

## Supplementary Table 1. The definition of atherosclerotic cardiovascular disease

Percutaneous procedure <sup>a</sup> Percutaneous transluminal coronary angioplasty (M6551, M6552) Percutaneous transluminal coronary atherectomy (M6501-4) Percutaneous transluminal coronary atherectomy (M6571-2) Percutaneous mechanical thrombolysis (M6633) <sup>b</sup> Percutaneous intravascular atherectomy (M6630) <sup>b</sup> Percutaneous intravascular atherectomy (M6620) <sup>b</sup> Percutaneous intravascular atherectomy (M6620) <sup>b</sup> Percutaneous procedure or Surgery  CVD  CVD  Cerebral infarction: I63- or Revascularization: CVD percutaneous procedure or surgery  Diagnosis  Cerebral infarction (I63-) Percutaneous procedure <sup>a</sup> Percutaneous transluminal angioplasty, cerebral (M6631) Percutaneous cerebral angioplasty with drug (M6599) Percutaneous cerebral angioplasty with drug (M6599) Percutaneous intravascular installation of metallic stent cerebral and carotic (M6601-2) Percutaneous mechanical thrombolysis (M6633) <sup>c</sup> Surgery (transluminal atherectomy) <sup>a</sup> Transluminal atherectomy, carotid artery (O 0226, O 0227, O 2066)  PAD  PAD diagnosis (I70.2-3, I70.9, I73.1, or I73.8-9) AND Percutaneous angioplasty or transluminal atherectomy or open revascularizatior or amputation  Diagnosis  Atherosclerosis of upper/lower limb (I70.2-3); atherosclerosis, unspecified (I70.9) thromboangiitis obliterans (I73.1); peripheral vascular disease (I73.8-9) Percutaneous angioplasty <sup>a</sup> Percutaneous transluminal angioplasty, others (M6597)		
- ST elevation (STEMI) and non-ST elevation (NSTEMI) myocardial infarction I21-  Percutaneous procedure <sup>a</sup> Percutaneous transluminal coronary angioplasty (M6551, M6552)  Percutaneous transluminal coronary angioplasty (M6551, M6552)  Percutaneous transluminal coronary atherectomy (M6571-2)  Percutaneous mechanical thrombolysis (M6633) <sup>b</sup> Percutaneous intravascular atherectomy (M6620) <sup>b</sup> Coronary bypass surgery <sup>a</sup> Vascular bypass operation, aorta-coronary (O1641, O1642, O1647, OA641, OA642 OA647)  CVD  - Cerebral infarction: I63- or  - Revascularization: CVD percutaneous procedure or surgery  Diagnosis  Cerebral infarction (I63-)  Percutaneous procedure <sup>a</sup> Percutaneous transluminal angioplasty, cerebral (M6631)  Percutaneous cerebral angioplasty with drug (M6593-4)  Percutaneous cerebral angioplasty with drug (M6599)  Percutaneous intravascular installation of metallic stent cerebral and carotic (M6601-2)  Percutaneous intravascular atherectomy (M6620) <sup>c</sup> Percutaneous mechanical thrombolysis (M6633) <sup>c</sup> Surgery (transluminal atherectomy) <sup>a</sup> Transluminal atherectomy, carotid artery (O 0226, O 0227, O 2066)  PAD  - PAD diagnosis (I70.2-3, I70-9, I73-1, or I73-8-9) AND  - Percutaneous angioplasty or transluminal atherectomy or open revascularization or amputation  Diagnosis  Atherosclerosis of upper/lower limb (I70.2-3); atherosclerosis, unspecified (I70.9) thromboangiitis obliterans (I73.1); peripheral vascular disease (I73.8-9)  Percutaneous transluminal angioplasty, others (M6597)	CAD	
Percutaneous transcatheter placement of intracoronary stent (M6561-4) Percutaneous transluminal coronary atherectomy (M6571-2) Percutaneous mechanical thrombolysis (M6633) <sup>b</sup> Percutaneous thrombolytic treatment, coronary artery (M6634) Percutaneous intravascular atherectomy (M6620) <sup>b</sup> Coronary bypass surgery <sup>a</sup> Vascular bypass operation, aorta-coronary (O1641, O1642, O1647, OA641, OA642 OA647)  CVD - Cerebral infarction: I63- or - Revascularization: CVD percutaneous procedure or surgery  Diagnosis Percutaneous procedure <sup>a</sup> Percutaneous thrombus removal, cerebral (M6631) Percutaneous transluminal angioplasty, cerebral and carotid (M6593-4) Percutaneous cerebral angioplasty with drug (M6599) Percutaneous intravascular installation of metallic stent cerebral and carotic (M6601-2) Percutaneous intravascular atherectomy (M6620) <sup>c</sup> Percutaneous intravascular atherectomy (M6620) <sup>c</sup> Percutaneous mechanical thrombolysis (M6633) <sup>c</sup> Transluminal atherectomy, carotid artery (O 0226, O 0227, O 2066)  PAD - PAD diagnosis (I70.2-3, I70.9, I73.1, or I73.8-9) AND - Percutaneous angioplasty or transluminal atherectomy or open revascularization or amputation  Diagnosis Atherosclerosis of upper/lower limb (I70.2-3); atherosclerosis, unspecified (I70.9) thromboangiitis obliterans (I73.1); peripheral vascular disease (I73.8-9) Percutaneous angioplasty <sup>a</sup> Percutaneous transluminal angioplasty, others (M6597)	Diagnosis	Myocardial infarction (I21-) - ST elevation (STEMI) and non-ST elevation (NSTEMI) myocardial infarction I21-
OA647)  CVD - Cerebral infarction: I63- or - Revascularization: CVD percutaneous procedure or surgery  Diagnosis - Cerebral infarction (I63-)  Percutaneous procedure Percutaneous thrombus removal, cerebral (M6631)  Percutaneous transluminal angioplasty, cerebral and carotid (M6593-4)  Percutaneous cerebral angioplasty with drug (M6599)  Percutaneous intravascular installation of metallic stent cerebral and carotic (M660-2)  Percutaneous intravascular atherectomy (M6620) <sup>c</sup> Percutaneous mechanical thrombolysis (M6633) <sup>c</sup> Surgery (transluminal atherectomy) Transluminal atherectomy, carotid artery (O 0226, O 0227, O 2066)  PAD - PAD diagnosis (I70.2-3, I70.9, I73.1, or I73.8-9) AND  - Percutaneous angioplasty or transluminal atherectomy or open revascularization or amputation  Diagnosis - Atherosclerosis of upper/lower limb (I70.2-3); atherosclerosis, unspecified (I70.9) thromboangiitis obliterans (I73.1); peripheral vascular disease (I73.8-9)  Percutaneous angioplasty Percutaneous transluminal angioplasty, others (M6597)	Percutaneous procedure <sup>a</sup>	Percutaneous transcatheter placement of intracoronary stent (M6561-4) Percutaneous transluminal coronary atherectomy (M6571-2) Percutaneous mechanical thrombolysis (M6633) <sup>b</sup> Percutaneous thrombolytic treatment, coronary artery (M6634)
- Revascularization: CVD percutaneous procedure or surgery  Diagnosis Cerebral infarction (I63-)  Percutaneous procedure Percutaneous thrombus removal, cerebral (M6631) Percutaneous transluminal angioplasty, cerebral and carotid (M6593-4) Percutaneous cerebral angioplasty with drug (M6599) Percutaneous intravascular installation of metallic stent cerebral and carotic (M6601-2) Percutaneous intravascular atherectomy (M6620) <sup>c</sup> Percutaneous mechanical thrombolysis (M6633) <sup>c</sup> Surgery (transluminal atherectomy)  Transluminal atherectomy, carotid artery (O 0226, O 0227, O 2066)  PAD - PAD diagnosis (I70.2-3, I70.9, I73.1, or I73.8-9) AND - Percutaneous angioplasty or transluminal atherectomy or open revascularization or amputation  Diagnosis Atherosclerosis of upper/lower limb (I70.2-3); atherosclerosis, unspecified (I70.9) thromboangiitis obliterans (I73.1); peripheral vascular disease (I73.8-9)  Percutaneous angioplasty <sup>a</sup> Percutaneous transluminal angioplasty, others (M6597)	Coronary bypass surgery <sup>a</sup>	Vascular bypass operation, aorta-coronary (O1641, O1642, O1647 , OA641, OA642, OA647)
Percutaneous procedure <sup>a</sup> Percutaneous thrombus removal, cerebral (M6631) Percutaneous transluminal angioplasty, cerebral and carotid (M6593-4) Percutaneous cerebral angioplasty with drug (M6599) Percutaneous intravascular installation of metallic stent cerebral and carotic (M6601-2) Percutaneous intravascular atherectomy (M6620) <sup>c</sup> Percutaneous mechanical thrombolysis (M6633) <sup>c</sup> Surgery (transluminal atherectomy) <sup>a</sup> Transluminal atherectomy, carotid artery (O 0226, O 0227, O 2066)  PAD PAD PAD Percutaneous angioplasty or transluminal atherectomy or open revascularization or amputation  Diagnosis Atherosclerosis of upper/lower limb (I70.2-3); atherosclerosis, unspecified (I70.9) thromboangiitis obliterans (I73.1); peripheral vascular disease (I73.8-9)  Percutaneous angioplasty <sup>a</sup> Percutaneous transluminal angioplasty, others (M6597)	CVD	
Percutaneous transluminal angioplasty, cerebral and carotid (M6593-4) Percutaneous cerebral angioplasty with drug (M6599) Percutaneous intravascular installation of metallic stent cerebral and carotic (M6601-2) Percutaneous intravascular atherectomy (M6620) <sup>c</sup> Percutaneous mechanical thrombolysis (M6633) <sup>c</sup> Surgery (transluminal atherectomy) <sup>a</sup> Transluminal atherectomy, carotid artery (O 0226, O 0227, O 2066)  PAD PAD PAD PAD Percutaneous angioplasty or transluminal atherectomy or open revascularization or amputation  Diagnosis Atherosclerosis of upper/lower limb (I70.2-3); atherosclerosis, unspecified (I70.9) thromboangiitis obliterans (I73.1); peripheral vascular disease (I73.8-9)  Percutaneous angioplasty <sup>a</sup> Percutaneous transluminal angioplasty, others (M6597)	Diagnosis	Cerebral infarction (I63-)
PAD - PAD diagnosis (I70.2-3, I70.9, I73.1, or I73.8-9) AND - Percutaneous angioplasty or transluminal atherectomy or open revascularization or amputation  Diagnosis Atherosclerosis of upper/lower limb (I70.2-3); atherosclerosis, unspecified (I70.9) thromboangiitis obliterans (I73.1); peripheral vascular disease (I73.8-9)  Percutaneous angioplasty <sup>a</sup> Percutaneous transluminal angioplasty, others (M6597)	Percutaneous procedure <sup>a</sup>	Percutaneous transluminal angioplasty, cerebral and carotid (M6593-4) Percutaneous cerebral angioplasty with drug (M6599) Percutaneous intravascular installation of metallic stent cerebral and carotid (M6601-2) Percutaneous intravascular atherectomy (M6620) <sup>c</sup>
- Percutaneous angioplasty or transluminal atherectomy or open revascularization or amputation  Diagnosis Atherosclerosis of upper/lower limb (I70.2-3); atherosclerosis, unspecified (I70.9) thromboangiitis obliterans (I73.1); peripheral vascular disease (I73.8-9)  Percutaneous angioplasty <sup>a</sup> Percutaneous transluminal angioplasty, others (M6597)	Surgery (transluminal atherectomy) <sup>a</sup>	Transluminal atherectomy, carotid artery (O 0226, O 0227, O 2066)
thromboangiitis obliterans (I73.1); peripheral vascular disease (I73.8-9)  Percutaneous angioplasty <sup>a</sup> Percutaneous transluminal angioplasty, others (M6597)	PAD	- Percutaneous angioplasty or transluminal atherectomy or open revascularization
	Diagnosis	Atherosclerosis of upper/lower limb (I70.2-3); atherosclerosis, unspecified (I70.9); thromboangiitis obliterans (I73.1); peripheral vascular disease (I73.8-9)
Percutaneous intravascular installation of stent-graft, aorta and iliac (M6612) Percutaneous intravascular installation of stent-graft, others (M6613) Percutaneous thrombus removal, others (M6632) Percutaneous intravascular atherectomy (M6620) Percutaneous mechanical thrombolysis (M6633)	Percutaneous angioplasty <sup>a</sup>	Percutaneous intravascular installation of metallic stent, others (M6605) Percutaneous intravascular installation of stent-graft, aorta and iliac (M6612) Percutaneous intravascular installation of stent-graft, others (M6613) Percutaneous thrombus removal, others (M6632) Percutaneous intravascular atherectomy (M6620)
Transluminal atherectomy <sup>a</sup> Transluminal atherectomy, abdominal or iliac artery (O 2064, O 2067, O 2065, O 2068)	Transluminal atherectomy <sup>a</sup>	Transluminal atherectomy, abdominal or iliac artery (O 2064, O 2067, O 2065, O 2068)
Open revascularization <sup>a</sup> Vascular bypass operation, artery, others (O1643-4, O0161–O0171, O1645–6)	Open revascularization <sup>a</sup>	Vascular bypass operation, artery, others (O1643-4, O0161–O0171, O1645–6)

Diagnoses were coded according to the International Classification of Disease, 10th revision and procedures or surgeries are used with the Healthcare Common Procedure Coding System codes provided by the Health Insurance Review and Assessment (HIRA) service.

CAD, coronary artery disease; AMI, acute myocardial infarction; CVD, cerebrovascular disease; PAD, peripheral artery disease. <sup>a</sup>Healthcare Common Procedure Coding System codes provided by HIRA.

<sup>&</sup>lt;sup>b</sup>Procedure under diagnosis code of (I20-I25).

<sup>&</sup>lt;sup>c</sup>Procedure under diagnosis code of (I63, I65-66, I67.2).