Abbott

2025

CODING HELP SwissDRG
**PERIPHERAL VASCULAR
INTERVENTIONS – PTA**

6th EDITION

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OVERVIEW

PERIPHERAL VASCULAR INTERVENTION FOR PERIPHERAL ARTERIAL OCCLUSIVE DISEASE

The correct reimbursement of inpatient treatment cases in the SwissDRG system[A] is dependent on the complete and correct coding of all relevant diagnoses and procedures based on the applicable diagnosis and procedure classifications and the coding manual. In particular, the following questions must be answered correctly:

- What is the main diagnosis of the case?
- Which secondary diagnoses may be coded according to the clinical documentation?
- How are the services provided coded completely and correctly in the CHOP classification system?

Main diagnosis (ICD-10)

The following main diagnoses can be considered in connection with peripheral arterial disease PAD in the ICD-10-GM 2024* catalogue:

Table 1 ICD-10-GM diagnosis codes for the coding of PAD

ICD-KODE	ICD-TEXT: ATHEROSCLEROSIS OF THE LIMB ARTERIES	STAD. FONTAINE
I70.20	Native arteries of extremities, without symptoms	I
I70.21	Native arteries of extremities, with stress-induced ischaemic pain, walking distance 200 m and more	IIa
I70.22	Native arteries of extremities, with exercise-induced ischaemic pain, walking distance less than 200	IIb
I70.23	Native arteries of extremities, with rest pain	III
I70.24	Native arteries of extremities, with ulceration	IV
I70.25	Native arteries of extremities, with gangrene	IV

The differentiation of the basic ICD code I70.2 corresponds to the Fontaine stages, whereby stage IV is divided into two areas "with ulceration" and "with gangrene" for coding. This distinction is of particular importance since in many cases there is a differentiated grouping relevance between these two groups. The ICD-10-GM

Please note that in Switzerland, ICD 2024 will be used in 2025.

diagnosis classification provides the following information on the distinction between ulcers and gangrene:

Ulceration (I70.24):   Tissue defect limited to skin [cutis]
                             and subcutaneous tissue [subcutis]

Gangrene (I70.25):   Dry gangrene, stage IVa according to Fontaine
                             Moist gangrene, stage IVb according to Fontaine

Secondary diagnosis

The PCCL value plays a particularly important role in the DRG grouping of cases with peripheral vascular intervention. Particular attention must be paid to non-specialist diagnoses and complications during the stay. Heart disease, renal dysfunction and neurological comorbidities are just as important as wound healing disorders, coagulation disorders and other events.

All these diagnoses may only be coded if the corresponding resources have been used, including the documentation required for verification in the patient file, as otherwise these ICD codes may be subsequently denied by the health insurance company as part of a possible case review, which would result in loss of revenue.

A high PCCL value of at least severity level 4 regularly leads to significantly higher DRG flat rates if adequately documented.

PROCEDURES CODES (CHOP)

Another important aspect of the complete coding of treatment cases with PAD is the coding of all services and procedures performed. For this purpose, specific CHOP codes are available for balloon angioplasty or atherectomy, for stents placement and for a variety of other vascular interventions. Additional codes are used to specify the locali-zation, the number of vessels treated, and the number of stents placed.

Coding of angioplasty or atherectomy

Table 2 CHOP code and CHOP text: Angioplasty and atherectomy

CHOP-CODE	CHOP-TEXT: PERCUTANEOUS TRANSLUMINAL VASCULAR INTERVENTION, OTHER VESSELS
39.75.17	Percutaneous transluminal thrombectomy, other vessels *Code ibid.: use of catheter-guided thrombus and foreign body removal systems (00.4F.-)*
39.75.18	Percutaneous transluminal balloon angioplasty, other vessels *Code ibid.: Number of drug-eluting balloons used (00.4C.1-)*
39.75.1A	Percutaneous transluminal angioplasty or atherectomy by means of lithotripsy, other vessels **Incl.:** *Balloon-angioplasty* *Note: Lithotripsy is a combination of shock wave therapy and angioplasty by means of balloon dilatation*
39.75.1B	Percutaneous transluminal blade angioplasty, other vessels

Additional important notes on coding 39.75.- percutaneous transluminal vascular intervention of other vessels

When coding 39.75.-, please code the following:

- (Percutaneous) transluminal implantation of stents in blood vessels (39.B-)[1]
- Anatomical localization of certain percutaneous-transluminal catheter interventions [PTKI] (00.4B)[2]
- Number of treated vessels (00.40-00.43)[2]
- Injection or infusion of thrombolytic substance, by number of treatment days (99.10.-)
- Procedure at vascular bifurcation (00.44)[2]
- Microcatheter systems used in transluminal vascular interventions on spinal vessels, by number (00.4H.2-)
- Microcatheter systems used for transluminal vascular interventions in anthoracic, abdominal and peripheral vessels, by number (00.4H.1-)
- Use of an embolic protection system (39.E1)

[1] Details siehe Kodierung von Stent-Implantationen
[2] Details siehe Kodierung von anderen vaskulären Interventionen

Coding of stent implantations

The coding of (percutaneous) transluminal stent implantations in blood vessels is done using 6-digit codes from category 39.B. For more precise differentiation or definition, the following explanations are given in the CHOP catalogue:

- A stent is an umbrella term for scissor-like, tubular endovascular prostheses that aim to keep a vessel open (preservation of the lumen).
- The stent graft, also known as a stent prosthesis, is a stent with a vascular prosthesis. It consists of an encapuslated mesh. Its purpose is, for example, to keep the vessel open (maintain lumen patency) and to take over the function of the vessel (bridge the lumen).
- A covered stent [stent graft] is a stent encapsulated, e.g. with polyester. For covered stents, the menchanical function is the primary focus. Encapsulated (covered) is not the same as coated.
- A "coated stent" is provided with a layer of another material or another substance. The effect of the coating (drug, antibody, bioactivity) is the main focus. A coated stent can be drug-eluting but does not have to be (e.g. antibody-coated or bioactive coating).

Stent types

The following stent types are differentiated via the 4th digit of code 39.B-:

Table 3 CHOP coding of stent types

CHOP-CODE	CHOP-TEXT: (PERCUTANEOUS) TRANSLUMINAL IMPLANTATION OF STENTS IN BLOOD VESSELS
39.B1	Non-drug-eluting stents *Cod. ibid: Stents of a length of 100 mm and more - Length of the stent (39.C4.-)*
39.B2	Drug-Eluting-Stents (DES)
39.B3	Covered stents without drug-elution
39.B4	Covered stents with drug-elution
39.B5	Uncovered Cheatham Platinum Stents
39.B6	Covered Cheatham Platinum Stents
39.B7	Uncovered large-lumen* stents
39.B8	Covered large-lumen* stents
39.BA	Uncovered growth stents
39.BB	Covered growth stents
39.BF	Self-expanding microstents
39.BG	Nitinol stents woven from individual wires (e.g. SUPERA™ stent)
39.BH	Stents for flow lamination in aneurysms • Flow diverter • Braided multilayer stents • Multi-layer stents

* Large-lumen stents in adults: diameter > 16 mm and in children: diameter > 8 mm

Anatomical localization

Anatomical localization is distinguished via digits 5 and 6 of the codes 39.B-.--.
The classification is shown below using the example of code 39.B1:

CHOP-CODE	CHOP-TEXT: LOCALIZACION OF STENTS
39.B1.00	n.d. (Unspecified)
39.B1.09	Other
39.B1.11	Intracranial vessels
39.B1.22	A. carotis n .n. bez. [L]
39.B1.23	A. carotis communis [L]
39.B1.25	Internal carotid artery extracranial [L]
39.B1.26	Internal carotid artery extracranial with common carotid artery [L]
39.B1.27	External carotid artery [L]
39.B1.28	Extracranial vertebral artery [L]
39.B1.31	Vessels of the shoulder and upper arm [L]
39.B1.51	Vessels of forearm [L]
39.B1.71	Aorta
39.B1.74	Aortic isthmus
39.B1.75	Ductus arteriosus apertus
39.B1.81	Other thoracic vessels
39.B1.A4	A. pulmonalis
39.B1.C1	Other abdominal and pelvic arteries [L]
39.B1.C3	A. iliaca [L]
39.B1.D1	Visceral vessels
39.B1.G1	Arteries from the thigh [L]

39.B1.H1	Vessels of the lower leg [L]
39.B1.J3	V. pulmonalis
39.B1.J7	V. cava
39.B1.JB	Other abdominal and pelvic veins [L]
39.B1.JF	Veins from the thigh [L]
39.B1.JI	V. portae
39.B1.L1	Spinal vessels
39.B1.M1	Vascular malformations
39.B1.M2	Aortopulmonary collateral vessels (MAPCA)
39.B1.N1	Artificial vessels
39.B1.N2	Artificial aortopulmonary shunts

The localization is also coded in the same way for the other code groups 39.B-; however, not all localization positions are differentiated for the various stent types. Since a detailed list would go beyond the scope of this coding aid, reference is made to the complete procedure classification CHOP 2025.

It should be noted that codes with end digits 00 (N.E.C – nowhere else specified) should be avoided and a specific code should be used instead. Codes ending in 00 sometimes lead to lower-paying DRGs.

Information on the number, material properties, surface and coating as well as the length of the stents

In addition to codes 39.B, the following information on implanted stents must be coded:

39.C1	NUMBER OF IMPLANTED STENTS		
39.C1.11	1 stent	39.C1.1D	11 stents
39.C1.12	2 stents	39.C1.1E	12 stents
39.C1.13	3 stents	39.C1.1F	13 stents
39.C1.14	4 stents	39.C1.1G	14 stents
39.C1.15	5 stents	39.C1.1H	15 stents
39.C1.17	6 stents	39.C1.1I	16 stents
39.C1.18	7 stents	39.C1.1J	17 stents
39.C1.1A	8 stents	39.C1.1K	18 stents
39.C1.1B	9 stents	39.C1.1L	19 stents
39.C1.1C	10 stents	39.C1.1M	20 and more stents

Coding the number of stents implanted (percutaneous) transluminal:

For codes from chapter 39.B- (Percutaneous) transluminal implantation of stents in blood vessels, each implanted stent is coded individually.

For example, if three non-drug eluting stents are implanted in femoral arteries and two non-drug eluting stents are implanted in tibial arteries, 39.B1.G1 is coded three times and 39.B1.H1 is coded twice.

The total amount of stents implanted during the stay is calculated and recorded with a code from chapter 39.C1.- "Number of implanted stents" on the date of the first day of intervention. In the previous example, five stents, 39.C1.15 "5 stents".

39.C1	CHOP-TEXT: ADDITIONAL INFORMATION ON STENTS
39.C2	**Material properties of the implanted stents**
39.C2.11	Bioresorbable stent
39.C2.12	Bare metal stent
39.C3	**Type of surface and coating**
39.C3.11	Antibody-coated stents without antiproliferative function
39.C3.12	Antibody-coated stents with antiproliferative function
39.C3.13	Covered stents with bioactive surface
39.C3.14	Antithrombogenic hydrophilic polymer coating [HPC] of stents and Flow-Diverter
39.C4	**Length of the stent**
39.C4.11	From 100 mm to under 150 mm
39.C4.12	From 150 mm to under 200 mm
39.C4.13	From 200 mm to under 250 mm
39.C4.14	From 250 mm and more
39.E1	Use of an embolic protection system

Coding of other vascular interventions

Table 7 CHOP coding for other vascular interventions

CHOP-CODE	CHOP-TEXT: LOCALIZAZION OF STENTS
39.75.00	n.d. (unspecified)
39.75.01	Foreign body removal
39.75.10	Catheter systems for recanalisation of total occlusions Subintimal recanalisation
39.75.11	Rotational thrombectomy INCL. rotational and burr atherectomy
39.75.12	Laser angioplasty
39.75.13	Embolism protection system (peripheral or visceral vessels)
39.75.14	Atherectomy
39.75.15	Selective thrombolysis
39.75.16	Selective thrombolysis, ultrasound-assisted
39.75.20	Catheter-based radiofrequency ablation via the renal artery
39.75.21	Catheter-based circumferential ultrasound ablation via the renal artery
39.75.30	Cerebral perfusion augmentation by partial endoaortic balloon occlusion

Additional important notes on coding 39.75.- percutaneous transluminal vascular intervention of other vessels

When coding 39.75.-, please code the following:

- (Percutaneous) transluminal implantation of stents in blood vessels (39.B-)[1]
- Anatomical localization of certain percutaneous-transluminal catheter interventions [PTKI] (00.4B)[2]
- Number of treated vessels (00.40-00.43)[2]
- Injection or infusion of thrombolytic substance, by number of treatment days (99.10.-)
- Procedure at vascular bifurcation (00.44)[2]
- Microcatheter systems used in transluminal vascular interventions on spinal vessels, by number (00.4H.2-)
- Microcatheter systems used for transluminal vascular interventions in anthoracic, abdominal and peripheral vessels, by number (00.4H.1-)
- Use of an embolic protection system (39.E1)

[1] Details siehe Kodierung von Stent-Implantationen
[2] Details siehe Kodierung von anderen vaskulären Interventionen

Table 8 CHOP coding for endarterectomy and endovenectomy

CHOP-CODE	CHOP-TEXT: ANATOMICAL LOCALISATION OF CERTAIN P ERCUTANEOUS TRANSLUMINAL CATHETER INTERVENTIONS (PTKI)
38.14	**Endarterectomy of the aorta**
38.15	**Endarterectomy of the other thoracic vessels**
38.15.00	Other thoracic vessels, n.d. [L]
38.15.10	A. subclavia [L]
38.15.20	Truncus brachiocephalius [L] *A. innominata*
38.15.30	A. pulmonalis [L]
38.15.40	V. pulmonalis [L]
38.15.50	Other artificially created thoracic vessels [L] *
38.15.99	Other thoracic vessels, other [L]
38.16	**Endarterectomy and endovenectomy of abdominal vessels, pelvic arteries** *Excl.: Abdominal aorta (38.14)*
38.16.00	Endarterectomy and endovenectomy of abdominal vessels, n.d.
38.16.01	Endarterectomy and endovenectomy of artificially created abdominal vessels
38.16.09	Endarterectomy and endovenectomy of abdominal vessels, other *A. umbilicalis*
38.16.1	Endarterectomy of abdominal arteries Endarterectomy of visceral vessels
38.16.11	Truncus coeliacus
38.16.12	A. gastrica
38.16.13	A. hepatica
38.16.14	A. lienalis
38.16.15	A. renalis [L]
38.16.16	A. mesenterialis
38.16.17	A. lumbalis [L]
38.16.18	A. iliaca [L]
38.16.2	**Endovenectomy of abdominal veins**
38.16.21	Iliac vein [L] Incl.: vessel closure, e.g. by means of patchplasty

* An artificial vessel is a bypass, shunt or vascular replacement by means of an interposition device or vascular prosthesis [stent-graft]. The artificially created vessel can consist of artificial, biological and autologous material.

CHOP-CODE	CHOP-TEXT: ENDARTERECTOMY AND ENDOVENECTOMY OF VESSELS OF THE LOWER EXTREMITY
38.18.1	**Endarterectomy of arteries of the lower extremity**
38.18.10	A. fermoralis (communis) (superficialis) [L]
38.18.11	A. profunda femoris [L]
38.18.12	*A. poplitea [L]*
38.18.2	Endovenectomy of veins of the lower extremity
38.18.21	Femoral vein [L] *Incl. vessel closure, e.g. by means of patchplasty*

In addition to the codes for interventional procedures 39.50 (angioplasty or atherectomy) and 39.75 (percutaneous transluminal vascular interventions), the following codes are to be used:

Localization

CHOP-CODE	CHOP-TEXT: ANATOMICAL LOCALISATION OF CERTAIN PERCUTANEOUS TRANSLUMINAL CATHETER INTERVENTIONS (PTKI)
00.4B.1	**PTKI on arteries**
00.4B.11	Arteries of the upper extremity or shoulder [L]
00.4B.12	Aorta
00.4B.13	Pulmonary vessels [L]
00.4B.14	Other thoracic arteries
00.4B.15	Visceral arteries *EXCL. A. renalis (00.4B.16)*
00.4B.16	A. renalis [L]
00.4B.17	Other abdominal arteries
00.4B.18	Femoral arteries and popliteal artery [L]
00.4B.19	Arteries at another localisation
00.4B.1A	Lower leg arteries [L]

CHOP-CODE	CHOP-TEXT: ANATOMICAL LOCALISATION OF CERTAIN PERCUTANEOUS TRANSLUMINAL CATHETER INTERVENTIONS (PTKI)
00.4B.2	PTKI on veins
00.4B.21	Veins of the upper extremity or shoulder [L]
00.4B.22	V. Cava
00.4B.23	*Other thoracic veins*
00.4B.24	Liver veins
00.4B.25	Visceral veins *EXCL. Liver veins (00.4B.24)*
00.4B.26	Other abdominal veins
00.4B.27	Femoral veins [L] *EXCL. Epifascial veins (00.4B.30)*
00.4B.28	Lower leg veins [L] *EXCL. Epifascial veins (00.4B.30)*
00.4B.29	Veins, other
00.4B.3	PTKI on epifascial veins
00.4B.30	Epifascial veins, n.d. related
00.4B.31	V. saphena magna [L]
00.4B.32	V. saphena parva [L]
00.4B.33	Epifascial side branches of the leg [L]
00.4B.34	Epifascial arm veins [L]
00.4B.39	Epifascial veins, other
00.4B.4	PTKI on artificially created vessels*
00.4B.41	of the upper extremity or shoulder [L] EXCL. Dialysis shunts (00.4B.42)
00.4B.42	Venous or plastic dialysis shunts
00.4B.43	Thoracic artificially created vessels
00.4B.44	Abdominal artificially created vessels
00.4B.45	Artificially created vessels on the thigh and popliteal [L]
00.4B.46	Artificially created vessels on the lower leg [L]
00.4B.49	Artificially created vessels at a different localisation

An artificial vessel is a bypass, shunt or vascular replacement using an interposition device or vascular prosthesis [stent-graft]. The artificial vessel can consist of artificial, biological and autologous material.

Number of vessels

Table 10 CHOP coding of the number of treated vessels

CHOP-CODE	CHOP-TEXT: NUMBER OF VESSELS
00.40	Procedure on one vessel [1] Number of vessels, unspecified **Note:** *If applicable, this supplementary code must be recorded for each procedure*
00.41	Procedure on two vessels [1,2]
00.42	Procedure on three vessels [1,2]
00.43	Procedure on four or more vessels [1,2]
00.44	Measure on vascular bifurcation **Note:** *This code is to be used to indicate the presence of a vascular bifurcation; it does not describe a specific bifurcation stent. This code may only be used once per operation, regardless of the number of bifurcations treated.*

[1] Excl.: (Aorto)coronary bypass (36.10.- - 36.1D.-)
[2] Note: If applicable, this supplementary code must be recorded for each procedure.
  The sum of the treated vessels per procedure must be shown.

DRG GROUPING

Peripheral interventions (PTA and stent implantation)

The DRG grouping of cases with PTA (39.75.17/.18/.1A/.1B) or stent implantation (39.B) depends on several factors:

- Number of balloons (only if drug-elution) and stents
- Stent type
- Length of the stent(s)
- Main or secondary diagnosis of PAD with ulcer or gangrene
- Number of treated vessels
- Age of patient
- Multiple/staged procedures
- Secondary diagnoses (PCCL ≥4)

All cases with peripheral balloon dilatation, stent implantation and most other endovascular interventions will continue to be grouped in the basic DRG F59.

The grouping logic is illustrated in Figure 1. The numbers on a grey background indicate the respective cost weight of the DRG.

Legend
a.o. = and others
o. interv. = other intervention
B = intervention on both sides
Multiple vessels = intervention on multiple vessels
RD = renal denervation
RT = Rotational thrombectomy
ST = Stent and thrombectomy
ST-2 = Selective thrombolysis
ST-2-US = Ultrasound-guided selective thrombolysis

Remark
- And condition. From top to bottom, neighbouring rectangles correspond to "And" condition, e.g. F59F = PTA **and** diagnosis I70.24 / 25

- Or condition. From right to left, neighbouring rectangles correspond to the condition, e.g. F59B=PCCL>3 **or** Compl. Proz.

- Other intervention: "almost all" among the interventions that lead to F59E (certain procedures). These are upgraded.

SwissDRG 12.0 2023			
F59G			0.721
Complex or moderately complex, age > 15 years			
≥ 1 PTA	< 3 Stents/DEB	o. interv.	
F59F			0.941
with multiple stent placement or complicating diagnosis or certain percentage, age > 15 years			
≥ 3 Stents / DEB	PTA and others	On both sides or several threads	Nitinol stents woven from individual wires, e.g. SUPERA™ stent* or long stents
	I70.24 / 25		
F59E			1.313
With certain procedures or age < 16 years			
RD o. RT o. ST o. ST-2 or or incision of vessels of the lower / upper limbs		< 16 years	
F59D			1.596
with endovascular intervention or selective thrombolysis			
Endarterectomy of the lower extremity or ST-2-US			
F59C			2.223
multi-time or hybrid therapy			
e.g. PTA			
/ PTA			
F59B			2.823
with extremely severe cc. or complicating procedure			
PCCL > 3		Compl. procedure	
F59A			4.64
Multi-time OR per cent or VAC			

* except in abdominal or pelvic arteries.

Figure 1 Grouping structure for the most common cases
Note: Other special stent configurations can also trigger the F59F directly.

The grouping logic for DRGs F59G to F59A is explained in detail below. This is done from a service-related perspective (which DRGs are triggered by a selected procedure under different conditions?). A DRG-related perspective (which case constellations all map to a selected DRG?) is shown in Figure 1.

Angioplasties with balloon or stent

Angioplasties with balloon dilatation only and stent implantations are included in DRGs **F59G, F59F, F59E, F59C** and **F59B**.

If only balloon dilatation is performed without stent implantation in a single vessel, the DRG **F59G** is assigned, regardless of the number of balloons, unless drug-eluting balloons (DEBs) are used. If the number of DEBs exceeds two, DRG **F59F** is assigned.

Likewise, the implantation of up to two stents is assigned to DRG **F59G**, if the procedure is not performed bilaterally. This is independent of the type of stent, with two important exceptions: stents with a length of 15 cm or more and nitinol stents that are woven from individual wires (e.g., Supera™ Peripheral Stent System; exception: abdominal or pelvic arteries) are assigned to the higher-valued DRG **F59F**. The higher-valued DRG **F59F** is also assigned if the intervention involves more than one vessel or if the diagnosis includes gangrene or ulceration.

DRG **F59G** is also triggered by other procedures, outlined in the following chapter "Other endovascular procedures" including rotational and burr atherectomy.

For patients up to 15 years of age, DRG **F59E** is assigned (as well as for certain procedures listed below).

If an endovascular intervention is performed in multiple sessions (on two different days during the hospital stay with a break in between), DRG **F59C** is assigned. This applies to multiple balloon dilatations (balloon dilatations on two different days), multiple stent implantations (stents on two days) and selective thrombolysis (thrombolysis on two days). However, this does not apply to, for example, balloon dilatation on one day and stent implantation on another (which remains in DRG **F59G**) or selective thrombolysis on one day and balloon dilatation or stenting on another day (which, for certain procedures, leads to DRG **F59E**).

In the case of severe comorbidities, DRG **F59B** is assigned. This is also achieved with a complicating procedure. Complicating procedures are a global function of the

SwissDRG system, whose grouping logic is extremely complex, and whose procedure tables are so extensive that they will not be described further here (see Definition Manual Volume 4, Global Functions).

Other endovascular procedures

See also Table 7.

DRG **F59E** is assigned, except for young patients (up to 15 years of age), in particular for the following procedures, regardless of accompanying angioplasties or stent implantations:

- Renal denervation by radiofrequency ablation (39.75.20)
- Renal denervation by circumferential ultrasound ablation (39.75.21)
- Rotational thrombectomy INCL. rotational and burr atherectomy (39.75.11)
- Stent and thrombectomy (39.75.17)
- Selective thrombolysis (39.75.15)

Ultrasound-guided selective thrombolysis (39.75.16) is assigned to DRG **F59D**.

Selective thrombolysis and ultrasound-guided selective thrombolysis are assigned to DRG **F59C** in the case of multiple sessions, and to DRG F59A if extremely severe comorbidities (PCCL = 4) are also present.

All other percutaneous-transluminal interventions (39.75) listed in Table 7 are assigned to DRG **F59G**.

Endarterectomy and endovenectomy

See also Table 8

Again, the use of non-specific codes (N.E.C.) should be avoided, as they lead to DRGs with a lower value than the specific codes and thus the service provided may not be adequately reimbursed.

For endarterectomies and endovenectomies, the anatomical localization is crucial for the grouping logic. Without extremely severe comorbidities, the following DRGs are used:

Thoracic and abdominal arteries (38.14, 38.15, 38.16): F31F

Lower extremity (38.18): F59D

Multiple OR procedures

DRG **F59A** is triggered by multiple complex OR procedures or vacuum treatments or by multiple selective thrombolyses with PCCL =4.

The "complex OR procedures" are a global function of the SwissDRG system, which is described in the Definition Manual Volume 4, Global Functions. As the name suggests, these are complex and mostly, but not exclusively, surgical procedures that only loosely relate to the endovascular procedures covered in this overview. A detailed explanation is not provided here.

DRG F59 – Development of the cost weights 2024–2025

The following table shows the development of the cost weights of the basic DRG F59. The analysis from the SwissDRG data table (last column) shows the distribution of endovascular procedures in the base DRG F59 across the individual DRGs F59G - F59A, i.e. the relative frequency with which these DRGs are used.

2025			2024	Difference	Method	Data report 2025, cases 2022	
DRG	Description	Cost Weight	Cost Weight	%			
F59A	Complex or moderately complex vascular interventions with multiple interventions or VAC	4.64	4.708	−1,4%	Multi-time OR proc	172	3%
F59B	Complex or moderate complex vascular interventions and extremely severe CC or complicating procedure	2.823	2.926	−3,5%	PCCL=4; Compl. percent	478	7%
F59C	Complex or moderately complex vascular procedures with multiple endovascular interventions or hybrid therapy	2.223	1.942	14,5%	multi-temporal endovask.	567	8%
F59D	Complex or moderately complex vascular procedures with specific endovascular intervention or selective thrombolysis	1.596	1.519	5,1%	Endarterectomy lower extr., US-supported sel. Thrombolysis	817	12%
F59E	Complex or moderately complex vascular interventions with certain procedures or age < 16 years	1.313	1.271	3,3%	RD, RT, Stent+thrombectomy, Sel. Thrombolysis,<16.j.	873	13%
F59F	Complex or moderately complex vascular interventions with multiple additional stent insertions or complicated diagnosis or specific procedure, Age > 15 years	0.941	0.915	2,8%	>2 stents / DEB; PTA etc. with gangrene / ulcer; >1 vessel; long stents	2600	38%
F59G	Complex or moderately complex vascular intervention, age > 15 years	0.721	0.758	−4,9%	PTA, < 3 DEB/ Stents; a. EG.	1266	19%

Carotis stenting

The diagnosis I65.2 Occlusion and stenosis of the carotid artery together with a 6-digit procedure code from group 39.B (percutaneous) transluminal stenting of blood vessels with one of the localizations coded in digits 5 and 6 of the carotid artery (Table 4) leads to DRG **B04C**, with additional severe or extremely severe comorbidities to DRGs **B04B** or **B04A**.

DRG	Description	Cost weight	PCCL
B04A	Interventions on the extracranial vessels or ASD occlusion or pacemaker with extremely severe CC	3.789	4
B04B	Interventions on the extracranial vessels, ASD occlusion or pacemaker with severe CC or cerebral infarction	2.269	3
B04C	Interventions on the extracranial vessels or ASD occlusion or pacemaker	1.346	0–2

Cave:

The same procedure with the diagnosis of atherosclerosis (e.g. I70.8 Atherosclerosis of other arteries) leads to the significantly lower rated DRG **F59F** (CW 0,941) or with extremely severe comorbidities to DRG **F59B** (CW 2,926).

VASCULAR OCCLUSION DEVICES WITH LARGE LUMEN

Diagnoses

The potential diagnoses that may determine the indication for the use of a large-lumen vascular occlusion device are extremely diverse, both in the literature and in clinical practice. These include, in particular, AV malformations such as fistulas and associated aneurysms, as well as steal phenomena, which may occur independently or as a result of a medical intervention. In addition, vessels can be occluded with plugs as part of trauma therapy, and elective vascular occlusion, for example, as part of of varicocele treatment or as a preparatory measure for procedures such as SIRT therapy, can also be performed using this technique.

The entire spectrum of possible diagnoses cannot be presented exhaustively here; therefore, the following diagnoses are discussed as examples, considering their significance for grouping:

Table 11 Possible ICD-10-GM diagnosis codes for the use of a vascular plug

ICD	TEXT
I28.0	Arteriovenous fistula of the pulmonary vessels
I72.3	Aneurysm and dissection of the iliac artery
I72.4	Aneurysm and dissection of an artery of the lower extremity
I77.0	Arteriovenous fistula, acquired
I86.1	Scrotal varices
S35.2	Injury to the celiac trunk or the mesenteric artery
S35.4	Injury to blood vessels of the kidney
S36.04	Massive parenchymal rupture of the spleen
S37.03	Complete rupture of the renal parenchyma
T82.3	Mechanical complication due to other vascular grafts
T82.5	Mechanical complication due to other devices and implants in the heart and blood vessels

Procedures

The coding of the procedure for the implantation of one or more large-lumen vascular occlusion devices is always done using multiple codes. While an additional code from 00.4G Insertion of vascular occlusion devices (Table 13) codes the embolization with the occlusion device according to the number used, the embolization must also be specified by a CHOP code from the group 39.79.A- Selective embolization of other vessels with plugs based on anatomical location. When reviewing the additional reimbursement, it becomes clear that the mandatory combination is highly relevant for obtaining the supplementary payment.

Table 12 CHOP codes for vascular occlusion bodies (plugs), localization

CHOP CODE	CHOP TEXT: SELECTIVE EMBOLISATION OF OTHER VESSELS WITH PLUGS
39.79.A0	Other vessels, n.d
39.79.A1	Vessels of upper extremities [L]
39.79.A2	Aorta
39.79.A4	Thoracic vessels
39.79.A5	Visceral vessels
39.79.A6	Abdominal and pelvic vessels [L]
39.79.A7	Vessels of the lower extremities [L]
39.79.A8	Spinal vessels [L] *Cod. ibid.: Vascular plugs inserted into spinal vessels, by number (00.4G.A-)*
39.79.A9	Other vessels, other

Please also code:

For all the localizations except spinal vessels:

Vascular plugs inserted into thoracic, abdominal and peripheral vessels, by number (00.4G.8-)

CHOP codes for vascular plugs, amount of plugs

Table 13 CHOP codes for vascular closure devices (plugs), number

CHOP CODE	CHOP TEXT: SELECTIVE EMBOLISATION OF OTHER VESSELS WITH PLUGS
00.4G.7	**Vascular closure devices inserted into the ductus arteriosus botalli, by number**
00.4G.71	1 Device
00.4G.72	2 Devices
00.4G.73	3 Devices
00.4G.74	4 and more devices
00.4G.8	**Number of vascular plugs inserted in thoracic, abdominal and peripheral vessels.** *Excl. Vascular plugs inserted in spinal vessels, by number (00.4G.A-)*
00.4G.81	1 Plug
00.4G.82	2 plugs
00.4G.83	3 plugs
00.4G.84	4 plugs
00.4G.85	5 plugs
00.4G.86	6 plugs
00.4G.87	7 plugs
00.4G.88	8 plugs
00.4G.8A	9 plugs
00.4G.8B	10 and more plugs

DRG Grouping

The combination of codes described above for vascular embolization with plugs and for the number of plugs used will in most cases lead to DRG F31E, with additional extremely severe comorbidities resulting in F31C. Case constellations with additional complicating or multiple procedures or major vascular interventions can also be assigned to higher DRGs (see below).

DRG	Description	Cost Weight	Average LOS	First day with reduction	Cost weight/day	First day with surcharge	Cost weight/day
F31A	Other cardiothoracic procedures, with complicating procedure or age < 1 year or major vascular procedure, and extremely severe CC with multiple complex OR procedures	7,522	18,8	5	0,743	36	0,256
F31B	Other cardiothoracic procedures, with complicating procedure or age < 1 year or major vascular procedure, and extremely severe CC	5,356	12,7	3	0,841	24	0,248
F31C	Other cardiothoracic procedures, with complicating procedure or age < 1 year or major vascular procedure	3,728	10,6	2	0,756	20	0,227
F31D	Other cardiothoracic procedures with extremely severe CC	3,275	8,7	1	0,947	13	0,159
F31E	Other cardiothoracic procedures with excision of heart tissue or heart-lung machine	2,049	7,1	1	1,106	15	0,16

Supplement Fee

The additional fee is scaled according to the quantitative CHOP code, whereby CHF 162,85 being reimbursed for each implanted (peripheral) plug.

ZE-2024-181	CHOP-CODE	INSERTION OF VASCULAR PLUGS, THORACIC, ABDOMINAL, PERIPHERAL	AMOUNT (CHF)
ZE-2024-181.01	Z00.4G.81	1 Plug	162,85
ZE-2024-181.02	Z00.4G.82	2 Plugs	325,71
ZE-2024-181.03	Z00.4G.83	3 Plugs	488,56
ZE-2024-181.04	Z00.4G.84	4 Plugs	651,41
ZE-2024-181.05	Z00.4G.85	5 Plugs	814,26
ZE-2024-181.06	Z00.4G.86	6 Plugs	977,12
ZE-2024-181.07	Z00.4G.87	7 Plugs	1.139,97
ZE-2024-181.08	Z00.4G.88	8 Plugs	1.302,82
ZE-2024-181.09	Z00.4G.8A	9 Plugs	1.465,67
ZE-2024-181.10	Z00.4G.8B	10 and more plugs	1.628,53

GLOSSARY / ABBREVIATIONS

BMS
Bare Metal Stent

CC
Comorbidities and Complications (Basis for calculating the PCCL value)

CW
Cost Weight of a DRG

CHOP
Swiss classification of operations

DEB
Drug Eluting Balloon

DES
Drug Eluting Stent

DIMDI
Federal Insititute for Drugs and Medical Devices

DRG
Diagnosis Related Group

ICD-10-GM
International Classification of Diseases 10, German Modification

pAVK
Peripheral arterial obstructive disease

PCCL
Patient Comorbidity and Complexity Level (patient related total degree of disease)

POBA
Plain Old Balloon Angioplasty
(Balloon dilatation without additional procedure)

PTA
Percutenous transluminal angioplasty (Balloon-angioplasty)

YOU COULD ALSO BE INTERESTED IN
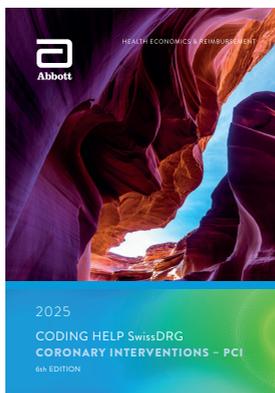
Coding help SwissDRG
Coronary interventions – PCI

Further information and coding helps can be found under:
https://www.cardiovascular.abbott/de/de/hcp/reimbursement.html

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