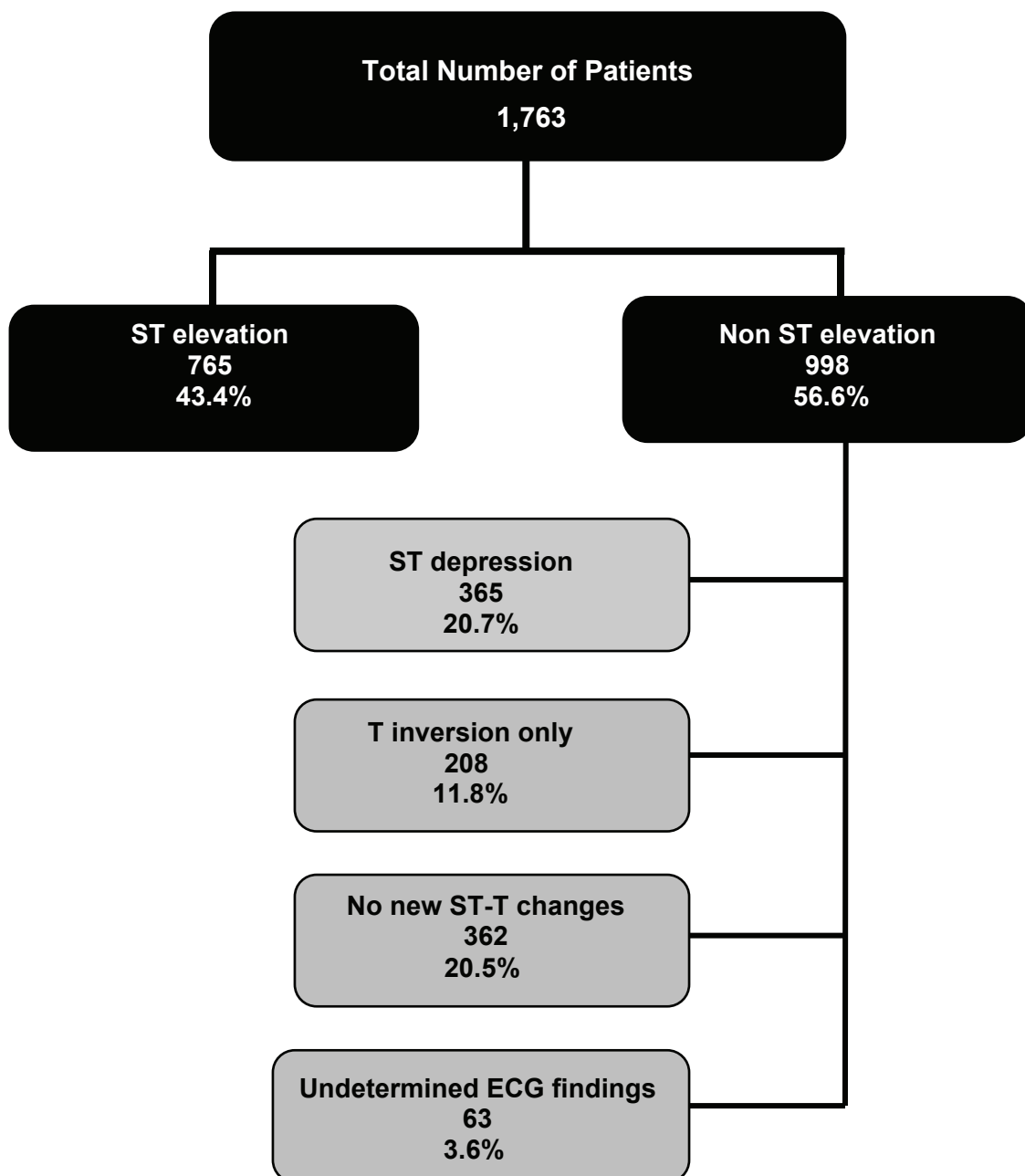


Chapter 1: Acute Coronary Syndrome by ECG on Admission

1.1 Distribution of Patients with ACS by ECG on Admission

A greater proportion of patients with ACS presented with Non-ST elevation (56.6%) than with ST elevation (43.4%). Approximately one-fifth of patients presented with ST depression and a similar proportion with no new ST-T changes. Twelve percent of patients presented with T inversion only, and for 3.6% of patients, the admission ECG was undetermined.

Figure 1.1: Distribution of Patients with ACS by ECG on Admission



1.2 Demographic Characteristics

1.2.1 Age Distribution

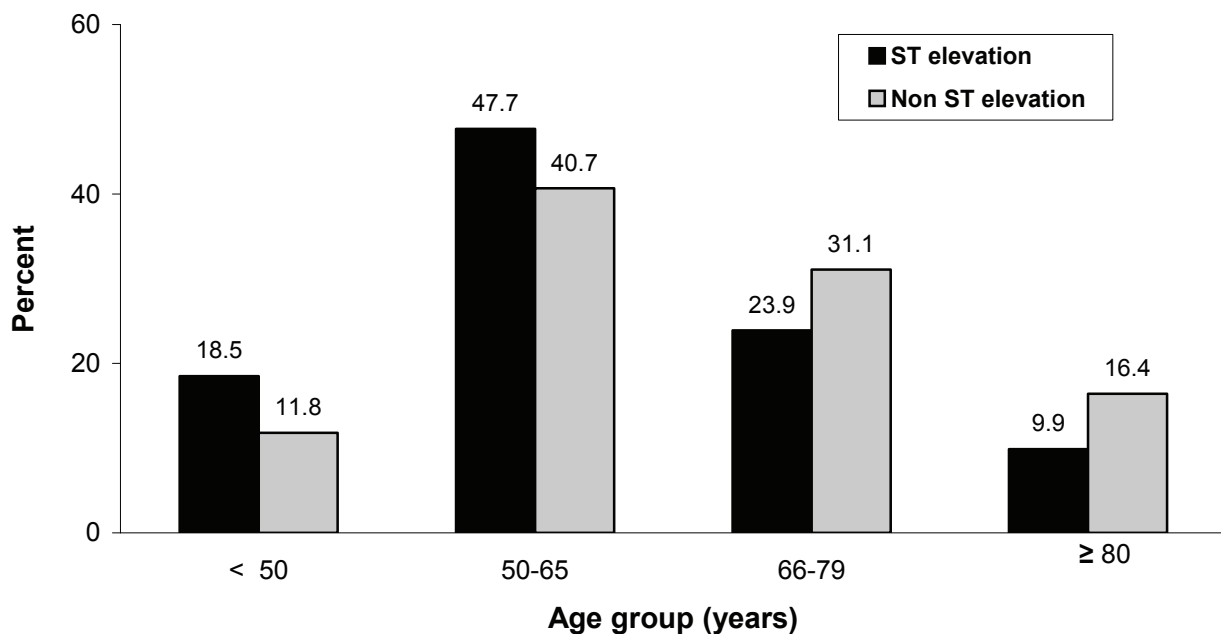
Patients with ST elevation were somewhat younger (mean age: 61.0) than those with non-ST elevation (mean age: 65.1), and the age distribution of patients with ST elevation indicated a greater proportion of younger patients (≤ 65 years) than that of patients with non-ST elevation.

Table 1.1: Age Distribution

Age group* (years)	ST \uparrow (N=765)		Non ST \uparrow (N=998)		Total (N=1,763)	
	n	%	n	%	n	%
< 50	141	18.5	118	11.8	259	14.7
50-65	365	47.7	406	40.7	771	43.7
66-79	183	23.9	310	31.1	493	28.0
≥ 80	76	9.9	164	16.4	240	13.6
Mean age \pm SD*	61.01 \pm 12.99		65.07 \pm 13.13		63.31 \pm 13.22	

*p<0.01

Figure 1.2: Age Distribution



1.2.2 Sex Distribution

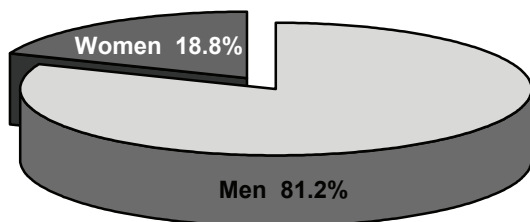
In both types of ACS, men predominated ($\approx 80\%$), however the proportion of women was slightly higher in patients with non-ST elevation than in those with ST elevation (22.0% compared with 18.8%).

Table 1.2: Sex Distribution

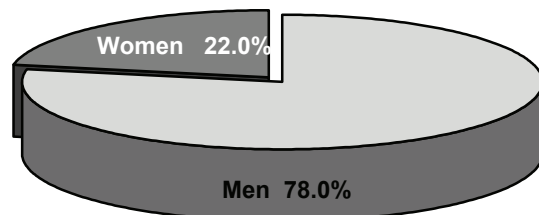
Sex	ST \uparrow (N=765)		Non ST \uparrow (N=998)		Total (N=1,763)	
	n	%	n	%	n	%
Men	621	81.2	778	78.0	1,399	79.4
Women	144	18.8	220	22.0	364	20.6

Figure 1.3: Sex Distribution

Patients with ST Elevation



Patients with Non-ST Elevation



1.3 Cardiovascular History and Risk Factors

1.3.1 Cardiovascular History

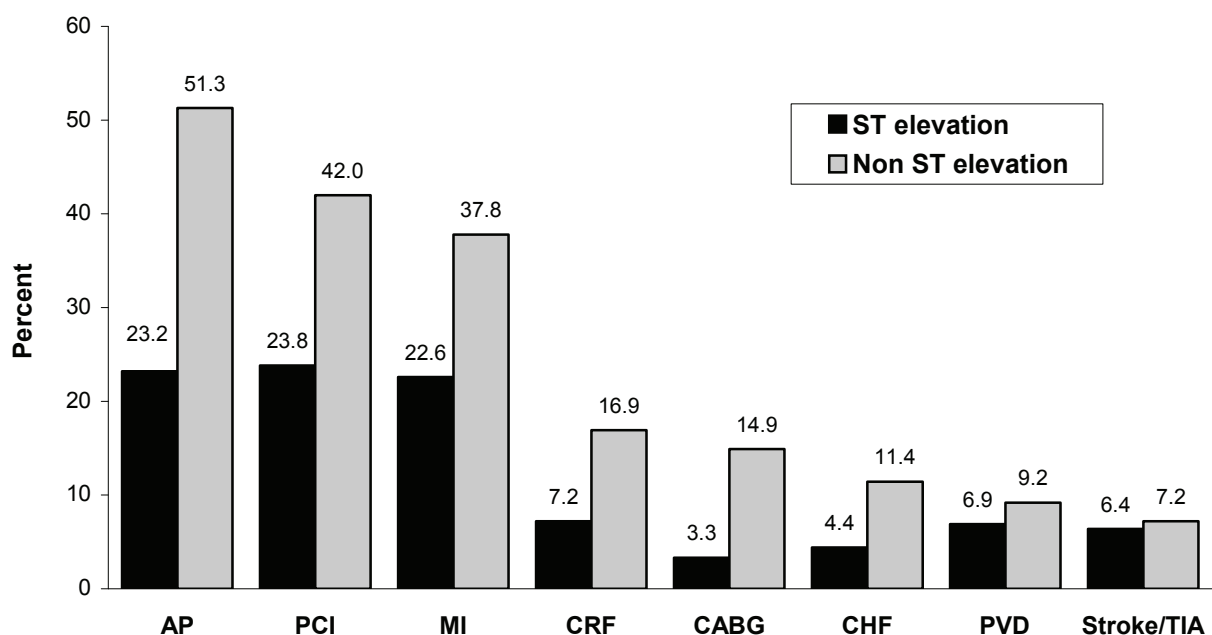
A history of MI, AP, chronic heart failure and chronic renal failure was significantly more frequent among patients with no ST elevation. Similarly, more patients with no ST elevation had undergone PCI or CABG prior to hospitalization. No difference was found with respect to history of stroke or PVD.

Table 1.3: Cardiovascular History

CV history	ST ↑ (N=765) %	Non ST ↑ (N=998) %	Total (N=1,763) %
MI*	22.6	37.8	31.2
AP*	23.2	51.3	39.1
PCI*	23.8	42.0	34.1
CABG*	3.3	14.9	9.9
CHF*	4.4	11.4	8.4
Stroke/TIA	6.4	7.2	6.9
Chronic renal failure (CRF)*	7.2	16.9	12.7
PVD	6.9	9.2	8.2

*p<0.05

Figure 1.4: Cardiovascular History*



* All graphs are presented according to descending order of patients with Non-ST elevation

1.3.2 Risk Factors

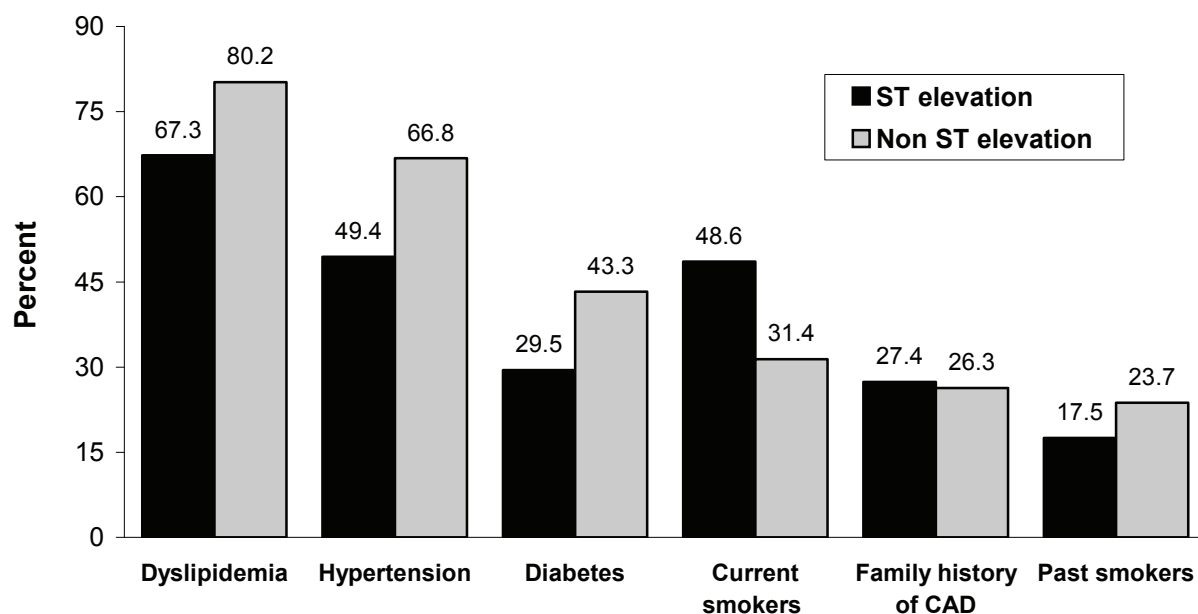
Except for current smoking, risk factors were more prevalent among patients with non-ST elevation. The percentage of newly diagnosed diabetes and dyslipidemia was higher among those with ST elevation, while the percentage of newly diagnosed hypertension was slightly higher among patients without ST elevation.

Table 1.4: Risk Factors

Risk factors	ST ↑ (N=765) %	Non ST ↑ (N=998) %	Total (N=1,763) %
Hypertension *	49.4	66.8	59.2
Newly diagnosed**	2.9	3.5	3.3
Diabetes*	29.5	43.3	37.3
Newly diagnosed**	6.4	3.3	4.4
Dyslipidemia *	67.3	80.2	74.6
Newly diagnosed**	18.5	9.2	12.9
Current smokers*	48.6	31.4	38.9
Past smokers*	17.5	23.7	21.0
Family history of CAD	27.4	26.3	26.8

*p<0.05; ** newly diagnosed expressed as percentage of total patients with specific risk factor

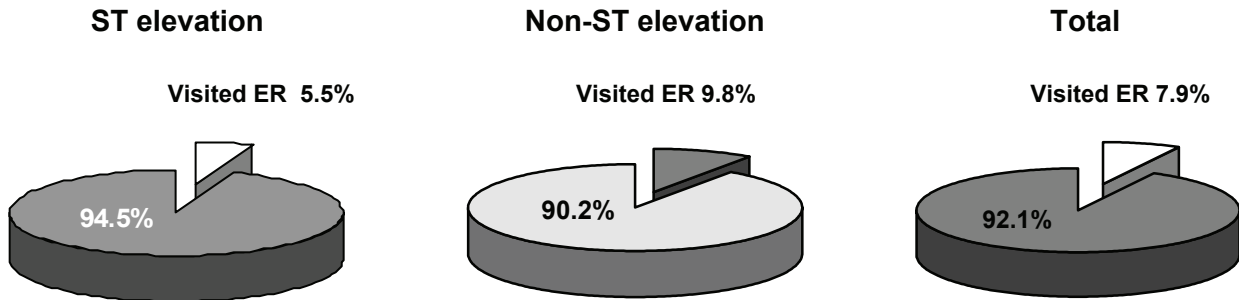
Figure 1.5: Risk Factors



1.3.3 Visit to ER during the Month Preceding Hospitalization

Patients without ST elevation were more likely to have visited the ER during the month preceding hospitalization (9.8%) than patients with ST elevation (5.5%).

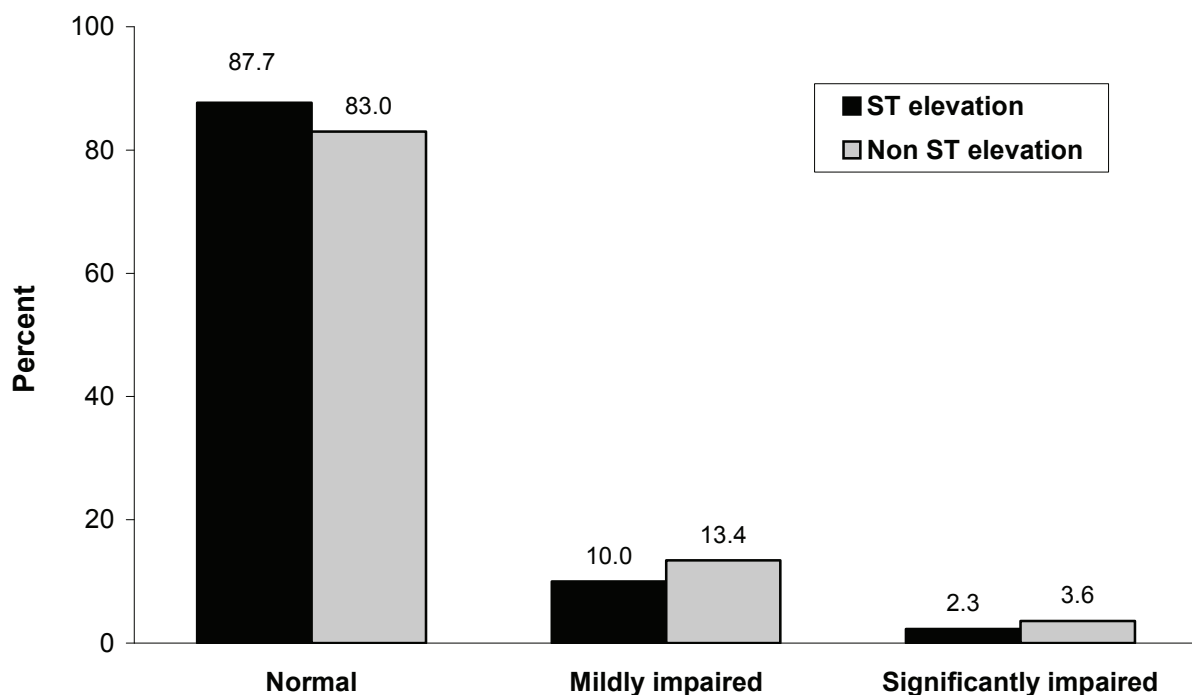
Figure 1. 7: Visit to ER during Preceding Month



1.3.4 Patient's General Functional Level on Admission

For over 80% of patients, functional level was normal. Overall, the functional level of patients with ST elevation was slightly higher than those with no ST elevation.

Figure 1.8: Patient's General Functional Level



1.4 Prior Chronic Treatment

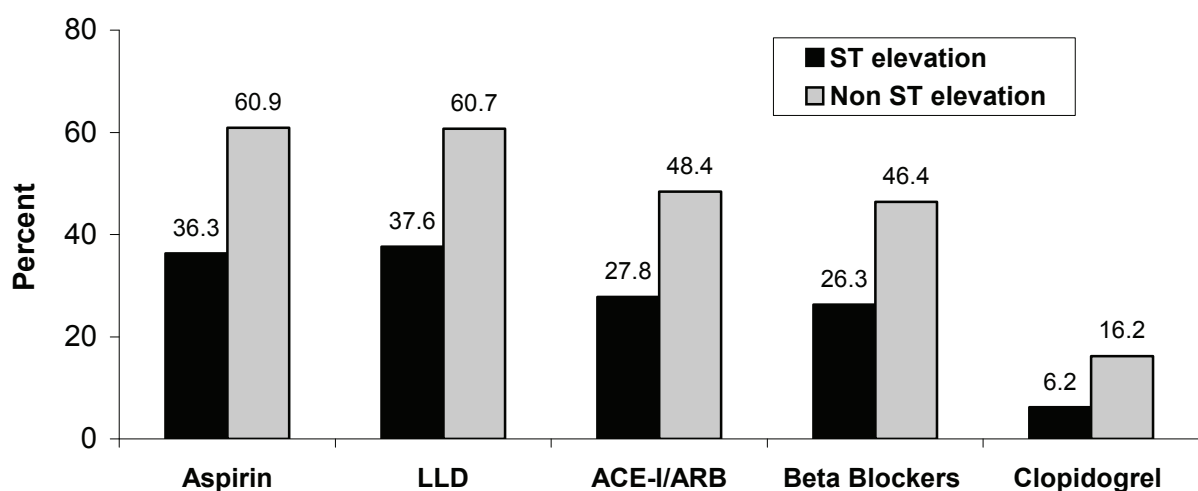
Approximately 61% of patients with no ST elevation and 36% of those with ST elevation were being treated with aspirin before hospitalization. Other drugs in common use were ACE inhibitors and ARB, beta blockers, lipid-lowering drugs, hypoglycemic drugs and calcium antagonists, all of which were in use more frequently among patients with no ST elevation.

Table 1.5: Prior Chronic Treatment

Prior chronic treatment*	ST ↑ (N=765) %	Non ST ↑ (N=998) %	Total (N=1,763) %
Aspirin	36.3	60.9	50.3
Anticoagulants	3.0	5.1	4.2
Clopidogrel	6.2	16.2	11.9
ACE inhibitor	23.4	39.1	32.3
ARB	4.9	10.3	8.0
ACE-I/ARB	27.8	48.4	39.5
Aldosterone receptor	0.4	1.8	1.2
Beta Blockers	26.3	46.4	37.7
Digoxin	0.4	1.3	0.9
Diuretics	11.4	24.3	18.7
Insulin	4.1	10.1	7.5
Hypoglycemic drugs	16.3	27.4	22.6
Statins	36.5	59.5	49.5
Fibrate	3.2	5.1	4.3
Ezetimibe	0.5	1.6	1.1
LLD	37.6	60.7	50.7
Calcium antagonists	16.4	26.4	22.1
Nitrates	4.0	14.1	9.7
Other drugs	30.5	46.9	39.8

*p<0.05

Figure 1.9: Prior Chronic Treatment



1.5 Transportation, Pre-Admission and Admission Information

1.5.1 Mode of Transportation

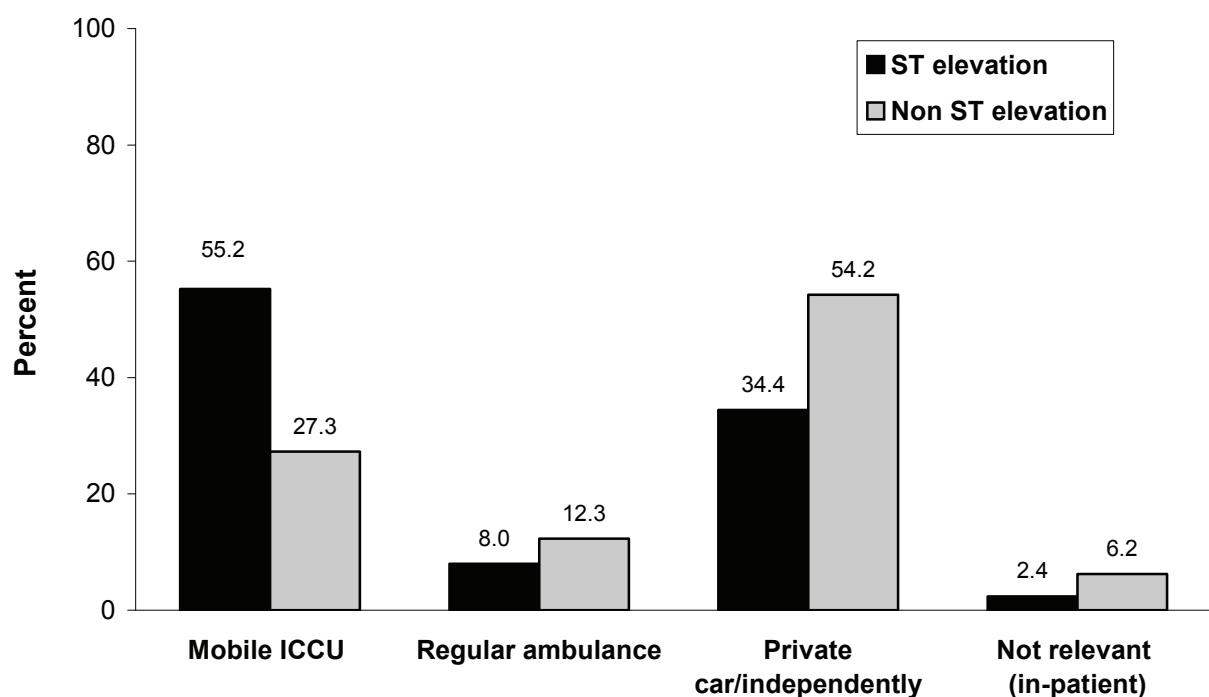
Patients with ST elevation were more frequently transported to hospital with mobile CCU, and patients with no ST elevation arrived more frequently by means of private transportation.

Table 1.6: Mode of Transportation

Transport to hospital*	ST ↑ (N=764) (%)	Non ST ↑ (N=996) (%)	Total (N=1,763) (%)
Mobile ICCU	55.2	27.3	39.4
Regular ambulance	8.0	12.3	10.4
Private car/independently	34.4	54.2	45.6
Not relevant (in-patient)	2.4	6.2	4.6

*p<0.05

Figure 1.10: Mode of Transportation



1.5.2 Patient Location on Onset

The most frequent location at the time of ACS onset was a private residence (81% of all patients). Patients with no ST elevation were somewhat more likely to experience onset of ACS at a private residence, and patients with ST elevation were more likely to experience onset at work or in a public place.

Table 1.7: Location on Onset

Location*	ST ↑ (N=765) (%)	Non ST ↑ (N=998) (%)	Total (N=1,763) (%)
Private residence	77.5	83.3	80.7
Public place	9.1	6.8	7.8
Medical facility	3.5	4.1	3.8
Work place	7.8	3.3	5.3
Other	2.1	2.5	2.4

*difference in location on onset of ACS, ST elevation vs. Non-ST elevation, $p < 0.05$

1.5.3 First Arrival

The ward of first arrival for 97% of patients with no ST elevation and 76% of those with ST elevation was the ER. Patients with ST elevation were more likely to be taken directly to the CCU or the catheterization laboratory than patients without ST elevation.

Table 1.8: First Arrival

First arrival at*	ST ↑ (N=765) (%)	Non ST ↑ (N=998) (%)	Total (N=1,763) (%)
ER	76.0	96.7	87.7
CCU	16.5	2.8	8.8
Catheterization laboratory	7.5	0.5	3.5

*difference in ward of first arrival, ST elevation vs. Non-ST elevation, $p < 0.05$

1.5.4 First Ward of Hospitalization

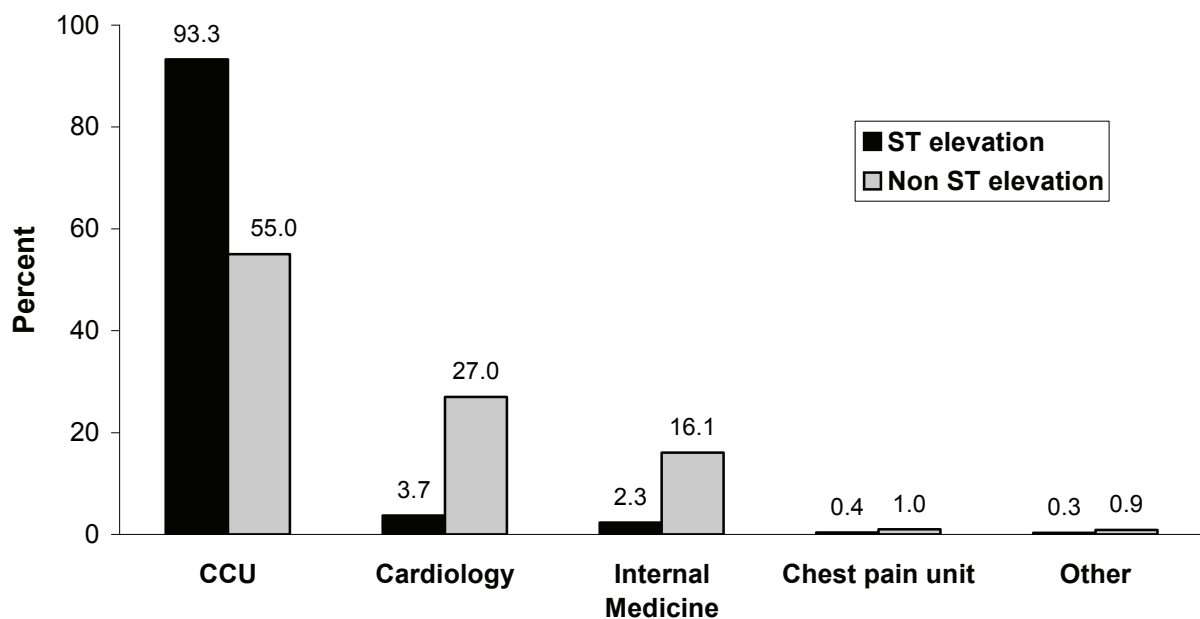
As expected, the patients presenting with ST elevation were more often hospitalized in the CCU (93%). Those presenting with no ST elevation were more frequently admitted to Cardiology and 16% of the latter patients were first admitted to Internal Medicine Departments and thereafter transferred to Cardiac wards within 24 hours.

Table 1.9: First Ward of Hospitalization

First ward*	ST ↑ (N=765) (%)	Non ST ↑ (N=998) (%)	Total (N=1,763) (%)
CCU	93.3	55.0	71.6
Cardiology	3.7	27.0	16.9
Chest pain unit	0.4	1.0	0.7
Internal medicine	2.3	16.1	10.2
Other	0.3	0.9	0.6

*difference in first ward of hospitalization, ST elevation vs. Non-ST elevation, $p < 0.05$

Figure 1.11: First Ward of Hospitalization



1.5.5 Length of Time from Symptom Onset to Admission

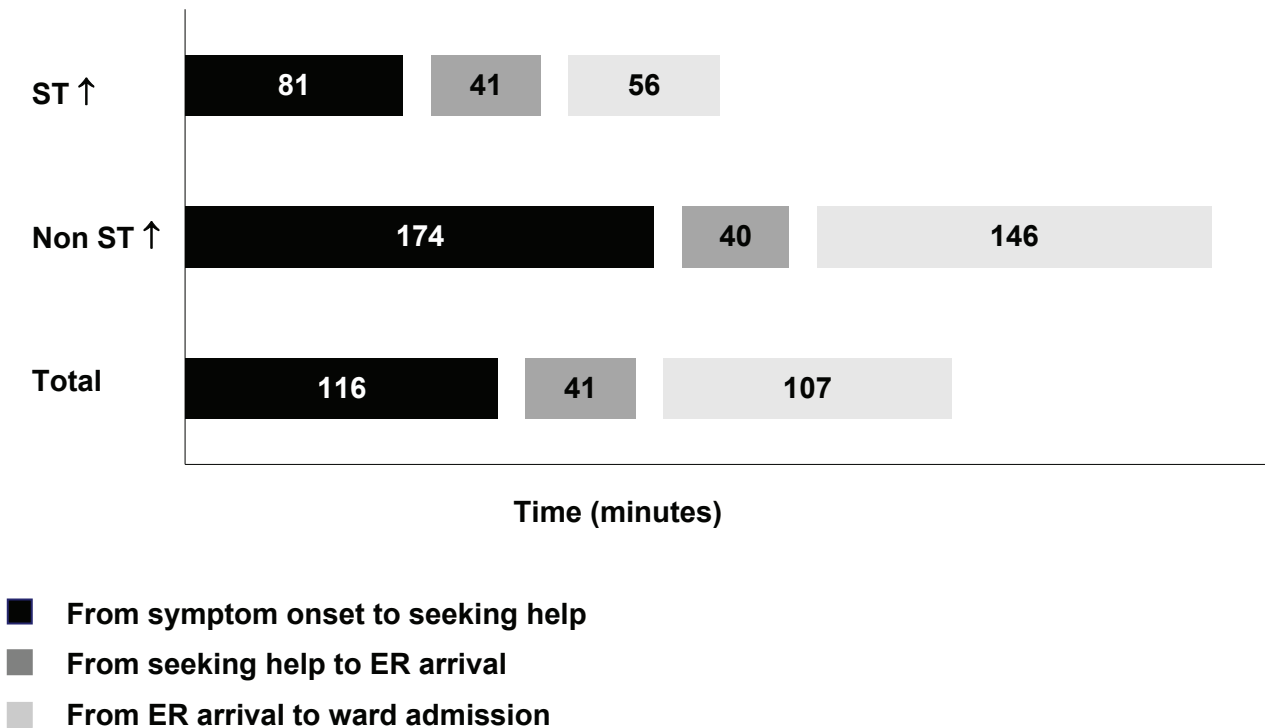
Patients with ST elevation sought help more rapidly in comparison with their counterparts with no ST elevation. In addition, the time elapsing between ER arrival and first ward admission was more than twice as long for patients with no ST elevation, in comparison with patients presenting with ST elevation.

Table 1.10: Length of Time from Symptom Onset to Admission

	Length of time (minutes)								
	ST ↑			Non ST ↑			Total		
	No.	Median	(25%-75%)	No.	Median	(25%-75%)	No.	Median	(25%-75%)
From symptom onset to seeking help*	646	81	(33-210)	644	174	(60-682)	1,290	116	(45-390)
From seeking help to ER arrival*	673	41	(0-63)	785	40	(0-73)	1,458	41	(0-68)
From ER arrival to first ward admission*	743	56	(20-123)	951	146	(80-233)	1,694	107	(44-193)

*p<0.05

Figure 1.12: Median Length of Time from Symptom Onset to Admission (minutes)



1.5.6 First Medical Contact

A greater proportion of patients with ST elevation (33.7%) than those with no ST elevation (20.6%) experienced their first medical contact in the ambulance. Patients without ST elevation were more likely to experience their first medical contact in the ER (47.4%) than patients with ST elevation (35.8%).

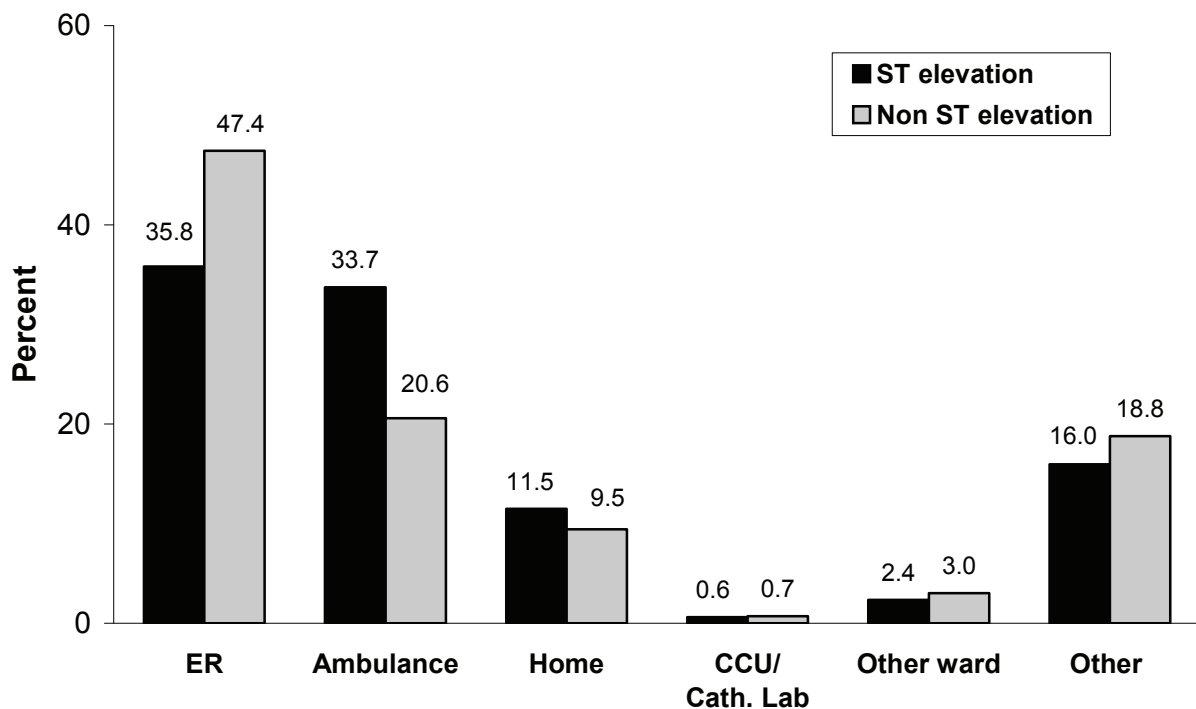
Table 1.11: First Medical Contact

First medical contact:*	ST ↑ (N=765) (%)	Non ST ↑ (N=998) (%)	Total (N=1,763) (%)
Home	11.5	9.5	10.3
Ambulance	33.7	20.6	26.3
ER	35.8	47.4	42.4
CCU/ Catheterization laboratory	0.6	0.7	0.7
Other ward	2.4	3.0	2.7
Other**	16.0	18.8	17.6

*difference in place of first medical contact, ST elevation vs. Non-ST elevation, $p < 0.05$

** refers largely to patients whose first medical contact was in a primary care setting

Figure 1.13: First Medical Contact



1.5.7 Presenting Symptoms and Killip Class

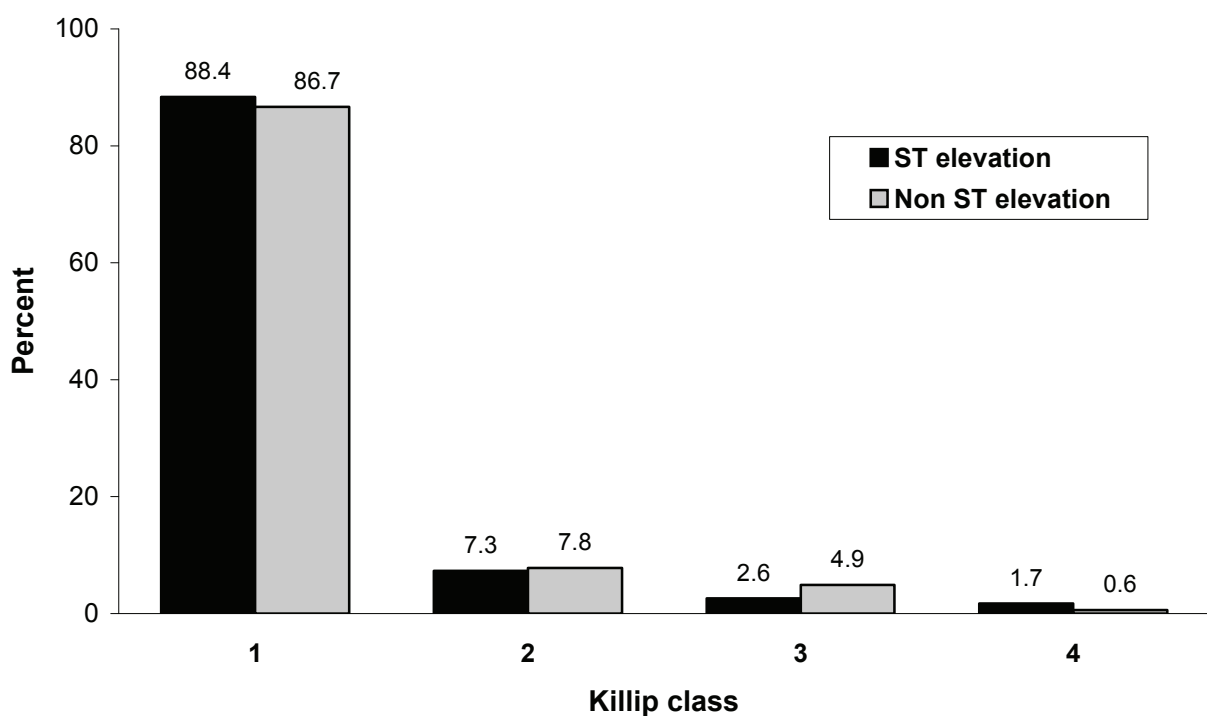
Typical angina was more frequent in patients presenting with ST elevation. Atypical chest pain and dyspnea were relatively more frequent in patients with no ST elevation. Killip Class on admission was similar in the two groups. The large majority of patients in both groups were admitted with Killip Class 1.

Table 1.12: Presenting Symptoms at First Medical Contact

Symptoms	ST ↑ (N=765) %	Non ST ↑ (N=998) %	Total (N=1,763) %
Typical angina*	89.7	83.1	85.9
Atypical chest pain*	6.1	11.4	9.1
Syncope/Aborted SCD	3.5	2.3	2.8
Arrhythmia	4.8	3.6	4.1
Dyspnea*	24.2	30.6	27.8
Other	14.9	14.7	14.8

*p<0.05

Figure 1.14: Killip Class on Admission



1.5.8 Treatment at First Contact

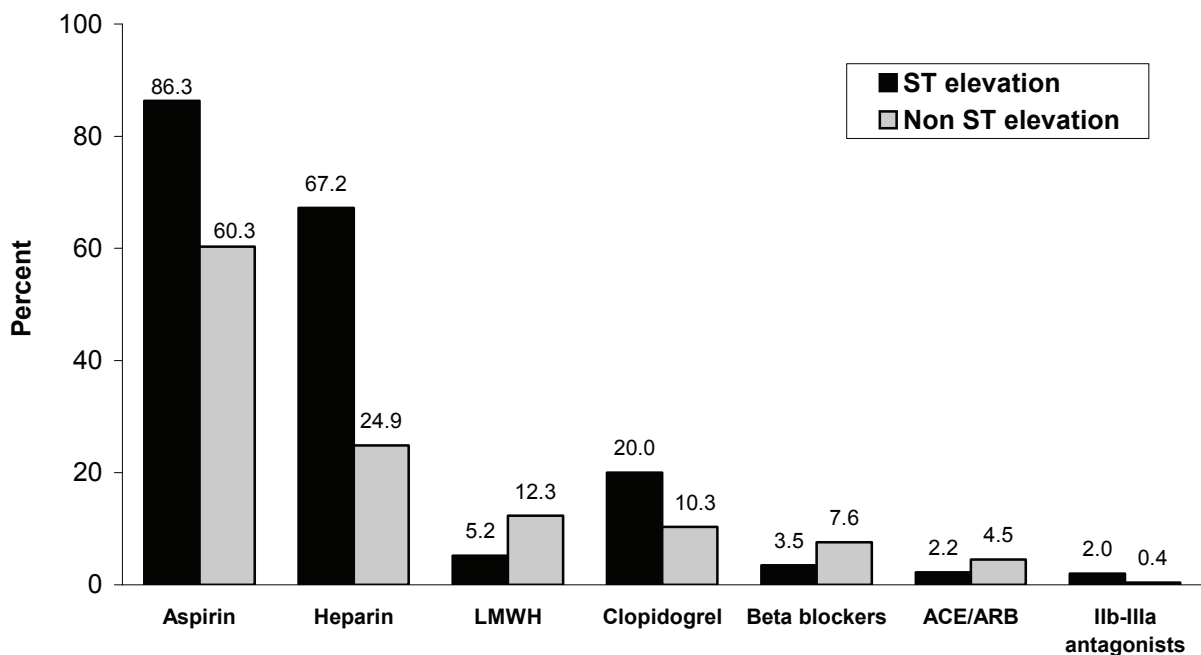
At first medical contact, patients with ST elevation were more likely than those without ST elevation to receive aspirin, clopidogrel, unfractionated or regular heparin, IIb/IIIa antagonists and narcotics than patients with no ST elevation. Those with no ST elevation received more beta blockers, diuretics, LMW heparin and ACE-I/ARB.

Table 1.13: Treatment at First Medical Contact

Treatment	ST ↑ (N=765) %	Non ST ↑ (N=998) %	Total (N=1,763) %
Aspirin*	86.3	60.3	71.6
Clopidogrel*	20.0	10.3	14.5
Beta Blockers*	3.5	7.6	5.8
Diuretics*	4.1	10.4	7.7
ACE-I*	2.0	4.1	3.2
ARB	0.3	0.4	0.3
ACE-I/ARB*	2.2	4.5	3.5
Heparin unfractionated/regular)*	67.2	24.9	43.3
LMW heparin (fractionated)*	5.2	12.3	9.2
IIb/IIIa antagonists*	2.0	0.4	1.1
Narcotics*	34.1	9.9	20.4
Nitrates*	43.4	33.8	37.9
Antiarrhythmics	2.9	2.2	2.5

*p<0.05

Figure 1.15: Treatment at First Medical Contact

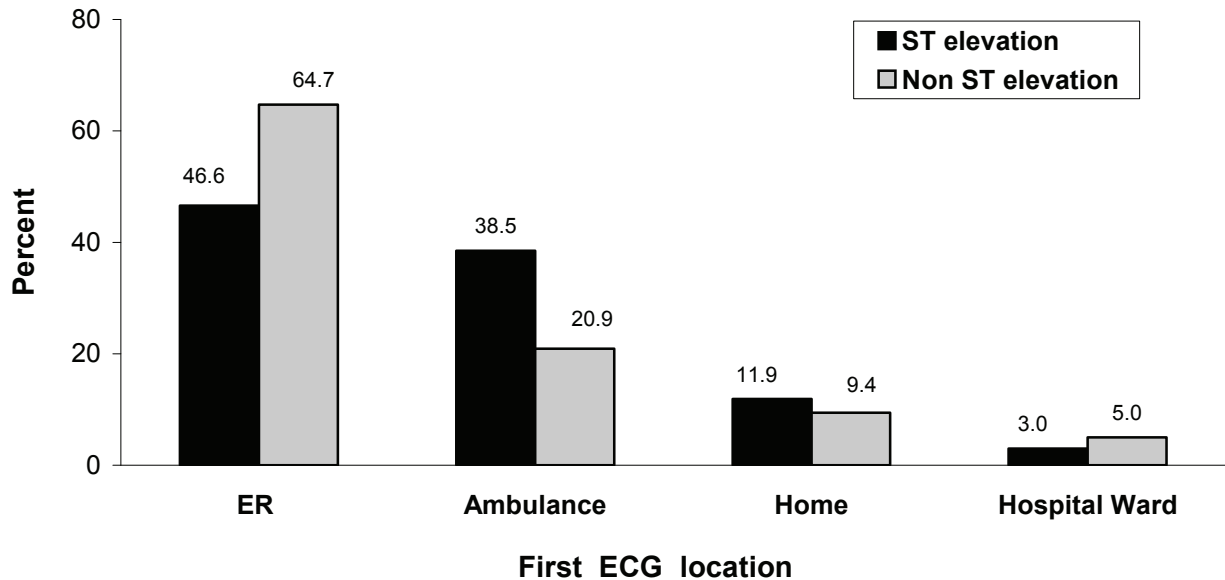


1.6 First Recorded ECG

1.6.1 Location of First ECG Recording

A larger proportion of patients with ST elevation than those with no ST elevation had their first ECG measurement in the ambulance or at home. For almost two-thirds of patients presenting with no ST elevation and close to half of patients presenting with ST elevation, the initial ECG was performed in the ER.

Figure 1.16: Location of First ECG



1.6.2 First ECG Rhythm

Over 90% of patients, both with and without ST elevation, presented with a normal sinus rhythm. Four percent of patients presented with AF.

Table 1.14: First ECG Rhythm

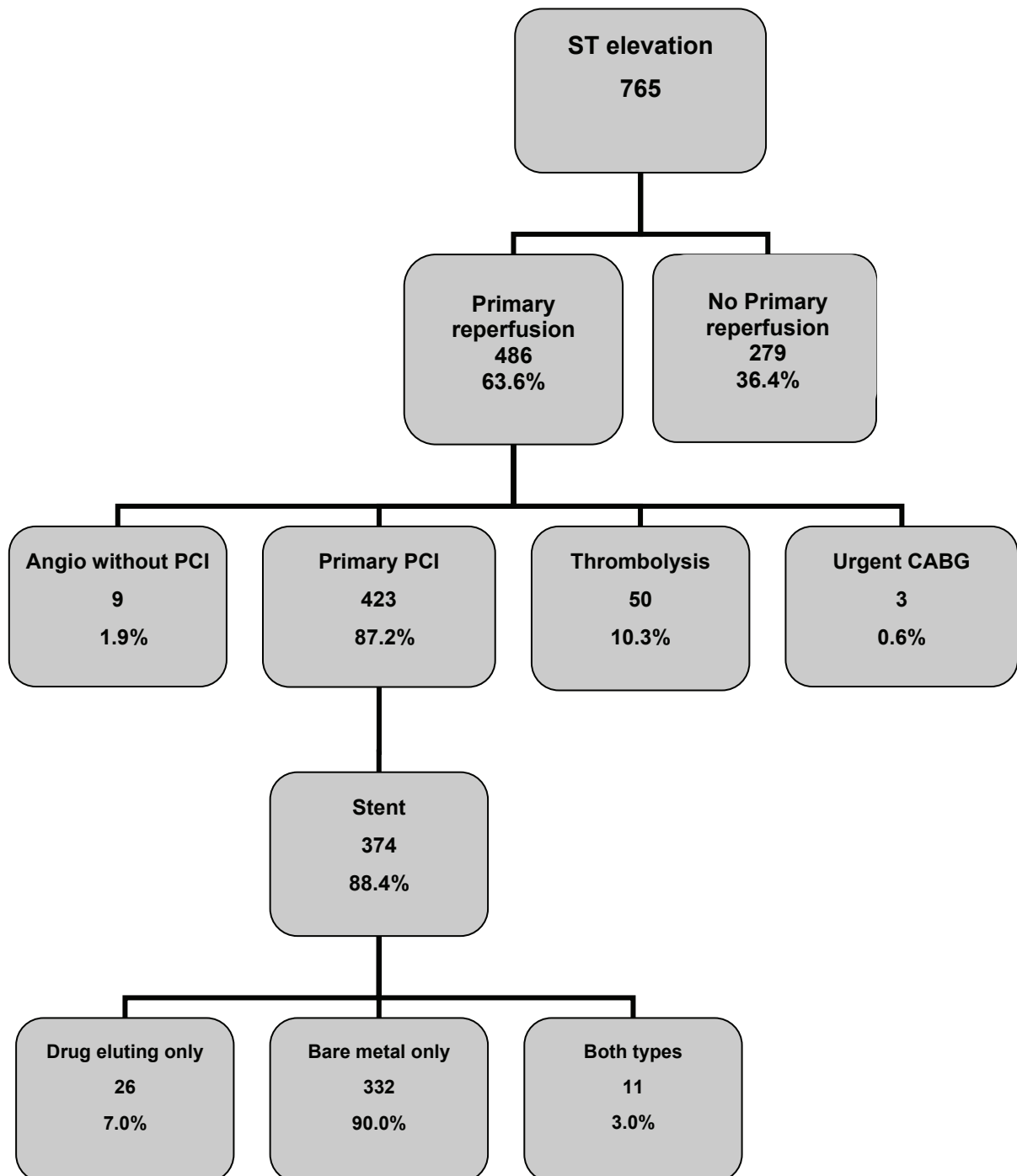
Rhythm	ST ↑ (N=765) %	Non ST ↑ (N=998) %	Total (N=1,763) %
NSR	92.3	91.7	91.9
AF	3.5	4.6	4.1
SVT	0.1	0.3	0.2
VT/VF	0.3	0.4	0.3
Other	3.8	3.0	3.4

1.7 Primary Reperfusion Therapy in Patients with ST Elevation

1.7.1 Primary Reperfusion

Close to two-thirds of patients with ST elevation underwent primary reperfusion within 12 hours from onset. Of these, the majority underwent primary PCI (87.2%) and in almost 90% of these cases, stents were employed, principally bare metal stents.

Figure 1.17: Primary Reperfusion in Patients with ST Elevation



1.7.2 Use of Drugs and Protective Devices during Primary PCI

Close to 90% of patients received clopidogrel during primary PCI, over two-thirds received IIb/IIIa antagonists and protective/aspiration devices were employed in 29.3% of cases.

Table 1.15: Drugs and Protective Devices during PCI

Drugs and protective devices	N=423	
	Number	%
Clopidogrel	375	88.7
IIb/IIIa antagonists	288	68.1
Angiomax	17	4.0
Protective/Aspiration device	124	29.3

1.7.3 TIMI Grade Flow

Following primary PCI, a TIMI grade flow of 3 was achieved in the majority of patients (87.5%).

Table 1.16: TIMI Grade Flow before and after primary PCI

TIMI grade flow	Before revascularization (%) N=423	After revascularization (%) N=423
0	57.1	3.6
1	14.5	0.7
2	13.0	8.2
3	15.4	87.5

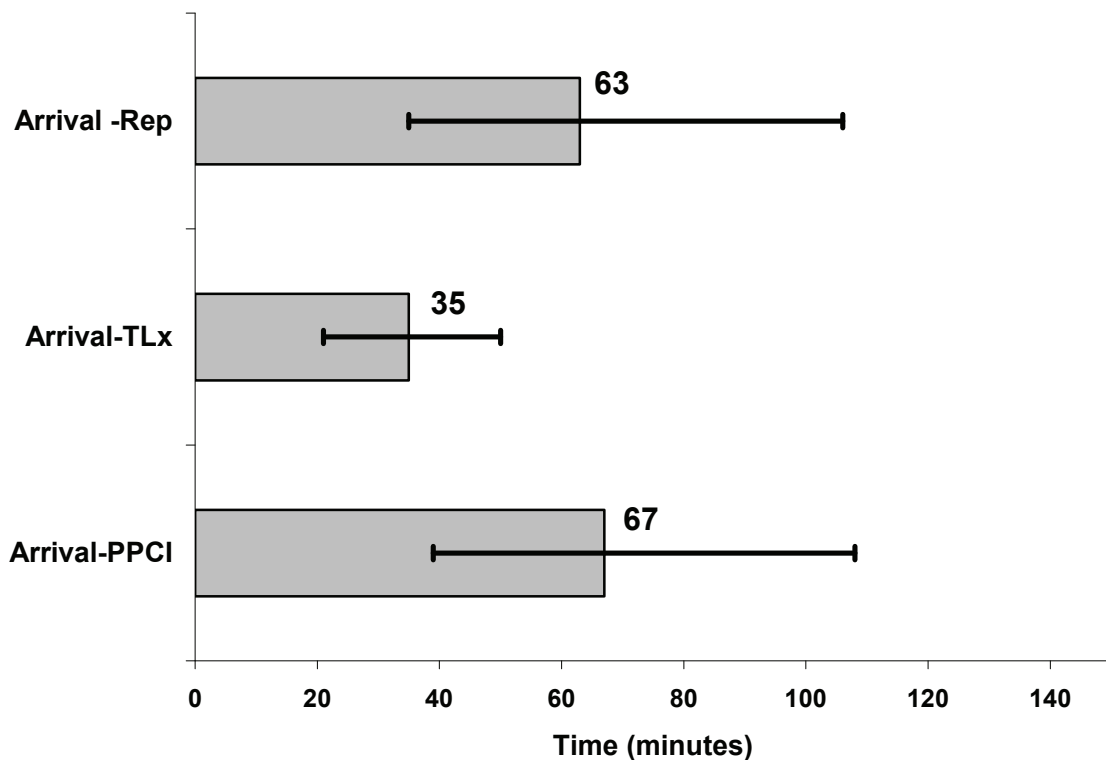
1.7.4 Length of Time from Arrival to Primary Reperfusion

The median time from arrival to primary reperfusion was relatively short, for both primary PCI and thrombolysis. The median length of time for thrombolysis was shorter than for primary PCI.

Table 1.17: Length of Time from Arrival to Reperfusion

	Length of time for ST ↑ patients (minutes)	
	Median	(25%-75%)
From arrival to reperfusion	63	35-106
From arrival to thrombolysis	35	21-50
From arrival to primary PCI	67	39-108

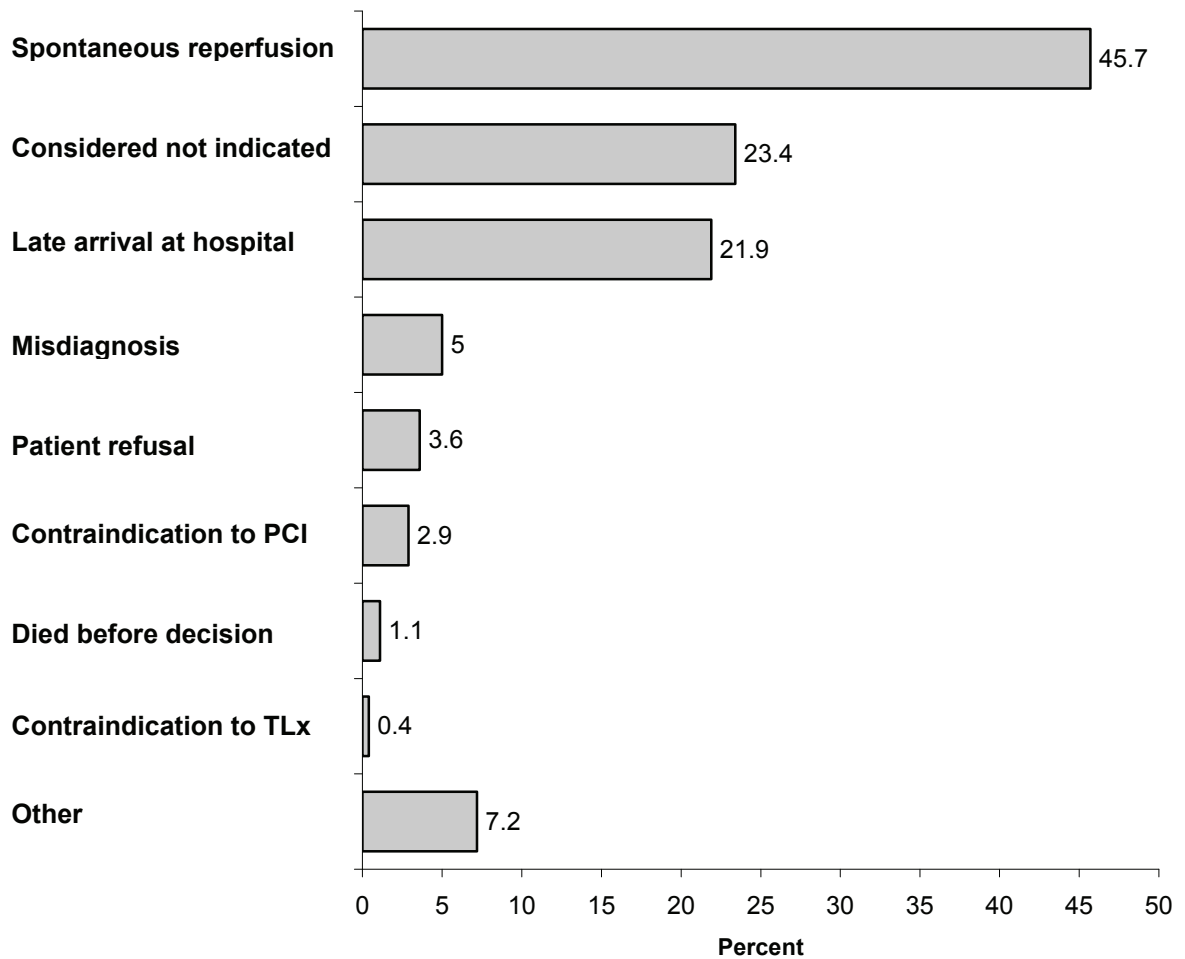
Figure 1.18: Length of Time from Arrival to Reperfusion (Median, 25%-75%)



1.7.5 Reasons for Not Performing Primary Reperfusion

Thirty-six percent of patients presenting with ST elevation did not receive primary reperfusion therapy. In the majority of cases (45.7%), the reason for not performing primary reperfusion was "spontaneous" reperfusion. In 23.4% of cases, primary reperfusion was considered not indicated, and in almost 22% of cases the reason was late arrival at the hospital.

Figure 1.19: Reason for Not Performing Primary Reperfusion

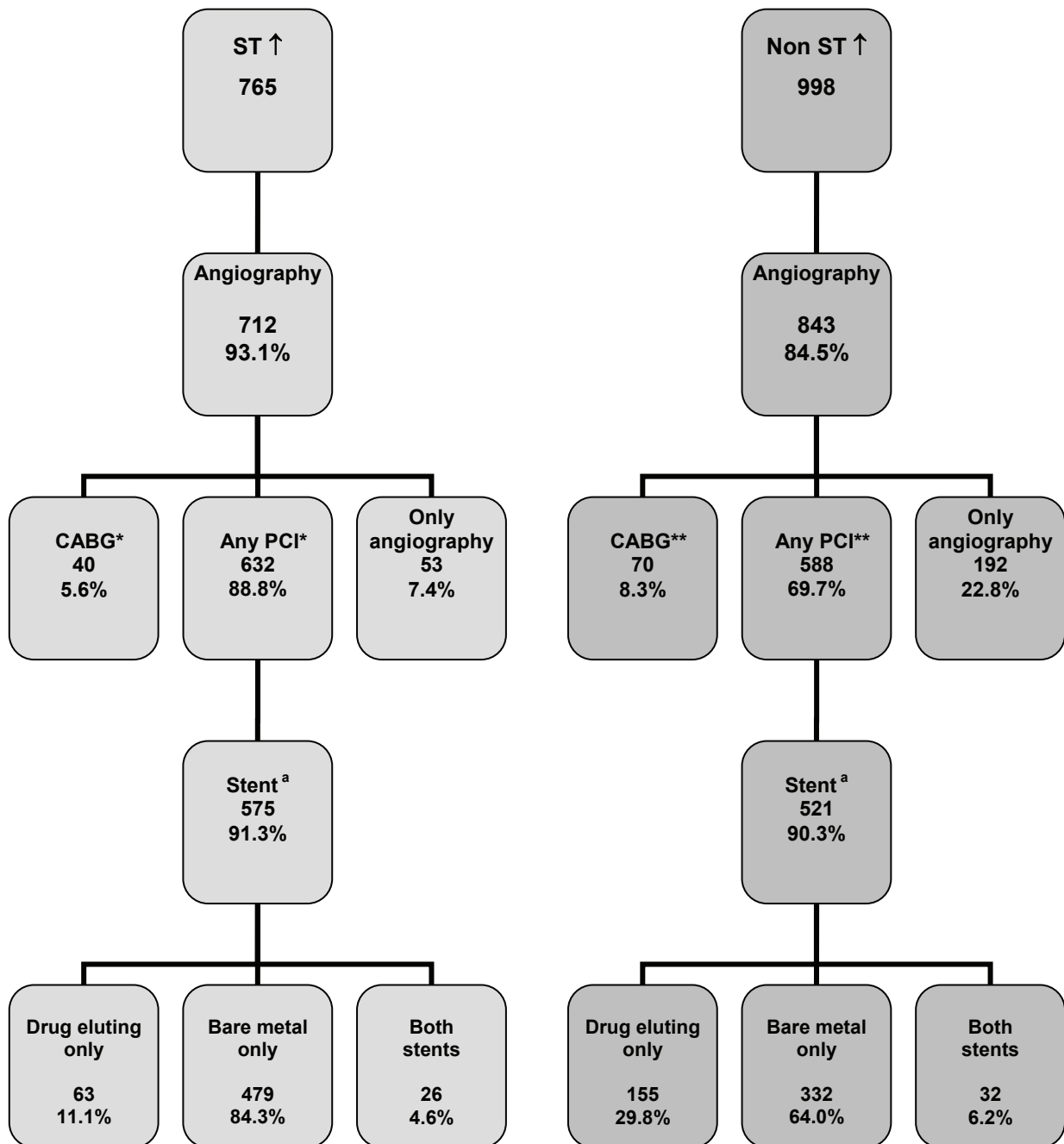


1.8 Coronary Interventions and Procedures during Hospitalization

1.8.1 Coronary Angiography and Interventions

Patients with ST elevation were more likely than those with no ST elevation to undergo coronary angiography and PCI. CABG during hospitalization was performed more frequently in patients with no ST elevation. Stents were employed with equal frequency in both groups, however drug-eluting stents were used more frequently in patients without ST elevation than in patients with ST elevation.

Figure 1.20: In-Hospital Cardiac Interventions and Procedures



* 13 patients underwent both CABG and PCI; ** 7 patients underwent both CABG and PCI
 a. For a small number of patients type of stent is unknown

1.8.2 Other Procedures

Patients with ST elevation were more likely to receive CPR, DC shock, ventilation, IA balloon and temporary pacemaker than those with no ST elevation. Patients with no ST elevation were more likely to undergo stress test/SPECT than those with ST elevation.

Table 1.19: Other Procedures

Procedure	ST ↑ (N=765) %	Non ST ↑ (N=998) %	Total (N=1,763) %
DC shock*	5.2	1.3	3.0
Resuscitation (CPR)*	4.8	1.3	2.8
Ventilation*	6.7	2.9	4.5
IA Balloon*	8.0	2.4	4.8
ECHO	88.7	72.2	79.4
EPS*	0.8	0.0	0.3
Stress test/SPECT*	0.3	3.2	1.9
Permanent pacemaker	0.7	0.4	0.5
Temporary pacemaker*	4.7	0.8	2.5
Hypothermia for anoxic brain damage	0.0	0.1	0.1

*p<0.05

1.9 Ejection Fraction

Ejection fraction (EF) was determined in close to 85% of patients with ST elevation and in approximately 78% of those with no ST elevation. EF was normal in a larger proportion of patients with no ST elevation than in patients with ST elevation. Twenty-two percent of patients presented with EF <40%.

Table 1.20: Ejection Fraction

Ejection fraction*	ST ↑ (N=765) %	Non ST ↑ (N=998) %	Total (N=1,763) %
EF determined	84.4	77.7	80.6
Normal (≥50%)	38.1	57.0	48.4
Mild (40-49%)	36.0	23.3	29.1
Moderate (30-39%)	19.0	12.5	15.4
Severe (<30%)	6.9	7.2	7.1

*difference in EF, ST elevation vs. Non-ST elevation, p<0.05

*p<0.05

1.10 In-Hospital Complications

Hemodynamic and electrical complications were more frequent in patients with ST elevation.

Table 1.21: In-Hospital Complications

Complications	ST ↑ (N=765) (%)	Non ST ↑ (N=998) (%)	Total (N=1,763) (%)
CHF mild-moderate (Killip 2)*	9.3	6.4	7.7
Pulmonary edema (Killip 3)	6.9	6.4	6.6
Cardiogenic shock (Killip 4) *	4.6	1.4	2.8
Hemodynamically significant RVI *	2.6	0.3	1.3
Re-MI	1.4	1.5	1.5
Post MI angina /re-ischemia	2.6	4.3	3.6
Sub-acute stent thrombosis*	1.7	0.5	1.0
Free wall rupture*	1.3	0.1	0.6
Pericarditis	0.8	0.2	0.5
Tamponade*	0.9	0.2	0.5
VSD*	0.7	0.1	0.3
Moderate-severe MR	1.7	1.6	1.6
RBBB (new onset) *	2.1	0.7	1.3
LBBB (new onset)	0.3	1.0	0.7
High degree AVB*	4.4	0.5	2.2
Sustained VT*	2.7	0.6	1.5
Primary VF*	3.3	0.2	1.5
Secondary VF *	2.5	0.5	1.4
AF	6.1	4.9	5.4
Asystole*	3.1	1.2	2.0
TIA	0.0	0.3	0.2
Stroke	0.9	0.4	0.6
CVA/TIA in hospital	0.9	0.7	0.8
Acute renal failure	5.2	3.9	4.5
Major bleeding	1.7	1.5	1.6
Infection	4.4	4.2	4.3

*p<0.05

1.11 In-Hospital Medical Treatment

Regular heparin, clopidogrel and IIb/IIIa antagonists were more frequently used in patients with ST elevation. LMW heparin was more frequently used among patients with no ST elevation. Both groups of patients were equally treated with aspirin, Beta-blockers, and lipid-lowering drugs.

Table 1.22: In-Hospital Medical Treatment

Treatment	ST ↑ (N=765) (%)	Non ST ↑ (N=998) (%)	Total (N=1,763) (%)
Aspirin	97.9	97.4	97.6
Warfarin	4.7	3.7	4.2
Heparin (unfractionated/regular)*	47.1	28.7	36.7
LMW heparin (fractionated)*	39.9	57.8	50.0
Clopidogrel*	91.8	86.5	88.8
ACE-I*	71.4	65.6	68.1
ARB*	4.6	10.5	7.9
ACE-I/ARB	74.8	74.7	74.8
IIb/IIIa antagonists*	48.9	17.3	31.0
Aldosterone receptor antagonist	5.9	3.9	4.8
Beta Blockers	83.0	81.4	82.1
IV inotropic agent*	5.1	1.9	3.3
Digoxin	2.5	1.9	2.2
Diuretics*	24.4	33.1	29.3
Insulin*	11.3	17.3	14.7
Hypoglycemic drugs (Oral)*	10.7	18.4	15.1
Statins	93.9	93.3	93.5
Fibrate	4.7	6.3	5.6
Ezetimibe*	0.4	1.9	1.3
LLD	95.3	94.2	94.7
Calcium antagonists*	10.2	26.8	19.6
Nitrates*	23.0	31.2	27.6

*p<0.05

1.12 Duration of Hospitalization

The median length of stay in CCU was similar in both groups. Median length of total hospital stay was longer in patients with ST elevation (5 days) than in those with no ST elevation (4 days).

Table 1.23: Length of Stay in CCU and Total Hospital Stay

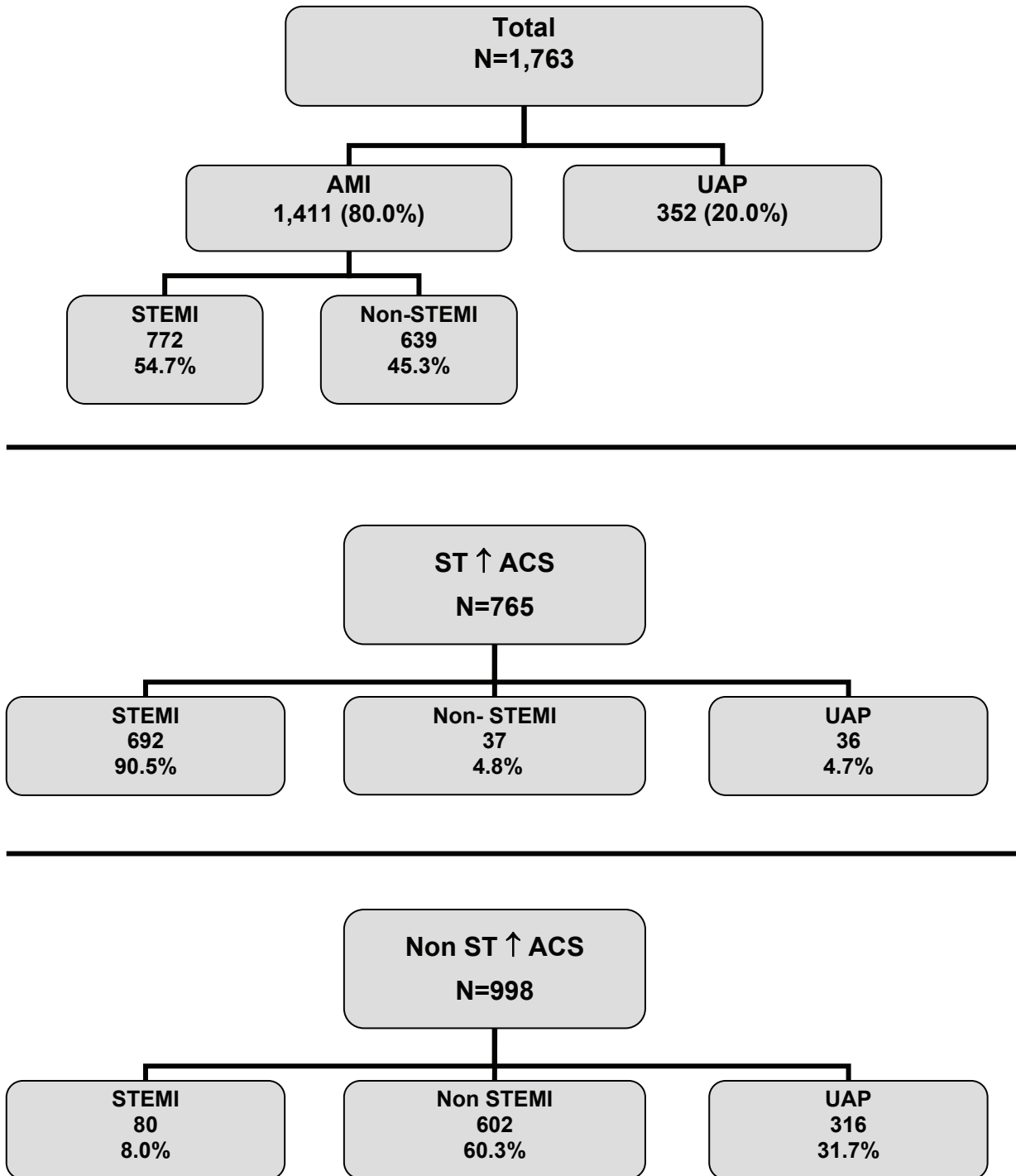
Length of stay (days)	ST ↑ (N=765)		Non ST ↑ (N=998)		Total (N=1,763)	
	Median	(25%-75%)	Median	(25%-75%)	Median	(25%-75%)
No. of days in CCU	4.0	(3-6)	4.0	(2-5)	4.0	(3-5)
Total days in Hospital	5.0	(4-7)	4.0	(3-6)	5.0	(3-6)

1.13 Discharge Diagnosis

1.13.1 Discharge Diagnosis

Eighty percent of patients were discharged with a diagnosis of AMI, and 20% with a diagnosis of UAP. Over 90% of patients presenting with ST elevation were diagnosed on discharge with STEMI. Among patients presenting with no ST elevation, the most frequent diagnosis on discharge (60%) was Non-STEMI. A further 31.7% were diagnosed with UAP, and 8% were diagnosed on discharge with STEMI.

Figure 1.24: Discharge Diagnosis



1.13.2 Type of MI

A greater proportion of patients with ST elevation (94%) than those with no ST elevation (86.3%) were diagnosed with type 1 MI, and a greater proportion of patients with no ST elevation (8.3%) than those with ST elevation were diagnosed with MI type 2.

Table 1.25: Type of MI

Type*	ST ↑ (N=765) (%)	Non ST ↑ (N=998) (%)	Total (N=1,763) (%)
1	94.0	86.3	90.3
2	2.5	8.3	5.3
3	0.0	0.3	0.1
4A	1.7	2.9	2.3
4B	1.8	1.8	1.8
5	0.0	0.4	0.2

*p<0.05

New Universal Definition of AMI

The new universal definition of myocardial infarction⁽¹⁾ was released on October 19th 2007 by the Global Task Force convened jointly by the European Society of Cardiology, the American College of Cardiology and the American Heart Association, together with the World Heart Federation. The revised definition expands and updates the 2000 consensus document on myocardial infarction.

Classification	Description
1	Spontaneous MI related to ischemia due to a primary coronary event such as plaque erosion and/or rupture, fissuring or dissection
2	MI secondary to ischemia due to an imbalance of oxygen supply and demand, as from coronary spasm or embolism, anemia, arrhythmias, hypertension or hypotension
3	Sudden unexpected cardiac death, including cardiac arrest, often with symptoms suggesting ischemia with new ST-segment elevation; new left bundle branch block; or pathologic or angiographic evidence of fresh coronary thrombus, in the absence of reliable biomarker findings
4A	MI associated with PCI
4B	MI associated with documented in-stent thrombosis
5	MI associated with CABG surgery

⁽¹⁾ Thygesen K et al. *Circulation* 2007;116(22):2634-53. Epub 2007 Oct 19.

1.14 Medical Treatment on Discharge

Clopidogrel was more often prescribed for patients with ST elevation. Diuretics, insulin, oral hypoglycemics, calcium antagonists and nitrates were prescribed more often for patients with no ST elevation. All other recommended drugs were similarly given to both groups.

Table 1.26: Medical Treatment on Discharge among Hospital Survivors

Recommended treatment	ST ↑ (N=765) (%)	Non ST ↑ (N=998) (%)	Total (N=1,763) (%)
Discharged patients % (n)	96.3 (n=737)	98.4% (n=982)	97.5% (n=1,719)
Aspirin	97.0	95.5	96.2
Warfarin	5.6	4.7	5.1
LMW*	9.9	7.2	8.4
Clopidogrel*	87.1	74.3	79.8
ACE-inhibitors*	71.6	64.3	67.4
ARB*	5.6	10.2	8.2
ACE-I/ARB	76.8	74.2	75.3
Aldosterone	6.5	4.4	5.3
Beta Blockers	83.4	80.7	81.9
IV inotropic agent	0.4	0.1	0.2
Digoxin	1.4	1.5	1.5
Diuretics*	18.6	27.9	23.9
Insulin*	6.1	10.5	8.6
Hypoglycemic drugs*	13.8	21.4	18.2
Statins*	94.2	91.4	92.6
Fibrate*	4.3	7.3	6.0
Ezetimibe*	0.7	2.3	1.6
LLD*	95.2	92.4	93.6
Calcium antagonists*	11.8	25.8	19.8
Nitrates*	4.6	11.7	8.6
Other drugs	60.4	60.7	60.6

* p<0.05

1.15 Re-Hospitalization within 30 Days of Admission

The re-hospitalization rates for patients with and without ST elevation were similar. Patients with no ST elevation were more likely to be rehospitalized for a scheduled procedure than those with ST elevation.

Table 1.27: Re-Hospitalization* within 30 Days of Admission

	ST ↑ (N=702) (%)	Non ST ↑ (N=941) (%)	Total (N=1,643) (%)
Re-hospitalization % (n)	17.2% (121)	18.8% (177)	18.1% (298)
Reason for Re-hospitalization			
Scheduled	28.1	40.6	35.5
Urgent cardiac event	43.8	41.1	42.2
Non-cardiac hospitalization	28.1	18.3	22.3

* Rehospitalization among hospital survivors

1.16 Mortality and Major Adverse Coronary Event (MACE)

After adjustment for age and other risk factors, 7-day mortality rates were 5 times higher and 30-day mortality rates were three times higher for patients with ST elevation than for those with non ST elevation. Rates of Major Adverse Coronary Event (MACE), which includes recurrent MI, recurrent ischemia, stent thrombosis, ischemic stroke, urgent revascularization (follow-up) or death occurring within 30 days from hospitalization, were more than 50% higher for patients with ST elevation than those with non-ST elevation, after adjustment for age and other risk factors.

Figure 1.24: Unadjusted Rates of 7-Day Mortality, 30-Day Mortality and MACE

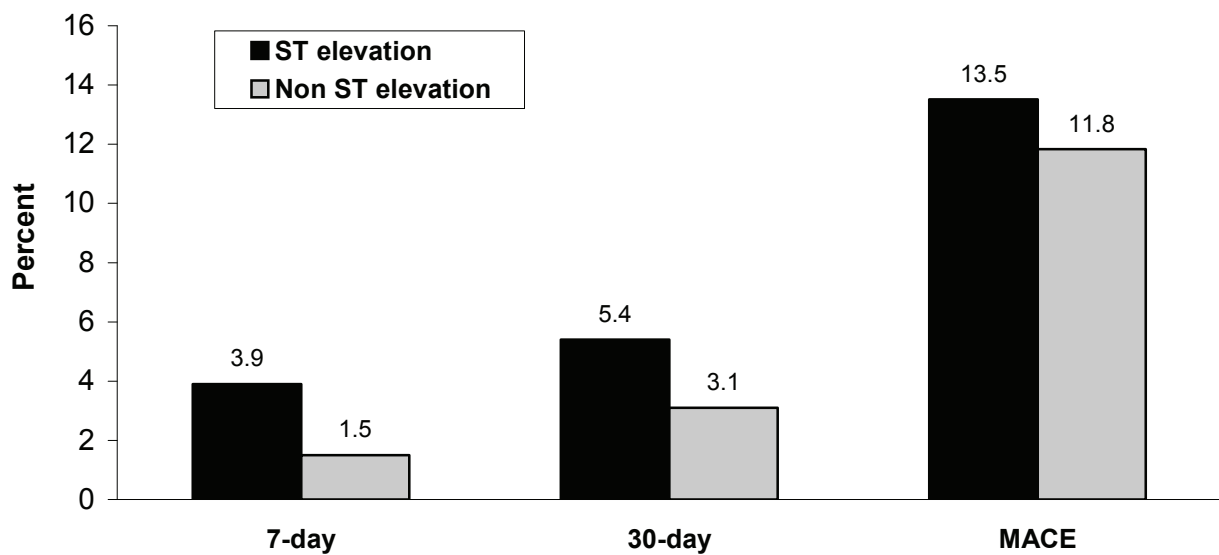


Table 1.28: Mortality Rates by ECG on Admission Adjusted for Age and Other Risk Factors

	ST ↑ (N=765)* (%)	Non ST ↑ (N=998)* (%)	Age-Adjusted OR (95% CI)	OR** (95% CI)
7-day	4.6	1.3	3.70 (1.95-7.05)	5.03 (2.44-10.40)
30-day	6.4	2.7	2.51 (1.53-4.13)	2.96 (1.69-5.20)
MACE***	15.0	11.2	1.41 (1.05-1.89)	1.53 (1.12-2.09)

* age adjusted

** adjusted for age, gender, past MI, diabetes, hypertension, Killip class \geq 2, any angiography

*** definition includes: recurrent MI, recurrent ischemia, stent thrombosis, ischemic stroke, urgent revascularization (follow-up) or death occurring within 30 days from hospitalization.

