Cardiac Catheterization Coding Reinvented in 2011

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CIRCC, CPC-H, CCC, CCS, RCC

National Coding Standards

- Sources of information
  - Centers for Medicare and Medicare (CMS)
  - Provider Policy Manual 16.3 version (10/2010)
  - NCDs and LCDs from Medicare Administrative Contractors (MACs)
  - American Medical Association (AMA)
  - American College of Cardiology (ACC)
  - Heart Rhythm Society (HRS)
  - Society of Interventional Radiology (SIR)
  - Other MAC's LCDs

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General Recommendations for Physician Dictations

- State the history, medical necessity, reasons for repeat diagnostic study after prior Angio/CTA/MRA
- State the vascular access site(s)
- State the vessels catheterized, describing the catheter tip location, and any variant anatomy
- State heart pressures and chambers entered, injected and imaged
- State the vessels injected, the areas imaged (for medical necessity) with interpretation of findings, along with specific documentation of degree stenosis and exact locations of the lesions treated
- State the interventions performed and any complications or additional treatments provided
- State the specific devices and specialty supplies used during the procedure

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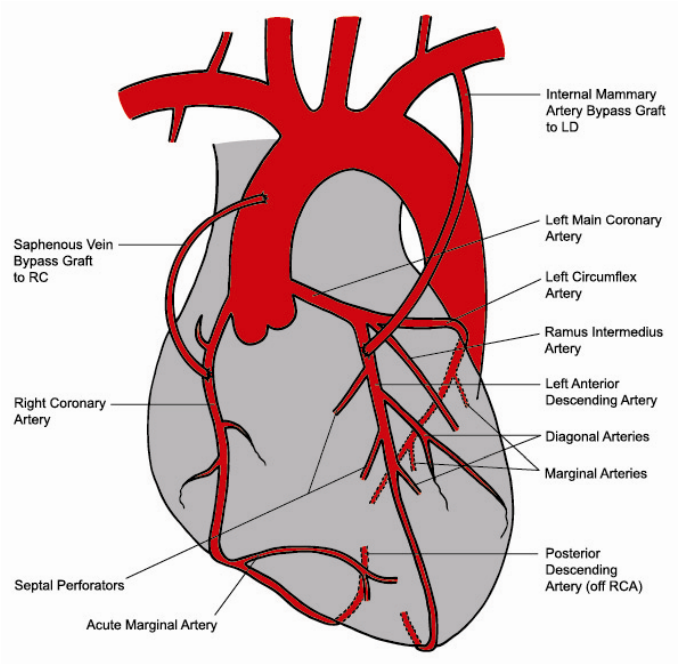

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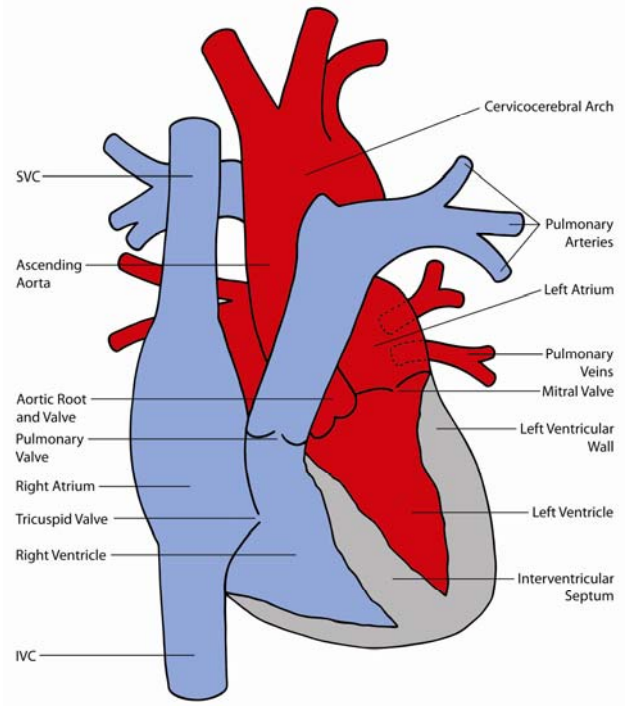

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Diagnostic Catheterization for 2011

- 19 DELETED CARDIAC CATH CODES in 2011
  - 93501, 93508, 93510, 93511, 93514, 93524, 93526, 93527, 93528, 93529, 93539/40/41/42/43/44/45/55/56
- 20 ADDED CARDIAC CATH CODES FOR 2011
  - 93451-93464 and 93563-93568
- 8 RELATED CODES UNCHANGED FOR 2011
  - 93503, 93505, 93530, 93531, 93532, 93533, 93561 and 93562

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Diagnostic Catheterization for 2011

- 3 codes for heart caths without coronaries. Rt, Lt, or Rt and Lt- 93451, 93452, 93453
- 2 codes for coronary angiography without a heart cath- 93454, 93455
- 3 codes for native coronary angiography with a heart cath- 93456, 93458, 93460
- 3 codes for graft angiography (includes natives) with a heart cath- 93457, 93459, 93461. Note: 93451-93461 are for non-congenital only
- 3 add-on codes for injection procedures: right heart chambers, supravalvular aorta, and pulmonary arteries - 93566, 93567, 93568
- 3 add-on codes for: transapical or transseptal approach, drug administration with hemodynamics, and physiologic exercise study - 93462, 93463, 93464
- 3 add-on codes for use with congenital heart codes 93530-93533 only: native coronary angiography, graft angiography, and left atrial/ventricular injection and imaging- 93563, 93564, 93565

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Diagnostic Catheterization for 2011

- Only bill one primary cardiac catheterization code (93451-93461 or 93530-93533) per session.
- May bill "add on" codes with primary heart cath codes.
- Add on codes 93463, 93464, 93566, 93567, and 93568 can be billed with congenital OR non-congenital heart cath codes if performed. 93462 is not coded with congenital caths.
- Add on codes 93563, 93564, and 93565 can ONLY be billed with congenital heart caths.
- Codes for native coronary arteries, grafts, right, or left ventriculography/atrial angiography require selective catheter placements. Pulmonary artery and aorta do not.

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Diagnostic Catheterization for 2011

- All cardiac catheterization procedures include:
  - conscious sedation
  - sheath placement
  - catheter introduction, positioning and repositioning with the use of multiple catheters
  - recording of pressures in chambers and vessels (if done)
  - intracoronary arterial injection of medications
  - final evaluation and report
  - angiography for closure device placement and the actual closure device placement

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Diagnostic Catheterization for 2011

- Right heart catheterization – 93451 – includes:
  - Catheter placements in RA, RV, PA, and wedge locations
  - Blood samples to determine blood gases and cardiac output, (including oxygen saturations, wedge pressures, thermodilution studies, etc.)
  - Right atrial or ventricular angio is coded separately (+93566)
  - Pulmonary angiography is coded separately (+93568)
  - Do not additionally code Swan Ganz catheter placement (93503) as right heart catheterization procedure uses this catheter as an integral component to perform the test (do not bill with any other diagnostic heart catheterization codes)
  - See codes 93456-93457 if coronary angiography done
  - Use 93530 for congenital right heart catheterization

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Diagnostic Catheterization for 2011

- Code 93503 - Insert Swan-Ganz. This is never reported with right heart cath codes as it is inherent.
- Code 93505 - Endomyocardial biopsy. Reported only once per session. May code RHC for separate medical necessity.
- Code 93561- Dilution studies with cardiac output measurement. This is never reported with right heart cath codes as it is inherent.
- Code 93562 - Subsequent cardiac output measurement. This is never reported with right heart cath codes as it is inherent.
- Codes 93503, 93561, and 93562 are used during monitoring of a critically ill patient in the ICU for example.

Diagnostic Catheterization for 2011

- Left heart catheterization – 93452
  - Defined as left heart hemodynamics. Requires placement of a catheter into a systemic heart chamber (left ventricle or atrium).
    - Left ventricular systolic and end-diastolic pressures
    - Left ventricular injections and ventriculography bundled
    - Percutaneous or cut down technique
    - See codes 93458-9 if coronary angiography done
    - No code for congenital left heart catheterization

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Diagnostic Catheterization for 2011

- Right and Left heart catheterization - 93453
  - Defined as right and left heart hemodynamics and requires catheter placements into right and left heart chambers
  - Right atrial or ventricular angio is coded separately (+93566)
  - Pulmonary angiography is coded separately (+93568)
  - Left ventriculography is bundled if performed
  - Do not additionally code Swan Ganz catheter placement (93503) because right heart catheterization procedure uses this catheter as an integral component to perform the test
  - See codes 93460-61 if coronary angiography done
  - Use codes 93531-93533 for congenital right and left heart cath

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Diagnostic Catheterization for 2011

- Coronary angiography without heart cath
  - Coronary angiography – 93454
  - Coronary angiography with grafts – 93455
- Coronary angiography with right heart cath
  - Coronary angiography – 93456
  - Coronary angiography with grafts – 93457
- Coronary angiography with left heart cath
  - Coronary angiography – 93458
  - Coronary angiography with grafts - 93459

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Diagnostic Catheterization for 2011

- Coronary angiography with right & left heart cath
  - Coronary angiography – 93460
  - Coronary angiography with grafts – 93461
- Right chamber angiography – +93566 (add on code)
- Supravalvular aortography – +93567 (add on code)
- Pulmonary angiography – +93568 (add on code)
- Do NOT bill +93563, +93564, or +93565 with above listed non-congenital catheterization codes

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Diagnostic Catheterization for 2011

- Transseptal puncture via intact septum or transapical left ventricular puncture approach for left heart catheterization – +93462 (add on code). Do not code with congenital heart catheterizations.
- Drug administration to assess cardiac hemodynamics (e.g., nitric oxide) before, during and after, and repeat – +93463 (add on code). Do not use for coronary artery drug administration. Only bill once per session.
- Physiologic study to assess cardiac hemodynamics (e.g., leg or arm exercise) before and after heart cath. – +93464 (add on code). Only bill once per session.

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Diagnostic Catheterization for 2011

- Congenital Heart Catheterization
  - Right heart catheterization only - 93530
  - Right & retrograde left - 93531
  - Right & transseptal left (intact) - 93532
  - Right & transseptal left (existing) - 93533
    - Bicuspid aortic valve, patent foramen ovale, anomalous origin of coronary arteries and mitral valve prolapse are NOT considered congenital heart disease for coding purposes
  - Codes 93532 and 93533 include "with or without retrograde left heart catheterization"

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Diagnostic Catheterization for 2011

- Congenital Heart Catheterization add-on codes:
  - Coronary angiography, congenital – +93563
  - Coronary w/ bypass grafts, congenital – +93564
  - Left atrium/ventricle during congenital – +93565
  - Right atrium/ventriculography – +93566
  - Supravalvular aortography – +93567
  - Pulmonary angiography – +93568
  - Nitric Oxide Study (pre and post studies) – +93463
  - Exercise Study (pre and post studies) – +93464

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Diagnostic Catheterization for 2011

- Injection of drugs directly into the coronary arteries are bundled (do not use +93463 or 37202).
- Venous infusions during coronary intervention are bundled (the drug may be billed separately). Do NOT use +93463 or 92977 with intervention.
- Closure device angiography and placement is bundled with all cardiac catheterization procedures in 2011. Do not bill 75710, 75736, 75774, or G0278 for imaging related to closure device placement or G0269 for the placement.

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Diagnostic Angiography

- Confirmatory, sizing, positioning, road mapping, and completion angiograms are included in the intervention and are not coded. Only if a clinical change or medical necessity is documented can you code for a repeat diagnostic angiogram

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Diagnostic Catheterization

- Charge separately for intravascular Doppler (FFR)
- Charge separately for intravascular spectroscopy (0205T)
- Charge separately for intravascular ultrasound
- Charge separately for any coronary intervention
- Charge separately for RA/RV, Ao, and Pulmonary angiography
- Charge separately for transseptal or transapical approach, pharmacological or physiological testing with heart catheterization
- Charge separately for peripheral imaging S&I codes, catheter placements and interventions. (Use "G" codes for non-selective diagnostic renal and ilio-femoral angiography at the time of cardiac catheterization unrelated to closure device placements)

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Cardiology

- Intravascular Ultrasound
  - Initial vessel: +92978
  - Each additional vessel: +92979
- Intravascular Doppler (FFR)
  - Initial vessel: +93571
  - Each additional vessel: +93572
- Intravascular catheter based coronary spectroscopy: +0205T, per vessel imaged, including S&I and report, add-on code with coronary intervention and heart cath codes
- Intracardiac Echo (ICE): +93662
- All these procedures bundled for Hospital Medicare billing

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Diagnostic Catheterization

- Non-cardiac imaging performed with a heart catheterization
  - G0275 – Non-selective Renal(s)
    - Includes catheter placement and S&I
    - If the renal arteries are selected, do not code G0275, per CMS 10/09 15.3 provider policy manual, "renal artery angiography at the time of cardiac catheterization should be reported as HCPCS code G0275 **if selective catheterization of the renal artery is not performed**", "If it is medically necessary to perform selective renal artery catheterization and renal angiography, HCPCS code G0275 should not be additionally reported."
    - GO275 zero edits 75724. Do not bill both together.
    - Many "selective renals" (75724) are not medically necessary (per LCD's) and are refused payment by the Medicare payers.

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Diagnostic Catheterization

- Non-cardiac imaging performed with a heart catheterization
  - G0278 – Non-selective Ilio-femoral (oblique views of the pelvis)
    - Terminology changes October 1, 2008
    - Includes catheter placement
    - Includes S&I
    - Do not code G0278 for closure device placement angiography (per provider policy manual 15.3) – it is included in G0269
    - GO278 zero edits 75716 – do not bill both together.

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Diagnostic Catheterization Case 1:

History of abnormal stress test.

Left heart catheterization: Coronary angiography with selective imaging of the right and left coronary arteries is performed. Ventriculography and left sided hemodynamics were not performed.

The coronary angiography shows 90% RCA stenosis proximally. The other vessels are unremarkable.

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Diagnostic Catheterization Case 1 Codes:

2010

93508 – *Coronary angiography without left heart catheterization*

93545 – *Coronary angiogram*

93556 – *Imaging S&I coronary angiogram*

2011

93454

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Diagnostic Catheterization Case 2:

A right heart cath and coronary angios are performed

2010	2011
93501	93456
93508	
93545	
93556	

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Diagnostic Catheterization Case 3:

Left heart cath with coronary angiography and left ventriculogram

2010	2011
	93458
93510	
93543	
93545	
93555	**Not 93452, 93563, 93565**
93556	

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Diagnostic Catheterization Case 4:

PROCEDURE: A 6 Fr sheath is placed in the right femoral artery. Selective coronary angiography is performed with #4 Judkins left and right catheters and an angulated pigtail is used for left heart cath and ventriculography. Peripheral angiogram is performed through the short 6 French sheath. No closure device is used. The sheath is removed and hemostasis obtained by direct pressure.

RESULTS:

LC and LD: There are up to 20-25% stenoses proximally.

RC: Mild to moderate areas of narrowing distally.

LEFT HEART CATH: Systemic pressures are normal. There is no systolic gradient across the aortic valve. LVEDP is 15. EF is 55% by ventriculography

PERIPHERAL ANGIOGRAM: This is done through the short 6 French introducer and shows the introducer is through the superficial femoral and into the profunda femoral artery. No significant peripheral vascular disease is noted. The patient is not a candidate for a percutaneous closure device placement.

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Diagnostic Catheterization Case 4 Codes:

2010

93510 – *Left heart catheterization*

93543 – *Left ventriculogram*

93545 – *Coronary arteriogram*

93555 – *Imaging S&I, ventricular and/or atrial angiography*

93556 – *Imaging S&I, pulmonary angiography, aortography, and/or selective coronary angiography including venous bypass grafts and arterial conduits*

2011

93458

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Diagnostic Catheterization Case 5:

PROCEDURE: A 6 Fr sheath is placed in the right femoral artery. Selective coronary angiography is performed with #4 Judkins left and right catheters. Selective left internal mammary angiography along with selection of 3 vein bypass graft is performed. An angulated pigtail is used for left heart cath and ventriculography. Aortography is performed with the same catheter to evaluate for aortic valve disease. Peripheral angiogram is performed. A closure device is not placed.

RESULTS:

LC : 90% left main proximally. There is 60% stenosis of the LC.

LD: Occluded at its origin.

RC: 99% origin stenosis. 20-30% stenosis is seen distally in the PDA.

IMA(left): Patent proximally and distally.

Vein grafts: LC and diagonal are occluded. Graft to the RCA is widely patent.

LEFT HEART CATH and VENTRICULOGRAPHY: Systemic pressures are normal. No systolic gradient across the aortic valve. LVED is 15. EF is 35% with decreased septal wall motion.

Aorta: Aortic root is dilated, but there is no aneurysm or aortic valve reflux.

PERIPHERAL ANGIOGRAM: This is done through the short 6 French introducer and shows the introducer entering the mid common femoral artery. No significant iliac or femoral vascular disease is seen. A percutaneous closure device is placed.

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Diagnostic Catheterization Case 5 Codes:

Year 2010

- 93510 – Left heart catheterization
- 93539 – Selective IMA injection
- 93540 – Selective Saphenous Vein Graft injection
- 93543 – Left ventricular injection
- 93544 – Aortic root injection
- 93545 – Coronary artery injection (native)
- 93555 – Imaging S&I, ventricular and/or atrial angiography
- 93556 – Imaging S&I, pulmonary angiography, aortography, and/or selective coronary angiography including venous bypass grafts and arterial conduits

2011 Codes

- 93459 – Coronary angiography, native and grafts, with LHC, with LV angiogram if performed. Closure device imaging and placement bundled.
- 93567 – Supravalvular aortography

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Diagnostic Catheterization Case 6:

BRIEF HISTORY: A 62-year-old lady who was admitted because of worsening chest pain with EKG changes of ischemia.

PROCEDURE:

Left heart catheterization.

Right heart catheterization.

Coronary arteriography.

Left ventriculography.

Cardiac output examination.

TECHNIQUE: Using a modified Seldinger technique, sheaths are placed in both the right common femoral vein and artery.

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Diagnostic Catheterization Case 6 (continued):

6-French Judkins catheters are placed in the right and left coronary arteries for coronary angiography in multiple projections. A pigtail catheter is placed into the left ventricle with ventriculography done. The patient has severe left main disease requiring surgery; therefore, it is decided to do a right heart catheterization also. Right heart pressures, pulmonary pressures, oxygenations, cardiac output and index are performed. Right atrial injection along with selective R & L pulmonary angiography performed due to low oxygenations suggesting R to L shunt.

RCA: 70% lesion in the proximal RCA. 90% lesion in the proximal PDA.

Left Main: There is an ostial lesion present; this is about 80%.

LC: There is an 80% lesion seen in the first obtuse marginal.

LD: There is a long 80% lesion seen in the proximal portion.

RIGHT ATRIAL ANGIOGRAPHY: No evidence of right to left shunt.

PULMONARY ANGIOGRAPHY: No evidence of pulmonary artery fistula.

VENTRICULOGRAPHY: Left ventriculography shows normal size and normal contraction of the left ventricle present. EF is 40%.

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Diagnostic Catheterization Case 6 (continued):

RESULTS HEMODYNAMICS:

	SITE	PRESSURE
1. Pre-angio:	AO	160/80
	LV	155/20
	RV	37/12
2. Post-angio	AO	156/70
	LV	160/27
	RA	7 mmHg (mean)
	PA	40/12/25
	PCW	15 mmHg (mean)

Cardiac output is 4.83. Cardiac index is 2.31. There is no gradient across the aortic valve or pulmonic valve demonstrated.

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Diagnostic Catheterization Case 6 Codes:

2010 Codes

93526 – Left and right heart catheterization
93541 – Pulmonary artery injection
93542 – Right atrial injection
93543 – Left ventricular injection
93545 – Coronary artery injection (native)
93555 – Imaging S&I, ventricular and/or atrial angiography
93556 – Imaging S&I, pulmonary angiography, aortography, and/or selective coronary angiography including venous bypass grafts and arterial conduits

2011 Codes

93460 – Coronary angiography, with Right and Left heart catheterization, with left ventriculography
93566 – Right atrial angiography
93568 – Pulmonary angiography

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Peripheral and Heart Catheterization Case 7:

History: Abnormal stress test, angina, bilateral 1-block calf claudication

- Left heart catheterization with ventriculography
- Coronary angiography.
- Bilateral selective lower extremity angiography
- Right femoral access with perclose placement

Left heart catheterization. Via right femoral puncture, a catheter is advanced to the ascending aorta. Ventriculography is performed using power injection of contrast agent. Pressures in the left heart were obtained.

Coronary angiography. A catheter is advanced to the right and left coronary arteries for selective native vessel imaging.

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Peripheral and Heart Catheterization Case 7 (continued):

Peripheral angiography: A catheter is placed over the horn into the left common iliac. Selective imaging of the left leg to the foot is performed. The catheter is pulled back to the right iliac and imaging of the right leg performed.

Lower extremities: There are minor luminal irregularities due to atherosclerosis in the left iliac artery. Both superficial femoral arteries are occluded above Hunter's Canal. The proximal left popliteal is widely patent but occludes in the distal portion. A short proximal left PFA stenosis of 90% is also noted. Trifurcations are patent bilaterally.

Intervention: Guiding catheter is advanced to the contralateral mid to distal left SFA (via the right femoral sheath). This lesion is treated with laser atherectomy. Due to 50% residual stenosis, a self-expanding stent is placed. The popliteal occlusion is crossed with a Lumend device, followed by balloon angioplasty (4mm) but this promptly occludes requiring placement of a 5mm Viabahn stent. The proximal PFA stenosis is treated with 4mm angioplasty alone. Perclose is placed.

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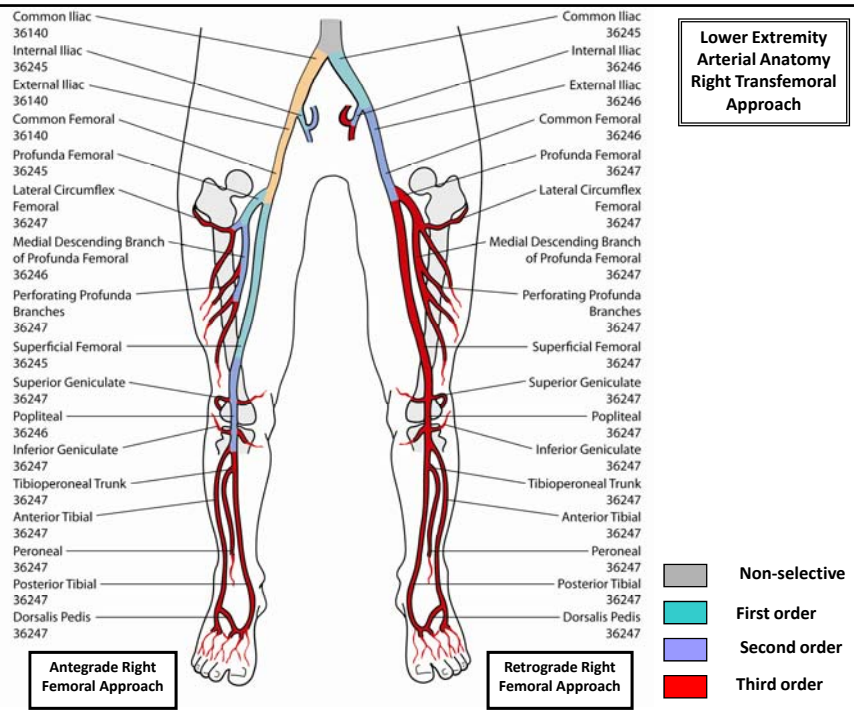

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Peripheral and Heart Catheterization Case 7 2010 Codes:

93510 – Left heart catheterization
93543 – Left ventriculogram
93545 – Coronary angiogram
93555 – Imaging S&I, ventriculogram
93556 – Imaging S&I, coronary angiogram
75716-59 – Bilateral extremity arteriogram, S&I
36247-59LT – 3rd order select below diaphragm (Contralateral SFA)
36248-LT – Additional 2nd or 3rd order (Contralateral PFA)
35474/75962 – Left Proximal PFA angioplasty
35493/75992 – Left SFA laser atherectomy
37205/75960 – Left SFA self-expanding stent placement
35474-59/75964 – Left Popliteal balloon angioplasty
37206/75960-59 – Left Popliteal covered stent placement
G0269 – Placement of closure device

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Peripheral and Heart Catheterization Case 7 2011 Codes:

93458 – Coronary angiography with left heart cath, including left ventriculography
75716-59 – Bilateral extremity arteriogram, S&I
37227 – SFA/PFA/Popliteal artery angioplasty, atherectomy and stent placement (includes all three types of interventions in any or all of the femoral popliteal vessels, includes all catheter placements for these vessels, includes closure device placement)

(19 codes in 2010 become 3 codes in 2011 in this unusual case)

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2011 Cardiac Catheterization Code Cheat Sheet

Caths- Non-Congenital

93451 RHC only
No coronaries with 93451
93452 LHC (+/- Lt. vgram)
93453 LHC + RHC (+/- Lt. vgram)
No coronaries with 93452 and 93453
93454 Coronaries only
93455 Coronaries + bypass grafts
93456 Coronaries + RHC
93457 Coronaries + RHC + bypass grafts
No LHC with 93454- 93457
93458 Coronaries + LHC (+/- Lt. vgram)
93459 Coronaries + LHC (+/- Lt. vgram) + bypass grafts
93460 Coronaries + LHC (+/- Lt. vgram) + RHC
93461 Coronaries + LHC (+/- Lt. vgram) + RHC + bypass grafts

Injection & Misc. Procedures

+93566 Selective Right ventricular/atrial angiography
+93567 Supravalvular aortography
+93568 Pulmonary angiography

+93462 LHC transseptal/transapical puncture. Do not report with congenital caths
+93463 Pharmacologic agent administration with repeat hemodynamic measurements
+93464 Physiologic exercise study with repeat hemodynamic measurements

2011 Cardiac Catheterization Code Cheat Sheet

Caths- Non-Congenital

93530 RHC only
93531 RHC + retrograde LHC
93532 RHC + transseptal LHC (intact septum)
93533 RHC + transseptal LHC (via existing septal opening)
Note: Codes 93532 and 93533 include retrograde LHC if performed as well

Injection & Misc. Procedures

+93563 Selective coronaries
+93564 Selective bypass grafts
+93565 Selective Left ventricular/atrial angiography
Note: Only use these three codes with congenital cath codes

+93566 Selective Right ventricular/atrial angiography
+93567 Supravalvular aortography
+93568 Pulmonary angiography

+93463 Pharmacologic agent administration with repeat hemodynamic measurements
+93464 Physiologic exercise study with repeat hemodynamic measurements

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