

Local Coverage Determination (LCD): HOMOCYSTEINE Level, Serum (L34419)

Links in PDF documents are not guaranteed to work. To follow a web link, please use the MCD Website.

Contractor Information

Contractor Name	Contract Type	Contract Number	Jurisdiction	State(s)
Palmetto GBA	A and B and HHH	MAC 11201 - MAC A	J - M	South Carolina
Palmetto GBA	A and B and HHH	MAC 11301 - MAC A	J - M	Virginia
Palmetto GBA	A and B and HHH	MAC 11401 - MAC A	J - M	West Virginia
Palmetto GBA	A and B and HHH	MAC 11501 - MAC A	J - M	North Carolina
Back to Top				

LCD Information

Document Information

LCD ID L34419	Original Effective Date For services performed on or after 10/01/2015
Original ICD-9 LCD ID L31552	Revision Effective Date For services performed on or after 10/01/2016
LCD Title HOMOCYSTEINE Level, Serum	Revision Ending Date N/A
AMA CPT / ADA CDT / AHA NUBC Copyright Statement CPT only copyright 2002-2016 American Medical Association. All Rights Reserved. CPT is a registered trademark of the American Medical Association. Applicable FARS/DFARS Apply to Government Use. Fee schedules, relative value units, conversion factors and/or related components are not assigned by the AMA, are not part of CPT, and the AMA is not recommending their use. The AMA does not directly or indirectly practice medicine or dispense medical services. The AMA assumes no liability for data contained or not contained herein.	Retirement Date N/A
	Notice Period Start Date N/A
	Notice Period End Date N/A
The Code on Dental Procedures and Nomenclature (Code) is published in Current Dental Terminology (CDT). Copyright © American Dental Association. All rights reserved. CDT and CDT-2016 are trademarks of the American Dental Association.	

UB-04 Manual. OFFICIAL UB-04 DATA SPECIFICATIONS MANUAL, 2014, is copyrighted by American Hospital Association ("AHA"), Chicago, Illinois. No portion of OFFICIAL UB-04 MANUAL may be reproduced, sorted in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior express, written consent of AHA." Health Forum reserves the right to change the copyright notice from time to time upon written notice to Company.

CMS National Coverage Policy Language quoted from the Centers for Medicare and Medicaid Services (CMS), National Coverage Determinations (NCDs) and coverage provisions in interpretive manuals is italicized throughout the policy. NCDs and coverage provisions in interpretive manuals are not subject to the Local Coverage Determination (LCD) Review Process (42 CFR 405.860[b] and 42 CFR 426 [Subpart D]). In addition, an administrative law judge may not review a NCD. See §1869(f)(1)(A)(i) of the Social Security Act.

Title XVIII of the Social Security Act §1862(a)(1)(A) excludes expenses incurred for items or services which are not reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member.

Title XVIII of the Social Security Act §1833(e) prohibits Medicare payment for any claim which lacks the necessary information to process the claim.

42 CFR §410.32 indicates that diagnostic tests may only be ordered by the treating physician.

42 CFR §411.15(k)(11) excludes routine physical examinations.

42 CFR §482.24 Conditions of Participation: Medical record services

CMS Internet-Only Manual, Pub 100-02, Medicare Benefit Policy Manual, Chapter 6, §20.4.1

CMS Internet-Only Manual, Pub 100-08, Medicare Program Integrity Manual, Chapter 3, §3.4.1.3

Coverage Guidance

Coverage Indications, Limitations, and/or Medical Necessity

Indications:

Elevated serum levels of the amino acid homocysteine are associated with increased risk of cardiovascular and cerebrovascular disease events as well as an increased risk of osteoporosis. Treatment of the elevated homocysteine level in the absence of an established causal relationship between hyperhomocysteinemia and these entities has been empiric supplementation with vitamin B-6, B-12 and folic acid. Hyperhomocysteinemia may also be present with Vitamin B12 and folate deficiencies associated with anemia. In these instances the elevated homocysteine confirms the vitamin deficiency as the source of anemia.

No studies demonstrate that such vitamin supplementation, while lowering the serum homocysteine levels, also reduces the risks for cardiovascular or cerebrovascular events or osteoporosis. The HOPE 2 investigators reported that "...combined daily administration...[of the vitamins] for five years had no beneficial effect on major vascular events in a high risk population with vascular disease." The NORVIT investigators found that "Treatment with B vitamins did not lower the risk of recurrent cardiovascular disease after acute myocardial infarction. A harmful effect from combined B vitamin treatment was suggested." In their 2004 report, Lange H, et al, reported that B vitamin supplementation to lower homocysteine levels, after coronary stenting, may increase the risk of in-stent restenosis and the need for target vessel revascularization.

- Homocysteine levels will be covered by Medicare to confirm Vitamin B12 or folate deficiency.
- In the absence of evidence that treatment of hyperhomocysteinemia reduces cardiovascular events, this test can only be covered in patients with known vascular disease or risk thereof (based upon abnormal lipid metabolism, high blood pressure or diabetes mellitus) for the purpose of risk stratification. In this circumstance it will be covered only once per lifetime.

Limitations:

- When used to determine the risk of developing atherosclerotic cardiovascular disease, measurement of serum homocysteine levels in the absence of known vascular disease, hyperlipidemia or diabetes mellitus will be denied as screening.
- Serum homocysteine levels for the evaluation of treatment of hyperhomocysteinemia in patients with cardiovascular risk factors will be denied as not medically necessary.
- Serum homocysteine levels will not be covered other than suspected B12/folate deficiency, or for risk stratification for the conditions noted in the covered ICD-10 diagnosis section of this LCD. It is covered only once in a lifetime for the initial determination, for risk stratification. Subsequent determinations will be covered only if appropriate treatment does not correct the anemia or symptoms.

Other Comments:

For outpatient settings other than CORFs, references to "physicians" throughout this policy include non-physicians, such as nurse practitioners, clinical nurse specialists and physician assistants. Such non-physician practitioners, with certain exceptions, may certify, order and establish the plan of care as authorized by State law. (See Sections 1861[s][2] and 1862[a][14] of Title XVIII of the Social Security Act; 42 CFR, Sections 410.74, 410.75, 410.76 and 419.22; 58 FR 18543, April 7, 2000.)

[Back to Top](#)

Coding Information

Bill Type Codes:

Contractors may specify Bill Types to help providers identify those Bill Types typically used to report this service. Absence of a Bill Type does not guarantee that the policy does not apply to that Bill Type. Complete absence of all Bill Types indicates that coverage is not influenced by Bill Type and the policy should be assumed to apply equally to all claims.

N/A

Revenue Codes:

Contractors may specify Revenue Codes to help providers identify those Revenue Codes typically used to report this service. In most instances Revenue Codes are purely advisory. Unless specified in the policy, services reported under other Revenue Codes are equally subject to this coverage determination. Complete absence of all Revenue Codes indicates that coverage is not influenced by Revenue Code and the policy should be assumed to apply equally to all Revenue Codes.

N/A

CPT/HCPCS Codes

Group 1 Paragraph: N/A

Group 1 Codes:

83090 HOMOCYSTEINE

ICD-10 Codes that Support Medical Necessity

Group 1 Paragraph: The correct use of an ICD-10 code listed below does not assure coverage of a service. The service must be reasonable and necessary in the specific case and must meet the criteria specified in this determination.

Group 1 Codes:

ICD-10 Codes	Description
D51.0	Vitamin B12 deficiency anemia due to intrinsic factor deficiency

ICD-10 Codes	Description
D51.1	Vitamin B12 deficiency anemia due to selective vitamin B12 malabsorption with proteinuria
D51.2	Transcobalamin II deficiency
D51.3	Other dietary vitamin B12 deficiency anemia
D51.8	Other vitamin B12 deficiency anemias
D51.9	Vitamin B12 deficiency anemia, unspecified
D52.0	Dietary folate deficiency anemia
D52.1	Drug-induced folate deficiency anemia
D52.8	Other folate deficiency anemias
D52.9	Folate deficiency anemia, unspecified
D53.1	Other megaloblastic anemias, not elsewhere classified
E10.10	Type 1 diabetes mellitus with ketoacidosis without coma
E10.11	Type 1 diabetes mellitus with ketoacidosis with coma
E10.21	Type 1 diabetes mellitus with diabetic nephropathy
E10.22	Type 1 diabetes mellitus with diabetic chronic kidney disease
E10.29	Type 1 diabetes mellitus with other diabetic kidney complication
E10.311	Type 1 diabetes mellitus with unspecified diabetic retinopathy with macular edema
E10.319	Type 1 diabetes mellitus with unspecified diabetic retinopathy without macular edema
E10.36	Type 1 diabetes mellitus with diabetic cataract
E10.39	Type 1 diabetes mellitus with other diabetic ophthalmic complication
E10.40	Type 1 diabetes mellitus with diabetic neuropathy, unspecified
E10.41	Type 1 diabetes mellitus with diabetic mononeuropathy
E10.42	Type 1 diabetes mellitus with diabetic polyneuropathy
E10.43	Type 1 diabetes mellitus with diabetic autonomic (poly)neuropathy
E10.44	Type 1 diabetes mellitus with diabetic amyotrophy
E10.49	Type 1 diabetes mellitus with other diabetic neurological complication
E10.51	Type 1 diabetes mellitus with diabetic peripheral angiopathy without gangrene
E10.52	Type 1 diabetes mellitus with diabetic peripheral angiopathy with gangrene
E10.59	Type 1 diabetes mellitus with other circulatory complications
E10.610	Type 1 diabetes mellitus with diabetic neuropathic arthropathy
E10.618	Type 1 diabetes mellitus with other diabetic arthropathy
E10.620	Type 1 diabetes mellitus with diabetic dermatitis
E10.621	Type 1 diabetes mellitus with foot ulcer
E10.622	Type 1 diabetes mellitus with other skin ulcer
E10.628	Type 1 diabetes mellitus with other skin complications
E10.630	Type 1 diabetes mellitus with periodontal disease
E10.638	Type 1 diabetes mellitus with other oral complications
E10.641	Type 1 diabetes mellitus with hypoglycemia with coma
E10.649	Type 1 diabetes mellitus with hypoglycemia without coma
E10.65	Type 1 diabetes mellitus with hyperglycemia
E10.69	Type 1 diabetes mellitus with other specified complication
E10.8	Type 1 diabetes mellitus with unspecified complications
E10.9	Type 1 diabetes mellitus without complications
E11.00	Type 2 diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)
E11.01	Type 2 diabetes mellitus with hyperosmolarity with coma
E11.21	Type 2 diabetes mellitus with diabetic nephropathy
E11.22	Type 2 diabetes mellitus with diabetic chronic kidney disease
E11.29	Type 2 diabetes mellitus with other diabetic kidney complication
E11.311	Type 2 diabetes mellitus with unspecified diabetic retinopathy with macular edema
E11.319	Type 2 diabetes mellitus with unspecified diabetic retinopathy without macular edema
E11.36	Type 2 diabetes mellitus with diabetic cataract
E11.39	Type 2 diabetes mellitus with other diabetic ophthalmic complication
E11.40	Type 2 diabetes mellitus with diabetic neuropathy, unspecified
E11.41	Type 2 diabetes mellitus with diabetic mononeuropathy
E11.42	Type 2 diabetes mellitus with diabetic polyneuropathy
E11.43	Type 2 diabetes mellitus with diabetic autonomic (poly)neuropathy
E11.44	Type 2 diabetes mellitus with diabetic amyotrophy
E11.49	Type 2 diabetes mellitus with other diabetic neurological complication

ICD-10 Codes	Description
E11.51	Type 2 diabetes mellitus with diabetic peripheral angiopathy without gangrene
E11.52	Type 2 diabetes mellitus with diabetic peripheral angiopathy with gangrene
E11.59	Type 2 diabetes mellitus with other circulatory complications
E11.610	Type 2 diabetes mellitus with diabetic neuropathic arthropathy
E11.618	Type 2 diabetes mellitus with other diabetic arthropathy
E11.620	Type 2 diabetes mellitus with diabetic dermatitis
E11.621	Type 2 diabetes mellitus with foot ulcer
E11.622	Type 2 diabetes mellitus with other skin ulcer
E11.628	Type 2 diabetes mellitus with other skin complications
E11.630	Type 2 diabetes mellitus with periodontal disease
E11.638	Type 2 diabetes mellitus with other oral complications
E11.641	Type 2 diabetes mellitus with hypoglycemia with coma
E11.649	Type 2 diabetes mellitus with hypoglycemia without coma
E11.65	Type 2 diabetes mellitus with hyperglycemia
E11.69	Type 2 diabetes mellitus with other specified complication
E11.8	Type 2 diabetes mellitus with unspecified complications
E11.9	Type 2 diabetes mellitus without complications
E13.00	Other specified diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)
E13.01	Other specified diabetes mellitus with hyperosmolarity with coma
E13.10	Other specified diabetes mellitus with ketoacidosis without coma
E13.11	Other specified diabetes mellitus with ketoacidosis with coma
E13.21	Other specified diabetes mellitus with diabetic nephropathy
E13.22	Other specified diabetes mellitus with diabetic chronic kidney disease
E13.29	Other specified diabetes mellitus with other diabetic kidney complication
E13.311	Other specified diabetes mellitus with unspecified diabetic retinopathy with macular edema
E13.319	Other specified diabetes mellitus with unspecified diabetic retinopathy without macular edema
E13.36	Other specified diabetes mellitus with diabetic cataract
E13.39	Other specified diabetes mellitus with other diabetic ophthalmic complication
E13.40	Other specified diabetes mellitus with diabetic neuropathy, unspecified
E13.41	Other specified diabetes mellitus with diabetic mononeuropathy
E13.42	Other specified diabetes mellitus with diabetic polyneuropathy
E13.43	Other specified diabetes mellitus with diabetic autonomic (poly)neuropathy
E13.44	Other specified diabetes mellitus with diabetic amyotrophy
E13.49	Other specified diabetes mellitus with other diabetic neurological complication
E13.51	Other specified diabetes mellitus with diabetic peripheral angiopathy without gangrene
E13.52	Other specified diabetes mellitus with diabetic peripheral angiopathy with gangrene
E13.59	Other specified diabetes mellitus with other circulatory complications
E13.610	Other specified diabetes mellitus with diabetic neuropathic arthropathy
E13.618	Other specified diabetes mellitus with other diabetic arthropathy
E13.620	Other specified diabetes mellitus with diabetic dermatitis
E13.621	Other specified diabetes mellitus with foot ulcer
E13.622	Other specified diabetes mellitus with other skin ulcer
E13.628	Other specified diabetes mellitus with other skin complications
E13.630	Other specified diabetes mellitus with periodontal disease
E13.638	Other specified diabetes mellitus with other oral complications
E13.641	Other specified diabetes mellitus with hypoglycemia with coma
E13.649	Other specified diabetes mellitus with hypoglycemia without coma
E13.65	Other specified diabetes mellitus with hyperglycemia
E13.69	Other specified diabetes mellitus with other specified complication
E13.8	Other specified diabetes mellitus with unspecified complications
E13.9	Other specified diabetes mellitus without complications
E78.1	Pure hyperglyceridemia
E78.2	Mixed hyperlipidemia
E78.3	Hyperchylomicronemia
E78.4	Other hyperlipidemia
E78.5	Hyperlipidemia, unspecified
I10	Essential (primary) hypertension

ICD-10 Codes	Description
I11.0	Hypertensive heart disease with heart failure
I11.9	Hypertensive heart disease without heart failure
I12.0	Hypertensive chronic kidney disease with stage 5 chronic kidney disease or end stage renal disease
I12.9	Hypertensive chronic kidney disease with stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease
I13.0	Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease
I13.10	Hypertensive heart and chronic kidney disease without heart failure, with stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease
I13.11	Hypertensive heart and chronic kidney disease without heart failure, with stage 5 chronic kidney disease, or end stage renal disease
I13.2	Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease
I15.0	Renovascular hypertension
I15.1	Hypertension secondary to other renal disorders
I15.2	Hypertension secondary to endocrine disorders
I15.8	Other secondary hypertension
I15.9	Secondary hypertension, unspecified
I20.0	Unstable angina
I20.1	Angina pectoris with documented spasm
I20.8	Other forms of angina pectoris
I20.9	Angina pectoris, unspecified
I21.01	ST elevation (STEMI) myocardial infarction involving left main coronary artery
I21.02	ST elevation (STEMI) myocardial infarction involving left anterior descending coronary artery
I21.09	ST elevation (STEMI) myocardial infarction involving other coronary artery of anterior wall
I21.11	ST elevation (STEMI) myocardial infarction involving right coronary artery
I21.19	ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall
I21.21	ST elevation (STEMI) myocardial infarction involving left circumflex coronary artery
I21.29	ST elevation (STEMI) myocardial infarction involving other sites
I21.4	Non-ST elevation (NSTEMI) myocardial infarction
I22.0	Subsequent ST elevation (STEMI) myocardial infarction of anterior wall
I22.1	Subsequent ST elevation (STEMI) myocardial infarction of inferior wall
I22.2	Subsequent non-ST elevation (NSTEMI) myocardial infarction
I22.8	Subsequent ST elevation (STEMI) myocardial infarction of other sites
I22.9	Subsequent ST elevation (STEMI) myocardial infarction of unspecified site
I24.0	Acute coronary thrombosis not resulting in myocardial infarction
I24.1	Dressler's syndrome
I24.8	Other forms of acute ischemic heart disease
I24.9	Acute ischemic heart disease, unspecified
I25.10	Atherosclerotic heart disease of native coronary artery without angina pectoris
I25.110	Atherosclerotic heart disease of native coronary artery with unstable angina pectoris
I25.111	Atherosclerotic heart disease of native coronary artery with angina pectoris with documented spasm
I25.118	Atherosclerotic heart disease of native coronary artery with other forms of angina pectoris
I25.119	Atherosclerotic heart disease of native coronary artery with unspecified angina pectoris
I25.2	Old myocardial infarction
I25.3	Aneurysm of heart
I25.41	Coronary artery aneurysm
I25.42	Coronary artery dissection
I25.5	Ischemic cardiomyopathy
I25.6	Silent myocardial ischemia
I25.700	Atherosclerosis of coronary artery bypass graft(s), unspecified, with unstable angina pectoris
I25.701	Atherosclerosis of coronary artery bypass graft(s), unspecified, with angina pectoris with documented spasm
I25.708	Atherosclerosis of coronary artery bypass graft(s), unspecified, with other forms of angina pectoris
I25.709	Atherosclerosis of coronary artery bypass graft(s), unspecified, with unspecified angina pectoris
I25.710	Atherosclerosis of autologous vein coronary artery bypass graft(s) with unstable angina pectoris
I25.711	Atherosclerosis of autologous vein coronary artery bypass graft(s) with angina pectoris with documented spasm

ICD-10 Codes	Description
I25.718	Atherosclerosis of autologous vein coronary artery bypass graft(s) with other forms of angina pectoris
I25.719	Atherosclerosis of autologous vein coronary artery bypass graft(s) with unspecified angina pectoris
I25.720	Atherosclerosis of autologous artery coronary artery bypass graft(s) with unstable angina pectoris
I25.721	Atherosclerosis of autologous artery coronary artery bypass graft(s) with angina pectoris with documented spasm
I25.728	Atherosclerosis of autologous artery coronary artery bypass graft(s) with other forms of angina pectoris
I25.729	Atherosclerosis of autologous artery coronary artery bypass graft(s) with unspecified angina pectoris
I25.730	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unstable angina pectoris
I25.731	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with angina pectoris with documented spasm
I25.738	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with other forms of angina pectoris
I25.739	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unspecified angina pectoris
I25.750	Atherosclerosis of native coronary artery of transplanted heart with unstable angina
I25.751	Atherosclerosis of native coronary artery of transplanted heart with angina pectoris with documented spasm
I25.758	Atherosclerosis of native coronary artery of transplanted heart with other forms of angina pectoris
I25.759	Atherosclerosis of native coronary artery of transplanted heart with unspecified angina pectoris
I25.760	Atherosclerosis of bypass graft of coronary artery of transplanted heart with unstable angina
I25.761	Atherosclerosis of bypass graft of coronary artery of transplanted heart with angina pectoris with documented spasm
I25.768	Atherosclerosis of bypass graft of coronary artery of transplanted heart with other forms of angina pectoris
I25.769	Atherosclerosis of bypass graft of coronary artery of transplanted heart with unspecified angina pectoris
I25.790	Atherosclerosis of other coronary artery bypass graft(s) with unstable angina pectoris
I25.791	Atherosclerosis of other coronary artery bypass graft(s) with angina pectoris with documented spasm
I25.798	Atherosclerosis of other coronary artery bypass graft(s) with other forms of angina pectoris
I25.799	Atherosclerosis of other coronary artery bypass graft(s) with unspecified angina pectoris
I25.810	Atherosclerosis of coronary artery bypass graft(s) without angina pectoris
I25.811	Atherosclerosis of native coronary artery of transplanted heart without angina pectoris
I25.812	Atherosclerosis of bypass graft of coronary artery of transplanted heart without angina pectoris
I25.84	Coronary atherosclerosis due to calcified coronary lesion
I25.89	Other forms of chronic ischemic heart disease
I25.9	Chronic ischemic heart disease, unspecified
I63.011	Cerebral infarction due to thrombosis of right vertebral artery
I63.012	Cerebral infarction due to thrombosis of left vertebral artery
I63.02	Cerebral infarction due to thrombosis of basilar artery
I63.031	Cerebral infarction due to thrombosis of right carotid artery
I63.032	Cerebral infarction due to thrombosis of left carotid artery
I63.09	Cerebral infarction due to thrombosis of other precerebral artery
I63.10	Cerebral infarction due to embolism of unspecified precerebral artery
I63.111	Cerebral infarction due to embolism of right vertebral artery
I63.112	Cerebral infarction due to embolism of left vertebral artery
I63.12	Cerebral infarction due to embolism of basilar artery
I63.131	Cerebral infarction due to embolism of right carotid artery
I63.132	Cerebral infarction due to embolism of left carotid artery
I63.19	Cerebral infarction due to embolism of other precerebral artery
I63.211	Cerebral infarction due to unspecified occlusion or stenosis of right vertebral arteries
I63.212	Cerebral infarction due to unspecified occlusion or stenosis of left vertebral arteries
I63.22	Cerebral infarction due to unspecified occlusion or stenosis of basilar arteries
I63.231	Cerebral infarction due to unspecified occlusion or stenosis of right carotid arteries
I63.232	Cerebral infarction due to unspecified occlusion or stenosis of left carotid arteries
I63.29	Cerebral infarction due to unspecified occlusion or stenosis of other precerebral arteries

ICD-10 Codes	Description
I63.30	Cerebral infarction due to thrombosis of unspecified cerebral artery
I63.311	Cerebral infarction due to thrombosis of right middle cerebral artery
I63.312	Cerebral infarction due to thrombosis of left middle cerebral artery
I63.321	Cerebral infarction due to thrombosis of right anterior cerebral artery
I63.322	Cerebral infarction due to thrombosis of left anterior cerebral artery
I63.331	Cerebral infarction due to thrombosis of right posterior cerebral artery
I63.332	Cerebral infarction due to thrombosis of left posterior cerebral artery
I63.341	Cerebral infarction due to thrombosis of right cerebellar artery
I63.342	Cerebral infarction due to thrombosis of left cerebellar artery
I63.39	Cerebral infarction due to thrombosis of other cerebral artery
I63.411	Cerebral infarction due to embolism of right middle cerebral artery
I63.412	Cerebral infarction due to embolism of left middle cerebral artery
I63.421	Cerebral infarction due to embolism of right anterior cerebral artery
I63.422	Cerebral infarction due to embolism of left anterior cerebral artery
I63.431	Cerebral infarction due to embolism of right posterior cerebral artery
I63.432	Cerebral infarction due to embolism of left posterior cerebral artery
I63.441	Cerebral infarction due to embolism of right cerebellar artery
I63.442	Cerebral infarction due to embolism of left cerebellar artery
I63.49	Cerebral infarction due to embolism of other cerebral artery
I63.50	Cerebral infarction due to unspecified occlusion or stenosis of unspecified cerebral artery
I63.511	Cerebral infarction due to unspecified occlusion or stenosis of right middle cerebral artery
I63.512	Cerebral infarction due to unspecified occlusion or stenosis of left middle cerebral artery
I63.519	Cerebral infarction due to unspecified occlusion or stenosis of unspecified middle cerebral artery
I63.521	Cerebral infarction due to unspecified occlusion or stenosis of right anterior cerebral artery
I63.522	Cerebral infarction due to unspecified occlusion or stenosis of left anterior cerebral artery
I63.531	Cerebral infarction due to unspecified occlusion or stenosis of right posterior cerebral artery
I63.532	Cerebral infarction due to unspecified occlusion or stenosis of left posterior cerebral artery
I63.541	Cerebral infarction due to unspecified occlusion or stenosis of right cerebellar artery
I63.542	Cerebral infarction due to unspecified occlusion or stenosis of left cerebellar artery
I63.59	Cerebral infarction due to unspecified occlusion or stenosis of other cerebral artery
I63.6	Cerebral infarction due to cerebral venous thrombosis, nonpyogenic
I63.8	Other cerebral infarction
I65.01	Occlusion and stenosis of right vertebral artery
I65.02	Occlusion and stenosis of left vertebral artery
I65.03	Occlusion and stenosis of bilateral vertebral arteries
I65.1	Occlusion and stenosis of basilar artery
I65.21	Occlusion and stenosis of right carotid artery
I65.22	Occlusion and stenosis of left carotid artery
I65.23	Occlusion and stenosis of bilateral carotid arteries
I65.8	Occlusion and stenosis of other precerebral arteries
I66.01	Occlusion and stenosis of right middle cerebral artery
I66.02	Occlusion and stenosis of left middle cerebral artery
I66.03	Occlusion and stenosis of bilateral middle cerebral arteries
I66.11	Occlusion and stenosis of right anterior cerebral artery
I66.12	Occlusion and stenosis of left anterior cerebral artery
I66.13	Occlusion and stenosis of bilateral anterior cerebral arteries
I66.21	Occlusion and stenosis of right posterior cerebral artery
I66.22	Occlusion and stenosis of left posterior cerebral artery
I66.23	Occlusion and stenosis of bilateral posterior cerebral arteries
I66.29	Occlusion and stenosis of unspecified posterior cerebral artery
I66.3	Occlusion and stenosis of cerebellar arteries
I66.8	Occlusion and stenosis of other cerebral arteries
I67.2	Cerebral atherosclerosis
I67.6	Nonpyogenic thrombosis of intracranial venous system
I70.0	Atherosclerosis of aorta
I70.1	Atherosclerosis of renal artery
I70.201	Unspecified atherosclerosis of native arteries of extremities, right leg
I70.202	Unspecified atherosclerosis of native arteries of extremities, left leg

ICD-10 Codes	Description
I70.203	Unspecified atherosclerosis of native arteries of extremities, bilateral legs
I70.208	Unspecified atherosclerosis of native arteries of extremities, other extremity
I70.211	Atherosclerosis of native arteries of extremities with intermittent claudication, right leg
I70.212	Atherosclerosis of native arteries of extremities with intermittent claudication, left leg
I70.213	Atherosclerosis of native arteries of extremities with intermittent claudication, bilateral legs
I70.218	Atherosclerosis of native arteries of extremities with intermittent claudication, other extremity
I70.221	Atherosclerosis of native arteries of extremities with rest pain, right leg
I70.222	Atherosclerosis of native arteries of extremities with rest pain, left leg
I70.223	Atherosclerosis of native arteries of extremities with rest pain, bilateral legs
I70.228	Atherosclerosis of native arteries of extremities with rest pain, other extremity
I70.231	Atherosclerosis of native arteries of right leg with ulceration of thigh
I70.232	Atherosclerosis of native arteries of right leg with ulceration of calf
I70.233	Atherosclerosis of native arteries of right leg with ulceration of ankle
I70.234	Atherosclerosis of native arteries of right leg with ulceration of heel and midfoot
I70.235	Atherosclerosis of native arteries of right leg with ulceration of other part of foot
I70.238	Atherosclerosis of native arteries of right leg with ulceration of other part of lower right leg
I70.241	Atherosclerosis of native arteries of left leg with ulceration of thigh
I70.242	Atherosclerosis of native arteries of left leg with ulceration of calf
I70.243	Atherosclerosis of native arteries of left leg with ulceration of ankle
I70.244	Atherosclerosis of native arteries of left leg with ulceration of heel and midfoot
I70.245	Atherosclerosis of native arteries of left leg with ulceration of other part of foot
I70.248	Atherosclerosis of native arteries of left leg with ulceration of other part of lower left leg
I70.25	Atherosclerosis of native arteries of other extremities with ulceration
I70.261	Atherosclerosis of native arteries of extremities with gangrene, right leg
I70.262	Atherosclerosis of native arteries of extremities with gangrene, left leg
I70.263	Atherosclerosis of native arteries of extremities with gangrene, bilateral legs
I70.268	Atherosclerosis of native arteries of extremities with gangrene, other extremity
I70.291	Other atherosclerosis of native arteries of extremities, right leg
I70.292	Other atherosclerosis of native arteries of extremities, left leg
I70.293	Other atherosclerosis of native arteries of extremities, bilateral legs
I70.298	Other atherosclerosis of native arteries of extremities, other extremity
I70.301	Unspecified atherosclerosis of unspecified type of bypass graft(s) of the extremities, right leg
I70.302	Unspecified atherosclerosis of unspecified type of bypass graft(s) of the extremities, left leg
I70.303	Unspecified atherosclerosis of unspecified type of bypass graft(s) of the extremities, bilateral legs
I70.308	Unspecified atherosclerosis of unspecified type of bypass graft(s) of the extremities, other extremity
I70.311	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with intermittent claudication, right leg
I70.312	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with intermittent claudication, left leg
I70.313	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with intermittent claudication, bilateral legs
I70.318	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with intermittent claudication, other extremity
I70.321	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with rest pain, right leg
I70.322	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with rest pain, left leg
I70.323	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with rest pain, bilateral legs
I70.328	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with rest pain, other extremity
I70.331	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of thigh
I70.332	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of calf
I70.333	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of ankle
I70.334	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of heel and midfoot
I70.335	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of other part of foot
I70.338	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of other part of lower leg
I70.341	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of thigh

ICD-10 Codes	Description
I70.342	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of calf
I70.343	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of ankle
I70.344	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of heel and midfoot
I70.345	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of other part of foot
I70.348	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of other part of lower leg
I70.361	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene, right leg
I70.362	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene, left leg
I70.363	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene, bilateral legs
I70.391	Other atherosclerosis of unspecified type of bypass graft(s) of the extremities, right leg
I70.392	Other atherosclerosis of unspecified type of bypass graft(s) of the extremities, left leg
I70.393	Other atherosclerosis of unspecified type of bypass graft(s) of the extremities, bilateral legs
I70.398	Other atherosclerosis of unspecified type of bypass graft(s) of the extremities, other extremity
I70.401	Unspecified atherosclerosis of autologous vein bypass graft(s) of the extremities, right leg
I70.402	Unspecified atherosclerosis of autologous vein bypass graft(s) of the extremities, left leg
I70.403	Unspecified atherosclerosis of autologous vein bypass graft(s) of the extremities, bilateral legs
I70.408	Unspecified atherosclerosis of autologous vein bypass graft(s) of the extremities, other extremity
I70.411	Atherosclerosis of autologous vein bypass graft(s) of the extremities with intermittent claudication, right leg
I70.412	Atherosclerosis of autologous vein bypass graft(s) of the extremities with intermittent claudication, left leg
I70.413	Atherosclerosis of autologous vein bypass graft(s) of the extremities with intermittent claudication, bilateral legs
I70.418	Atherosclerosis of autologous vein bypass graft(s) of the extremities with intermittent claudication, other extremity
I70.421	Atherosclerosis of autologous vein bypass graft(s) of the extremities with rest pain, right leg
I70.422	Atherosclerosis of autologous vein bypass graft(s) of the extremities with rest pain, left leg
I70.423	Atherosclerosis of autologous vein bypass graft(s) of the extremities with rest pain, bilateral legs
I70.428	Atherosclerosis of autologous vein bypass graft(s) of the extremities with rest pain, other extremity
I70.431	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of thigh
I70.432	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of calf
I70.433	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of ankle
I70.434	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of heel and midfoot
I70.435	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of other part of foot
I70.438	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of other part of lower leg
I70.441	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of thigh
I70.442	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of calf
I70.443	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of ankle
I70.444	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of heel and midfoot
I70.445	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of other part of foot
I70.448	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of other part of lower leg
I70.461	Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene, right leg
I70.462	Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene, left leg
I70.463	Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene, bilateral legs
I70.491	Other atherosclerosis of autologous vein bypass graft(s) of the extremities, right leg
I70.492	Other atherosclerosis of autologous vein bypass graft(s) of the extremities, left leg
I70.493	Other atherosclerosis of autologous vein bypass graft(s) of the extremities, bilateral legs
I70.498	Other atherosclerosis of autologous vein bypass graft(s) of the extremities, other extremity
I70.501	Unspecified atherosclerosis of nonautologous biological bypass graft(s) of the extremities, right leg
I70.502	Unspecified atherosclerosis of nonautologous biological bypass graft(s) of the extremities, left leg
I70.503	Unspecified atherosclerosis of nonautologous biological bypass graft(s) of the extremities, bilateral legs
I70.508	Unspecified atherosclerosis of nonautologous biological bypass graft(s) of the extremities, other extremity
I70.511	

ICD-10 Codes	Description
	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with intermittent claudication, right leg
I70.512	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with intermittent claudication, left leg
I70.513	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with intermittent claudication, bilateral legs
I70.518	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with intermittent claudication, other extremity
I70.521	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with rest pain, right leg
I70.522	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with rest pain, left leg
I70.523	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with rest pain, bilateral legs
I70.528	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with rest pain, other extremity
I70.531	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of thigh
I70.532	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of calf
I70.533	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of ankle
I70.534	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of heel and midfoot
I70.535	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of other part of foot
I70.538	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of other part of lower leg
I70.541	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of thigh
I70.542	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of calf
I70.543	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of ankle
I70.544	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of heel and midfoot
I70.545	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of other part of foot
I70.548	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of other part of lower leg
I70.561	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene, right leg
I70.562	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene, left leg
I70.563	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene, bilateral legs
I70.591	Other atherosclerosis of nonautologous biological bypass graft(s) of the extremities, right leg
I70.592	Other atherosclerosis of nonautologous biological bypass graft(s) of the extremities, left leg
I70.593	Other atherosclerosis of nonautologous biological bypass graft(s) of the extremities, bilateral legs
I70.598	Other atherosclerosis of nonautologous biological bypass graft(s) of the extremities, other extremity
I70.601	Unspecified atherosclerosis of nonbiological bypass graft(s) of the extremities, right leg
I70.602	Unspecified atherosclerosis of nonbiological bypass graft(s) of the extremities, left leg
I70.603	Unspecified atherosclerosis of nonbiological bypass graft(s) of the extremities, bilateral legs
I70.608	Unspecified atherosclerosis of nonbiological bypass graft(s) of the extremities, other extremity
I70.611	Atherosclerosis of nonbiological bypass graft(s) of the extremities with intermittent claudication, right leg
I70.612	Atherosclerosis of nonbiological bypass graft(s) of the extremities with intermittent claudication, left leg
I70.613	Atherosclerosis of nonbiological bypass graft(s) of the extremities with intermittent claudication, bilateral legs
I70.618	Atherosclerosis of nonbiological bypass graft(s) of the extremities with intermittent claudication, other extremity
I70.621	Atherosclerosis of nonbiological bypass graft(s) of the extremities with rest pain, right leg
I70.622	Atherosclerosis of nonbiological bypass graft(s) of the extremities with rest pain, left leg
I70.623	Atherosclerosis of nonbiological bypass graft(s) of the extremities with rest pain, bilateral legs
I70.628	Atherosclerosis of nonbiological bypass graft(s) of the extremities with rest pain, other extremity
I70.631	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of thigh
I70.632	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of calf
I70.633	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of ankle

ICD-10 Codes	Description
I70.634	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of heel and midfoot
I70.635	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of other part of foot
I70.638	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of other part of lower leg
I70.641	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of thigh
I70.642	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of calf
I70.643	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of ankle
I70.644	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of heel and midfoot
I70.645	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of other part of foot
I70.648	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of other part of lower leg
I70.65	Atherosclerosis of nonbiological bypass graft(s) of other extremity with ulceration
I70.661	Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene, right leg
I70.662	Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene, left leg
I70.663	Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene, bilateral legs
I70.691	Other atherosclerosis of nonbiological bypass graft(s) of the extremities, right leg
I70.692	Other atherosclerosis of nonbiological bypass graft(s) of the extremities, left leg
I70.693	Other atherosclerosis of nonbiological bypass graft(s) of the extremities, bilateral legs
I70.698	Other atherosclerosis of nonbiological bypass graft(s) of the extremities, other extremity
I70.701	Unspecified atherosclerosis of other type of bypass graft(s) of the extremities, right leg
I70.702	Unspecified atherosclerosis of other type of bypass graft(s) of the extremities, left leg
I70.703	Unspecified atherosclerosis of other type of bypass graft(s) of the extremities, bilateral legs
I70.708	Unspecified atherosclerosis of other type of bypass graft(s) of the extremities, other extremity
I70.711	Atherosclerosis of other type of bypass graft(s) of the extremities with intermittent claudication, right leg
I70.712	Atherosclerosis of other type of bypass graft(s) of the extremities with intermittent claudication, left leg
I70.713	Atherosclerosis of other type of bypass graft(s) of the extremities with intermittent claudication, bilateral legs
I70.718	Atherosclerosis of other type of bypass graft(s) of the extremities with intermittent claudication, other extremity
I70.721	Atherosclerosis of other type of bypass graft(s) of the extremities with rest pain, right leg
I70.722	Atherosclerosis of other type of bypass graft(s) of the extremities with rest pain, left leg
I70.723	Atherosclerosis of other type of bypass graft(s) of the extremities with rest pain, bilateral legs
I70.728	Atherosclerosis of other type of bypass graft(s) of the extremities with rest pain, other extremity
I70.731	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of thigh
I70.732	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of calf
I70.733	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of ankle
I70.734	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of heel and midfoot
I70.735	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of other part of foot
I70.738	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of other part of lower leg
I70.741	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of thigh
I70.742	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of calf
I70.743	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of ankle
I70.744	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of heel and midfoot
I70.745	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of other part of foot
I70.748	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of other part of lower leg
I70.761	Atherosclerosis of other type of bypass graft(s) of the extremities with gangrene, right leg
I70.762	Atherosclerosis of other type of bypass graft(s) of the extremities with gangrene, left leg
I70.763	Atherosclerosis of other type of bypass graft(s) of the extremities with gangrene, bilateral legs
I70.791	Other atherosclerosis of other type of bypass graft(s) of the extremities, right leg
I70.792	Other atherosclerosis of other type of bypass graft(s) of the extremities, left leg
I70.793	Other atherosclerosis of other type of bypass graft(s) of the extremities, bilateral legs
I70.798	Other atherosclerosis of other type of bypass graft(s) of the extremities, other extremity
I70.8	Atherosclerosis of other arteries
I70.90	Unspecified atherosclerosis

ICD-10 Codes	Description
I70.91	Generalized atherosclerosis
I82.0	Budd-Chiari syndrome
I82.1	Thrombophlebitis migrans
I82.220	Acute embolism and thrombosis of inferior vena cava
I82.221	Chronic embolism and thrombosis of inferior vena cava
I82.3	Embolism and thrombosis of renal vein
I82.401	Acute embolism and thrombosis of unspecified deep veins of right lower extremity
I82.402	Acute embolism and thrombosis of unspecified deep veins of left lower extremity
I82.403	Acute embolism and thrombosis of unspecified deep veins of lower extremity, bilateral
I82.411	Acute embolism and thrombosis of right femoral vein
I82.412	Acute embolism and thrombosis of left femoral vein
I82.413	Acute embolism and thrombosis of femoral vein, bilateral
I82.421	Acute embolism and thrombosis of right iliac vein
I82.422	Acute embolism and thrombosis of left iliac vein
I82.423	Acute embolism and thrombosis of iliac vein, bilateral
I82.431	Acute embolism and thrombosis of right popliteal vein
I82.432	Acute embolism and thrombosis of left popliteal vein
I82.433	Acute embolism and thrombosis of popliteal vein, bilateral
I82.441	Acute embolism and thrombosis of right tibial vein
I82.442	Acute embolism and thrombosis of left tibial vein
I82.443	Acute embolism and thrombosis of tibial vein, bilateral
I82.491	Acute embolism and thrombosis of other specified deep vein of right lower extremity
I82.492	Acute embolism and thrombosis of other specified deep vein of left lower extremity
I82.493	Acute embolism and thrombosis of other specified deep vein of lower extremity, bilateral
I82.4Y1	Acute embolism and thrombosis of unspecified deep veins of right proximal lower extremity
I82.4Y2	Acute embolism and thrombosis of unspecified deep veins of left proximal lower extremity
I82.4Y3	Acute embolism and thrombosis of unspecified deep veins of proximal lower extremity, bilateral
I82.4Z1	Acute embolism and thrombosis of unspecified deep veins of right distal lower extremity
I82.4Z2	Acute embolism and thrombosis of unspecified deep veins of left distal lower extremity
I82.4Z3	Acute embolism and thrombosis of unspecified deep veins of distal lower extremity, bilateral
I82.511	Chronic embolism and thrombosis of right femoral vein
I82.512	Chronic embolism and thrombosis of left femoral vein
I82.513	Chronic embolism and thrombosis of femoral vein, bilateral
I82.521	Chronic embolism and thrombosis of right iliac vein
I82.522	Chronic embolism and thrombosis of left iliac vein
I82.523	Chronic embolism and thrombosis of iliac vein, bilateral
I82.531	Chronic embolism and thrombosis of right popliteal vein
I82.532	Chronic embolism and thrombosis of left popliteal vein
I82.533	Chronic embolism and thrombosis of popliteal vein, bilateral
I82.541	Chronic embolism and thrombosis of right tibial vein
I82.542	Chronic embolism and thrombosis of left tibial vein
I82.543	Chronic embolism and thrombosis of tibial vein, bilateral
I82.5Y1	Chronic embolism and thrombosis of unspecified deep veins of right proximal lower extremity
I82.5Y2	Chronic embolism and thrombosis of unspecified deep veins of left proximal lower extremity
I82.5Y3	Chronic embolism and thrombosis of unspecified deep veins of proximal lower extremity, bilateral
I82.5Z1	Chronic embolism and thrombosis of unspecified deep veins of right distal lower extremity
I82.5Z2	Chronic embolism and thrombosis of unspecified deep veins of left distal lower extremity
I82.5Z3	Chronic embolism and thrombosis of unspecified deep veins of distal lower extremity, bilateral
I82.811	Embolism and thrombosis of superficial veins of right lower extremities
I82.812	Embolism and thrombosis of superficial veins of left lower extremities
I82.813	Embolism and thrombosis of superficial veins of lower extremities, bilateral
N26.2	Page kidney

ICD-10 Codes that DO NOT Support Medical Necessity N/A
ICD-10 Additional Information

General Information

Associated Information

Documentation Requirements

Documentation supporting medical necessity should be legible, maintained in the patient's medical record, and must be made available to the A/B MAC upon request.

The patient's medical record must contain documentation that fully supports the medical necessity for services included within this LCD. (See "Coverage Indications, Limitations and/or Medical Necessity.") This documentation includes, but is not limited to, relevant medical history, physical examination, and results of pertinent diagnostic tests or procedures.

Utilization Guidelines

When used for atherosclerotic cardiovascular disease risk stratification, measurement of serum homocysteine is considered to be medically necessary only once in a lifetime.

Sources of Information and Basis for Decision

Auer J, Lamm G, Eber B. Homocysteine as a predictive factor for hip fracture in older persons. *NEJM*. 2004;351(10):1027-1030.

Bonaa KH, Njolstad I, Ueland PM, et al. Homocysteine lowering and cardiovascular events after acute myocardial infarction. *NEJM*. 2006;354(15):1578-1588.

Gori AM, Corsi AM, Fedi S, et al. A proinflammatory state is associated with hyperhomocysteinemia in the elderly. *Am J Clinical Nutrition*. 2005;82(2):335-341.

Hansrani M, Stansby GP. Homocysteine lowering interventions for peripheral arterial disease and bypass grafts. *The Cochrane Database of Systematic Reviews*. 2002;Issue 3.

Jacques PF, Selhub J, Bostom AG, Wilson PW, Rosenberg IH. The effect of folic acid fortification on plasma folate and total homocysteine concentrations. *NEJM*. 1999;340(19):1449-1454.

Kuzminski AM, Del Giacco EJ, Allen RH, Stabler SP, Lindenbaum J. Effective treatment of cobalamin deficiency with oral cobalamin. *Blood*. 1998;92(4):1191-1198.

Lange H, Suryapranata H, De Luca G, et al. Folate therapy and in-stent restenosis after coronary stenting. *NEJM*. 2004;350(26):2673-2681.

McLean RR, Jacques PF, Selhub J, et al. Homocysteine as a predictive factor for hip fracture in older persons. *NEJM*. 2004;350(20):2042-2049.

Raisz LG. Homocysteine and osteoporotic fractures – culprit or bystander? *NEJM*. 2004;350(20):2089-2090.

Raisz LG. Pathogenesis of osteoporosis: concepts, conflicts, and prospects. *J Clinical Investigation*. 2005;115(12):3318-3325.

Lonn E, Yusuf S, Arnold MJ, et al. Heart outcomes prevention evaluation (HOPE) 2 investigators. Homocysteine lowering with folic acid and B vitamins in vascular disease. *NEJM*. 2006;354(15):1567-1577.

van Meurs JB, Dhonukshe-Rutten RA, Pluijm SM, et al. Homocysteine levels and the risk of osteoporotic fracture. *NEJM*. 2004;350(20):2033-2041.

Revision History Information

Revision History Date	Revision History Number	Revision History Explanation	Reason(s) for Change
10/01/2016	R5	Under ICD-10 Codes that Support Medical Necessity deleted ICD-10 codes E10.321, E10.329, E10.331, E10.339, E10.341, E10.349, E10.351, E10.359, E11.321, E11.329, E11.331, E11.339, E11.341, E11.349, E11.351, E11.359, E13.321, E13.329, E13.331, E13.339, E13.341, E13.349, E13.351, E13.359 and E78.0. This revision is due to the Annual ICD-10 Code Update and becomes effective 10/1/16.	<ul style="list-style-type: none"> • Provider Education/Guidance • Revisions Due To ICD-10-CM Code Changes
05/05/2016	R4	Under Coverage Indications, Limitations and/or Medical Necessity – Other Comments deleted the paragraph regarding Limitation On Liability (LOL). Under Sources of Information and Basis for Decision added an additional initial to the author’s name, G. Stansby.	<ul style="list-style-type: none"> • Provider Education/Guidance • Other
10/01/2015	R3	Per CMS Internet-Only Manual, Pub 100-08, Medicare Program Integrity Manual, Chapter 13, §13.1.3 LCDs consist of only “reasonable and necessary” information. All bill type and revenue codes have been removed.	<ul style="list-style-type: none"> • Other (Bill type and/or revenue code removal)
10/01/2015	R2	Under CMS National Coverage Policy deleted the first sentence as it was redundant. Under Coverage Indications, Limitations and/or Medical Necessity-Limitations corrected ICD-9 to now read ICD-10 in the third bullet. Under Associated Information added the title “ Documentation Requirements ” and deleted “J11” in the first sentence of the first paragraph. Under Sources of Information and Basis for Decision corrected the author initials for Stansby in the following: Hansrani M, Stansby G. Homocysteine lowering interventions for peripheral arterial disease and bypass grafts. <i>The Cochrane Database of Systematic Reviews</i> . 2002;Issue 3. “The” was deleted from the journal title for the following: Lonn E, Yusuf S, Arnold MJ, et al. Heart outcomes prevention evaluation (HOPE) 2 investigators. Homocysteine lowering with folic acid and B vitamins in vascular disease. <i>NEJM</i> . 2006;354(15):1567-1577. Punctuation was corrected for the following: van Meurs JB, Dhonukshe-Rutten RA, Pluijm SM, et al. Homocysteine levels and the risk of osteoporotic fracture. <i>NEJM</i> . 2004;350(20):2033-2041.	<ul style="list-style-type: none"> • Provider Education/Guidance • Other
10/01/2015	R1	Under Sources of Information and Basis for Decision added initial for author Stansby G to read “Stansby GP”. For article on Effective treatment of cobalamin deficiency with oral cobalamin, added “1” to page numbers so that numbers now read “1191-1198.”	<ul style="list-style-type: none"> • Provider Education/Guidance • Other (Maintenance Annual Review)

[Back to Top](#)

Associated Documents

Attachments N/A

Related Local Coverage Documents N/A

Related National Coverage Documents N/A

Public Version(s) Updated on 09/16/2016 with effective dates 10/01/2016 - N/A [Updated on 04/29/2016 with effective dates 05/05/2016 - 09/30/2016](#) [Updated on 06/03/2015 with effective dates 10/01/2015 - 05/04/2016](#) [Updated on 05/08/2015 with effective dates 10/01/2015 - N/A](#) [Updated on 12/03/2014 with effective dates 10/01/2015 - N/A](#) [Updated on 03/05/2014 with effective dates 10/01/2015 - N/A](#) [Back to Top](#)

Keywords

- Serum Homocysteine

Read the [LCD Disclaimer](#) [Back to Top](#)