

## Supplementary Appendix

This appendix has been provided by the authors to give readers additional information about their work.

Supplement to: Shroyer ALW, Novitzky D, Grover FL, for the Veterans Affairs ROOBY Study Group. On-pump versus off-pump CABG. *N Engl J Med* 2010;362:851-4.

Table 1: ROOBY Trial Sensitivity Analyses

	Short-Term Composite Endpoint*		p-value	Short-Term Composite Endpoint*		p-value	One-Year Composite Endpoint**		p-value	One-Year Composite Endpoint**		p-value
	Off-Pump All Cases	On-Pump All Cases		Off-Pump Cases Not Converted	On-Pump Cases Not Converted		Off-Pump All Cases	On-Pump All Cases		Off-Pump Cases Not Converted	On-Pump Cases Not Converted	
<b>Participating Surgeon Historical Off-Pump Volume</b>	n = 1071	n = 1067		n=938	n = 1029		n = 1030	n = 1019		n = 901	n = 984	
<= 50 Off Pump Cases	29/442 (6.6%)	21/429 (4.9%)	0.13	16/355 (4.5%)	21/426 (4.9%)	0.96	45/434 (10.4%)	33/413 (8.0%)	0.07	36/350 (10.3%)	32/410 (7.8%)	0.09
> 50 Off Pump Cases	44/629 (7%)	35/638 (5.5%)		34/583 (5.8%)	34/603 (5.6%)		55/596 (9.2%)	43/606 (7.1%)		47/551 (8.5%)	38/574 (6.6%)	
< 100 Off Pump Cases	40/598 (6.7%)	29/592 (4.9%)	0.13	25/498 (5.0%)	29/586 (4.9%)	0.96	58/584 (9.9%)	47/567 (8.3%)	0.07	47/487 (9.7%)	45/561 (8.0%)	0.09
=> 100 Off Pump Cases	33/473 (7.0%)	27/475 (5.7%)		25/440 (5.7%)	26/443 (5.9%)		42/446 (9.4%)	29/452 (6.4%)		36/414 (8.7%)	25/423 (5.9%)	
<b>Primary Surgeon Role</b>												
Resident as Primary Surgeon	42/611 (6.9%)	31/702 (4.4%)	0.05	30/529 (5.7%)	31/681 (4.6%)	0.43	10.7% (n = 62/577)	7.8% (n= 52/667)	0.08	53/499 (10.6%)	48/647 (7.4%)	0.06
Attending as Primary Surgeon	35/491 (7.1%)	29/395 (7.3%)	0.90	23/436 (5.3%)	28/376 (7.4%)	0.25	8.9% (n = 43/483)	6.8% (n = 26/381)	0.31	34/428 (7.9%)	24/364 (6.6%)	0.50
<b>High Risk Patient Sub-Groups</b>												
Octogenarians (age =>80 years)	5/30 (16.7%)	1/27 (3.7%)	0.19	2/23 (8.7%)	1/21 (4.8%)	1.00	5/30 (16.7%)	2/27 (7.4%)	0.43	2/23 (8.7%)	1/21 (4.8%)	1.00
Baseline Chronic Obstructive Pulmonary Disease (COPD)	16/220 (7.3%)	18/238 (7.6%)	1.00	11/94 (5.7%)	60/1056 (7.4%)	0.56	21/220 (9.5%)	17/238 (7.1%)	0.40	16/181 (8.8%)	15/223 (6.7%)	0.46
Baseline Peripheral Vascular Disease (PVD)	21/179 (11.7%)	14/163 (8.6%)	0.38	13/153 (8.5%)	14/152 (9.2%)	0.84	22/179 (12.3%)	15/173 (9.2%)	0.39	18/145 (12.4%)	13/146 (8.9%)	0.35
Baseline Cerebrovascular Accidents (CVA)	9/82 (11.0%)	10/88 (11.4%)	1.00	5/72 (6.9%)	9/80 (4.2%)	0.41	4/82 (4.9%)	9/88 (10.2%)	0.25	3/69 (4.3%)	7/77 (9.1%)	0.33
Baseline Diabetes (Oral/Insulin Agents)	40/470 (8.5%)	20/491 (4.1%)	0.01	28/410 (6.8%)	20/473 (4.2%)	0.10	46/470 (9.8%)	34/491 (6.9%)	0.13	37/392 (9.4%)	31/454 (6.8%)	0.17
Baseline High Serum Creatinine (> 1.5 mg/dl)	13/94 (13.8%)	11/79 (13.9%)	1.00	9/82 (11.0%)	11/73 15.1%)	0.48	14/94 (14.9%)	7/79 (8.9%)	0.25	12/79 (53.0%)	7/70 (47.0%)	0.46
<b>Saphenous Vein Graft (SVG) Harvest Approaches (For Patients with at least 1 SVG Graft)</b>	n = 459	n = 435		n = 403	n = 429		n = 458	n = 433		n = 402	n = 428	
Endoscopic Vein Harvest (EVH)	6/175 (3.4%)	6/166 (3.6%)	0.43	5/157 (3.2%)	6/164 (3.7%)	1.00	17/175 = 9.7%	11/165 = 6.7%	0.33	15/157 (9.6%)	11/163 (6.7%)	0.42

**Legend:**  
 \*\*\* The short-term primary endpoint was a composite of mortality or major morbidity (reoperation, new mechanical support, cardiac arrest, coma, stroke, or renal failure requiring dialysis) occurring within 30 days of surgery or prior to discharge, whichever was later.  
 \*\*\*\* The long-term primary composite endpoint was 1-year major adverse cardiovascular events (MACE) consisting of all-cause death, 30-day to 1-yr non-fatal MI, or 30-day to 1-yr repeat revascularization