SUPPLEMENTAL MATERIAL

Supplemental Table 1. MedPAR Model: Hospital Cost Estimates (2010 US$)

Model Variable	CABG (n= 43,866)	PCI (n= 113,921)
Intercept* (uncomplicated hospitalization, non-procedure costs)	16,435	6,227
Demographics		
Age ≥ 80 years	2,157	167
Female	622	--
Co-morbidities		
COPD	--	620
Chronic renal failure, with dialysis	9,659	3,162
CHF	3,189	1,715
Complications		
Death	12,400	3,239
Stroke	9,611	6,588
MI	9,344	6,230
Additional CABG	--	21,948
Additional PCI(	11,057	9,301
Transfusion	--	3,920
Major vascular complication	8,160	2,554
Postoperative hypotension	--	1,309
Cardiogenic shock	16,477	6,965
Respiratory failure	8,933	9,738
Renal failure	9,888	5,504
Postoperative infection	14,826	8,960
Postoperative atrial fibrillation	882	2,886
Postoperative ventricular arrhythmia	2,809	3,152
Pacemaker insertion	10,048	5,922
ICD insertion	11,465	28,069
Cardiac tamponade	6,921	6,050
Pulmonary embolus	9,385	9,024
Pulmonary edema	4,192	3,873
Thoracentesis	3,757	9,298

*intercepts have been adjusted to exclude the cost of otherwise uncomplicated procedures

Supplemental Table 2. MedPAR Model: Hospital LOS Estimates

Model Variable	CABG (n= 43,866)	PCI (n= 113,921)
Intercept	6.75	1.75
Demographics		
Age ≥ 80 years	0.91	0.26
Female	0.77	--
Co-morbidities		
COPD	--	0.47
Chronic renal failure, with dialysis	3.17	1.44
CHF	1.47	1.34
Complications		
Death	0.02	-0.33
Stroke	4.26	3.07
MI	2.92	2.54
Additional CABG	--	5.25
Additional PCI	1.02	1.51
Transfusion	--	2.44
Major vascular complication	1.70	1.13
Postoperative hypotension	--	0.23
Cardiogenic shock	3.18	2.36
Respiratory failure	2.95	4.24
Renal failure	4.24	3.87
Postoperative infection	7.89	5.08
Postoperative atrial fibrillation	0.58	1.63
Postoperative ventricular arrhythmia	1.16	1.57
Pacemaker insertion	1.97	0.93
ICD insertion	1.89	2.90
Cardiac tamponade	3.41	1.00
Pulmonary embolus	4.27	4.76
Pulmonary edema	0.99	1.19
Thoracentesis	2.46	5.95

Supplemental Table 3. Linear Regression Prediction Model for Long-term Costs

Parameter	Coefficient Estimate ($)	p-value
Intercept	4,787	0.0009
CABG	-1,672	<0.0001
Age (years)	18	0.40
Female	1,068	0.0102
3 vessel disease	1,353	0.0058
History of cerebrovascular disease	4,491	0.0003
History of peripheral artery disease	1,894	0.0041
MI during trial	3,526	0.0001
Stroke during trial but > 1 yr previously	4,810	0.05
Stroke within the past year*	16,575	<0.0001

*this coefficient was eliminated in the patient-level prediction of annual long-term costs, which includes only the long term impact of stroke events that occurred during the course of the trial

Supplemental Table 4. Linear Regression Prediction Model for Follow-up Utility Weights

Parameter	Coefficient Estimate	p-value
Intercept	0.9312	<0.0001
Age (years)	-0.00028	0.22
Female	-0.0625	<0.0001
History of MI	-0.0205	<0.0001
History of Stroke	-0.0226	0.066
History of Cerebrovascular Disease	-0.0618	<0.0001
History of Peripheral Artery Disease	-0.0304	<0.0001
MI during trial	-0.0419	<0.0001
Stroke during trial but > 1 yr previously	-0.0663	0.014
Stroke within the past year*	-0.1033	<0.0001

*this coefficient was eliminated in the patient-level prediction of long-term utility, which includes only the long term impact of stroke events that occurred during the course of the trial

Supplemental Table 5. Lifetime Cost-Effectiveness Results for Base Case and Sensitivity Analyses in Terms of Cost per Life Year Gained

		Cost ($) with CABG	Cost ($) with PCI	Δ_{C-P} Cost ($) (95% CI)	Life Years with CABG	Life Years with PCI	Life Years Gained with CABG (95%CI)	ICER: Cost ($) per Life Year gained	% Dominant	% Dominated	% < $50K
Tapered CABG Effect Between 5 and 10 Years	**Base Case:** Lifetime – ITT	114,571	109,179	5,392 (399, 10,320)	12.177	11.383	0.794 (0.243, 1.323)	6,791	1.5	0.2	99.7
	Lifetime – Per Protocol	114,855	108,878	5,976 (1,207, 10,925)	12.202	11.351	0.851 (0.284, 1.432)	7,022	0.7	0.0	99.6
	10 year analysis – ITT	81,710	80,295	1,416 (-2,061, 5,017)	7.626	7.339	0.287 (0.015, 0.550)	4,934	23.4	0.7	97.3
	Lifetime - ITT, no CABG effect on long term costs	121,244	109,179	12,045 (6,933, 17,103)	12.177	11.383	0.794 (0.243, 1.323)	15,170	0.0	0.3	98.6
Fixed CABG Effect Between 5 and 10 Years	Lifetime analysis	116,147	109,179	6,968 (1,273, 12,327)	12.406	11.383	1.023 (0.352, 1.660)	6,811	0.7	0.2	99.8
	10 year analysis	81,846	80,295	1,551 (-1,822, 5,292)	7.648	7.339	0.309 (0.037, 0.619)	5,019	18.9	0.3	98.5
No Effect of CABG after 5 Years	Lifetime analysis	118,664	109,179	9,485 (4,905, 13,995)	11.822	11.383	0.439 (0.012, 0.859)	21,606	0.0	2.3	91.4
	10 year analysis	87,155	80,295	6,861 (3,408, 10,230)	7.463	7.339	0.124 (-0.073, 0.308)	55,331	0.0	9.6	42.5

Supplemental Table 6. Lifetime Cost-Effectiveness Results for Subgroups in Terms of Cost per Life Year Gained

		Cost ($) with CABG	Cost ($) with PCI	Δ_{C-P} Cost ($) (95% CI)	Life Years with CABG	Life Years with PCI	Life Years Gained with CABG (95%CI)	ICER: Cost ($) per Life Year Gained	% Dominant	% Dominated	% < $50K
SUBGROUP ANALYSES BASED ON BASE CASE ASSUMPTIONS	SYNTAX Score <23 (n=657)	113,201	104,417	8,784 (753, 16,272)	12.429	11.939	0.491 (-0.526, 1.394)	17,890	0.3	13.3	77.9
	SYNTAX Score 23-32 (n=828)	115,602	111,441	4,160 (-3,670, 11,619)	12.221	11.113	1.107 (0.266, 1.893)	3,758	13.6	0.1	99.2
	SYNTAX Score >32 (n=359)	114,220	113,247	973 (-10,177, 11,337)	11.663	11.095	0.568 (-0.713, 1.743)	1,713	29.5	3.0	83.5
	Male (n=1328)	107,527	104,468	3,059 (-2,304, 8,406)	12.124	11.243	0.882 (0.241, 1.515)	3,468	10.3	0.0	99.9
	Female (n=527)	131,295	122,046	9,249 (-729, 18,900)	12.383	11.766	0.618 (-0.621, 1.705)	14,966	0.6	10.8	79.3
	Age <60 (n=624)	136,342	125,152	11,190 (3,656, 18,572)	15.850	14.419	1.431 (0.745, 2.205)	7,820	0.3	0.0	100
	Age 60-69 (n=621)	106,301	108,066	-1,765 (-9,533, 5,504)	11.319	11.003	0.316 (-0.567, 1.070)		44.7	0.6	79.8
	Age ≥70 (n=610)	93,926	87,034	6,892 (-3,018, 15,804)	7.899	7.464	0.435 (-0.687, 1.306)	15,844	2.2	15.3	72.6
	LAD (n=1695)	115,124	109,463	5,661 (505, 10,981)	12.229	11.363	0.866 (0.280, 1.436)	6,537	1.7	0.1	99.6
	No LAD (n=150)	105,875	108,189	-2,314 (-52,357, 10,225)	11.562	11.723	-0.161 (-8.027, 1.420)		16.7	8.0	42.6
	2 vessel disease (n=310)	103.264	92,313	10,950 (-2,486, 21,181)	12.580	11.712	0.867 (-1.516, 2.075)	12,630	0.5	10.1	82.0
	3+ vessel disease (n=1534)	116,891	112,830	4,061 (-1,367, 9,483)	12.142	11.312	0.830 (0.233, 1.438)	4,893	6.6	0.1	99.9
	HgbA$_{1c}$ < 7 (n=617)	103,579	103,852	-273 (-6,879, 7,142)	11.610	11.263	0.347 (-0.609, 1.247)		33.9	2.1	78.4
	HgbA$_{1c}$ ≥ 7 (n=1096)	120,399	111,893	8,507 (1,618, 15,266)	12.605	11.480	1.126 (0.381, 1.827)	7,555	0.5	0.3	99.5
	US (n=351)	126,113	121,412	4,701 (-7,997, 17,253)	12.379	11.039	1.339 (0.176, 2.353)	3,511	22.1	0.3	99.0
	Non-US (n=1504)	111,978	106,356	5,622 (506, 10,653)	12.151	11.462	0.689 (0.025, 1.348)	8,160	1.0	1.6	97.4