ENDOCRINE

Thyroid Uptake and Scan
Prep: Interfering medications may exist, please discuss with referring physician and call Nuclear Medicine for further clarification.
Time in Department: 2 days

Thyroid Uptake and Scan
Prep: Interfering medications may exist, please discuss with referring physician and call Nuclear Medicine for further clarification.
Time in Department: 2 days

Parathyroid Scan with SPECT-CT
Prep: None
Time in Department: 3 hours

Parathyroid scintigraphy is performed to localize parathyroid adenomas or hyperplastic parathyroid glands in patients with documented hyperparathyroidism. It is particularly helpful in patients who have persistent or recurrent hyperparathyroidism after parathyroidectomy. SPECT/CT is most useful in patients with prior neck surgery or in patients where the initial plain images show a possible parathyroid adenoma in an ectopic location.

ThERAPIES

I-131 Treatment for Hyperthyroid
Prep: Interfering medications may exist, please discuss with referring physician and call Nuclear Medicine for further clarification.
Time in Department: Various

Thyroid Uptake and Scan
Prep: None
Time in Department: 90 minutes

Brain perfusion SPECT is most commonly performed (1) to aid in identification of the epileptogenic focus in patients with medically refractory epilepsy (usually partial complex seizures) in whom surgical treatment is being considered; and (2) to evaluate the adequacy of collateral cerebral blood flow in patients who are being evaluated before planned surgical sacrifice of an internal carotid artery. It is also occasionally used as an adjunctive diagnostic technique to assess cerebral blood flow patterns in patients with suspected cerebral vasculitis, dementia, or focal neurologic disease with normal CT or MRI.

NEURO

Brain Scan with SPECT-CT
Prep: None
Time in Department: 90 minutes

Brain perfusion SPECT is most commonly performed (1) to aid in identification of the epileptogenic focus in patients with medically refractory epilepsy (usually partial complex seizures) in whom surgical treatment is being considered; and (2) to evaluate the adequacy of collateral cerebral blood flow in patients who are being evaluated before planned surgical sacrifice of an internal carotid artery. It is also occasionally used as an adjunctive diagnostic technique to assess cerebral blood flow patterns in patients with suspected cerebral vasculitis, dementia, or focal neurologic disease with normal CT or MRI.

CARDIAC

Myocardial Perfusion Imaging, SPECT, multiple
Prep: The patient should be fasting for 4 hours prior to appointment and abstain from caffeine and decaffeinated beverages for 12 hours. The patient should discuss with their physician possible medication adjustments that may need to be made.
Time in Department: 3-4 hours

Evaluation of myocardial perfusion and viability in patients with known or suspected coronary artery disease. The most common indications include (1) diagnosing coronary artery disease in patients with clinical features indicating an intermediate probability of disease; (2) determining the pathophysiological significance of known coronary artery stenoses; (3) determining the extent of myocardial ischemia and assessing prognosis after myocardial infarction; (4) assessing for risk of cardiac events prior to noncardiac surgery; (5) detecting coronary re-stenosis after angioplasty and graft occlusion after bypass surgery; and (6) evaluating the effectiveness of medical therapy.

MUGA / RVG – Cardiac Blood Pool Imaging, Resting
Prep: None
Time in Department: 90 minutes

Cardiac blood pool imaging [radionuclide ventriculography (RVG)] is primarily useful in assessing ventricular function. Quantitative analysis provides an accurate measurement of left ventricular ejection fraction. Ventricular function is frequently assessed in (1) patients receiving cardiotoxic chemotherapy; (2) patients with severe lung disease who are being evaluated for lung volume reduction surgery or lung transplant; and (3) patients with cardiac dysfunction due to an ischemic or nonischemic cardiomyopathy. Cardiac blood pool imaging can also be used to assess cardiac dysfunction due to valvular disease.

TUMOR AND INFLAMMATION

Whole Body Tumor Imaging
Prep: None
Time in Department: 45 days (1 hour later)

• Positron Emission Tomography (PET) Imaging
  Prep: None is necessary on or before the day of the radiopharmaceutical injection. On the day prior to tumor imaging, and after breakfast on the day of the examination, the patient should restrict food intake to a liquid diet. Also, on the afternoon of the day prior to tumor imaging, the patient should take a cathartic (one bottle magnesium citrate, or two bisacodyl [Dulcolax®] tablets in patients unable to tolerate magnesium citrate).
  Time in Department: Day of injection 30-60 minutes

• Localization of primary, recurrent, or metastatic adenocarcinoma of the prostate. The test is most often employed (1) before initial therapy in men whose clinical staging data suggest a high likelihood of regional metastases; (2) in men who have undergone prostatectomy or prostate irradiation as primary therapy and now have suspected recurrent or metastatic disease evidenced by a rising blood level of prostate-specific antigen (PSA).

To schedule a Nuclear Medicine study please call Radiology Scheduling at 314-362-7111 or 877-992-7111

DaTScan Imaging
CPT Code 78067
Prep: Interfering medications may exist, please discuss with referring physician and call Nuclear Medicine for further clarification.
Time in Department: 1 hour for injection, then return 3 hours later for 1 hour of imaging

(1) DaTScan brain imaging is used to assist in the evaluation of adult patients with suspected Parkinsonian syndromes (PS).
(2) This scan may be used to help differentiate essential tremor from tremor due to PS.

CSF Flow Study – Normal Pressure
Prep: None
Time in Department: 1-2 hours

Lung Scan, Quantitative Perfusion
CPT Code 78597

• Evaluation of renal perfusion and relative renal function, especially in patients with renal failure; and (6) to evaluate renal function or because the patient is taking medications known to interfere with the clearance of low molecular weight substances.

To schedule a Nuclear Medicine study please call Radiology Scheduling at 314-362-7111 or 877-992-7111

Hepatobiliary Imaging with Gallbladder Ejection Fraction
CPT Code 78227

• Testing in patients undergoing follow-up evaluation after transplantation, or volume reduction or in patients undergoing follow-up evaluation after coronary re-stenosis after angioplasty and graft occlusion after bypass surgery; and (6) to evaluate renal function or because the patient is taking medications known to interfere with the clearance of low molecular weight substances.

To schedule a Nuclear Medicine study please call Radiology Scheduling at 314-362-7111 or 877-992-7111

RENAL

Renal Scan with Flow and Function
CPT Code 78707
Prep: The patient should be well hydrated.
Time in Department: 1-2 hours

Evaluation of renal perfusion and relative renal function, especially in patients with renal failure; and for assessment for obstruction (when done as the first phase of diuretic renal scintigraphy).

To schedule a Nuclear Medicine study please call Radiology Scheduling at 314-362-7111 or 877-992-7111

GFR – Glomerular Filtration Rate Study
CPT Code 78725
Prep: The patient should be well hydrated.
Time in Department: 5 hours

Measurement of glomerular filtration rate (GFR) by radionuclide tracer methods is indicated when more precise information than that provided by the measurement of creatinine clearance is required or when the latter measurement is impractical (infants and small children, incontinent patients) or likely to be unreliable (because of marked impairment of renal function or because the patient is taking medications known to interfere with the tubular secretion of creatinine).

To schedule a Nuclear Medicine study please call Radiology Scheduling at 314-362-7111 or 877-992-7111
Patients should withhold oral calcium supplements (such as Tums) for at least 4 hours before the study.

**Dual-energy x-ray absorptiometry (DXA) is used primarily in the diagnosis of osteoporosis**

Patients should be fasting for at least 4 hours, and no more than 24 hours. If they are breastfeeding, please call and discuss all options with the nuclear medicine department.

**Hepatobiliary Imaging with Gallbladder Ejection Fraction**

**Lymphoscintigraphy, complete**

**Bone Density**

**Bone Density DXA – 1 site, Hip, Spine or Pelvis**

**Bone Density DXA – 2 sites, Hip, Spine or Pelvis**

**Bone Density DXA – 1 site, hip or forearm**

**Bone Density DXA – 3 sites, hip or forearm**

**Bone Density DXA – 1 site, Spine or Pelvis**

**Bone Density DXA – 2 sites, Spine or Pelvis**

**Bone Density DXA – 3 sites, Spine or Pelvis**

**Bone Density DXA – 1 site, Hand**

**Bone Density DXA – 2 sites, Hand**

**Bone Density DXA – 3 sites, Hand**

**Bone Density DXA – 1 site, Wrist**

**Bone Density DXA – 2 sites, Wrist**

**Bone Density DXA – 3 sites, Wrist**

**Bone Density DXA – 1 site, Foot**

**Bone Density DXA – 2 sites, Foot**

**Bone Density DXA – 3 sites, Foot**

**Bone Density DXA – 1 site, Ankle**

**Bone Density DXA – 2 sites, Ankle**

**Bone Density DXA – 3 sites, Ankle**

**Nuclear Medicine Radiopharmaceuticals**

**To schedule a Nuclear Medicine study please call**

**For questions regarding how to order any Nuclear Medicine study or how to reach the appropriate sub-specialty radiologist, please call 314-654-8945.**

To schedule a Nuclear Medicine study please call Radiology Scheduling at 314-362-7111 or 877-992-7111. 7a.m. – 5:30p.m. Monday – Friday. Outpatient Nuclear Medicine studies are available 7a.m. – 3:00p.m. Monday – Friday and 7:30a.m. – 11:00a.m. on Saturdays.

**All exams are read by subspecialized radiologists from Washington University’s Mallinckrodt Institute of Radiology.**

**NATIONAL LEADERS IN MEDICINE**

**BARNES JEWISH Hospital**

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