Supplemental Table 1. Baseline demographic and clinical characteristics of the unmatched sample population.

	Non-CTA trained (n=589)	CTA trained (n=240)	*P* value
Demographics			
Age (years)	64 ± 15	63 ± 15	0.452[2]
Female gender	367 (62%)	141 (59%)	0.346[1]
Race			0.948[1]
White	334 (57%)	133 (55%)	
Black	233 (40%)	98 (41%)	
Hispanic	7 (1%)	2 (1%)	
Asian	4 (1%)	1 (<1%)	
Other	11 (2%)	6 (3%)	
Body mass index (kg/m^2)	32 ± 9	31 ± 9	0.300[2]
American Society of Anesthesiology class			<0.001[1]
II	24 (4%)	2 (1%)	
III	356 (60%)	110 (46%)	
IV	209 (36%)	128 (53%)	
Emergent surgery	25 (4%)	3 (1%)	0.033[1]
Code status for surgery			1.000[1]
Full code	580 (98%)	236 (98%)	
"Do not resuscitate"	9 (2%)	4 (2%)	
Past medical history			
Hypertension	459 (78%)	188 (77%)	0.927[1]
Diabetes	220 (37%)	89 (37%)	1.000[1]
Chronic obstructive pulmonary disease	173 (29%)	73 (30%)	0.802[1]
Chronic kidney disease	202 (34%)	94 (39%)	0.201[1]
Coronary artery disease	169 (29%)	76 (32%)	0.402[1]
Carotid disease	41 (7%)	14 (7%)	0.645[1]
Pulmonary embolism	44 (8%)	16 (7%)	0.769[1]
Left heart failure	281 (48%)	130 (54%)	0.093[1]
Right heart failure	41 (7%)	22 (9%)	0.312[1]
Preoperative medications			
Angiotensin pathway disruptor	53 (9%)	17 (7%)	0.411[1]
Beta blocker	70 (12%)	36 (15%)	0.251[1]
Cardiac studies			
Left ventricular ejection fraction (%)	56 ± 9	55 ± 10	0.011[2]
Left ventricular diastolic function			0.756[1]
Normal	129 (34%)	49 (35%)	
Grade I dysfunction	113 (30%)	48 (34%)	
Grade II dysfunction	24 (6%)	6 (4%)	
Grade III+ dysfunction	1 (<1%)	0 (0%)	
Right ventricular function			0.068[1]
Normal	457 (76%)	173 (83%)	
Mild dysfunction	73 (16%)	37 (13%)	
Moderate Dysfunction	15 (6%)	14 (3%)	
Severe Dysfunction	7 (1%)	3 (1%)	

Valvular dysfunction (at least moderate severity)			
Mitral regurgitation	47 (8%)	25 (11%)	0.281[1]
Mitral stenosis	7 (1%)	6 (3%)	0.218[1]
Aortic insufficiency	19 (3%)	5 (2%)	0.495[1]
Aortic stenosis	15 (3%)	15 (6%)	0.014[1]
Tricuspid regurgitation	88 (16%)	45 (19%)	0.211[1]
Tricuspid stenosis	0 (0%)	0 (0%)	1.000[1]
Pulmonic insufficiency	4 (1%)	2 (1%)	1.000[1]
Pulmonic stenosis	0 (0%)	0 (0%)	1.000[1]
Pulmonary artery systolic pressure (mm Hg)	51 ± 18	50 ± 20	0.343[2]
Right atrial pressure (mm Hg)	8 ± 5	8 ± 5	0.724[2]
Classification of PH			0.251[1]
Group 1, pulmonary arterial hypertension	23 (4%)	13 (5%)	
Group 2, congestive left heart disease	164 (28%)	83 (35%)	
Group 3, chronic hypoxic lung disease	58 (10%)	17 (7%)	
Group 4, chronic thromboembolic	10 (2%)	2 (1%)	
Group 5, unclear/ multifactorial	158 (27%)	63 (26%)	
Unknown	176 (30%)	62 (26%)	
Intraoperative details			
Type of surgery			<0.001[1]
Thoracic	2 (<1%)	21 (9%)	
Vascular	15 (3%)	16 (7%)	
Ear-nose-throat/ oromaxillofacial	67 (11%)	22 (9%)	
Ophthalmology	6 (1%)	0 (0%)	
Gastroenterology	103 (18%)	29 (12%)	
General Surgery	58 (10%)	12 (5%)	
Surgical Oncology	26 (4%)	7 (3%)	
Obstetrics/ gynecology	30 (5%)	7 (3%)	
Urology	50 (9%)	10 (4%)	
Orthopedic	108 (18%)	7 (3%)	
Neurosurgery	17 (3%)	4 (2%)	
Trauma	34 (6%)	13 (5%)	
Plastic	22 (4%)	5 (2%)	
Transplant	11 (2%)	8 (3%)	
Cardiology	15 (3%)	62 (26%)	
Pulmonology	25 (4%)	17 (7%)	
Pre-induction mean arterial pressure (mm Hg)	99 ± 19	97 ± 18	0.086[2]

Variables expressed as mean (± SD) or as total (%).
No data were available for cardiac studies for 47 patients.
[1]Fisher's exact test; [2]Kruskal-Wallis rank sum test

Supplemental Table 2. Practice patterns of anesthesiologists without and with fellowship training in cardiothoracic anesthesiology (CTA); results shown for the unmatched population.

	Non-CTA trained (n=589)	**CTA trained (n=240)**	***P* value**
Pre-induction arterial line	57 (10%)	57 (24%)	<0.001[1]
Type of airway			0.002[1]
Endotracheal tube	501 (85%)	223 (93%)	

Laryngeal mask airway	87 (15%)	17 (7%)	
Preservation of spontaneous ventilation	46 (8%)	16 (7%)	0.663[1]
Pre-emptive inotrope or vasopressor use	63 (11%)	66 (28%)	<0.001[1]
Primary induction agent			
Propofol	559 (95%)	225 (94%)	0.790[1]
Etomidate	15 (3%)	7 (3%)	
Ketamine	2 (<1%)	0 (0%)	
Opioid/ benzodiazepine	3 (1%)	1 (,1%)	
Combination	9 (2%)	6 (3%)	
Volatile agent	1 (<1%)	1 (<1%)	
Propofol dose (mg)	127 (51)	115 (54)	0.003[2]

Variables expressed as mean (± SD) or as total (%).
[1]Fisher's exact test; [2]Kruskal-Wallis rank sum test

Supplemental Table 3. Comparison of post-induction hemodynamics and other outcomes; results shown for the unmatched population.

	Non-CTA trained (n=589)	**CTA trained (n=240)**	***P* value**
Post-induction mean arterial pressure <55 mm Hg	163 (28%)	63 (26%)	0.731[1]
Post-induction decrease in mean arterial pressure (mm Hg)	32 ± 20	31 ± 18	0.517[2]
Post-induction % decrease in mean arterial pressure	31 ± 17	31 ± 16	0.871[2]
Reactive inotrope or vasopressor use	239 (41%)	110 (46%)	0.187[1]
Major post-induction hemodynamic events	2 (<1%)	2 (1%)	0.584[1]
Post-operative hospital length of stay	4 ± 10	6 ± 14	0.002[2]
30-day mortality	10 (2%)	7 (3%)	0.283[1]

Variables expressed as mean (± SD) or as total (%).
[1]Fisher's exact test; [2]Kruskal-Wallis rank sum test