

Supplementary material

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Supplement to:

Treatment pathways of lipid-lowering therapies in Germany 2016–2022

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Table S1: ATC codes of lipid-lowering agents

ATC code	Active substance
C10AX15	Bempedoic acid
C10BA10	Bempedoic acid and ezetimibe
C10AX09	Ezetimibe
C10BA03	Pravastatin and fenofibrate
C10AX13	Evolocumab
C10AX14	Alirocumab
C10AX16	Inclisiran
C10AA01	Simvastatin
C10AA02	Lovastatin
C10AA03	Pravastatin
C10AA04	Fluvastatin
C10AA05	Atorvastatin
C10AA07	Rosuvastatin
C10AA08	Pitavastatin
C10BX03	Atorvastatin and amlodipine
C10BX05	Rosuvastatin and acetylsalicylic acid
C10BX06	Atorvastatin, acetylsalicylic acid and ramipril
C10BX09	Rosuvastatin and amlodipine
C10BX11	Atorvastatin, amlodipine and perindopril
C10BX18	Atorvastatin, amlodipine and ramipril
C10BA02	Simvastatin and ezetimibe
C10BA05	Atorvastatin and ezetimibe
C10BA06	Rosuvastatin and ezetimibe

Table S2: Definition of statin intensity for average daily doses

Statin	Low intensity (LDL-C reduction < 30%)	Moderate intensity (LDL-C reduction ≥ 30% to < 50%)	High intensity (LDL-C reduction ≥ 50%)
Atorvastatin	–	< 30 mg	≥ 30 mg
Fluvastatin	< 60 mg	≥ 60 mg	–
Lovastatin	< 30 mg	≥ 30 mg	–
Pitavastatin	< 1.5 mg	≥ 1.5 mg	–
Pravastatin	< 30 mg	≥ 30 mg	–
Rosuvastatin	–	< 15 mg	≥ 15 mg
Simvastatin	< 15 mg	15 mg–59 mg	≥ 60 mg

Classification according to Fox et al ¹⁸. LDL-C: Low-density lipoprotein cholesterol.

Table S3: ICD-10/OPS codes used for the definition of high or very-high cardiovascular risk

ICD-10 codes

Code	Description
E10.2	Diabetes mellitus type 1 with renal complications
E10.3	Diabetes mellitus type 1 with ophthalmic complications
E10.4	Diabetes mellitus type 1 with neurological complications
E10.5	Diabetes mellitus type 1 with peripheral vascular complications
E10.7	Diabetes mellitus type 1 with multiple complications
E11.2	Diabetes mellitus type 2 with renal complications
E11.3	Diabetes mellitus type 2 with ophthalmic complications
E11.4	Diabetes mellitus type 2 with neurological complications
E11.5	Diabetes mellitus type 2 with peripheral vascular complications
E11.7	Diabetes mellitus type 2 with multiple complications
E12.2	Malnutrition-related diabetes mellitus with renal complications
E12.3	Malnutrition-related diabetes mellitus with ophthalmic complications
E12.4	Malnutrition-related diabetes mellitus with neurological complications
E12.5	Malnutrition-related diabetes mellitus with peripheral vascular complications
E12.7	Malnutrition-related diabetes mellitus with multiple complications
E13.2	Other specified diabetes mellitus with renal complications
E13.3	Other specified diabetes mellitus with ophthalmic complications
E13.4	Other specified diabetes mellitus with neurological complications
E13.5	Other specified diabetes mellitus with peripheral vascular complications
E13.7	Other specified diabetes mellitus with multiple complications
E14.2	Unspecified diabetes mellitus with renal complications
E14.3	Unspecified diabetes mellitus with ophthalmic complications
E14.4	Unspecified diabetes mellitus with neurological complications
E14.5	Unspecified diabetes mellitus with peripheral vascular complications
E14.7	Unspecified diabetes mellitus with multiple complications
G45	Cerebral transient ischemia and related syndroms
I10	Essential (primary) hypertension
I11	Hypertensive heart disease
I12	Hypertensive renal disease
I13	Hypertensive heart and renal disease
I15	Secondary hypertension
I20	Angina pectoris

I21	Acute myocardial infarction
I22	Recurrent myocardial infarction
I23	Acute complications after acute myocardial infarction
I24	Other acute ischaemic heart disease
I25	Chronic ischaemic heart disease
I63	Cerebral infarction
I64	Stroke, not specified as haemorrhage or infarction
I65	Occlusion and stenosis of pre-cerebral arteries without resulting stroke
I66	Occlusion and stenosis of cerebral arteries without resulting stroke
I70	Atherosclerosis
I73.9	Peripheral vascular disease
I74	Arterial embolism and thrombosis
N18.3*	Chronic kidney disease, stage 3
N18.4	Chronic kidney disease, stage 4
N18.5	Chronic kidney disease, stage 5
Z95.1	Presence of aortocoronary bypass graft
Z95.5	Presence of coronary angioplasty implant and graft
(E10.0 or E10.1 or E10.6 or E10.8 or E10.9) and (F17 or Z72.0)*	Diabetes mellitus type 1 without organ damage in combination with smoking
(E11.0 or E11.1 or E11.6 or E11.8 or E11.9) and (F17 or Z72.0)*	Diabetes mellitus type 2 without organ damage in combination with smoking
(E12.0 or E12.1 or E12.6 or E12.8 or E12.9) and (F17 or Z72.0)*	Malnutrition-related diabetes mellitus without organ damage in combination with smoking
(E13.0 or E13.1 or E13.6 or E13.8 or E13.9) and (F17 or Z72.0)*	Other specified diabetes mellitus without organ damage in combination with smoking
(E14.0 or E14.1 or E14.6 or E14.8 or E14.9) and (F17 or Z72.0)*	Unspecified diabetes mellitus without organ damage in combination with smoking

OPS codes

Procedure	Codes
Coronary artery bypass grafting	5-360, 5-361, 5-362, 5-363, 5-364, 5-369
Percutaneous coronary intervention	8-837.0, 8-837.1, 8-837.2, 8-837.5, 8-837.k, 8-837.m, 8-837.w, 8-837.x, 8-837.y
Peripheral arterial disease-related procedures	8-836.0a, 8-836.0c, 8-836.0h, 8-836.0j, 8-836.0k, 8-836.0m, 8-836.0n, 8-836.0p, 8-836.0q, 8-836.0r, 8-836.0s, 8-836.3c, 8-836.3k, 8-840.0a, 8-840.0c, 8-840.0h, 8-840.0j, 8-840.0k, 8-840.0m, 8-840.0n, 8-840.0p, 8-840.0q, 8-840.0r, 8-840.0s, 8-840.1a, 8-840.1c, 8-840.1h, 8-840.1j, 8-840.1k, 8-840.1m, 8-840.1n, 8-840.1p, 8-840.1q, 8-840.1r, 8-840.1s, 8-840.2a, 8-840.2c, 8-840.2h, 8-840.2j, 8-840.2k, 8-840.2m, 8-840.2n, 8-840.2p, 8-840.2q, 8-840.2r, 8-840.2s, 8-840.3a, 8-840.3c, 8-840.3h, 8-840.3j, 8-840.3k, 8-840.3m, 8-840.3n, 8-840.3p, 8-840.3q, 8-840.3r, 8-840.3s, 8-840.4a, 8-840.4c, 8-840.4h, 8-840.4j, 8-840.4k, 8-840.4m, 8-840.4n, 8-840.4p, 8-840.4q, 8-840.4r, 8-840.4s, 8-840.5a, 8-840.5c, 8-840.5h, 8-840.5j, 8-840.5k, 8-840.5m, 8-840.5n, 8-840.5p, 8-840.5q, 8-840.5r, 8-840.5s, 8-841.0a, 8-841.0c, 8-841.0h, 8-841.0j, 8-841.0k, 8-841.0m, 8-841.0n, 8-841.0p, 8-841.0q, 8-841.0r, 8-841.0s, 8-841.1a, 8-841.1c, 8-841.1h, 8-841.1j, 8-841.1k, 8-841.1m, 8-841.1n, 8-841.1p, 8-841.1q, 8-841.1r, 8-841.1s, 8-841.2a, 8-841.2c, 8-841.2h, 8-841.2j, 8-841.2k, 8-841.2m, 8-841.2n, 8-841.2p, 8-841.2q, 8-841.2r, 8-841.2s, 8-841.3a, 8-841.3c, 8-841.3h, 8-841.3j, 8-841.3k, 8-841.3m, 8-841.3n, 8-841.3p, 8-841.3q, 8-841.3r, 8-841.3s, 8-841.4a, 8-841.4c, 8-841.4h, 8-841.4j, 8-841.4k, 8-841.4m, 8-841.4n, 8-841.4p, 8-841.4q, 8-841.4r, 8-841.4s, 8-841.5a, 8-841.5c, 8-841.5h, 8-841.5j, 8-841.5k, 8-841.5m, 8-841.5n, 8-841.5p, 8-841.5q, 8-841.5r, 8-841.5s, 8-843.0a, 8-843.0c, 8-843.0h, 8-843.0j, 8-843.0k, 8-843.0m, 8-843.0n, 8-843.0p, 8-843.0q, 8-843.0r, 8-843.0s, 8-843.1a, 8-843.1c, 8-843.1h, 8-843.1j, 8-843.1k, 8-843.1m, 8-843.1n, 8-843.1p, 8-843.1q, 8-843.1r, 8-843.1s, 8-843.2a, 8-843.2c, 8-843.2h, 8-843.2j, 8-843.2k, 8-843.2m, 8-843.2n, 8-843.2p, 8-843.2q, 8-843.2r, 8-843.2s, 8-843.3a, 8-843.3c, 8-843.3h, 8-843.3j, 8-843.3k, 8-843.3m, 8-843.3n, 8-843.3p, 8-843.3q, 8-843.3r, 8-843.3s, 8-843.4a, 8-843.4c, 8-843.4h, 8-843.4j, 8-843.4k, 8-843.4m, 8-843.4n, 8-843.4p, 8-843.4q, 8-843.4r, 8-843.4s, 8-843.5a, 8-843.5c, 8-843.5h, 8-843.5j, 8-843.5k, 8-843.5m, 8-843.5n, 8-843.5p, 8-843.5q, 8-843.5r, 8-843.5s, 8-844.0c, 8-844.1c, 8-844.2c, 8-844.3c, 8-844.4c, 8-844.5c

Notes: * used to define high cardiovascular risk, all others used to define very-high cardiovascular risk according to the 2019 ESC/EAS guidelines for the management of dyslipidaemias ¹.