Complete Guide for Interventional Radiology

An in-depth guide to interventional radiology coding, billing, and reimbursement for facilities and physicians

OPTUM360®

www.optumcoding.com

ICD-10

A full suite of resources including the latest code set, mapping products, and expert training to help you make a smooth transition. www.optumcoding.com/ICD10

2017
# Contents

## Introduction .......................... 1
- CPT Codes and Descriptions ............................... 1
- Procedure Codes ............................................. 3

## Chapter 1: The Basics .......................... 7
- APC Basics—Why Is This Important? .................. 7
- CCI Edits—Why Is This Important? ..................... 10
- Recovery Audit Contractors (RAC) ..................... 11
- Coding Basics .................................................. 11
- General Coding Guidelines ............................... 12
- Modifiers for Outpatient Hospital Radiology and Cardiology Procedures ..................... 12
- Modifiers for Physician Services ......................... 14
- Revenue Codes ................................................. 18
- General Interventional Radiology Coding Guidelines for Selective and Nonselective Catheter Placements .... 19
- Catheter Placement Codes for Interventional Radiology .......................... 20
- General Cardiac Procedure Coding Guidelines .......... 21
- Documentation .................................................. 22
- Supply Device Codes ......................................... 23
- Stark/Anti-Kickback Legislation ........................... 23
- Stark Self-Referral Regulations ........................... 23

## Chapter 2: Diagnostic Angiography .................. 25
- Cervicocerebral Angiography—Carotid and Vertebral Arteries ........................................ 25
- Aorta Angiography—Thoracic and Abdominal .......... 31
- Internal Mammary and Spinal Angiography .......... 35
- Visceral Angiography—Celiac, Hepatic, Splenic, Inferior Phrenic, Superior and Inferior Mesenteric Arteries, and Bronchial Arteries .......... 40
- Renal Angiography ............................................ 48
- Adrenal Angiography .......................................... 53
- Extremity Angiography ........................................ 56
- Pelvic Artery Angiography .................................... 60
- Pulmonary Artery Angiography ......................... 64

## Chapter 3: Diagnostic Venography .................. 69
- Cerebral Veins ................................................. 69
- Central Veins—Superior and Inferior Vena Cava .......... 72
- Renal and Adrenal Veins ...................................... 75
- Extremity Veins ............................................... 78
- Portal and Hepatic Veins and TIPS ....................... 80
- Arteriovenous Fistula and Interventions ................ 85
- Venous Sampling .............................................. 93

## Chapter 4: Vascular Interventions .................. 95
- Percutaneous Embolization—Other than Cerebral, Head and Neck ........................................ 95
- Transcatheter Thrombolysis Other Than Intracranial ........................................ 99
- Percutaneous Thrombectomy ............................... 102
- Percutaneous Vascular Filter Placement, Repositioning, and Removal ........................ 105
- Percutaneous Transcatheter Retrieval of Foreign Body .................................................. 110
- Intravascular Ultrasound, Non-coronary ................. 113
- Transcatheter Biopsy .......................................... 115
- Transcatheter Endovascular Revascularization—Overview ........................................... 117
- Transcatheter Endovascular Revascularization—Iliac Vascular Territory ...................... 119
- Transcatheter Endovascular Revascularization— Femoral/Popliteal Vascular Territory .......... 123
- Transcatheter Endovascular Revascularization—Tibial/Peroneal Vascular Territory ............. 126
- Endovascular Transluminal Angioplasty—Visceral and Brachiocephalic Arteries, Aorta, and the Venous System ........................................ 129
- Transluminal Atherectomy for Supra-inguinal Arteries ................................................... 136
- Transcatheter Stent Placement—Visceral and Brachiocephalic Arteries; Venous System .......... 140

## Chapter 5: Neurovascular Interventions .................. 147
- Cerebral Endovascular Therapeutic Interventions .................. 147
- Percutaneous Embolization—Cerebral (Extracranial and Intracranial) .................. 150
- Temporary Balloon Occlusion .............................. 155
- Percutaneous Intracranial Angioplasty ................... 157
- Transcatheter Vascular Stent Placement—Cervical Carotid ........................................... 161
- Transcatheter Vascular Stent Placement—Intracranial .................................................. 166
- Transcatheter Vascular Stent Placement—Extracranial Vertebral or Intrathoracic Carotid Artery .................. 170

## Chapter 6: Vascular Access Device Placement and Therapy .......................... 173
- Non-Tunneled Vascular Access Device Placement ........................................ 174
- Tunneled Vascular Access Device Placement .................. 177
- Repair/Replacement/Removal of Vascular Access Device .......................... 181
- Maintenance of Vascular Access Device .................. 187

## Chapter 7: Minor Interventional Procedures .................. 191
- Arthrography ................................................. 191
- Image-Guided Interventional Procedures—Breast Biopsy ........................................... 194
- Image-Guided Interventional Procedures—Breast, Other Than Biopsy .......................... 199
- Other Biopsy Procedures ...................................... 202
- Aspiration Procedures ........................................ 207
- Image Guided Drainage Procedures ......................... 210
- Sclerotherapy of a Fluid Collection ......................... 215
- Endovenous Ablation Therapy .............................. 218
- Stab Phlebectomy ............................................. 221
- Venous Sclerotheray .......................................... 224
- Sacroplasty .................................................. 226
- Vertebroplasty ................................................. 228
- Kyphoplasty .................................................. 231
- Myelography .................................................. 234

## Chapter 8: Gastrointestinal Tract Interventions .................. 237
- Percutaneous Cholecystostomy .............................. 237
- Percutaneous Cholangiography ................................ 240
- Biliary/Drainage Catheter Placement ......................... 243
- Conversion/Exchange and Removal of Biliary Stent/Drainage Catheter ................... 247
- Biliary Stent Placement/Drainage .......................... 251
- Other Biliary Procedures ..................................... 255
- Esophageal Dilation ........................................... 259

© 2016 Optum360, LLC
© 2015 American Medical Association. All Rights Reserved.
Percutaneous Vascular Filter Placement, Repositioning, and Removal

Vascular filters are placed in the inferior vena cava (IVC) in patients at risk of pulmonary embolism from known deep vein thrombosis. In the interventional radiology area, these filters are placed via percutaneous transcatheter approach. Special catheters containing a pre-loaded filter are inserted into the IVC via femoral vein or internal jugular approach and the filter is deployed. The filter grips the walls of the vena cava and is designed to “catch” clots migrating from the lower extremities. Filters may be temporary or permanent.

37191 Insertion of intravascular vena cava filter, endovascular approach including vascular access, vessel selection, and radiological supervision and interpretation, intraprocedural roadmapping, and imaging guidance (ultrasound and fluoroscopy), when performed

37192 Repositioning of intravascular vena cava filter, endovascular approach including vascular access, vessel selection, and radiological supervision and interpretation, intraprocedural roadmapping, and imaging guidance (ultrasound and fluoroscopy), when performed

37193 Retrieval of intravascular vena cava filter, endovascular approach including vascular access, vessel selection, and radiological supervision and interpretation, intraprocedural roadmapping, and imaging guidance (ultrasound and fluoroscopy), when performed

A filter is placed into the inferior vena cava percutaneously, usually through the right internal jugular vein. Fluoroscopy is used to monitor and guide the process. An incision is made just above the clavicle and then another small incision is made into the vein once it is identified. A catheter loaded with the filter is inserted into the vein and threaded through until it reaches the inferior vena cava. The filter is released from the catheter and opens to fill the diameter and grip the walls of the vena cava. The filter-loaded catheter may also be advanced over a guidewire to the vena cava after needle puncture of the internal jugular vein.

Central Venous Anatomy—Femoral Approach

![Diagram of Central Venous Anatomy]
IVC Filter Placement

CPT Coding for IVC Filter Procedures

<table>
<thead>
<tr>
<th>Service Performed</th>
<th>Code Reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>IVC filter placement</td>
<td>37191</td>
</tr>
<tr>
<td>IVC filter repositioning</td>
<td>37192</td>
</tr>
<tr>
<td>IVC filter removal</td>
<td>37193</td>
</tr>
</tbody>
</table>

Coding Tips

1. These codes are comprehensive codes. Component coding no longer applies.
2. Catheter placement is included in codes 37191–37193 and is not separately reported.
3. Report diagnostic inferior vena cavagram with CPT code 75825 only when performed for diagnostic purposes and the results are used to make the clinical decision to proceed with filter placement. Append modifier 59 or appropriate X modifier.
4. Temporary and permanent filter placement is coded in the same manner.
5. Report the procedure to reposition a previously placed filter with CPT code 37192. This repositioning must be a separately documented procedure.
6. Report the procedure to remove a previously placed filter with CPT code 37193.
7. Report the applicable device codes (HCPCS codes) in addition to the procedure code. Refer to the HCPCS section below for possible codes.
8. Hospitals are requested to continue reporting low osmolar contrast media separately with HCPCS Level II codes Q9965-Q9967. Report contrast media by milliliter.

Facility HCPCS Coding

Some applicable codes may include but are not limited to:

- C1773 Retrieval device, insertable
- C1880 Vena cava filter
- Q9965 LOCM, 100-199 mg/ml iodine concentration, per ml
Angioplasty is a common procedure performed to improve blood flow in arteries or veins that have become narrowed or blocked. In the interventional radiology area, these procedures are performed by percutaneous technique using specially designed balloon catheters.

**75962**  
Transluminal balloon angioplasty, peripheral artery other than renal, or other visceral artery, iliac, or lower extremity, radiological supervision and interpretation

**75964**  
Transluminal balloon angioplasty, each additional peripheral artery other than renal, or other visceral artery, iliac, or lower extremity, radiological supervision and interpretation (List separately in addition to code for primary procedure)

A narrowing or stricture of a peripheral artery is stretched to allow a normal flow of blood. A local anesthetic is applied over the access site, usually the femoral artery, and the skin is percutaneously punctured with a needle. A guidewire is inserted and fed through the blood vessel and the needle is removed. A catheter with a deflated balloon is then advanced over the guidewire to the narrowed portion of the vessel. The balloon is inflated to stretch the vessel to a larger diameter allowing a more normal flow of blood. Several inflations may be performed along the narrowed area. Transluminal angioplasty may be done through an incision in the skin overlying the artery of access. Vessel clamps are applied and then the artery is nicked to create an opening for the balloon catheter. Report 75962 for transluminal balloon angioplasty on one peripheral artery and 75964 for each additional peripheral artery treated after the first artery. These codes report the radiological supervision and interpretation only.