ICD 9 CODE

CLI	
Atherosclerosis of native arteries of extremities	
-with rest pain	440.22
-with gangrene	440.24
-with ulceration	440.23 , 707.9
CLI if following code is present along with a primary	
diagnosis code for PAD*	
Gangrene	785.4
Ulcer of lower limb (includes trophic ulcer)	707.10, 707.11, 707.12, 707.13, 707.14,
	707.15, 707.19
Acute osteomyelitis of pelvic region and thigh	730.05
Acute osteomyelitis of lower extremity	730.06
Acute osteomyelitis of ankle and foot	730.07
Chronic osteomyelitis of pelvic region and thigh	730.15
Chronic osteomyelitis of lower extremity	730.16
Chronic osteomyelitis of ankle and foot	730.17
Cellulitis of lower extremity except foot	682.6

Cellulitis of foot except toes	682.7
Cellulitis of toes	681.1
*Primary PAD diagnosis	
Atherosclerosis of native arteries of extremities with	440.2 (440.20-440.24, 440.29)
intermittent claudication, rest pain, ulceration,	
gangrene or unspecified symptoms.	
Atherosclerosis of bypass graft of extremities	440.3 (440.0-440.32)
Atherosclerosis- generalized or unspecified	440.9
Atherosclerosis of Aorta	440.0
Diabetes mellitus with peripheral circulatory	249.70, 249.71, 250.70-250.73
disorders	
Peripheral angiopathy in other diseases	443.81
Peripheral vascular disease, unspecified	443.9
Buerger's disease	443.1
Arterial embolism/ thrombosis of lower extremity	444.22, 444.81
or iliofemoral artery	
Surgical Revascularization	
Aorto-iliac femoral bypass	39.25

Peripheral bypass	39.29
Incision of lower limb arteries	38.08
Endarterectomy of abdominal arteries	38.16
Endarterectomy of lower limb arteries	38.18
Resection of vessel with anastomosis	38.38
Resection of vessel with replacement	38.48
Endovascular revascularization	
Angioplasty or atherectomy of non-coronary vessel	39.50
Insertion of non-drug-eluting, non-coronary artery	39.90
stent	
Insertion of drug eluting peripheral vessel stent	00.55
Major amputation of lower extremity	
Lower limb amputation	84.10
Disarticulation of ankle	84.13
Amputation of ankle through malleoli of tibia and	84.14
fibula	
Other amputation-below knee	84.15
Disarticulation of knee	84.16

Amputation above knee	84.17
Revision of amputation stump	84.3
Minor amputation of lower extremity	
Toe amputation	84.11
Trans metatarsal amputation	84.12
Vascular procedures, non-specific, only used in	
conjunction with lower extremity procedure codes	
Procedure on single vessel	00.40
Procedure on two vessels	00.41
Procedure on three vessels	00.42
Procedure on ≥ 4 vessels	00.43
Procedure on vessel bifurcation	00.44
Insertion of one vascular stent	00.45
Insertion of two vascular stents	00.46
Insertion of three vascular stents	00.47
Insertion of \geq 4 vascular stents	00.48
Non-ST-elevation myocardial infarction	410.7x

ST-elevation myocardial infarction	410.1x, 410.2x, 410.3x, 410.4x, 410.5x,
	410.6x, 410.8x and 410.9x
Prior myocardial infarction	412.0
Previous percutaneous coronary intervention	V45.82
Previous coronary artery bypass grafting	V45.81
Previous CVA	V12.54
Carotid artery disease	433.10
Cardiogenic shock	785.51
Cardiac arrest	CCS-107
Post-op hemorrhage	998.11, 998.12, 285.1
Transfusion	99.01-99.09
Acute stroke	CCS-100
Respiratory complications	997.3, 997.31, 997.32, 997.39
Permanent pacemaker	37.80 37.83
Acute kidney injury	584.x

ESRD on hemodialysis (In absence of ICD-9-CM code for	585.6 or 39.95 or 54.98
acute kidney injury)	
Vascular complications	39.31, 39.41, 39.49, 39.52, 39.53,
	39.56, 39.57, 39.58, 39.59, 39.79

Supplemental table 2: List of variables used in the propensity score matching analysis

Sex, race, hypertension, obesity, history of heart failure, chronic lung disease, pulmonary circulation disorders, chronic liver disease, chronic kidney disease, coagulopathy, hypothyroidism, history of smoking, prior myocardial infarct, history of implantable cardiac defibrillator, history of cardiac pacemaker, prior stroke, prior percutaneous coronary intervention, prior coronary artery bypass grafting, hospital bed-size, hospital region, hospital teaching status, age ≥75, chronic anemia, coronary artery disease, end-stage renal disease on hemodialysis, and tissue loss.

Supplemental Table 3: Outcomes by revascularization status in the unmatched cohort.

	Unmatched cohort							
Outcome	Revascularization (n=410,832)		No revascularization (n=811,495)		OR	95% Confidence		P- value
	N	%	N	%		inte	interval	
In-hospital mortality	7,856	1.90%	26,447	3.30%	0.58	0.55	0.61	< 0.001
Major amputation	27,472	6.7%	168,309	20.8%	0.27	0.26	0.28	< 0.001
Minor amputation	78,942	19.2%	106,722	13.2%	1.57	1.53	1.61	< 0.001
Acute myocardial infarction	14,637	3.6%	24,056	3.0%	1.210	1.152	1.270	< 0.001
Acute stroke	2,868	0.70%	6,717	0.80%	0.84	0.76	0.93	0.001
Major bleeding	56,568	13.80%	58,706	7.20%	2.05	1.99	2.11	< 0.001
Blood transfusion	85,764	20.90%	127,216	15.70%	1.42	1.38	1.46	< 0.001
Acute kidney injury	50,047	12.20%	112,364	13.80%	0.86	0.84	0.89	< 0.001
Infection	8,561	2.10%	17,441	2.10%	0.97	0.91	1.03	0.30
Respiratory complications	1,957	0.50%	2,263	0.30%	1.71	1.49	1.97	< 0.001
Hospital charges, median (IQR)	18,139 (11,266, 29,173)		8,084 (4,578, 14,601)					< 0.001
Discharge to nursing facility	139,283	33.90%	317,102	39.10%	0.80	0.78	0.82	< 0.001

Supplemental table 4: Baseline characteristics according to amputation status among those who did not undergo revascularization

	Amputation ((n=135919)	No amputation		
Characteristics			N	%	P-value
	N	%			
Age, years (mean ± SD)	68.19±	12.73	67.04	±12.58	< 0.001
Sex	51884	38.2%	117160	43.3%	< 0.001
<u>Race</u>					
White	63571	46.8%	152909	56.6%	
Black	30919	22.7%	40502	15.0%	
Hispanic	16367	12.0%	30464	11.3%	40 001
Asian/Pacific Islander	1921	1.4%	3732	1.4%	<0.001
Native American	974	0.7%	1691	0.6%	
Other Races	2776	2.0%	5933	2.2%	
Coagulopathy	3409	2.5%	9259	3.4%	< 0.001
Obesity	9220	6.8%	34025	12.6%	< 0.001
Hypertension	107552	79.1%	211622	78.3%	0.01
Hypothyroidism	10220	7.5%	27950	10.3%	< 0.001
Chronic kidney disease	55898	41.1%	97529	36.1%	< 0.001

Chronic liver disease	1619	1.2%	4611	1.7%	< 0.001
Chronic lung disease	22044	16.2%	57744	21.4%	< 0.001
Anemia	45373	33.4%	74924	27.7%	< 0.001
Heart failure	17171	12.6%	33933	12.5%	0.34
Valvular heart disease	7088	5.2%	13534	5.0%	0.20
Coronary artery disease	66293	48.8%	142648	52.8%	< 0.001
Prior ICD	2483	1.8%	6461	2.4%	< 0.001
Prior cardiac pacemaker	4044	3.0%	10214	3.8%	< 0.001
Prior PCI	8807	6.5%	23050	8.5%	< 0.001
Prior myocardial infarction	15413	11.3%	31319	11.6%	0.31
Prior CABG	20332	15.0%	42649	15.8%	0.01
Prior stroke	1631	1.2%	4012	1.5%	0.01
Smoking	19154	14.1%	40348	14.9%	0.01
Pulmonary circulation disease	1631	1.2%	4012	1.5%	0.01
Hospital bed-size					
Small sized	11155	8.2%	28407	10.5%	
Medium sized	31680	23.3%	66805	24.7%	<0.001
Large sized	93084	68.5%	175183	64.8%	
<u>Hospital region</u>		'		•	'
Northeast	26328	19.4%	57665	21.3%	< 0.001

Midwest or North Central	28481	21.0%	68172	25.2%	
South	58586	43.1%	98392	36.4%	
West	22524	16.6%	46166	17.1%	
Hospital teaching status					
Rural	7539	5.5%	19767	7.3%	
Urban non-teaching	47311	34.8%	103065	38.1%	< 0.001
Urban teaching	81068	59.6%	147563	54.6%	

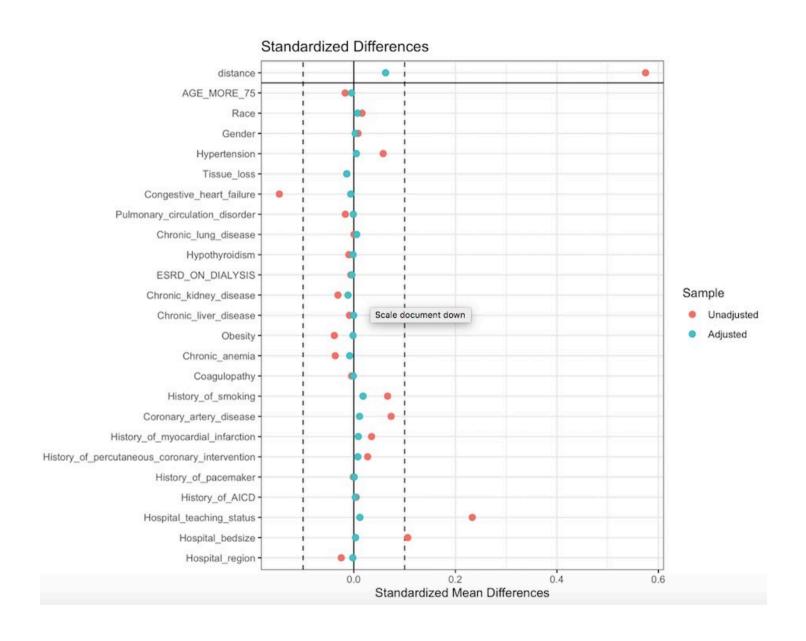
ICD= implantable cardiac defibrillators; PCI= percutaneous coronary intervention; CABG= coronary artery bypass grafting

Supplemental table 5: Outcomes by amputation status in the no revascularization group

	Amputation		No amp	No amputation		95% Confidence OR		P- value
Outcome	(n=135919)		(n=270395)		OR			
			N	%		inte	rval	
	N	%						
In-hospital mortality	3662	2.7%	7812	2.9%	.931	.851	1.018	0.18
Acute myocardial infarction	3175	2.3%	9174	3.4%	.681	.621	.747	< 0.001
Acute stroke	831	0.6%	2424	0.9%	.680	.569	.813	< 0.001
Major bleeding	14933	11.0%	14685	5.4%	2.149	2.036	2.269	< 0.001
Blood transfusion	34247	25.2%	25655	9.5%	3.213	3.083	3.349	< 0.001
Acute kidney injury	15844	11.7%	35049	13.0%	.886	.846	.928	<0.001
Infection	3776	2.8%	5569	2.1%	1.359	1.237	1.493	< 0.001
Respiratory complications	670	0.5%	371	0.1%	3.602	2.714	4.782	< 0.001
Length of stay, median (IQR)	8 (5,13)		5 (3,8)					<0.001
Hospital charges, median (IQR)	11182 (6727, 19103)		6640 (3849, 11800)					< 0.001
Discharge to nursing facility	79696	58.6%	74144	27.4%	3.752	3.629	3.879	< 0.001

	Unmatched cohort									
Outcome				Endovascular (n= 201,563)		OR		95% Confidence		P - value
	N	%	N	%		inte	ervai			
In-hospital mortality	2,604	1.90%	3,603	1.80%	1.04	0.93	1.16	0.53		
Major amputation	7,480	5.3%	15,554	7.7%	0.67	0.63	0.72	< 0.001		
Minor amputation	28,326	20.2%	39,704	19.8%	1.03	0.98	1.08	0.21		
Acute myocardial infarction	4,570	3.6%	7,327	3.3%	.889	.814	.971	0.01		
Acute stroke	906	0.60%	1,495	0.70%	0.87	0.72	1.05	0.14		
Major bleeding	21,719	15.40%	21,054	10.40%	1.57	1.49	1.65	< 0.001		
Blood transfusion	37,877	26.90%	29,243	14.50%	1.34	1.29	1.40	< 0.001		
Acute kidney injury	13,236	9.40%	28,386	14.10%	0.63	0.60	0.67	< 0.001		
Infection	4,023	2.90%	2,700	1.30%	2.17	1.94	2.42	< 0.001		
Respiratory complications	1,119	0.80%	392	0.20%	4.12	3.19	5.32	< 0.001		
Hospital charges, median (IQR)	16,016 (9,	16,016 (9,991, 26,154) 18,703 (11,819, 29,378)				< 0.001				
Discharge to nursing facility	52,825	37.50%	62,408	31.00%	1.57	1.49	1.65	< 0.001		

Supplemental Figure 1: Standardized mean differences before and after matching according to revascularization status



Supplemental Figure 2: Standardized mean differences before and after matching according to revascularization modality

