)

INDICATION / SYMPTOMS	DIAGNOSTIC EXAM
Abnormal Chest X-ray	CT with contrast
Lymphadenopathy	CT with contrast
Lump in Chest	CT with contrast
Chest Pain (Non-Cardiac)	CT with contrast
Hemoptysis	CT with contrast
Initial Pulmonary Nodule / Mass Evaluation	CT with contrast
Pulmonary Nodule Follow Up ONLY. No history or suspicion for malignancy and NO other clinical concerns (chest pain, cough etc...)	Low Dose Unenhanced CT Chest
Interstitial Lung Disease	CT without contrast
Assess Air Trapping	CT without contrast
Small Airways Disease	CT without contrast
Bronchiectasis	CT without contrast
Pre and Post Lung Transplant	CT without contrast
Assessment of Acute or Chronic PE	CT Pulmonary Embolism
Assessment for Pulmonary AVM	CT Pulmonary Embolism
Takayasu's, Behcet's,Pulmonary Artery Sarcoma, etc.	CT Pulmonary Angiogram

(CHEST Continued)

INDICATION / SYMPTOMS	DIAGNOSTIC EXAM
Specific Request for SuperDimension TM Bronchoscopy Protocol for a thoracic surgeon or interventional pulmonologist prior to performance of image guided bronchoscopy.	SuperDimension Bronchoscopy
Lung Cancer Screening	Low Dose Unenhanced CT Chest

CARDIAC

DIAGNOSIS	DIAGNOSTIC EXAM
Amyloidosis - Cardiac	Cardiac MRI with & without contrast
Aortic Aneurysm - Abdominal	CTA abdomen pelvis with contrast
Aortic Aneurysm - Thoracic	CTA chest with contrast
Aortic Coarctation	CTA aorta with contrast OR MRA aorta with contrast
Aortic Dissection	CTA aorta with contrast – dissection protocol
Aortic Valve – stenosis or regurgitation	Cardiac MRI without contrast
Arrhythmogenic Right Ventricular Dysplasia (ARVD)	Cardiac MRI with & without contrast
Atrial Fibrillation Ablation – Pulmonary Vein Mapping	CTA Cardiac with contrast
Bypass Graft Evaluation	CTA coronary with contrast
Calcium Scoring	CT Calcium score
Congenital Heart Disease	Cardiac MRI with flow & MRA chest OR CTA Cardiac with contrast
Coronary Anomalies	CTA coronary with contrast OR MRA coronary artery
Coronary Artery Disease	CTA Coronary with contrast
Coronary Stent Patency Evaluation	CTA Coronary with contrast
Coronary Stent Stenosis Evaluation	Cardiac Catheterization
Function – LV/RV	Cardiac MRI without contrast OR CTA Cardiac with contrast

(CARDIAC Continued)

DIAGNOSIS	**DIAGNOSTIC EXAM**
Heart Failure - evaluation of coronary arteries to assess for ischemic cardiomyopathy	CTA Coronary with contrast
Heart failure – LV/RV function and etiology	Cardiac MRI with & without contrast
Hemochromatosis	Cardiac MRI with & without contrast
Limited echocardiogram	Cardiac MRI with & without contrast
Mass - intracardiac	Cardiac MRI with & without contrast
Myocarditis	Cardiac MRI with & without contrast
Sarcoidosis - Cardiac	Cardiac MRI with & without contrast
Shunts - Cardiac	Cardiac MRI and MRA
Syncope	Cardiac MRI with & without contrast
Transcatheter Aortic Valve Replacement (TAVR)	CTA Cardiac with contrast
Viability - myocardial	Cardiac MRI with & without contrast

ABDOMEN / PELVIS

PATIENT SYMPTOMS	DIAGNOSTIC EXAM
RUQ pain	RUQ Ultrasound
Flank Pain (suspicion of stones)	CT ABD / PELVIS without contrast if severe OR Ultrasound if mild pain
Hematuria or Flank Pain with concern for disease other than stones	CT ABD / PELVIS with & without contrast (CT Urogram protocol)
Any other pain	CT ABD / Pelvis with contrast
Hypertension Evaluation for Renal Artery Stenosis	CT Angiogram of the Renal Arteries MR Angiogram of renal arteries (if elevated creatinine use Mag3 w/ ACG inhibitor)
Abdominal Mass or Hernia	CT with contrast
Liver:	
Abnormal LFT	Ultrasound
Mass	MRI with & without contrast (4 Phase)
Cirrhosis	MRI with & without contrast (4 phase)
Hyperbilirubinemia or jaundice	Ultrasound: If ultrasound negative proceed with MRI with & without contrast (MRCP)
Pancreas:	
Suspect mass or Pancreatitis	CT ABD with & without contrast
Adrenal Glands:	
Adrenal Lesion	MRI ABD with & without contrast (Adrenal protocol) with & without contrast CT with & without (Adrenal protocol)
Bowel:	
Colitis, Appendicitis, Diverticulitis	CT ABD / PELVIS with IV & oral contrast

(ABDOMEN / PELVIS Continued)

PATIENT SYMPTOMS	DIAGNOSTIC EXAM
Small Bowel (Inflammatory Bowel, etc.)	CT ABD / PELVIS, with & without contrast (Entography protocol)
Small Bowel Obstruction	CT ABD / PELVIS with IV & oral contrast
Evaluate for Polyp Colon Screening	CT ABD / PELVIS Virtual Colonoscopy
Malignancy Work Up	CT ABD / PELVIS with & without contrast
Other:	
Bladder	Ultrasound
Prostate Cancer Staging	MRI with & without contrast
Uterus / Ovaries	Ultrasound; MRI with & without contrast
Aorta / Iliac Aneurism (AAA) Screening	Ultrasound
Scrotal Pain / Torsion / Mass	Ultrasound with Doppler

NUCLEAR MEDICINE

PATIENT SYMPTOMS	DIAGNOSTIC EXAM	PREPARATION FOR EXAM
Abdominal Pain, RUQ Pain Bloating, Nausea, Vomiting, Pancreatitis, Bile Leak (No GBEF) Chronic Cholecyatitis	Hida Scan with EF	NPO 4-6 Hours Prior to Exam Test Last 1 Hr 20 Minutes
Evaluate Size, Position And Configuration of Liver And Spleen, abnormal LFT's Abnormal Mass, Spleeenomegaly Thrombocytopenia, Hepatomegaly Accessory Spleen, Cirrhosis	Liver Spleen Scan	No Prep 30 Minutes
Hepatic Hemangioma Abnormal Ultrasound or CT Scan	Hemangioma Scan	No Prep/Patients Red Blood Cells Tagged 30 Minutes Immediate Scan Patient Returns 3 hours after SPECT
Vomiting, Nausea, Early Satiety, Diabetes, GERD, Gastroparesis	Gastric Emptying Scan	NPO 4 Hours Prior 90 Minute Exam
Abscess or Infection, Increased WBC's Increased Fever, Redness Swelling, Body Implant Loosening	In-111 WBC Study	No Prep Blood Drawn from Patient Blood sent to Pharmacy for Tagging Patient Returns 3 Hours Later for Injection Scan at 24 Hours
Inflammatory Disease, Sacroidosis	Gallium Scan	No Prep Unless Looking in Abdominal Or Pelvic Region; Scan 24-96 Hours Depending on Images
Skeletal Evaluation for Metastatic Disease H/O melanoma, Recent Fall or Trauma Compare to Prior For Cancer	Bone Scan Whole Body	No Prep, Patient Injected Returns 3 Hours Later For 45 Minute Scan
Extremity Fracture, Swelling and Pain. Stress Fracture Differentiating Between Cellulitis and Osteomylelitis	3 Phase Bone Scan	No Prep, Patient Injected and Scanned Immediately Return 3 Hours Later for Delay Scan
Pares Defect, Spondylosis	Bone Scan with SPECT	No prep patient injected Return 3 Hours later for Scan
Parathyroid Adenoma, Elevated serum Calcium, PTH	Parathyroid Scan	No Prep Patient Injected 1 Hour Exam

(NUCLEAR MEDICINE Continued)

PATIENT SYMPTOMS	DIAGNOSTIC EXAM	PREPARATION FOR EXAM
Evaluate Renal Function	Renal Scan	No Prep Patient Hydrate
R/O Obstruction	Renal With Lasix	No Diuretics patient Hydrate 60 Minute Scan
Hypertension, Renal Artery Stenosis	Renal With Vasotec	Off ACE inhibitors 48 Hours Patient Should Hydrate 2 Day Exam
Thyroid Enlargement, Abnormal Blood Levels, Goiter, Neck Tenderness, Weight Loss Or Gain, Difficulty Sleeping, Tired / Lack of Energy	I-123 Thyroid Uptake and Scan	No Iodine procedures 4 Weeks No Thyroid medication 4 and 24 Hour Scan
Hyperthyroidism, Graves Disease	I-131 Thyroid Therapy	Off Thyroid Meds No Iodine Contrast 4 weeks Prior Thyroid Scan done Recently Consult then Therapy
Thyroid Cancer	I-131 Ablation	Preformed Post Surgery TSH Greater Than 25 Post Ablation Scan 1 Week Later
Pre Chemo, Post Chemo, CHF, Poor EF Function, Cardiac Chamber Function, Wall Motion, Volumes	MUGA Scan	No Prep 1 Hour Test
Neuroendocrine Tumors	Octreoscan	NPO 6-8 Hours Stop Somatostatin 1 Week Patient Injected Scanned 4 Hour and 24 Hour
Evaluation of Ischemia vs Infarction	Myocardial Perfusion Study	NPO 12 Hours No Caffeine
Shortness of breath, Chest Pain, Abnormal EKG, Abnormal Stress Test, History of CAD, HTN, Diabetes, Family History of CAD		Discontinue Beta/Calcium Channel Blockers 24- 48 Hours
Lymphoma, Melanoma, Breast Cancer, Colorectal Cancer, Thyroid Cancer, Head and Neck Cancer	PET/CT Scan	NPO 4-6 Hours No Exercise No Insulin 12 Hours Prior Total Test Time 90 Minutes
History of Epilepsy, Diagnosis of Alzheimer's	PET/CT Brain	No Insulin 12 Hours Prior NPO 4-6 Hours Test 1 Hour

MUSCULOSKELETAL

ANATOMICAL AREA	PATIENT SYMPTOMS	DIAGNOSTIC EXAM
Soft Tissue Mass		MRI with & without contrast
	Exceptions	
	Popliteal fossa (Bakers Cyst)	Ultrasound
Bone Lesions	Occult fracture, stress fracture	MRI without contrast
	Osteomyelitis	MRI with & without contrast
	Neoplasm	MRI with & without contrast
	Metastasis	Bone scan total body
Spine	Bone lesion	MRI without contrast
	Disc disease	MRI without contrast
	Disc post-op	MRI with & without contrast
	Abscess, discitis	MRI with & without contrast
	Cord lesion	MRI with & without contrast
JOINTS - Including shoulder elbow, wrist, hip, knee & ankle		
In General	Pain, post traumatic or degenerative	MRI without contrast
	Internal derangement	MRI without contrast; Consider MR Arthrogram
Hip	Avascular neurosis	MRI without contrast
	Effusion (confirm)	MRI without contrast
	Occult fracture (osteoporosis)	MRI without contrast

(MUSCULOSKELETAL continued)

ANATOMICAL AREA	PATIENT SYMPTOMS	DIAGNOSTIC EXAM
Knee	Internal derangement	MRI without contrast
	Occult / stress fracture	MRI without contrast
	Bone lesion, tumor	MRI without contrast
	Post-op cartilage lesion	MR Arthrogram
Ankle	In general	MRI without contrast
	Exceptions:	
	Tarsal coalition	CT without contrast
	Calcaneal fracture	CT without contrast
Shoulder	Rotator cuff; All other internal derangements including impingement syndrome	MRI without contrast
	Post-op	MR Arthrogram
	Instability, SLAP lesion	MR Arthrogram
Elbow	In general	MRI without contrast
	Intra-articular debris	CT Arthrogram
Wrist	In general	MRI without contrast
	Scaphoid fracture	CT without contrast
	Metacarpal base fracture	CT without contrast
	Occult ganglion	MRI without contrast

PEDIATRIC

PATIENT SYMPTOMS		DIAGNOSTIC EXAM
Brain		
Enlarged Head Circumference		
Open Fontanelle		Ultrasound
Closed Fontanelle		CT without contrast
Trauma		CT without contrast
Headache or Focal Neuro		MRI without contrast
Neck Mass		Ultrasound
Chest Symptoms		X-ray If persistent and unexplained symptoms, then CT without contrast
Abdomen and Pelvis		
Mass		If ultrasound is negative and persistent palpable abnormality, then proceed to MRI with contrast
Pain		Ultrasound if negative CT with contrast
Sinus		
Waters View		If persistent unexplained symptoms, then CT
Back Pain		X-ray If persistent unexplained pain, then MRI without contrast
Extremity Pain or Trauma		X-rays If persistent unexplained pain, then MRI without contrast
Hip Dysplasia	Less than 6 months	Ultrasound
	Greater than 6 months	X-ray
Spinal Dimple, Hemangioma, Hair Tuft		Ultrasound as soon after birth as possible If greater than 4 mo., then MRI without contrast

INTERVENTIONAL SERVICES

Oncology
Radioembolization
Chemoembolization
Radiofrequency Ablation (RFA)
Cryotherapy Ablation
Alcohol Ablation
Chemotherapy Port Placements

Vascular Disease Treatment
Varicose Vein Consultation & Treatment
Peripheral Vascular Disease Consultation & Treatment
Vascular Disease Consultation & Treatment

Dialysis Access Management
Declot and Angioplasty
Fistulagram / AV Graft Study
Tunneled Catheter
Temporary Catheter

Uterine Fibroid Consultation
Uterine Fibroid Embolization Consultation & Treatment

Central Venous Access
Port
Tunneled
Temporary
PICC Line

Compression Fracture Treatment (Vertebral)
Vertebral Compression Fracture Consultation & Treatment

Inferior Vena Cava Filter Consultation
Placement
Removal

BREAST IMAGING

Indication / Symptoms		Begin at Age	Exam
Asymptomatic	Average Risk Individual	> 39 years old **OR** 10 years prior to family member's age at diagnosis (ex. Aunt diagnosed at 45, begin at 35)	Annual Screening Mammogram
	*High Risk Individual	Every other year in addition to annual screening mammogram	Bilateral Breast MRI without and with contrast performed days 8 - 10 of menstrual cycle
Symptomatic	Pain, discomfort, nipple discharge, palpable lump, breast mass, skin changes	>29 years old	Diagnostic Mammogram, Breast Ultrasound, if needed
		<30 years old, lactating or pregnant	Breast Ultrasound, Diagnostic Mammogram, if needed
	If diagnostic mammogram and breast ultrasound is inconclusive	Any age	Bilateral Breast MRI without and with contrast performed days 8 - 10 of menstrual cycle
	Newly Diagnosed with breast cancer	Any age	Bilateral Breast MRI without and with contrast performed any time of menstrual cycle and PET scan at discretion of oncologist
	Evaluate Implant Integrity	Any age	Bilateral Breast MRI without contrast any time of menstrual cycle

*** High Risk Individuals include women who have tested positive for BRCA I/II genetic testing, history of radiation therapy to the chest (Hodgkin's Disease) or a personal history of breast cancer.**

MISCELLANEOUS

PATIENT SYMPTOMS		DIAGNOSTIC EXAM
Dermal	Melanoma: staging & restaging	PET/CT; CT with contrast, MRI with contrast
Systemic	Lymphoma	CT with contrast; PET/CT
	Multiple Myeloma	MRI with contrast; PET/CT

MRI Contraindications for Scanning

Absolute	Cardiac pacemaker
	Middle ear ossicular prosthesis
	Cranial aneurysm clips
	Metallic fragments in the orbits
	Prosthetic heart valves
Relative	Pregnancy
	Extensive metallic surgical material
	Dementia, claustrophobia, anxiety
	Intensive care apparatus (ventilators, monitors)

Exam & Procedure Preparation by Modality

CT Scan

- Abdomen
  - NPO 3 hours before exam
  - Must pick up contrast 1 day before exam
  - Must drink fluids 24 hours before and after exam
- Brain with contrast: NPO 3 hours before exam
- Chest: NPO 3 hours before exam
- Pelvis
  - NPO 3 hours before exam
  - Must pick up contrast 1 day before exam
- Thoracic Coronary Arteries: Contact facility for instructions
- Urography Protocol (Abdomen & Pelvis): NPO 3 hours before exam
- Virtual Colonoscopy: Patient must pick up preparation kit 2 days prior to exam

DEXA Scan

- Wear comfortable clothing; however refrain from wearing any metal accessories (i.e. zippers, buttons, etc.)
- No other preparation is necessary

Fluoroscopy

- Barium Enema: Patient to pick up preparation kit 2 days prior to exam
- IVP: Patient to pick up preparation kit 2 days prior to exam
- Small Bowel
  - NPO after midnight
  - Patient to take a mild laxative the night before
- Upper GI: NPO after midnight
- Upper GI w/ Small Bowel: NPO after midnight with bottle of magnesium citrate

Mammography

- Patient should not use deodorant, perfume, or dusting powder before having the mammogram

MRI

- Breast MRI
  - Bilateral Diagnostic
    - NPO 3 hours before exam
    - No estrogen or hormone replacement therapy (medication for Hot Flashes ONLY) for 4 weeks prior to exam
    - Continue all other hormones (example: For Chemotherapy, Thyroid Disease, Birth Control, etc…)
  - Implants (Rupture)
    - NPO 3 hours prior to exam
- MRCP: NPO 4 hours before exam
- Pelvic MRI

- Routine: NPO 3 hours before exam
- Dynamic: Water ONLY 3 hours prior to exam
- Fetal: NPO 3 hours before exam

Nuclear Medicine

- Biliary Scan / GBEF: NPO after midnight
- Gastric Empty: NPO after midnight
- Renal / Vasotec: No ace inhibitor 48 hours prior to exam
- Thallium Up / scan: Contact facility for instructions

PET/CT

- Do not eat or drink except for water 6 hours prior to exam

Ultrasound

- Abdomen: NPO after midnight
- Aorta: NPO after midnight
- Gall Bladder: NPO after midnight
- Liver: NPO after midnight
- OB: Full Bladder
- Pancreas: NPO after midnight
- Pelvic
  - Full bladder
  - Must drink 32 ounces 1 hour prior to exam
- Pelvic w/ Transvaginal: Full bladder
- Pregnancy/Pelvic Sonogram
  - Patient must begin drinking about 1 hour prior to exam time
  - Must drink at least 32 ounces of liquid
  - Patient to stay away from caffeine drinks over this time period
  - Patient should NOT go to the restroom; they must have a full bladder for the exam

MRI CONTRAST GUIDE

Contrast By Disease State	Without Contrast	With & Without Contrast
Infection		X
Inflammation		X
Tumor		X
Vascular		X
Trauma	X	
Congenital	X	

General Exam Contrast Guidelines	Without Contrast	With & Without Contrast
MRA Brain (COW)	X	
TMJ MRI	X	
MRCP (If prior CT with contrast was performed)	X	
C, T, L Spine (with no prior surgeries)	X	
C, T, L Spine (with prior surgeries)		X
Sports & Orthopaedic Related Injuries	X	
Pituitary		X
IAC's		X
Brain with Orbits		X
Fetal MRI	X	
Dynamic Pelvis	X	
Breast MRI (Diagnostic)		X
Breast MRI (Implant Evaluation)	X	
MRA Arch with Carotid		X
MRA Chest/Abdomen/Pelvis		X
MRA Renal (with MRI)		X
MRA Run Off		X

When ordering a contrast exam, please provide the CREATININE level on the following patients and conditions:

1. ***Renal Disease (including solitary kidney, renal transplant, renal tumor)***
2. **Age > 60**
3. **History of Hypertension**
4. **History of Diabetes**
5. **History of Hepatic Disease, Liver Transplant, Pending Liver Transplant**

CT CONTRAST GUIDE

CT Exam	History	Without Contrast	With Contrast	With & Without Contrast
CT Brain	ONLY if patient has cancer or HIV			X
CT Brain	All other indications	X		
CT Neck	All indications		X	
CT Chest	Pulmonary nodule follow up CT Chest is performed w/o contrast	X		
CT Chest	ONLY Evaluation of aorta, thoracic aortic aneurysm, aortic dissection, or AVM CT exams			X
CT Chest	All other indications are performed with contrast		X	
CT Abdomen	If pt hx presents: Hx of Cancer, elevated LFT's, hepatitis, pancreatitis, pancreatic mass, renal mass, cirrhosis or hemangioma			X
CT Abdomen	All other indications		X	
CT Enterography Protocol (Abdomen & Pelvis)				X
CT Kidney Stone Protocol (Abdomen & Pelvis)		X		
CT Urography Protocol (Abdomen & Pelvis)				X

When ordering a contrast exam, please provide the BUN / CREATININE levels on the following patients and conditions:

1. ***Renal Disease (including solitary kidney, renal transplant, renal tumor)***
2. **Age > 60**
3. **History of Hypertension**
4. **History of Diabetes (see note below)**
5. **History of Hepatic Disease, Liver Transplant, Pending Liver Transplant**
6. **Paraproteinemia Syndromes or Diseases (e.g., myeloma)**
7. **Collagen Vascular Diseases (e.g. lupus)**

We recommend that all Diabetic patients who take Metformin, Glucophage or Glucovance discontinue their medication for 48 hours after receiving a contrast CT exam.

Iodinated Contrast Precautions (IVP, Enhanced CT)

Allergy History

Consult radiologist for alternative imaging techniques not requiring contrast

Outpatient pretreatment regimen

- Diphenhydramine 25 mg po
- Prednisone 50 mg po
- To be taken 13 hours, 7 hours, and one hour prior to procedure

Schedule procedure in hospital setting

Renal / Medical Status

Renal Function:

If the patient has no known allergies, diabetes or renal disease and is 60 years or older, a BUN and Creatinine lab result is required for enhanced radiology exams. The lab results must be within one (1) year and normal ranges should be included.

If the patient has risk factors which include diabetes, hypertension, chemotherapy, or renal disease at any age, a BUN and Creatinine lab result within sixty (60) days of appointment date is required. Normal ranges should be included. Please review the information listed above.

Avoid contrast administration in setting of acute arrhythmias or cardiac decompensation. Non-ionic contrast has lower adverse reaction rate.

GENERAL DESCRIPTION OF TERMS

WHAT ARE BI-RADS®?

BI-RADS® are used to describe various levels of mammography exam classifications. There are 7 classifications related to what exams should be performed if additional breast imaging is required. BI-RADS® are usually only used within radiology and are not used for the referring physician's diagnosis.

The BI-RADS® are:

BI-RADS® 0: Additional imaging needed
BI-RADS® 1 and 2: Normal or benign findings
BI-RADS® 3: Likely benign findings, short term follow-up needed
BI-RADS® 4: Findings suspicious and abnormal – consider biopsy
BI-RADS® 5: Highly indicative of malignancy – biopsy or surgical treatment needed
BI-RADS® 6: Known biopsy confirmed malignancy

WHAT IS BREAST IMAGING?

Women's imaging is a division of radiology that specializes in diagnosing breast conditions utilizing several different types of imaging procedures depending on the diagnosis.

WHAT IS CARDIOVASCULAR RADIOLOGY?

Cardiovascular radiology is a division of radiology dedicated to diagnosing conditions related to the heart, arteries and veins of the body utilizing several different types of imaging procedures depending on the diagnosis.

WHAT IS CT?

CT, also known as "cat scan" utilizes ionizing radiation to image specific internal body organs and bony structures. Most abdominal imaging requires the use of an oral contrast to image intestines. Specific exams also require the use of non-ionic iodinated IV contrast material. Oral and IV contrast materials are used in conjunction for specific exams and are utilized for two very different reasons. CT can be utilized to diagnose a wide range of medical conditions. CT is also widely used to perform angiography studies both arterial and venous along with cardiac CTA.

WHAT IS INTERVENTIONAL RADIOLOGY?

Interventional radiology is a division of radiology not only dedicated to diagnosing but also treating conditions related to the body's blood vessels. Specific special imaging procedures must be utilized in conjunction with the treatment of these conditions. Interventional radiology is an invasive procedure which must be performed under sterile technique in a controlled environment.

WHAT IS MAMMOGRAPHY?

Mammography, also known as "mammo" or "mammogram" is a low dose xray of the breast to detect breast cancer. Mammography utilizes ionizing radiation to produce its image. A screening mammogram is performed when a patient has no concerns. A diagnostic mammogram is performed when a patient has concerns such as lumps, pain, discharge or strong family history of breast cancer. Mammography does not utilize any form of contrast material.

WHAT IS MRI?

MRI utilizes a strong magnetic field to provide physicians the information needed to diagnose a wide range of medical conditions. MRI is utilized to image all internal aspects of the body. Another benefit to MRI is the fact that it does not utilize ionizing radiation in its image formation. MRI utilizes a unique IV contrast material called Gadolinium for specific diagnosis and contains no iodine. MRI can be beneficial for evaluating musculoskeletal abnormalities as well as soft tissue abnormalities. Ligament and tendon tears for all body joints as well as fracture are well visualized. Diagnosis that require differentiation between mass or cyst within any region of the body are also well visualized. MRI has also become an invaluable tool in diagnosing breast cancer as well as breast implant evaluation for rupture. MRI is also widely used to perform angiography studies.

WHAT IS MUSCULOSKELETAL RADIOLOGY?

Musculoskeletal radiology is a division of radiology dedicated to diagnosing conditions related specifically to the bony make-up of the human body and its related support system of muscles and tendons. Multiple imaging procedures can be utilized depending on the diagnosis.

WHAT IS NEURORADIOLOGY?

Neuroradiology is a division of radiology dedicated to diagnosing conditions of the head, neck and spine related to the body's nerves. Multiple imaging procedures can be utilized depending on the diagnosis.

WHAT IS NUCLEAR MEDICINE?

Nuclear medicine is a form of medical imaging that utilizes radionuclides and relies on the process of radioactive decay to diagnose a multitude of pathologies, including cancer. Radiopharmaceuticals are introduced to the body in a variety of ways depending on what exam is being performed. Nuclear medicine studies can be used in conjunction with other imaging techniques such as CT or MRI, depending on the diagnosis.

WHAT IS POSITRON EMISSION TOMOGRAPHY?

"PET" scan utilizes coincidence detection to image functional and metabolically active processes in the body to diagnose a multitude of pathologies, including cancer. Radiopharmaceuticals are introduced to the body in a variety of ways depending on what exam is being performed. "PET" studies can be used in conjunction with other imaging techniques such as CT or MRI, depending on the diagnosis.

WHAT IS PEDIATRIC RADIOLOGY?

Pediatric radiology is a division of radiology dedicated specifically to diagnosing conditions related to children. Multiple imaging procedures can be utilized depending on the diagnosis.

WHAT IS RADIOGRAPHY?

Radiography also known as "x-ray" utilizes ionizing radiation to detect internal bony fractures or gross abnormalities of the body for diagnostic imaging purposes. Specific x-ray exams utilize non-ionic iodinated IV contrast material.

WHAT IS ULTRASOUND?

Ultrasound, also known as "sono" is a non-invasive diagnostic exam that uses sound waves to obtain images of specific body parts. Ultrasound does not utilize any form of IV contrast material or ionizing radiation in its image formation. Ultrasound can be utilized to evaluate all abdominal and pelvic organs, breasts, thyroid glands and testicles. Ultrasound is also used to diagnose carotid and other arterial stenosis, deep vein thrombosis and heart abnormalities. Ultrasound is also very accurate at distinguishing between cystic and solid masses along with other gross abnormalities.