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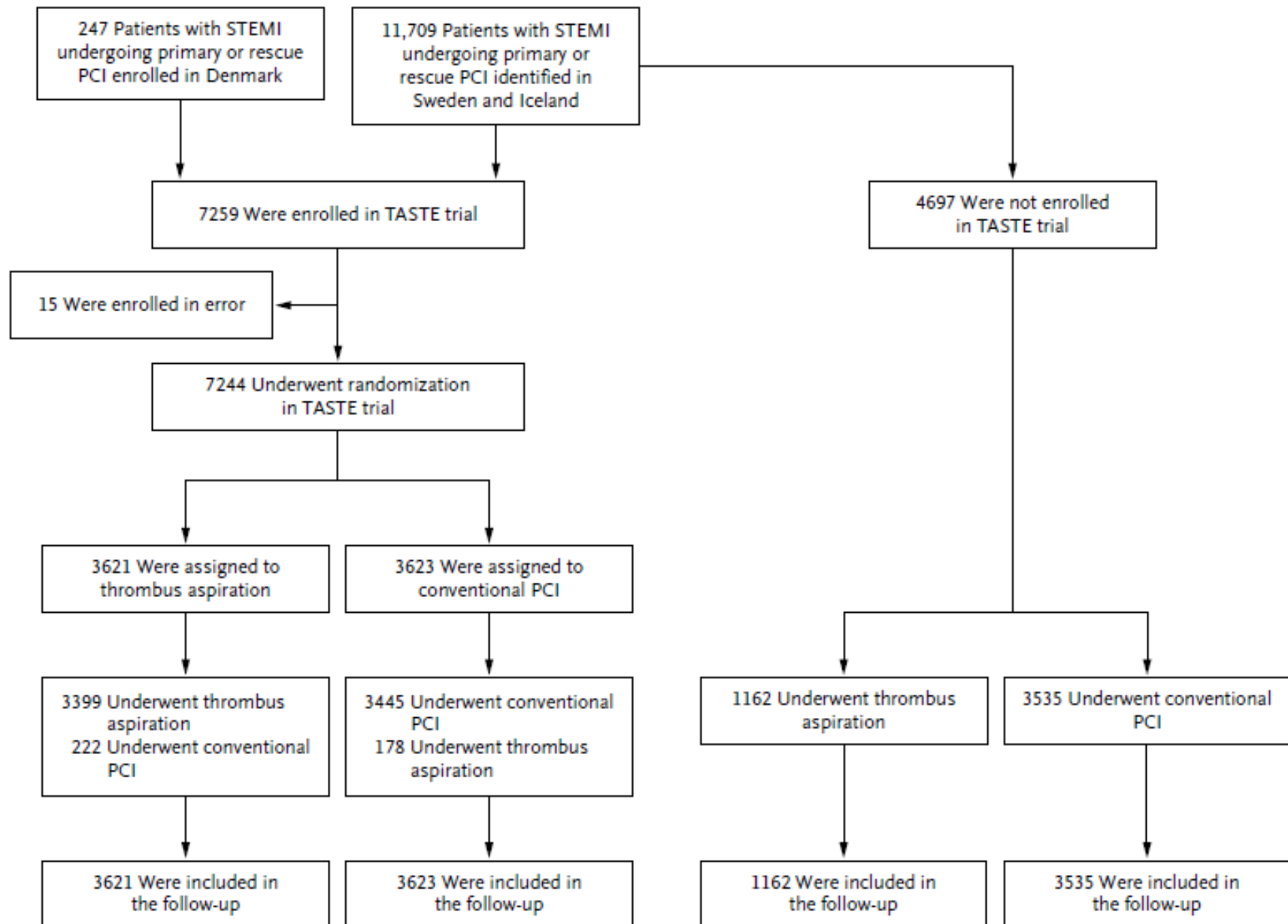
Martin Björck, Professor of Vascular Surgery

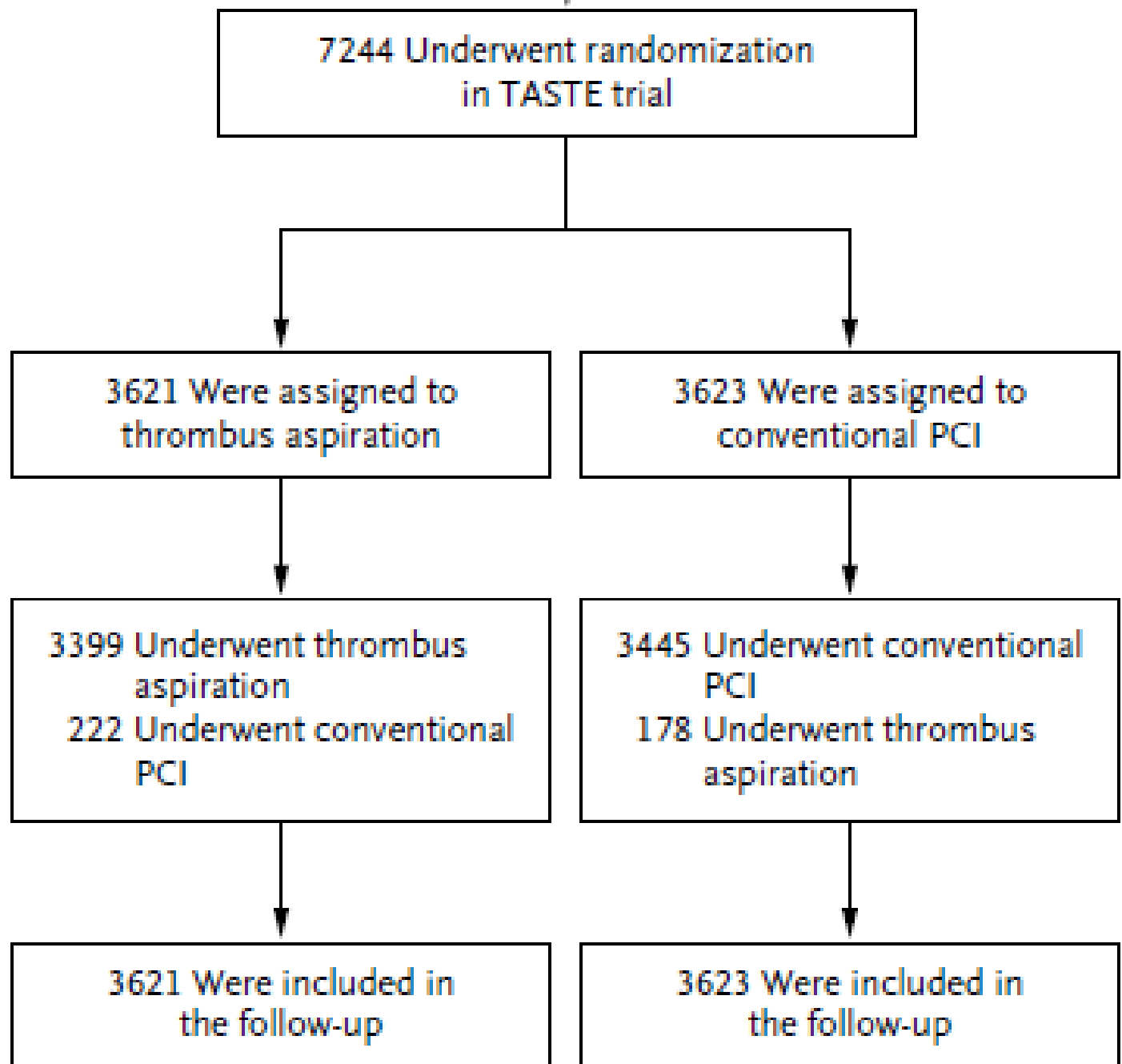
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ORIGINAL ARTICLE

Thrombus Aspiration during ST-Segment Elevation Myocardial Infarction

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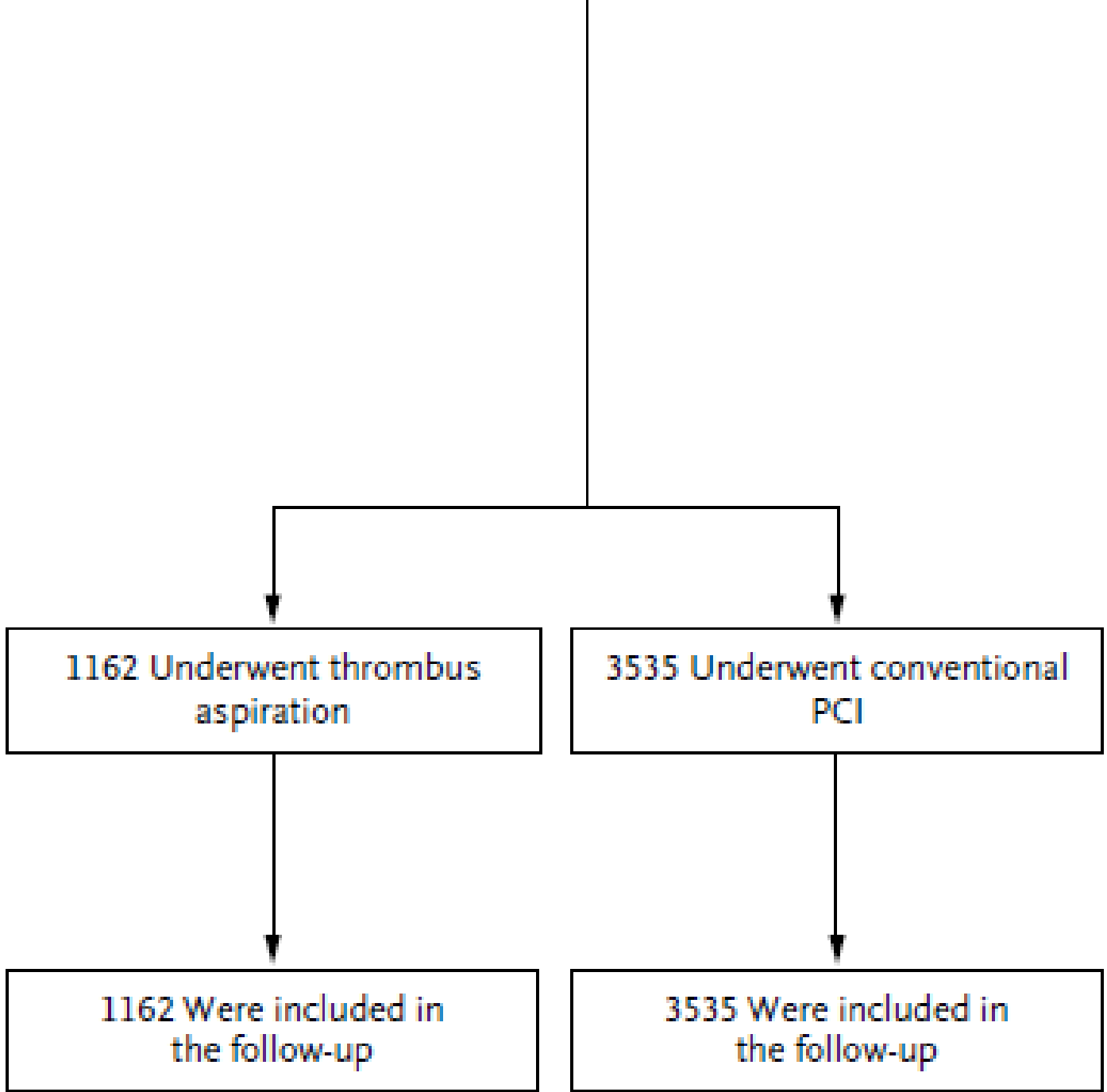




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1162 Underwent thrombus
aspiration

3535 Underwent conventional
PCI

1162 Were included in
the follow-up

3535 Were included in
the follow-up

Table 1. Baseline Characteristics of the Patients According to Randomization Status and Treatment Group.*

Characteristic	Patients Who Underwent Randomization		Patients Who Did Not Undergo Randomization	
	Thrombus Aspiration (N = 3621)	PCI Only (N = 3623)	Thrombus Aspiration (N = 1162)	PCI Only (N = 3535)
Age — yr†	66.5±11.5	65.9±11.7	66.8±13.5	69.4±12.5
Male sex — no. (%)	2721 (75.1)	2703 (74.6)	829 (71.3)	2360 (66.8)
Body-mass index‡	27.2±7.1	27.1±5.2	27.1±8.6	27.0±8.8
Diabetes mellitus — no. (%)	448 (12.4)	453 (12.5)	162 (13.9)	635 (18.0)†
Smoking status — no. (%)†				
Never smoked	1299 (35.9)	1153 (31.8)	362 (31.2)	1259 (35.6)
Former smoker	1037 (28.6)	1058 (29.2)	257 (22.1)	907 (25.7)
Current smoker	1083 (29.9)	1173 (32.4)	317 (27.3)	878 (24.8)
Unknown	202 (5.6)	239 (6.6)	226 (19.4)	491 (13.9)
Hyperlipidemia — no. (%)	753 (20.8)	762 (21.0)	273 (23.5)	951 (26.9)†
Hypertension — no. (%)	1545 (42.7)	1527 (42.1)	500 (43.0)	1782 (50.4)†
Previous myocardial infarction — no. (%)	402 (11.1)	439 (12.1)	191 (16.4)	644 (18.2)†
Previous PCI — no. (%)	337 (9.3)	362 (10.0)	138 (11.9)	438 (12.4)
Previous CABG — no. (%)	70 (1.9)	74 (2.0)	65 (5.6)	167 (4.7)
Therapy before PCI — no. (%)				
Warfarin	60 (1.7)	52 (1.4)	35 (3.0)	86 (2.4)

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Therapy before PCI — no. (%)				
Warfarin	60 (1.7)	52 (1.4)	35 (3.0)	86 (2.4)
Heparin	1481 (40.9)	1460 (40.3)	310 (26.7)	1187 (33.6) [†]
Thrombolysis	69 (1.9)	68 (1.9)	16 (1.4)	100 (2.8) [†]
Time from symptom onset to PCI — min				
Median	185	182	180	210
Interquartile range	120–330	120–315	116–350	125–412
Time from diagnostic ECG to PCI — min				
Median	67	66	65	72
Interquartile range	48–94	47–93	47–95	50–108
Killip class ≥II — no. (%)	198 (5.5)	183 (5.1)	195 (16.8)	533 (15.1)

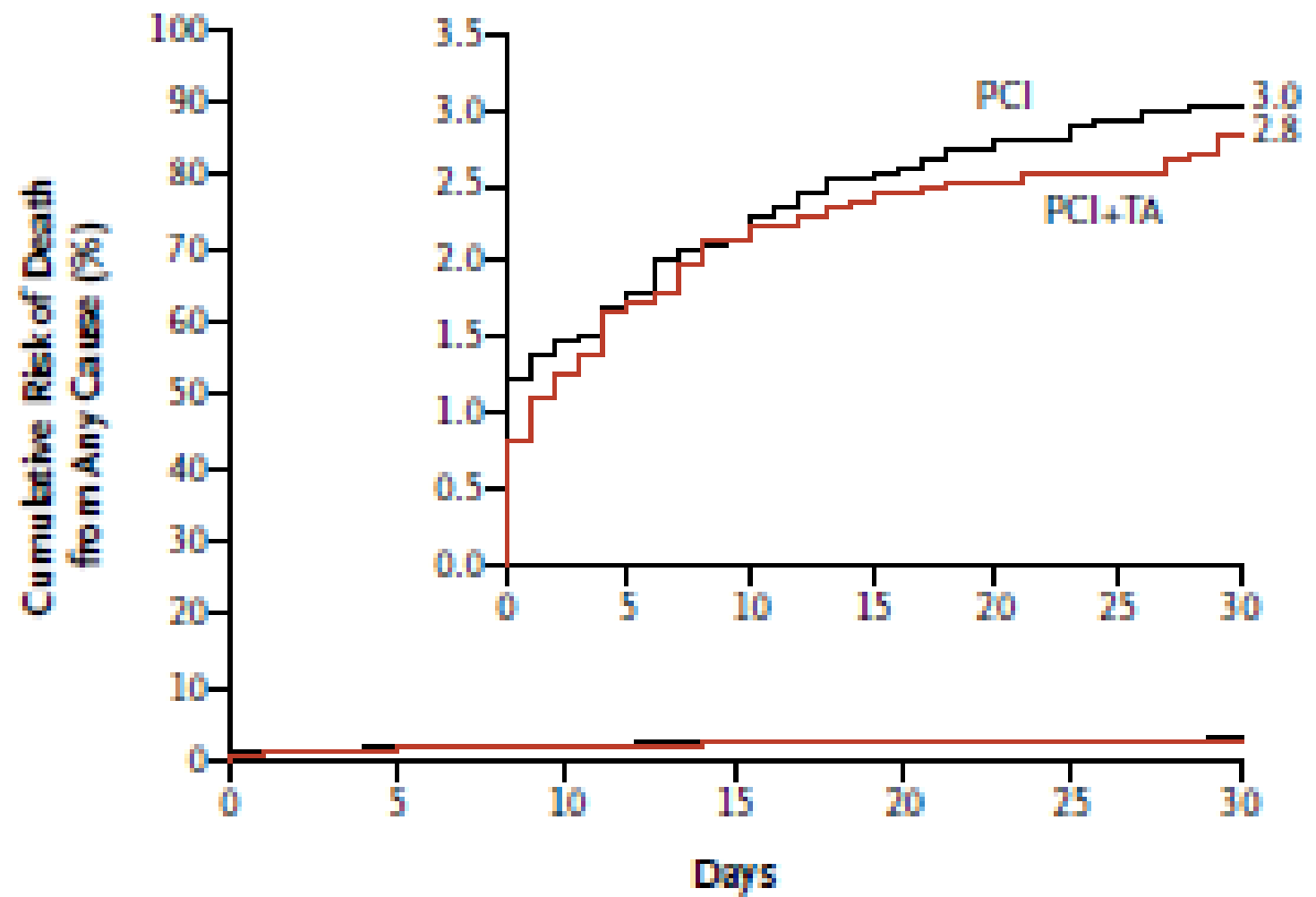
† P values are not statistically significant. † P values are not statistically significant.

Table 2. End Points According to Randomization Status and Treatment Group.

End Point	Patients Who Underwent Randomization			Patients Who Did Not Undergo Randomization		
	Thrombus Aspiration (N= 3621)	PCI Only (N= 3623)	Point Estimate (95% CI)	P Value	Thrombus Aspiration (N= 1162)	PCI Only (N= 3535)
30 days						
All-cause death — no./total no. (%)	103/3621 (2.8)	110/3623 (3.0)	Hazard ratio, 0.94 (0.72–1.22)	0.63	124/1138 (10.9)*	362/3442 (10.5)*
Rehospitalization due to reinfarction — no. (%)	19 (0.5)	31 (0.9)	Hazard ratio, 0.61 (0.34–1.07)	0.09	10 (0.9)	28 (1.1)
All-cause death or myocardial infarction — no./total no. (%)	121/3621 (3.3)	140/3623 (3.9)	Hazard ratio, 0.84 (0.67–1.10)	0.23	134/1138 (11.8)*	398/3442 (11.6)*
Stent thrombosis — no. (%)†	9 (0.2)	19 (0.5)	Hazard ratio, 0.47 (0.20–1.02)	0.06	5 (0.4)	18 (0.5)
Target-vessel revascularization — no./total no. (%)	63/3498 (1.8)‡	76/3499 (2.2)‡	Hazard ratio, 0.73 (0.59–1.15)	0.27	30/1162 (2.6)	80/3535 (2.3)
Target-lesion revascularization — no./total no. (%)	43/3498 (1.2)‡	57/3499 (1.6)‡	Hazard ratio, 0.55 (0.51–1.12)	0.16	25/1162 (2.2)	64/3535 (1.8)
Index hospitalization						
Stroke or neurologic complication — no. (%)	19 (0.5)	18 (0.5)	Odds ratio, 1.0 (0.55–2.02)	0.87	12 (1.0)	32 (0.9)
Perforation or tamponade — no. (%)	13 (0.4)	14 (0.4)	Odds ratio, 0.93 (0.44–1.98)	0.85	7 (0.6)	13 (0.4)
Heart failure — no. (%)	245 (6.8)	234 (6.5)	Odds ratio, 1.05 (0.87–1.27)	0.60	125 (10.8)	353 (10.0)
Left ventricular function — no. (%)§				0.33		
Normal	1572 (43.4)	1614 (44.5)			390 (33.6)	1374 (38.9)
Slightly reduced	853 (23.6)	822 (22.7)			291 (25.0)	699 (19.8)

All-cause death or myocardial infarction — no./total no. (%)	121/3621 (3.3)	140/3623 (3.9)	Hazard ratio, 0.86 (0.67–1.10)	0.23	134/1138 (11.8)*	398/3442 (11.6)*
Stent thrombosis — no. (%)†	9 (0.2)	19 (0.5)	Hazard ratio, 0.47 (0.20–1.02)	0.06	5 (0.4)	18 (0.5)
Target-vessel revascularization — no./total no. (%)	63/3498 (1.8)‡	76/3499 (2.2)‡	Hazard ratio, 0.83 (0.59–1.15)	0.27	30/1162 (2.6)	80/3535 (2.3)
Target-lesion revascularization — no./total no. (%)	43/3498 (1.2)‡	57/3499 (1.6)‡	Hazard ratio, 0.75 (0.51–1.12)	0.16	25/1162 (2.2)	64/3535 (1.8)
Index hospitalization						
Stroke or neurologic complication — no. (%)	19 (0.5)	18 (0.5)	Odds ratio, 1.06 (0.55–2.02)	0.87	12 (1.0)	32 (0.9)
Perforation or tamponade — no. (%)	13 (0.4)	14 (0.4)	Odds ratio, 0.93 (0.44–1.98)	0.85	7 (0.6)	13 (0.4)
Heart failure — no. (%)	245 (6.8)	234 (6.5)	Odds ratio, 1.05 (0.87–1.27)	0.60	125 (10.8)	353 (10.0)
Left ventricular function — no. (%)§				0.33		
Normal	1572 (43.4)	1614 (44.5)			390 (33.6)	1374 (38.9)
Slightly reduced	853 (23.6)	822 (22.7)			291 (25.0)	699 (19.8)
Moderately reduced	526 (14.5)	495 (13.7)			190 (16.4)	523 (14.8)
Severely reduced	137 (3.8)	157 (4.3)			102 (8.8)	255 (7.2)
Unknown	533 (14.7)	535 (14.8)			189 (16.3)	684 (19.3)
Target-lesion revascularization — no./total no. (%)	37/3498 (1.1)‡	42/3499 (1.2)‡	Odds ratio, 0.88 (0.56–1.37)	0.57	22/1162 (1.9)	43/3535 (1.2)
Length of hospital stay — no. (%)				0.40¶		
1–3 days	501 (13.8)	493 (13.6)			146 (12.6)	535 (15.1)
4–7 days	2661 (73.5)	2670 (73.7)			713 (61.4)	2167 (61.3)
8–30 days	437 (12.1)	430 (11.9)			254 (21.9)	703 (19.9)
>30 days	12 (0.3)	23 (0.6)			14 (1.2)	43 (1.2)

† Patients from Sweden were included in this analysis; patients from Iceland and Denmark were not included.

A**No. at Risk**

PCI+TA	3621	3568	3540	3532	3526	3524	3519
PCI	3623	3567	3545	3530	3523	3517	3513

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