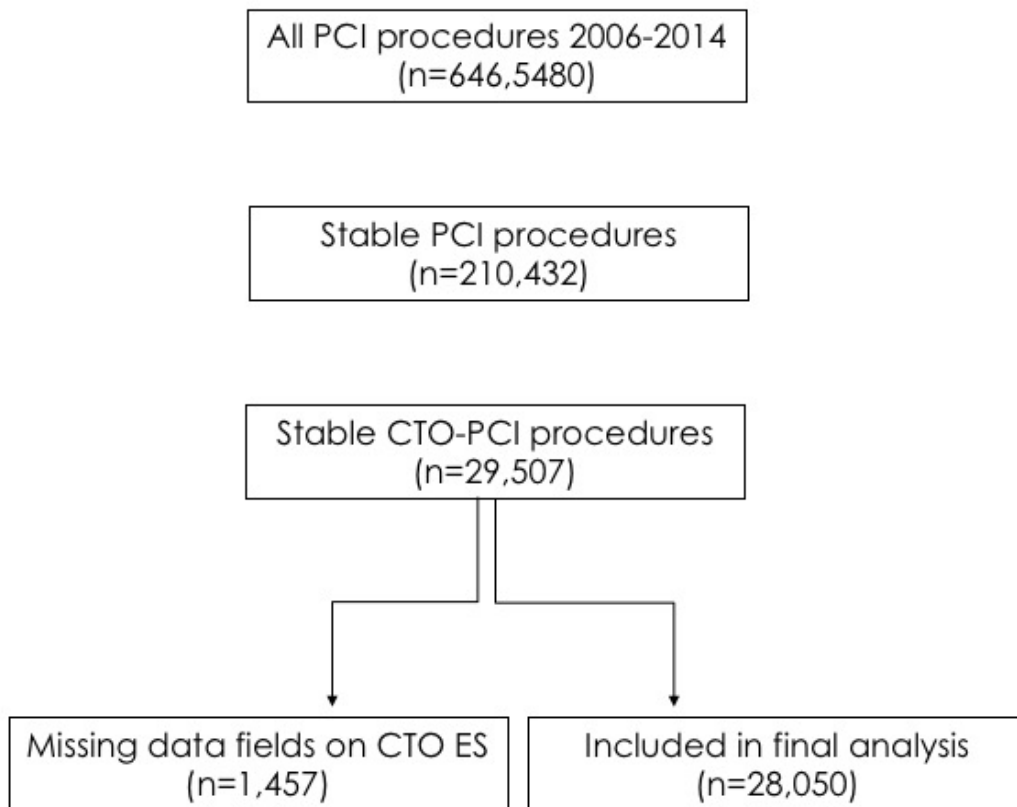


Supplementary Table 1: Univariate associates of procedural success during CTO-PCI

Variable	Procedural success (n=12,809)	Procedural failure (n=9,121)	p
Age (years), \pm SD	62.9 \pm 10.6	64.7 \pm 10.5	<0.001
Female gender, no. (%)	2,495 (19.5)	1,558 (17.1)	<0.001
Smoking history, no. (%)	6,729 (64.8)	6,403 (84.9)	<0.001
Hypertension, no. (%)	7,743 (63.4)	5,581 (64.1)	0.313
Diabetes, no. (%)	2,649 (21.3)	2,201 (25.0)	<0.001
Previous MI, no. (%)	5,004 (40.7)	4,268 (49.9)	<0.001
Previous stroke, no. (%)	393 (3.2)	370 (4.2)	<0.001
Peripheral vascular disease, no. (%)	633 (5.2)	643 (7.4)	<0.001
Renal disease, no. (%)	237 (1.9)	203 (2.3)	0.044
Ejection fraction <30%, no. (%)	287 (3.5)	324 (5.9)	>0.001
Previous PCI, no. (%)	4,020 (31.8)	3,525 (39.5)	<0.001
Previous CABG, no. (%)	1,198 (9.5)	1,843 (20.7)	<0.001
Vessel attempted, no. (%)			
Graft	141 (1.1)	389 (4.3)	<0.001
Left main	309 (2.4)	251 (2.8)	0.101
Left anterior descending	4,953 (38.9)	2,819 (31.3)	<0.001
Circumflex	3,099 (24.3)	1,971 (21.9)	<0.001
Right coronary	6,685 (52.4)	5,031 (56.0)	<0.001
Occlusive restenosis, no. (%)	910 (7.7)	561 (6.9)	0.026
Dual arterial access use, no. (%)	2,539 (20.4)	1,546 (17.5)	<0.001
Intra-vascular imaging use, no. (%)	1,024 (8.6)	379 (4.5)	<0.001
Rotational atherectomy use, no. (%)	270 (2.1)	143 (1.5)	0.004
Laser atherectomy use, no. (%)	146 (1.1)	63 (0.6)	0.001
Penetration catheter use, no. (%)	318 (2.4)	135 (1.5)	<0.001
Micro-catheter use, no. (%)	1,386 (10.9)	846 (9.2)	<0.001
CrossBoss/Stingray use, no. (%)	240 (1.9)	113 (1.2)	<0.001
No. of complex strategies/case \pm SD	0.46 \pm 0.76	0.35 \pm 0.62	<0.001
2 or more complex strategies, no. (%)	1,302 (10.6)	550 (6.0)	<0.001



Supplementary Figure 1: Data flow for procedures included in final analysis