

# Nonvascular Interventional Radiology

What U need to know!

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## What is Interventional Radiology?

Any procedure that uses Radiological Guidance

- ▶ Minimally invasive procedures for both diagnostic and therapeutic purposes
- ▶ Origins in coronary angiograms of the 1950's and 1960's
- ▶ Performed by specially trained Radiologists
- ▶ Methods of guidance (fluoroscopy, ultrasound, CT, or MRI)
- ▶ Typically accesses structures through a tiny (<2mm) nick in the skin

### Additionally:

- ▶ This is one of the most rapidly growing areas in Radiology (and maybe in all of Medicine)
- ▶ New procedures are being developed and perfected all the time
- ▶ Many of the procedures are replacing standard surgical treatments of diseases (whether for cure or palliation)

### What is an Interventional Radiologist?

- ▶ Recognized medical specialty who are board-certified MD's with additional advanced training in minimally invasive targeted treatments
- ▶ Combination of radiologist and surgeon
- ▶ Can provide total procedure
- ▶ Uses imaging equipment such as X-rays, ultrasound, CT and MRI to **guide small instruments** such as catheters or wires through the blood vessels or other pathways to treat, as well as, diagnose diseases percutaneously
- ▶ Use the surgical section of CPT that describes the main procedure with the assistance of the radiological technology section to code

## Nonvascular Procedure Examples:

- ▶ Biopsies
- ▶ Drainage of fluid collections – abscesses, kidneys or bile ducts/gallbladder
- ▶ Joints (aspirations or injections)
- ▶ Arthrography
- ▶ Venous shunts
- ▶ Treatment of infertility
- ▶ Insertion of feeding tubes
- ▶ Treatment of liver tumors

## Continued:

- ▶ OB/GYN (Hysterosalpingography)
- ▶ Myelography/Discography
- ▶ Arthrocentesis/Arthrography
- ▶ Facet nerve injections
- ▶ Percutaneous Nephrostomy
- ▶ Lumbar Puncture

## These procedures can replace certain surgeries !!!

- Faster recuperation than with surgery
- Usually no hospital admission required (done as an outpatient)
- Local anesthetic used instead of general anesthesia
- Safe and effective

## Let's review various Radiological Procedures and Terms

- ▶ AP-anteroposterior    PA-posterioranterior
- ▶ Angiography-an examination of the arteries in which an injection of a type of dye is used to make the arteries visible on x-ray
- ▶ Aortography-an examination of the aorta using a contract (dye) to visualize the structure
- ▶ Arthrography-examination of the joints in which a contrast is used
- ▶ Cystography-x-ray of the bladder using contrast medium

- ▶ Doppler Ultrasound—a special form of ultrasound that uses sound waves to measure the flow of blood
- ▶ Mammography—diagnostic procedure of the breast with the use of x-ray of the soft tissue
- ▶ Nuclear Imaging—diagnostic scans that use small amounts of radioactive material
- ▶ PET Scan—a nuclear medicine procedure that produces a 3D image
- ▶ Venography—examination of the veins (usually of the legs) using contrast medium
- ▶ X-ray—imaging using high-energy radiation in low doses to visualize inside the body

## CPT® Radiology Codes

- Diagnostic Radiology 70000–76499
- Diagnostic Ultrasound 76500–76999
- Radiological Guidance from 77001–77032
- Breast Mammography 77051–77059
- Bone/Joint Studies from 77071–77084
- Radiation Oncology • 77261–77999
- Nuclear Medicine 78000–79999
  
- ▶ **Interventional Radiology & Surgical Codes**
- Mechanical Thrombectomy: 34201, 34401, 34421, 34490
- Biliary drainage: 47510, 47511, 47530
- Tube placement Cholecystostomy: 47490
- IVC Filter: 37191
- Removal of bladder stone: 47630

## Radiology Guidelines:

### Professional and Technical Component

- ▶ Professional Component is the physician portion of the service includes supervision of technician, interpretation of results, including the written report
- ▶ Technical Component is the technologists services which includes the film, supplies and cost of equipment
- ▶ If only technical component use TC for modifier

TIP

Use Modifier 26 only for professional component

## Supervision and Interpretation (SI)

- ▶ Many interventional services are reported with a code from the Radiology section in addition to a code from the Surgery section which is called a component code or combination coding.
- ▶ When 2 physicians perform the service each will report the code identifying the component performed
- ▶ In coding Radiology you must carefully read the radiology report to determine the extent of the procedure before assigning CPT

### Administration of contrast material

1. with contrast—does not include orally or rectally
2. without contrast
3. without contrast followed by contrast material

## Radiology Procedures:

- ▶ Fluoroscopy-
- ▶ Video x-ray procedure that views inside the body, projects onto a television screen
- ▶ Images by which the physician can view motion, function and structures of an organ
- ▶ Code 76496-Unlisted fluoroscopic procedure



## Magnetic Resonance Imaging (MRI) Uses magnetic energy to view soft tissue

### Code 72148 MRI of the Lumbar Spine



Diagnostic Ultrasound-

High frequency sound waves to image anatomic structures. Scans are defined as A-mode, M-mode, B-scan, or real-time scan

Code 76801-Ultrasound, pregnant uterus



CT or CAT -Tomography

Used to view single planes of the body, X-ray images taken in 3D images

Code 71250- CT of the Thorax

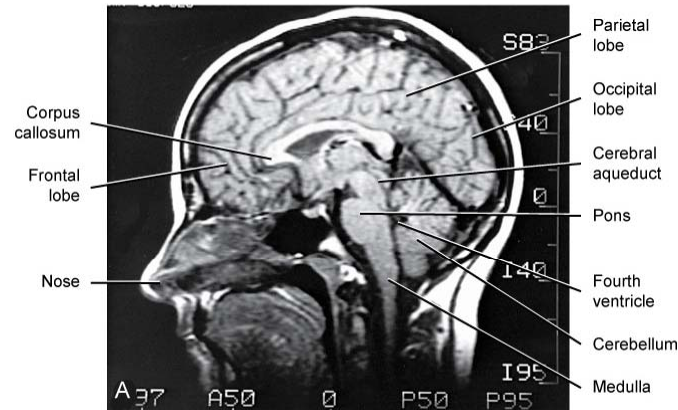




## Angiography

Used to view vessel obstructions, dye or contrast is injected into vessel

Code 70496 head with contrast material



## Nuclear Medicine-

Placement of radioactive material into the body-used for both diagnosis and treatment

Code 78000-Thyroid Uptake, single

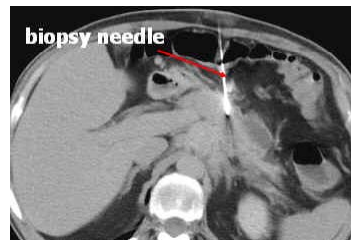
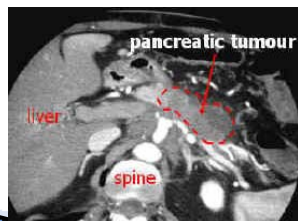
Code 78001-Multiple determinations



## Interventional Radiology in Action

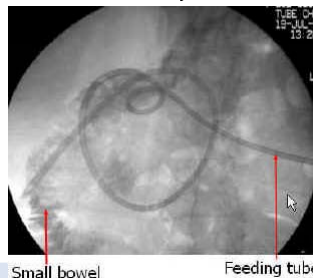
2 CPT Codes needed to report services—Surgical and Radiology

- ▶ Percutaneous Biopsy
- ▶ The CT scan on the left shows a pancreatic tumor with invasion of the adjacent structures making it unresectable
- ▶ A biopsy guided by CT scan confirms the diagnosis and allows treatment without surgery
- ▶ **Code 48102, 77012-26** Bx with CT Guidance



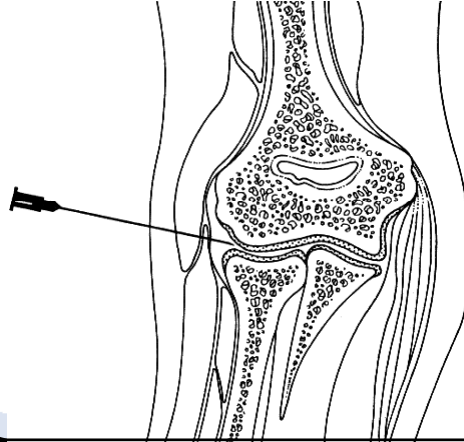
## Insertion of Feeding Tubes

- ▶ Insertion of feeding tubes
- ▶ This patient had a stroke leaving him unable to eat. This tube is inserted through the skin, into the stomach and then through to the small bowel
- ▶ The patient can then be fed through this tube
- ▶ **Code 49440**—Insertion of G-tube, with fluoroscopic guidance (included in code)



## Arthrography of Elbow

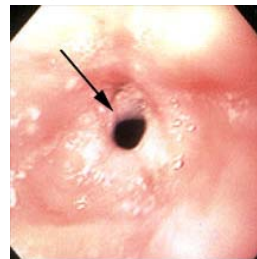
- ▶ Diagnostic procedure to look at joint
- ▶ Surgical code [24220](#) injection code and [70385-26](#) Radiology code



## Balloon Dilation of Esophagus for Achalasia (ICD-10 K22.0)

- ▶ The diagnosis of achalasia should be suspected in anyone complaining of dysphagia for solids and liquids with regurgitation of food and saliva.
- ▶ ACHALASIA DILATORS —  
Achalasia is a special situation which requires a larger, balloon-type dilator. The procedure is frequently done under x-ray control. In this procedure, the spastic muscle fibers in the lower esophagus are stretched and broken, which in turn allows easier passage of food and liquid into the stomach

- ▶ Code [43220](#) [74360-26](#)

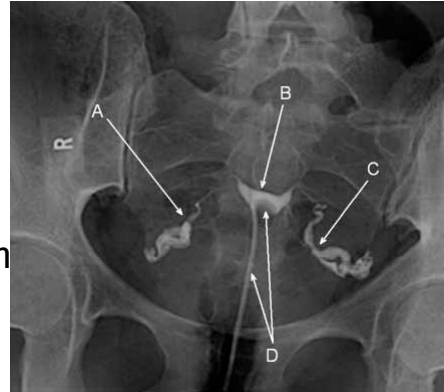


Narrow esophageal stricture

## Hysterosalpingography

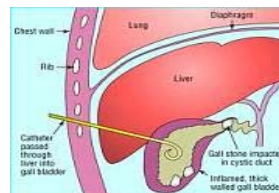
- ▶ Catheterization and introduction of saline or contrast material
- ▶ Code [58340/74740](#)

- ▶ A: right tube
- ▶ B: uterine cavity
- ▶ C: left tube
- ▶ D: catheter with balloon



## Percutaneous Cholecystostomy

- ▶ [47490](#) Percutaneous, Cholecystostomy, percutaneous, complete procedure, including imaging guidance, catheter placement, cholecystogram when performed, and radiological supervision and interpretation
- ▶ Previously component coded, no longer
- ▶ An alternative to surgical Cholecystostomy for drainage of the gallbladder



## Take the Coding Challenge!

1. CPT Codes that include “with contrast” in their descriptors may be coded when:
  - a. The contrast material is administered orally, intravascularly or intra-articularly
  - b. The contrast material is administered by any method
  - c. The contrast material is administered intravascularly, intra-articularly or intrathecally
  - d. The contrast material is administered orally and rectally

2. A percutaneous biliary drainage catheter would be found in which of the following anatomical systems?

- a. Gastrointestinal
- b. Endocrine
- c. Genitourinary
- d. Cardiovascular

3. Angiography is a radiological examination of which of the following anatomic structures?

- a. Bones
- b. Muscles
- c. Nerves
- d. Vessels

4. Lets code an Abdominal Ultrasound of the left lower quadrant which is correct?

- a. 76700 Ultrasound, abdomen real time with image documentation, complete
- b. 76705 Ultrasound, abdomen real time with image documentation, limited

5. Which of the following is not one of the most common biopsy sites?

- ▶ a. Lungs
- ▶ b. Liver
- ▶ c. Kidneys
- ▶ d. Ovaries

6. The modern origins of Interventional Radiology began with the development of

- ▶ a. Angiography
- ▶ b. Ultrasound
- ▶ c. Fluoroscopy
- ▶ d. Computed tomography

7. Which of the following medical imaging is done while the structure is functioning?

- ▶ a. CT Scan
- ▶ b. Fluoroscopy
- ▶ c. MRI
- ▶ d. X-ray

▶ 8. Arthrography is an invasive examination of the

- a. Blood vessels
- b. Gallbladder
- c. Joint
- d. Spleen



9. When a PA view is needed the x-ray is directed from

- ▶ a. Back to front
- ▶ b. From the left to the right
- ▶ c. From the right to the left
- ▶ d. Front to back

10. Which of the following are reasons that an MRI could not be performed?

- ▶ a. Body tattoo with dye
- ▶ b. Metal FB in eye
- ▶ c. Pacemaker
- ▶ d. Metal staples in the chest
- ▶ e. All of the above

## CPT 2012–Code Changes

### ▶ NON-VASCULAR INTERVENTIONAL RADIOLOGY

#### SPINAL PROCEDURES

Paravertebral facet joint block codes, 64622–64627, have been replaced by new codes that now include CT or fluoroscopic guidance. This follows the pattern in recent years of most spinal interventions. If ultrasound guidance is used, 0213T–0218T is still appropriate.

- **64633**--Destruction by neurolytic agent, paravertebral facet joint nerve(s), with imaging guidance (fluoroscopy or CT); cervical or thoracic, single facet joint
- **64634**--Destruction by neurolytic agent, paravertebral facet joint nerve(s), with imaging guidance (fluoroscopy or CT); cervical or thoracic, each additional facet joint (List separately in addition to code for primary procedure)
- **64635**--Destruction by neurolytic agent, paravertebral facet joint nerve(s), with imaging guidance (fluoroscopy or CT); lumbar or sacral, single facet joint
- **64636**--Destruction by neurolytic agent, paravertebral facet joint nerve(s), with imaging guidance (fluoroscopy or CT); lumbar or sacral, each additional facet joint (List separately in addition to code for primary procedure)

### ▶ PARACENTESIS

Existing Paracentesis codes for initial and subsequent interventions have been replaced by 2 new codes. The existing code for non-tunneled peritoneal catheter, 49420, has been deleted. Also, a new code has also been introduced for peritoneal lavage.

- **49082**--Abdominal paracentesis (diagnostic or therapeutic); without imaging guidance
- **49083**--Abdominal paracentesis (diagnostic or therapeutic); with imaging guidance
- **49084**--Peritoneal lavage, including imaging guidance, when performed



## Recommended Web Sites

ACR–American College of Radiology  
<http://www.acr.org>

This site offers books on Interventional Radiology  
[www.zhealthpublishing](http://www.zhealthpublishing)

Society of Interventional Radiology  
[www.SIRweb.org](http://www.SIRweb.org)

Journal of Vascular and Interventional Radiology  
[www.jvir.org](http://www.jvir.org)

## Credentialing and Certification Exams

Radiology Coding Certification Board

[www.rbma.org](http://www.rbma.org)

AAPC

[www.aapc.com](http://www.aapc.com)

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