

Radiology



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Objectives

- Diagnostic coding
- Terminology
- Guidelines
- Modifiers specific to radiology
- Materials and equipment



Diagnosis Coding

- Code the definitive diagnosis
- Code signs and symptoms if no definitive diagnosis is available
- Diagnostic tests
 - Code sign or symptom that prompted the test
 - Do not code questionable, rule out, or probably diagnoses.
- Routine radiology
 - V72.5 Radiological examination, NEC



Terminology

- Position – how the patient is placed
- Projection – the path of the X-ray beam



Body Planes

- Frontal (Coronal) – divides body into front (anterior) and back (posterior) portions
- Sagittal – divides the body into right and left portions
- Midsagittal (Medial) – sagittal plane passing through the midline to have equal portions in right and left
- Transverse (Horizontal) – divides the body into top (superior) and bottom (inferior) sections



Body Directions

- Frontal – anterior/ventral (front) portion of the body (eg, 71010)
- Dorsal – posterior (back) portion of the body
- Superior – above, or at the top
- Inferior – below, or at the bottom
- Lateral – to the side (eg, 72010)
- Medial – at the middle
- Supine – Face up or palm up (eg, 72090)
- Prone – Face down or palm down
- Erect – Standing up (eg, 72090)
- Decubitus – Lying down (eg, 74020)



Radiologic Projections

- Oblique – slanting, neither frontal or lateral (eg, 71022)
- Lateral – side view, X-ray beam travels through the side of the body (eg, 71035)
- Anteroposterior – X-ray beam enters the body through the front and exits through the back (eg, 73520)
- Posteroanterior – X-ray beam enters the body through the back and exits through the front (eg, 71101)
- Cone – focused or spot view (eg, 74010)



Additional Terms

- Proximal – closer to the point of attachment to the body
- Distal – away from the point of attachment to the body
- Flexion – bending (eg, 72052)
- Extension – straightening (eg, 72052)



Subsections

- Diagnostic Radiology (Diagnostic Imaging) (70010-76499)
- Diagnostic Ultrasound (76506-76999)
- Radiologic Guidance (77001-77032)
- Breast, Mammography (77051-77059)
- Bone/Joint Studies (77071-77084)
- Radiation Oncology (77261-77799)
- Nuclear Medicine (78000-79999)



Guidelines

- Separate procedures – integral part of another procedure unless carried out separately
 - Example: 76000 & 76873
- Unlisted procedures
 - Check Category III codes
 - Special Report



Guidelines

- Supervision and Interpretation (S & I)
 - Interventional radiologic procedures
 - Report two codes:
 - Surgical code from the surgery section; or service code from the medicine section
 - Radiologic supervision and interpretation code from the radiology section.



Guidelines

- Administration of Contrast Material
 - Contrast material administered intravascularly, intra-articularly or intrathecally
 - With contrast
 - Oral and/or rectal contrast does not qualify
 - Without contrast
 - Supply of contrast material is not included in radiologic procedure (eg, A4641, A4642, etc.)
- Written Report(s)



Modifiers

- Technical Component (TC)
 - Equipment
 - Overhead
 - Supplies
 - Room
 - Gowns
- Professional Component (26)
 - Reading and interpretation



Number of Views

- More than # views
 - Additional views are taken, above the number in the code
 - No other more specific code is reported
 - Only that service should be reported.
- Example
 - 71030 Radiologic examination, chest, complete, minimum of 4 views
 - If 5 views are taken, this would still be the appropriate CPT code®



Diagnostic Radiology (Diagnostic Imaging)

- Anatomical organization
- Radiologic procedures include:
 - Standard X-rays
 - MRIs
 - CTs



Diagnostic Radiology (Diagnostic Imaging)

- Code Selection:
 - Anatomical location
 - Type of procedure
 - Number of views
 - Type of view (AP, PA, etc)
 - Laterality (unilateral, bilateral)
 - Contrast material



Examples

- Procedure: X-ray of the foot
- Index
 - X-ray
 - Foot.....73620-73630
- Radiology Section
 - 73620 Radiologic examination, foot; 2 views
 - 73630 complete, minimum of 3 views



Examples

- Procedure: CT abdomen, with contrast
- Index
 - Computed Tomography (CT)
See CT Scan; specific Anatomic Site
 - CT Scan
with Contrast
Abdomen.....74160
- Radiology Section
 - 74160 Computed tomography, abdomen; with contrast material(s)



Examples

- | | | | |
|------------|---|-------|---|
| CT | { | 74150 | Computed tomography, abdomen; without contrast material(s) |
| | | 74160 | with contrast material(s) |
| | | 74170 | without contrast material, followed by contrast material(s) and further sections |
| MRI | { | 74181 | Magnetic resonance (eg, proton) imaging, abdomen; without contrast material(s) |
| | | 74182 | with contrast material(s) |
| | | 74183 | without contrast material, followed by contrast material(s) and further sequences |



Heart

- Heart
 - Stress
 - Cause the heart to work harder
 - Cardiac MRI
 - Physiologic evaluation of the cardiac function
 - Velocity flow mapping
 - Cardiac CT
 - Coronary calcium
 - Congenital heart disease



Vascular Procedures

- Aorta and arteries
 - Aortography – imaging of aorta and branches
 - Angiography – imaging of arteries
- Veins and lymphatics
 - Lymphangiography – visualization of lymphatics
 - Splenoportography – injection of contrast into the spleen to visualize the port vessel of the portal circulation
 - Venography – imaging of veins



Vascular Procedures

- Transcatheter procedures
 - Supervision and interpretation codes
 - Code with codes from:
 - Cardiovascular section
 - Medicine section



Other Procedures

- 76000 Fluoroscopy (separate procedure), up to one hour physician time, other than 71023 or 71034 (e.g., cardiac fluoroscopy)
- 76001 Fluoroscopy, physician time more than 1 hour, assisting a nonradiologic physician (e.g., nephrostolithotomy, ERCP, bronchoscopy, transbronchial biopsy)



Diagnostic Ultrasound

- High frequency sound waves to look at organs and other structures inside the body
- Used to view:
 - Heart
 - Blood vessels
 - Kidneys
 - Other organs
 - Fetus (during pregnancy)



Diagnostic Ultrasound

- Required:
 - Permanently recorded images with measurements
 - Final written report for the patient's medical record
 - Exception – biometric measure



Diagnostic Ultrasound

- Anatomic regions
 - Complete – each element listed in parenthesis within the code description
 - Limited – reported if less than complete is performed.
 - Not reported together
- Definitions
 - A-mode
 - M-mode
 - B-scan
 - Real-time scan



Ophthalmic Ultrasound

- A-scan – look straight ahead
- B-scan – look in many directions
- Biomicroscopy – slit lamp exam
 - Cataracts
 - Macular degeneration
 - Retinal detachment
- Corneal Pachymetry – determine corneal thickness



Abdominal Ultrasound

- Complete; abdomen (76700):
 - Liver, gall bladder, common bile duct, pancreas, spleen, kidneys, and the upper abdominal aorta and inferior vena cava.
- Complete; retroperitoneal (76770):
 - Kidneys, abdominal aorta, common iliac artery origins, and inferior vena cava; or
 - For urinary tract pathology – complete evaluation of the kidneys and urinary bladder.



Pelvis Ultrasound

- Obstetrical
 - Pregnant uterus
 - 76801 – 76817
 - Review definitions in guidelines
 - Fetal
 - 76818 – 76828
 - Look for what specifically is being looked at (eg, umbilical artery in 76820)
- Nonobstetrical



Ultrasonic Guidance

Includes guidance for:

- Pericardiocentesis
- Endomyocardial biopsy
- Vascular access
- Parenchymal tissue ablation
- Intrauterine fetal transfusion or cordocentesis
- Needle placement
- Chorionic villus sampling
- Amniocentesis
- Aspiration of ova
- Placement of radiation therapy fields



Radiologic Guidance

- Fluoroscopic
- Computed Tomography (CT)
- Magnetic Resonance (MRI)
- Other



Breast, Mammography

- Computer aided detection (CAD)
- Mammary ductogram or galactogram
- Mammography
 - Screening
 - Diagnostic



Bone/Joint Studies

- Bone age studies
- Bone length studies
- Osseous survey
- Joint survey
- Bone mineral density studies
- Bone marrow blood supply



Radiation Oncology

- Consultation: Clinical Management
- Clinical Treatment Planning
- Medical Radiation Physics, Dosimetry, Treatment Devices, and Special Services
- Stereotactic Radiation Treatment Delivery
- Other Procedures
- Radiation Treatment Delivery
- Neutron Beam Treatment Delivery
- Radiation Treatment Management
- Proton Beam Treatment Delivery
- Hyperthermia
- Clinical Intracavitary Hyperthermia
- Clinical Brachytherapy



Clinical Treatment Planning

- Interpretation of special testing
- Tumor localization
- Treatment volume determination
- Treatment time/dosage determination
- Choice of treatment modality
- Determination of number and size of treatment ports
- Selection of appropriate treatment devices
- Other procedures



Clinical Treatment Planning

- Treatment ports – exact place on the body where the radiation will be aimed.
 - Single port
 - Simple parallel opposed ports
 - Converging ports
 - Tangential ports
- Blocks – pieces of lead to cover up normal tissue in the body



Clinical Treatment Planning

- Simulation
 - Simulation of delivering radiation therapy
 - Helps determine ports
 - Can use X-ray, CT, and/or MRI
- Simulation level determined by complexity:
 - Simple
 - Intermediate
 - Complex
 - Three-dimensional



Medical Radiation Physics, Dosimetry, Treatment Devices, and Special Services

- Treatment Devices
 - Beam modifying and shaping blocks
 - Patient immobilization devices
 - Beam modifiers (wedges, compensators)
- Dosimetrist
 - Determines the proper radiation dose
- Radiation Physicist
 - Makes sure the machine delivers the right amount of radiation to the correct site in the body



Treatment Delivery

TC Only

- Reports technical component only
 - Stereotactic Radiation Treatment Delivery
 - Stereotactic Radiosurgery (SRS)
 - Stereotactic body radiation therapy
 - Radiation Treatment Delivery
 - Exception:
77421 Stereoscopic X-ray guidance for localization of target volume for the delivery of radiation therapy
 - Neutron Beam Treatment Delivery
 - Proton Beam Treatment Delivery



Radiation Treatment Management

- Includes:
 - Review of port films
 - Review of dosimetry, dose delivery, and treatment parameters
 - Review of patient treatment set-up
 - Examination of patient for medical evaluation and management
- Reported:
 - Increments of 5
 - Two treatments per day = 2 fractions per day
 - 3 or 4 fractions beyond a multiple of 5 at end of course
 - If entire treatment consists of 1 or 2 fractions



Hyperthermia

- Use of heat in conjunction with radiation therapy
- Investigational
 - Some policies allow for deep hyperthermia with radiation therapy while considering superficial hyperthermia investigational



Brachytherapy

- Sealed radioactive material inserted into or around a tumor
 - Interstitial – inserted into tissue at or near the tumor site
 - Head and neck
 - Prostate
 - Cervix
 - Ovary
 - Breast
 - Perianal
 - Pelvic
 - Intracavitary – inserted into the body with an applicator
 - Uterus
 - Investigating other areas



Nuclear Medicine

- Diagnostic - Use of small amounts of radioactive material to examine organ function
 - Thyroid function (endocrine)
 - Renal (Gastrointestinal System)
 - Bone (Musculoskeletal System)
 - Heart (Cardiovascular system)
 - Brain (Nervous System)
- Therapeutic – uses radioactive material to treat cancer and other medical conditions affecting the thyroid gland



The End

