ORIGINAL ARTICLE

Criteria for admitting elderly patients with acute coronary syndrome to critical care units from Spanish hospital emergency departments: a LONGEVO-SCA cohort study

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Background and objective. Information on criteria for admitting elderly patients with acute coronary syndrome (ACS) to intensive care units (ICUs) is scarce. We aimed to describe factors associated with ICU admission in unselected older patients with ACS in Spain.

Methods. The prospective LONGEVO-SCA registry (Impact of Frailty and Other Geriatric Syndromes on the Management of and Mortality in Elderly Patients With Non-ST-segment Elevation Acute Coronary Syndrome) included unselected patients over the age of 80 years with non-ST-segment elevation SCA. A geriatric assessment of each patient was done in the hospital. Clinical outcomes at 6 months were analyzed. Bivariate logistic regression analysis was applied to identify ICU admission criteria.

Results. Of 508 patients with a mean age of 84.3 years, 150 (29.5%) were admitted to the ICU. The admitted patients were younger and more often had acute heart failure, elevated troponin levels, and poor left ventricular function. They also scored higher on the Acute Coronary Treatment and Intervention Outcomes Network-ICU (ACTION-ICU) and Global Registry of Acute Coronary Events (GRACE) risk scales. These patients had higher functional status scores and a lower prevalence of frailty and had more often undergone coronary angiography (P < .001). No differences in hospital mortality or outcomes at 6 months were detected between patients admitted or not admitted to ICUs. The following variables were independent predictors of ICU admission: no history of a previous episode of heart failure, an elevated troponin level on arrival, left ventricular dysfunction, high GRACE score and high Charlson Comorbidity Index, and absence of frailty.

Conclusions. Around a third of elderly patients with non-ST-segment elevation ACS are admitted to an ICU. Admitted patients have a higher risk profile on arrival and a lower prevalence of geriatric syndromes.

Keywords: Acute coronary syndrome. Intensive care units. Aged. Mortality.

Criterios de ingreso en unidades de críticos del paciente anciano con síndrome coronario agudo desde los servicios de urgencias hospitalarios de España. Estudio de cohorte LONGEVO-SCA

Objetivo. La información sobre los condicionantes de ingreso en unidades de críticos (UC) de pacientes ancianos con síndrome coronario agudo (SCA) es escasa. El objetivo de este estudio fue describir los factores asociados al ingreso en UC en una serie de ancianos no seleccionados con SCA en España.

Métodos. El registro LONGEVO-SCA incluyó prospectivamente pacientes 80 años con SCA sin elevación del segmento ST (SCASEST), realizándose una valoración geriátrica intrahospitalaria y analizándose la evolución clínica a los 6 meses. Se analizaron los condicionantes de ingreso en UC mediante regresión logística binaria.

Resultados. De un total de 508 pacientes (edad media 84,3 años), 150 (29,5%) fueron ingresados en UC. Los pacientes ingresados en UC presentaban menor edad, mayor proporción de insuficiencia cardíaca aguda, troponina positiva y peor función ventricular izquierda, así como puntuaciones superiores en las escalas de riesgo GRACE y ACTION-ICU. Estos pacientes presentaban, asimismo, una mejor situación funcional y una menor prevalencia de fragilidad, y fueron sometidos a coronariografía con mayor frecuencia (p < 0,001). No se apreciaron diferencias en mortalidad hospitalaria ni evolución a los 6 meses entre ambos grupos. Los predictores independientes de ingreso en UC fueron la ausencia de insuficiencia cardíaca previa, troponina positiva al ingreso, disfunción ventricular izquierda, valores elevados en la escala GRACE y en el índice de Charlson, y ausencia de fragilidad.

Conclusiones. Alrededor de un tercio de los ancianos con SCASEST son ingresados en UC. Los pacientes ingresados en UC presentan mayor perfil de riesgo al ingreso y menor prevalencia de síndromes geriátricos.

Palabras clave: Síndrome coronario agudo. Unidades de críticos. Ancianos. Mortalidad.

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Introduction

Acute coronary syndrome (ACS) is a highly prevalent pathology in hospital emergency departments (EDs), with non-ST elevation ACS being the most common[1]. The use of antithrombotic drugs and the performance of percutaneous revascularization procedures have shown an important prognostic benefit in non-ST segment elevation ACS (NSTE-ACS). Therefore, current guidelines recommend an early invasive strategy and more potent antithrombotic treatment in patients with high-risk NSTE-ACS[2]. However, a significant percentage of patients have major complications requiring treatment in intensive care units (ICU). Deciding in the EDs which patients will need to be admitted to an ICU can be difficult and there is considerable variability in the final destination decision[3].

On the other hand, gradual population ageing is leading to an increase in the number of elderly patients hospitalized for NSTE-ACS[1,4]. These patients have greater complications, with longer hospital stays and greater consumption of health resources[5]. The fragility and other geriatric syndromes make it even more complex to decide whether or not to be admitted to ICUs. As a result, these patients are probably often dealt with conservatively in the normal clinical practice[6,7]. Information on the characteristics of NSTE-ACS elderly patients admitted to ICU and their optimal clinical management is scarce. For emergency physicians, it is of interest to know whether the elderly with NSTE-ACS who are admitted to the ED have been selected correctly. The ACTION-ICU scale[8], recently published, allows the identification of patients with NSTE-ACS and high risk of complications requiring admission to ICU. To our knowledge, no study has applied this scale in elderly patients.

The objective of the present study was to know: a) clinical characteristics, management and prognosis, and b) ICU admission conditions, as well as possible association with ACTION-ICU scale values, in a series of unselected elders diagnosed with NSTE-ACS in the EDs.

Method

Data from the Impact of Frailty and Other Geriatric Syndromes on the Management and Vital Prognosis of the Elderly with Non-ST Segment Elevation Acute Coronary Syndrome (LONGEVO-SCA) were analyzed. This is a prospective observational registry, the methodology of which has already been described[9], endorsed by the Section of Geriatric Cardiology of the Spanish Society of Cardiology. The study was carried out in 44 Spanish hospitals and included 532 elderly patients aged ≥ 80 years consecutively, not selected and admitted by NSTE-ACS. NSTE-ACS was defined as the presence of chest pain compatible with ACS and ECG changes suggestive of myocardial ischemia, or elevated markers of myocardial damage. In this study, an exhaustive geriatric assessment was carried out during admission and the clinical evolution at 6 months was analyzed. The patient's refusal to participate in registration and the impossibility of obtaining geriatric tests were considered exclusion criteria[9]. For the purpose of the present analysis only those patients with values available for the calculation of the ACTION-ICU scale[8] (n = 508) were included.

As it was an observational study, the usual clinical practice was followed. Antithrombotic treatment and coronariography were left to the judgement of the medical team in charge, in accordance with current recommendations. In case of coronary angiography, the choice of vascular access, antithrombotic drugs and stents or other devices were left to the discretion of the operator.

Data were collected prospectively by local researchers during admission, using specific standardized forms. Demographic data, baseline clinical characteristics, electrocardiographic data and echocardiographic, laboratory and angiographic parameters were collected. Risk scales GRACE[10], CRUSADE[11] and ACTION-ICU[8] were calculated for each patient. ACTION-ICU scale uses 9 variables, all of which are easily available at the time of ED care. These variables are: age, serum creatinine, heart rate, systolic blood pressure, initial troponin value, signs of acute heart failure, ST segment descent on electrocardiogram, previous coronary revascularization and presence of chronic obstructive pulmonary disease; its value ranges from 0 to 19. Elevated values predict the occurrence of complications requiring ICU management (posterior cardiac arrest, shock, atrioventricular block with the need for cardiac stimulation, respiratory failure, cerebral vascular accident or intrahospital death). Although the development of the ACTION-ICU scale had not yet been published at the time of recruitment of the LONGEVO-SCA register[12], all its components were available on the form and were prospectively collected, and the ACTION-ICU value[8] was calculated a posteriori for each patient.

During admission, the intrahospital clinical evolution was collected (haemorrhage and its location, need for transfusion of blood products, need for surgery, infectious complications requiring antibiotherapy, reinfarction, mechanical and arrhythmic complications, delirium and hospital mortality). A baseline geriatric assessment was performed on all patients by interviewing them or their relatives or caregivers, referring to the patient's condition prior to admission. The researchers were recommended to include all patients during the first 72 hours.

Previous fragility was assessed using the FRAIL scale[13] based on a rapid interview that evaluates 5 items (fatigue, endurance, ambulation, concomitant diseases and weight loss). Pre-fragility is defined as the presence of one or two criteria, and fragility is defined as the presence of three or more criteria. Functional capacity for the basic activities of daily living was assessed using the Barthel index[14]. Instrumental activities were evaluated with the Lawton and Brody index[15]. Cognitive status was assessed with the Pfeiffer test[16]. The Charlson

index[17] was used to assess comorbidity, with a maximum score of 37 points. The number of chronically prescribed drugs was collected prior to admission. Nutritional risk assessment was conducted with the Mini Nutritional Assessment-Short Form (MNA-SF)[18], whose value ranges from 0 to 14 points; a score below 11 points identifies patients at risk of malnutrition.

Clinical follow-up was performed at 6 months by local researchers, through a medical visit, review of medical history or telephone contact with the patient, family or referring physician.

The primary outcome variable of the study was overall mortality at 6 months follow-up. Allocation of cause of death was based on the clinical judgment of the physician caring for the patient at the time of death. The other outcome variables were: re-hospitalization, re-infarction and the need for coronary revascularization at 6 months of admission and the combined variable of mortality and re-admission at 6 months.

This study follows the Declaration of Helsinki on ethical principles for medical research involving human subjects, and patients or their representatives gave their informed consent to participate and be contacted for follow-up. Patient confidentiality was protected according to national regulations. The protocol was approved by the Clinical Research Ethics Committee of Bellvitge University Hospital (IRB00005523).

Qualitative variables are expressed as frequencies and percentages. Quantitative variables are expressed as mean and standard deviation or as median and interquartile range if the normal distribution was not complied with, which was verified with the Shapiro-Wilk test. Baseline characteristics, clinical management and clinical evolution were analyzed according to the patient's admission unit (ICU/other care areas). The association between the categorical variables was analyzed by means of the Chi-square test, with continuity correction when necessary. The analysis of the quantitative variables according to the unit of entry was carried out by means of the Student t test. Binary logistic regression was used for the analysis of the admission conditions in ICU. The dependent variable was considered to be the admission in ICU and the independent variables were those that presented an association ($p < 0.2$) with the admission in ICU in the univariate analysis. The step-back method was used. It was accepted that there were statistically significant differences if the value of p was less than 0.05 or if the 95% confidence interval (95% CI) of the odds ratio (OR) excluded the value 1. The impact of the area of admission on mortality and on the combined area of death or re-admission at 6 months was analyzed by means of Cox regression, taking as an independent variable the hospital area of admission and as a dependent variable, mortality or the combined area of death or re-admission at 6 months, respectively. Survival curves were performed using Kaplan-Meier and the statistical significance of differences was assessed using the log-rank test. Analyses were performed using PASW Statistics18 (Chicago, IL, USA).

Results

A total of 508 patients were included, with a mean age of 84.3 (SD 4) years from which 314 were male (61.8%). A total of 150 patients (29.5%) were admitted to ICU. Table 1 shows the overall results and the comparative study according to the admission unit from the ED. Patients admitted to ICU were younger and had a more severe clinical profile, with a higher proportion of acute heart failure and positive markers of myocardial damage and worse left ventricular function, as well as higher scores on the GRACE, CRUSADE and ACTION-ICU risk scales. In terms of geriatric assessment, patients admitted to ICU had a better functional situation for instrumental activities, as well as a lower prevalence of fragility compared to the rest of the patients. In contrast, the degree of comorbidity was slightly higher in this group.

Regarding clinical management, patients admitted to ICU underwent coronary angiography more frequently than the rest. There were also significant differences in antithrombotic management during admission, with a higher proportion of patients treated with ticagrelor, enoxaparin or unfractionated heparin among those admitted to ICU. On the other hand, patients admitted to ICU more frequently received inotropes, ACE inhibitors and statins during admission. There were no relevant differences in the use of diuretic treatment or beta-blocker (Table 2).

Concerning the clinical evolution, patients admitted to ICU showed a higher incidence of atrioventricular block. No significant differences were observed in other complications or in hospital mortality depending on the area of admission, although patients admitted to the ICU presented a significantly longer hospital stay. In the evolutionary data, there were no significant differences in the clinical evolution at 6 months (Table 2). Figure 1 shows the absence of differences in mortality at 6 months (A; hazard ratio [HR]: 1.09; 95% CI 0.61-1.96; p = 0.768), as well as in the combined variable of death or re-entry at 6 months (B; HR: 1.13; 95% CI 0.79-1.60; p = 0.497).

The multivariate analysis of the baseline variables associated with admission to ICU from EDs maintained the absence of previous heart failure, the presence of positive troponin at admission or left ventricular dysfunction, high values on the GRACE scale and Charlson index, and the absence of fragility criteria (Table 3).

Discussion

This study shows that only one third of elderly patients aged ≥80 years who develop NSTE-ACS are admitted to an ICU. There are variables related to cardiovascular risk, such as the GRACE scale and the presence of comorbidities, which are associated with admission from the ED to an ICU. From a geriatric perspective, the presence of fragility conditions a lower probability of admission to ICU. Despite these

Table 1. Clinical characteristics, treatment and evolution for the overall LONGEVO-SCA cohort according to admission unit.

	Total N = 508 n (%)	Intensive Care Units n = 150 n (%)	Other care units n = 358 n (%)	p
Epidemiological data				
Age (years) [mean (SD)]	84.3 (4)	83.8 (3)	84.5 (4)	0.041
Male	314 (61.8)	94 (62.7)	220 (61.5)	0.797
Body mass index (kg/m2)	26.7 (3.7)	26.3 (3.5)	26.9 (3.8)	0.116
Body surface area (m2)	1.78 (0.2)	1.76 (0.2)	1.79 (0.2)	0.151
Basal Characteristics				
High blood pressure	438 (86.2)	136 (90.7)	302 (84.4)	0.063
Diabetes mellitus	201 (39.6)	57 (38)	144 (40.2)	0.640
Dyslipemia	324 (63.8)	96 (64)	228 (63.7)	0.947
Active smoking	19 (3.7)	3 (2.0)	16 (4.5)	0.396
Previous stroke	77 (15.2)	21 (14)	56 (15.6)	0.274
Peripheral artery disease	70 (13.8)	22 (14.7)	48 (13.4)	0.687
Previous myocardial infarction	179 (35.2)	50 (33.3)	129 (36)	0.561
Chronic heart failure	91 (17.9)	18 (12)	73 (20.4)	0.026
Previous atrial fibrillation	102 (20.1)	28 (18.7)	74 (20.7)	0.607
Previous bleeding	29 (5.7)	9 (6)	20 (5.6)	0.855
Previous neoplasia	89 (17.5)	29 (19.3)	60 (16.8)	0.486
Previous depression	63 (12.4)	20 (13.3)	43 (12)	0.680
Polypharmacy (≥ 3 chronic prescription drugs)	474 (93.5)	138 (92.6)	336 (33.9)	0.607
Characteristics of the acute episode				
SBP (mmHg) [mean (SD)]	140 (27)	137 (28)	141 (26)	0.211
HR (bpm) [mean (SD)]	76 (18)	77 (20)	76 (17)	0.430
Killip Class II	144 (28.3)	49 (32.7)	95 (26.5)	0.163
Initial positive troponin value*	429 (84.4)	145 (96.7)	284 (79.3)	0.001
Hemoglobin at admission (g/dL) [mean (SD)]	12.7 (1.9)	12.8 (1.8)	12.6 (1.9)	0.372
eGFR (ml/min) [mean (SD)]	48 (19)	47 (18)	49 (19)	0.384
Blood glucose at admission (mg/dl) [mean (SD)]	153 (71)	158 (68)	150 (72)	0.282
LVEF (%)	53 (12)	50 (13)	55 (12)	0.001
GRACE scale score [mean (SD)]	166 (28)	174 (30)	162 (27)	0.001
CRUSADE scale score [mean (SD)]	41 (13)	43 (13)	41 (13)	0.064
ACTION-ICU scale score [mean (SD)]	7.6 (3.5)	8.4 (3.5)	7.3 (3.5)	0.003
Geriatric Assessment				
Barthel index ≤ 60 points	46 (9.2)	8 (5.4)	38 (10.7)	0.145
Lawton-Brody Index	5.5 (2.4)	6 (2.2)	5.4 (2.5)	0.011
Charlson index	2.4 (1.9)	2.6 (1.9)	2.3 (1.8)	0.059
Cognitive impairment				0.539
No	349 (69.4)	102 (69.4)	247 (69.4)	
Mild	143 (28.4)	45 (30.6)	98 (27.5)	
Serious	11 (2.2)	0	11 (3.1)	
Nutritional risk	172 (34.5)	49 (33.1)	123 (35.1)	0.663
Fragility	130 (25.9)	28 (19)	102 (28.8)	0.024

SD: standard deviation; HR: heart rate; LVEF: left ventricular ejection fraction; eGFR: estimated glomerular filtration rate; SBP: systolic blood pressure; ED: hospital emergency department.
*It refers to the fact that the first troponin determination in the ED is above the upper limit of normality.

differences, the prognosis at 6 months is similar in patients admitted to ICU or conventional ward.

Addressing ACS in elderly and co-morbid patients remains a challenge given the lack of scientific evidence[19]. Several records consistently show that patients at higher risk of admission are paradoxically treated conservatively in routine clinical practice[5,6], contrary to current recommendations. One of the proposed explanations is the frequent coexistence of more criteria of cardiac risk at admission (elevated values on the GRACE scale, diabetes, troponin elevation, signs of acute heart failure) with a greater burden of global comorbidity, a worse biological status and a perception of little benefit with the invasive strategy and intensive antithrombotic management[20]. In recent years there has been growing interest in the information provided by comprehensive geriatric assessment in this scenario[21-25]. In this regard, most of the series consistently show an association of fragility and other variables linked to ageing with more conservative management, evidenced fundamentally by less coronary angiography in fragile patients[26-28]. There is very little information on the determinants of admission to ICU and the impact of variables linked to ageing on the destination of admission of the elderly person with NSTE-ACS in ICU.

Data from this study show that, following the current recommendations[2], patients admitted to ICU had

Table 2. Clinical characteristics, treatment and evolution for the overall LONGEVO-SCA cohort according to admission unit.

	Total N = 508 n (%)	Intensive Care Units N = 150 n (%)	Other care units N = 358 n (%)	p
Therapeutic management				
Coronary angiography	389 (76.6)	137 (91.3)	252 (70.4)	0.001
Acetylsalicylic acid	488 (96.1)	147 (98)	341 (95.3)	0.146
Clopidogrel	419 (82.5)	123 (82)	296 (82.7)	0.854
Ticagrelor	68 (13.4)	31 (20.7)	37 (10.3)	0.002
Enoxaparin	312 (61.4)	106 (70.7)	206 (57.5)	0.006
Unfractionated heparin	80 (15.7)	33 (22)	47 (13.1)	0.012
Fondaparinux	108 (21.3)	26 (17.3)	82 (22.9)	0.161
Diuretics	258 (50.8)	77 (51.3)	181 (50.6)	0.873
Inotropes	17 (3.3)	11 (7.3)	6 (1.7)	0.001
Amiodarone	21 (4.1)	8 (5.3)	13 (3.6)	0.379
Digoxin	20 (3.9)	6 (4)	14 (3.9)	0.962
Beta-blockers	401 (78.9)	113 (75.3)	288 (80.4)	0.197
ACEI	289 (56.9)	99 (66)	190 (53.1)	0.007
Statins	465 (91.5)	145 (96.7)	320 (89.4)	0.007
PPI	463 (91.1)	136 (90.7)	327 (91.3)	0.807
Hospital evolutionary data				
Appearance of major bleeding*	34 (6.4)	15 (10)	19 (5.3)	0.054
Transfusion requirement	26 (5.1)	9 (6)	17 (4.7)	0.559
Recurring angle	25 (4.9)	9 (6)	16 (4.5)	0.467
Re-infarction	19 (3.7)	9 (6)	10 (2.8)	0.082
Atrioventricular block	6 (1.2)	5 (3.3)	1 (0.3)	0.010
Ventricular fibrillation	1 (0.2)	1 (0.7)	0	0.295
Atrial fibrillation	50 (9.8)	15 (10)	35 (9.8)	0.939
Infectious complications	34 (6.7)	11 (7.3)	23 (6.4)	0.708
Delirium	31 (6.2)	12 (8)	19 (5.3)	0.147
Hospital mortality	10 (2)	5 (3.3)	5 (1.4)	0.140
Hospital stay (days) [median (IQR)]	6 (4-10)	7 (5-11)	6 (4-10)	0.002
Evolutionary data at 6 months				
Hospital readmissions	131 (25.8)	37 (24.7)	94 (26.3)	0.709
Re-infarction		9 (6)	32 (8.9)	0.267
New revascularizations	21 (4.1)	5 (3.3)	16 (4.5)	0.549
Overall mortality	57 (11.2)	17 (11.3)	40 (11.2)	0.993
Death or readmission	160 (32.9)	44 (30.3)	116 (33.9)	0.443

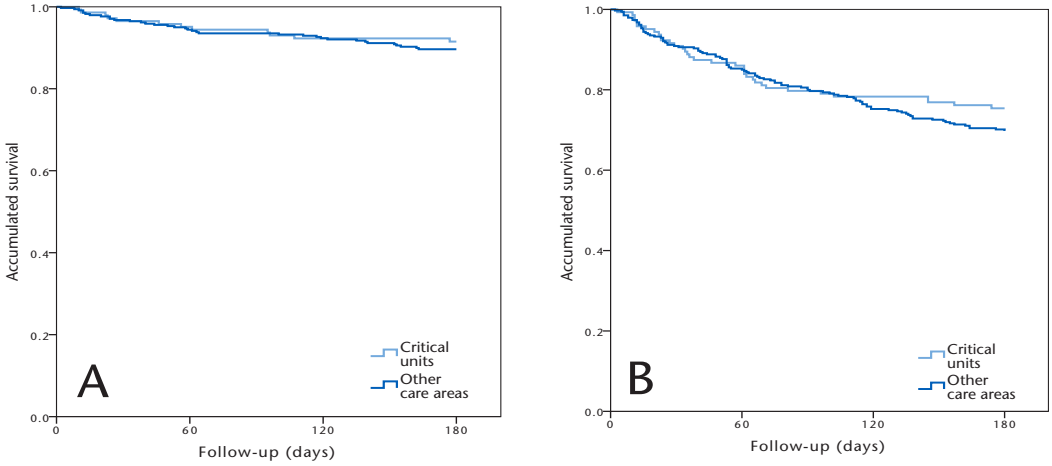
PPI: proton pump inhibitors; ACEi: angiotensin-converting enzyme inhibitors; IQR: interquartile range.
*Major haemorrhages were defined by CRUSADE classification.

more criteria of risk of admission and more invasive treatment than those admitted to hospitalization wards, with a slight higher co-morbidity burden and a lower prevalence of fragility and other geriatric syndromes. This data is consistent with most registries and suggests the coexistence of a global risk composed of a "treatable" component and an inherent and less reversible component[20], which could justify the perception of a lower life expectancy and a lower benefit of the recommended interventions. In our opinion, the absence of differences in the clinical evolution at 6 months could reflect a fairly adequate selection, since ICU management could improve prognosis in patients in this group despite their higher initial risk profile. In any case, these findings should be confirmed in later larger series.

On the other hand, in spite of an association in the univariate analysis between the ACTION-ICU scale score values and the probability of admission to ICU, this was not a main conditioner of admission to ICU. The lower age of the population from which this scale was constructed[8], as well as the absence of information on fragility and other geriatric syndromes in this series, could justify this finding.

This study has some limitations, such as its modest sample size and limited number of events (especially in the hospital phase), which limits the strength of the findings. The ACTION-ICU scale was designed to predict complications in the hospital phase, and not at 6 months, as analyzed in this study. Finally, its observational nature means that a certain selection bias and the effect of potential unmeasured confounding variables cannot be ruled out.

In spite of it all, we believe that this work provides interesting and novel information about the conditions of admission to ICU of the elderly patient not selected with NSTE-ACS from daily clinical practice. Optimizing risk stratification and clinical management in this constantly growing age subgroup could have important clinical, social and economic consequences. As conclusions, it should be noted that only a third of elderly patients over 80 years old with NSTE-ACS diagnosed in an ED were admitted to ICU, who had more risk criteria and less fragility on admission than those ad-



Patients at risk	0 days	60 days	120 days	180 days	0 days	60 days	120 days	180 días
Critical units	143	136	131	116	143	123	111	97
Other care areas	340	320	312	267	340	288	254	206

Figure 1. Cumulative incidence of mortality (A) and death or re-admission at 6 months (B) depending on the admission area.

mitted to conventional hospitalization plants, the prognosis at 6 months being similar in both groups.

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Table 3. Crude and adjusted Odds Ratio of basal variables associated to ICU admission

Variable	OR crude (CI 95 %)	p	Adjusted OR (CI 95%)	p
Age	0.96 (0.91-1.01)	0.087		
Body mass index (kg/m^2)	0.96 (0.90-1.01)	0.116		
Body surface area (m^2)	0.43 (0.14-1.36)	0.151		
Hypertension	1.80 (0.97-3.35)	0.063		
Chronic heart failure	0.53 (0.31-0.93)	0.026	0.30 (0.15-0.58)	0.001
Killip Class II	1.34 (0.89-2.03)	0.163		
Initial positive troponin value*	7.56 (2.99-19.1)	0.001	5.73 (2.19-15.0)	0.001
LVEF (%)	0.97 (0.96-0.98)	0.001	0.97 (0.96-0.99)	0.006
GRACE scale score	1.01 (1.01-1.02)	0.001	1.01 (1.00-1.02)	0.011
CRUSADE scale score	1.02 (1.00-1.03)	0.064		
ACTION-ICU Scale Score	1.08 (1.03-1.14)	0.003		
Barthel Index 60 points	1.39 (1.06-1.82)	0.145		
Lawton-Brody Index	1.12 (1.03-1.21)	0.011		
Charlson Index	1.10 (1.00-1.22)	0.059	1.19 (1.05-1.35)	0.006
Cognitive impairment	0.89 (0.61-1.30)	0.539		
Fragility	0.58 (0.36-0.93)	0.024	0.49 (0.28-0.84)	0.010

CI 95%: 95% confidence interval; OR: odds ratio.
*It refers to a troponin value above the normal limit value.

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