

**Appendix 1: Supplemental tables**

**Supplemental Table S1a: CPT codes used to identify cardiac catheterization procedures, US:**

CPT code	Description
Procedure years before 2011	
93508	Coronary Angiogram
93510	Left Heart Catheterization
93543	LV Injection
93555	Supervision & Interpretation for LV angio
93526	RLHC
93545	Coronary Injection
93556	S&I Cor Ing
93539	Injection Arterial Conduits
93540	Injection SVG's
Procedure years after 2011	
93452	Left heart catheterization including intraprocedural injection(s) for left ventriculography; imaging supervision and interpretation, when performed
93453	Combined right heart cath and left heart catheterization including intraprocedural injection(s) for left ventriculography, imaging supervision and interpretation, when performed
93454	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation
93455	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with catheter placement(s) in bypass graft(s) (internal mammary, free arterial venous grafts) including intraprocedural injection(s) for bypass graft angiography
93456	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with right heart catheterization
93457	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation;with catheter placement(s) in bypass graft(s) (internal mammary, free arterial, venous grafts) including intraprocedural injection(s) for bypass graft angiographyand right heart catheterization
93458	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation;with left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed
93459	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation;with left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed,catheter placement(s) in bypass graft(s) (internal mammary, free arterial, venous grafts) with bypass graft angiography
93460	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation;with right and left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed
93461	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation;with rightand left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed,catheter placement(s) in bypass graft(s) (internal mammary, free arterial, venous grafts) with bypass graft angiography

**Supplemental Table S1b: CPT codes used to identify PCI, US:**

<b>CPT code</b>	<b>Description</b>
<b>Procedure years before 2013:</b>	
Nonstent and stent procedures combined for all statistics:	
Nonstent	
92982	Angioplasty, initial vessel
92984	Angioplasty, each additional vessel
92995	Atherectomy, initial vessel
92996	Atherectomy, each additional vessel
Stent:	
92980	Stent placement, initial vessel
92981	Stent placement, each additional vessel
C1874	Stent, Coated/Covered, With Delivery System
C1875	Stent, Coated/Covered, Without Delivery System
G0290	Drug eluting stent, initial vessel
G0291	Drug eluting stent, each additional vessel
<b>Procedure year after 2013:</b>	
nonstent:	
92920	Angioplasty, single artery or branch
92921	Angioplasty, each additional
92924	Atherectomy, single artery or branch
92925	Atherectomy, each additional
stent:	
92928/C9600	Stent placement, single artery or branch
92929/C9601	Stent placement, each additional
92933/C9602	Atherectomy with stent, single artery or branch
92934/C9603	Atherectomy with stent, each additional
grafts, acute occlusion, and CTO	
92937/C9604	Graft revascularization, single vessel
92938/C9605	Graft revascularization, each additional branch
92941/C9606	Revascularization of acute total/subtotal occlusion during myocardial infarction, single vessel
92943/C9607	Revascularization of CTO, single vessel, native coronary artery, branch or bypass graft
92944/C9608	Revascularization of CTO, each additional native coronary artery, branch or bypass graft

**Supplemental Table S1c: ICD-9 procedure codes used to identify CABG procedure, US:**

<b>ICD-9</b>	<b>Description</b>
361	Bypass anastomosis for heart revascularization
3610	Aortocoronary bypass for heart revascularization, not otherwise specified
3611	(Aorto)coronary bypass of one coronary artery
3612	(Aorto)coronary bypass of two coronary arteries
3613	(Aorto)coronary bypass of three coronary arteries
3614	(Aorto)coronary bypass of four or more coronary arteries
3615	Single internal mammary-coronary artery bypass
3616	Double internal mammary-coronary artery bypass
3617	Abdominal - coronary artery bypass
3619	Other bypass anastomosis for heart revascularization

**Supplemental Table S2: Procedure Codes used in Ontario claims:**

CCI	Description	Fee code	Description
CABG			
11J76	BYPASS, CORONARY ARTERIES	R742	HEART PERI.-CORONARY ARTERY REPAIR-SINGLE
11J80	REPAIR, CORONARY ARTERIES	R743	HEART PERI.-CORONARY ARTERY REPAIR-DOUBLE
PCI			
11J50	DILATION, CORONARY ARTERIES	Z434	ANGIOGRAPHY-TRANSLUMINAL CORONARY ANGIOPLASTY
		G298	CORONARY ANGIOPLAST STENT
Cardiac Catheterization			
31P10	Xray, heart with coronary arteries	Z442	D&TPROC.-CARDIOVASC.SELECTCORONARY CATHERIZ'N INC'L INJ.
		Z440	HAEMODYNAMIC/FLOW/METABOLIC STUDIES LT.HEART RETROG.AORT
		G297	D./T.PROC.CARDIAC CATH.-ANGIOGRAMS ONLY2 1 RT.HEART 1 LEFT

**Supplemental Table S3: Overall rates of procedures at 3 days after index AMI admission, US and Ontario**

	US PCI	ONT PCI	US cath	ONT cath	US CABG	ONT CABG
2003	25.4	5.2	46.5	11.9	5.0	0.4
2004	27.5	7.8	48.8	16.1	5.1	0.4
2005	29.3	10.5	50.3	20.4	4.9	0.6
2006	31.0	11.9	52.2	23.8	5.1	0.4
2007	30.3	16.2	51.9	30.5	5.0	0.5
2008	31.1	19.1	52.3	34.3	4.3	0.5
2009	32.8	23.2	54.6	39.2	4.5	0.5
2010	33.8	26.3	56.0	42.2	4.4	0.8
2011	34.9	29	56.7	45.5	4.0	0.6
2012	35.5	31.4	56.9	47.6	4.0	0.6
2013	36.1	34.6	57.1	51.8	4.0	0.6

Numbers represent Kaplan-Meier rate estimates, censoring for death and for entry into a managed care Medicare plan (US patients only).

**Supplemental Table S4: Rates of PCI at 3 days after index AMI admission, by predicted risk and AMI type, US and Ontario**

Ontario				United States		
	By AMI type			By AMI type		
	STEMI	NSTEMI		STEMI	NSTEMI	
2007	41.1	11.6		57.2	21.4	
2008	44.4	11.8		60.4	22.4	
2009	55.0	13.0		63.8	24.0	
2010	64.3	14.2		66.4	24.8	
2011	66.0	16.3		67.3	26.6	
2012	70.8	18.5		70.1	26.8	
2013	73.2	21.3		71.5	27.3	
	By predicted risk			By predicted risk		
	Low	Medium	High	Low	Medium	High
2003	8.4	1.7	2.6	35.5	17.1	12.2
2004	12.5	3.3	2.8	38.4	18.7	13.7
2005	17.5	3.8	3.9	40.8	20.2	15.9
2006	19.5	4.5	4.3	42.8	22.6	16.8
2007	23.8	6.7	6.6	41.7	22.1	17.0
2008	27.0	6.4	7.5	43.4	22.0	18.9
2009	30.0	9.3	14.0	44.8	24.3	19.6
2010	34.8	9.7	13.4	46.0	25.6	21.2
2011	37.9	11.6	15.1	47.4	25.7	22.4
2012	40.4	12.7	17.7	46.7	27.3	23.5
2013	43.6	15.4	19.0	47.3	27.6	24.0

Numbers represent Kaplan-Meier rate estimates, censoring for death and for entry into a managed care Medicare plan (US patients only).