“Manejo actual del Síndrome Coronario Agudo ST no Elevado”

Dr. Marco López

Médico Internista y Cardiologo Hemodinamista

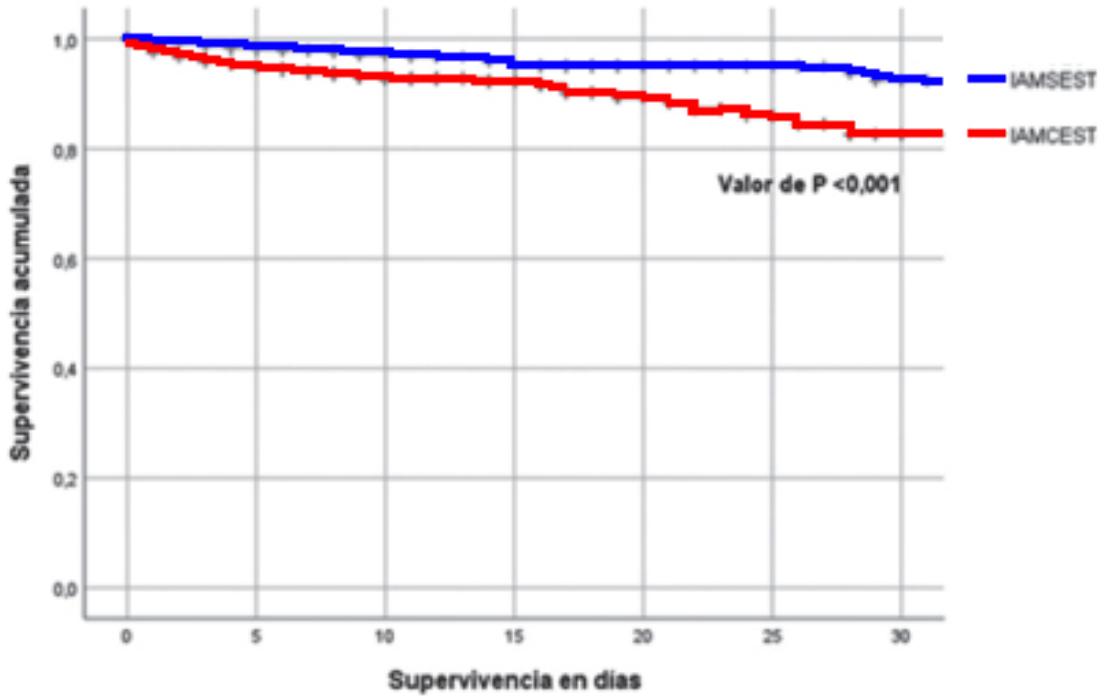
HNASS - HNHU

SOCIMECAR

Peruvian Register of Acute Myocardial Infarction (AMI).

- 2846 cases of AMI 2010 (RENIMA II) and 2014 (RENIMA III).
- We found 1333 (46,84%) patients with NSTEMI and 1513 **(53,16%) with STEMI**

Figura 1. Análisis de Kaplan-Meier sobre la curva de mortalidad según el tipo de IAM (n=2 846). Fuente: RENIMA 2 y RENIMA 3.



Miguel Reyes-Rocha, Pedro A. Segura Saldaña, Diego Chambergo-Michilot, Javier Alarcón-Santos. Cristian Aguilar Mayita L. Alvarez-Vargas, Enrique Ruiz-Mori. Análisis de los registros peruanos de infarto agudo de miocardio Congreso Peruano de Cardiología Bicentenario 2021 - Temas Libres Pag 25. Revista Peruana de Cardiología Enero - Junio 2021

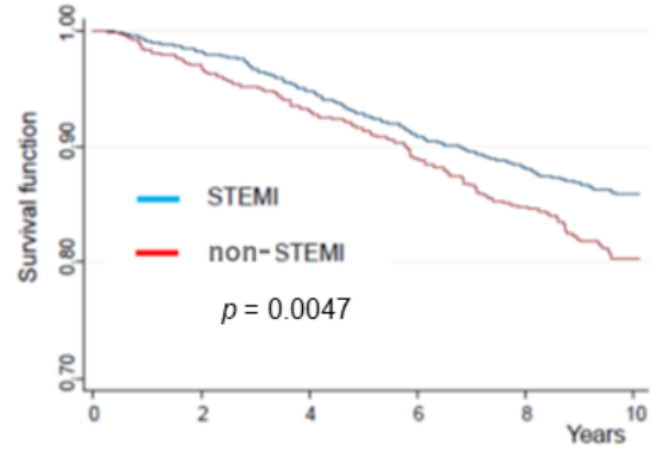
Journal of *Clinical Medicine*

MDPI

Article

Comparison of Short- and Long-Term Prognosis between ST-Elevation and Non-ST-Elevation Myocardial Infarction

Frédéric Bouisset [1,2,*], Jean-Bernard Ruidavets [2], Jean Dallongeville [3], Marie Moitry [4,5], Michele Montaye [3], Katia Biasch [4] and Jean Ferrières [1,2]



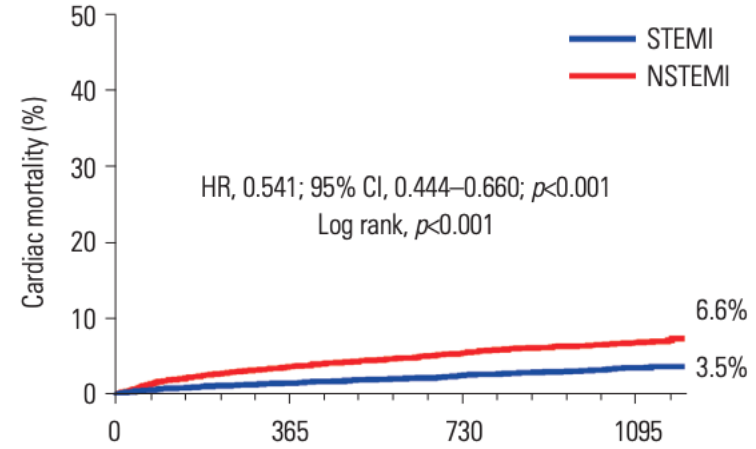
Check for updates

Original Article

Yonsei Med J 2021 May;62(5):400-408
https://doi.org/10.3349/ymj.2021.62.5.400

Yonsei Medical Journal
YMJ
pISSN: 0513-5796 · eISSN: 1976-2437

Higher Long-Term Mortality in Patients with Non-ST-Elevation Myocardial Infarction than ST-Elevation Myocardial Infarction after Discharge



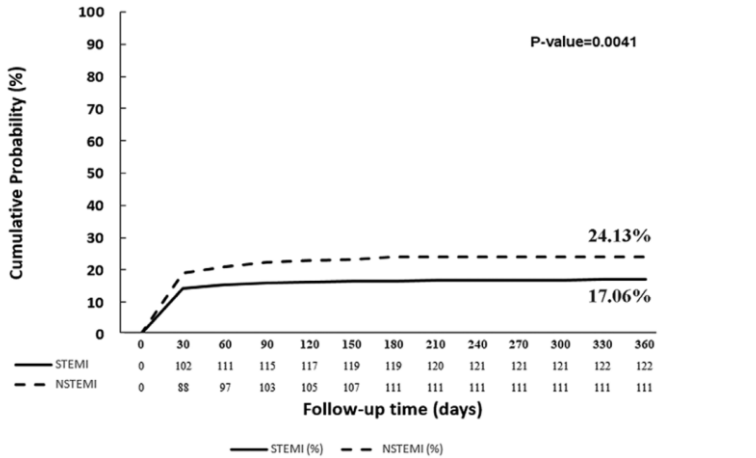
Observational Study

Medicine
OPEN

Prognosis of patients with cardiogenic shock following acute myocardial infarction

The difference between ST-segment elevation myocardial infarction and non-ST-segment elevation myocardial infarction

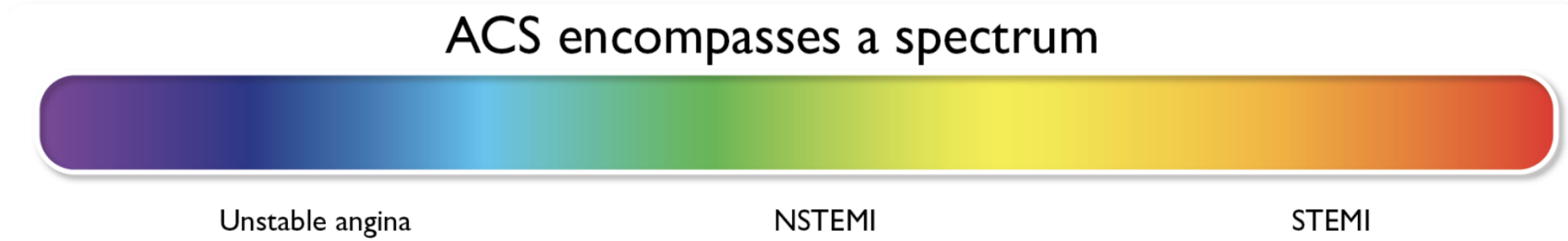
Ming-Lung Tsai, MD[a,b], Ming-Jer Hsieh, MD, PhD[b], Chun-Chi Chen, MD[b], Victor Chien-Chia Wu, MD[b], Wen-Ching Lan, MS[c], Yu-Tung Huang, PhD[c], I-Chang Hsieh, MD[b], Shang-Hung Chang, MD, PhD[b,c,*]



2020 ESC Guidelines for the management of acute coronary syndromes in patients presenting without persistent ST-segment elevation

CLINICAL PRACTICE GUIDELINE

2014 AHA/ACC Guideline for the Management of Patients With Non–ST-Elevation Acute Coronary Syndromes



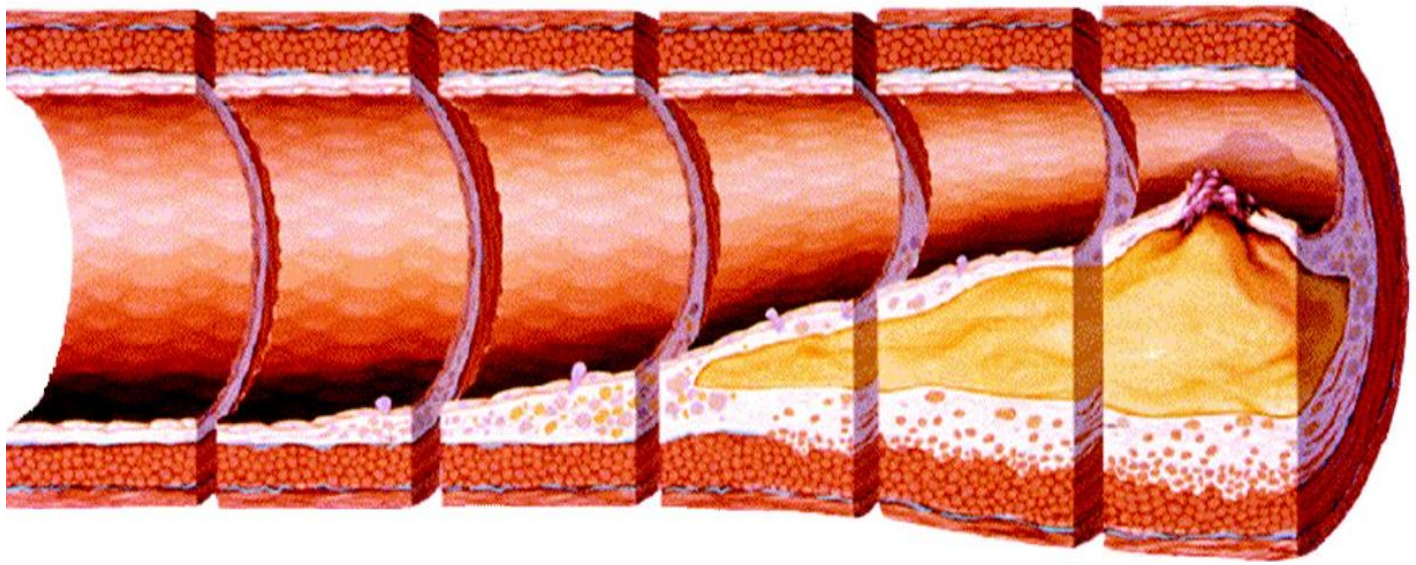
ESC European Society of Cardiology
European Heart Journal (2023) **00**, 1–107
https://doi.org/10.1093/eurheartj/ehad191

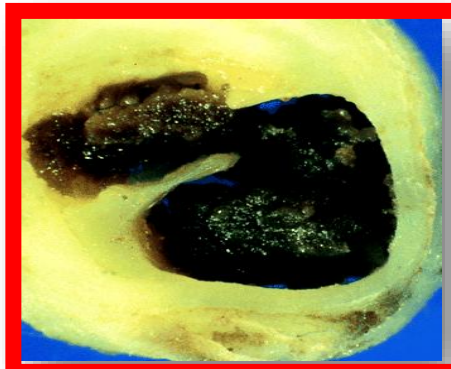
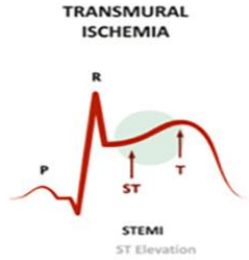
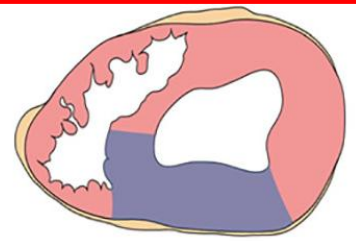
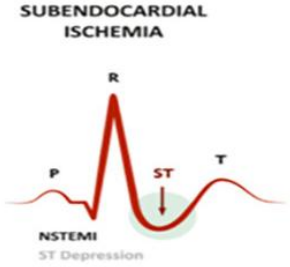
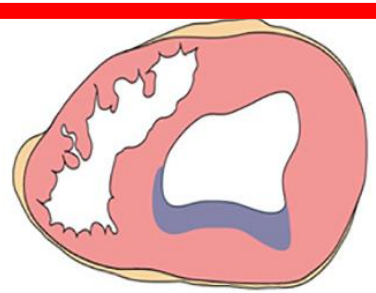
ESC GUIDELINES

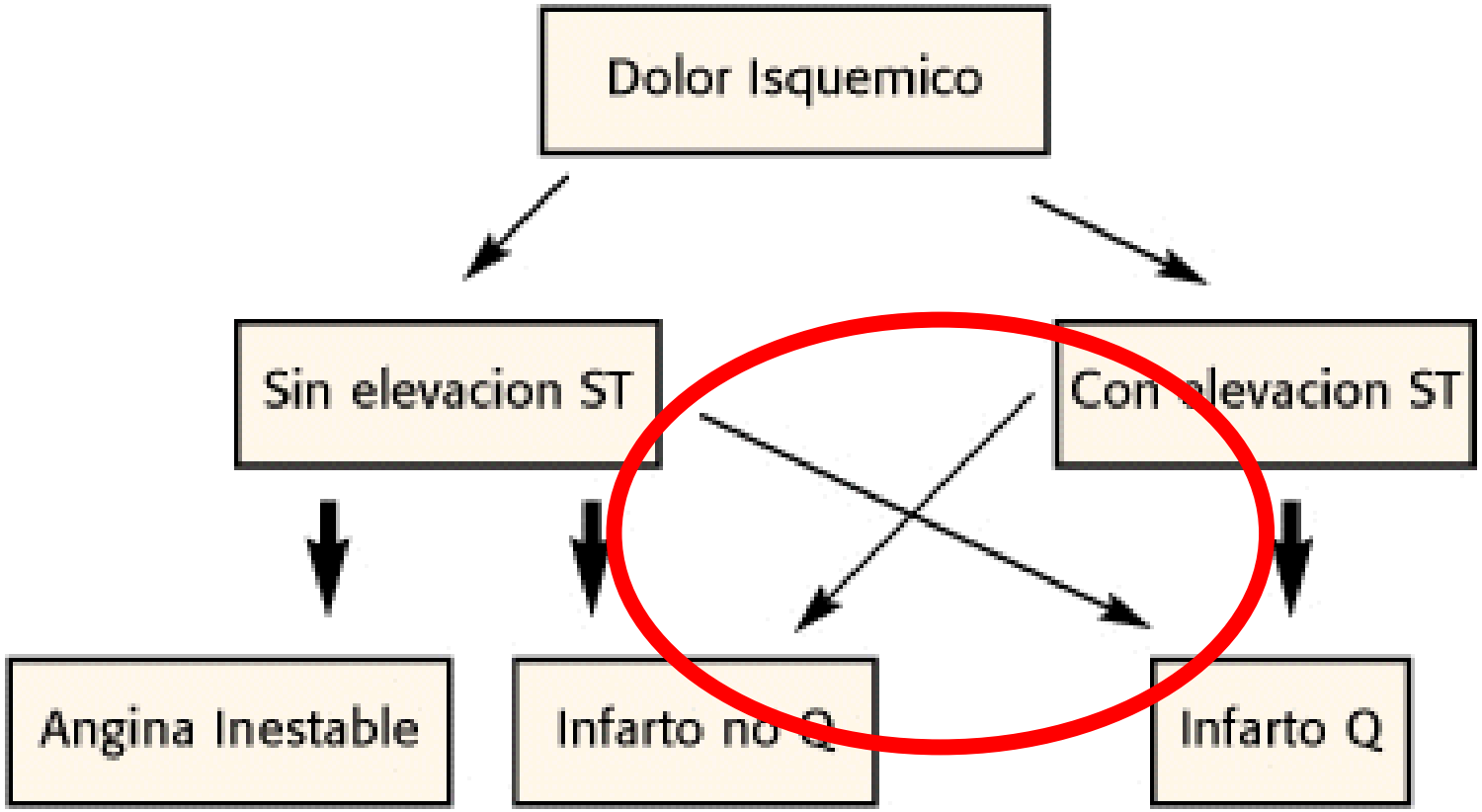
2023 ESC Guidelines for the management of acute coronary syndromes

CLINICAL PRACTICE GUIDELINE

2025 ACC/AHA/ACEP/NAEMSP/SCAI Guideline for the Management of Patients With Acute Coronary Syndromes



Coronary Vessel	ECG	Myocardium
20 minutos		
		
	ST elevation	Transmural ischemia
		
	non-ST elevation	non- Transmural ischemia



SINDROMES CORONARIOS AGUDOS

Población general (AHA 2025) :
“Dolor torácico prolongado (> 15 min) y el dolor recurrente en espacio de una hora”

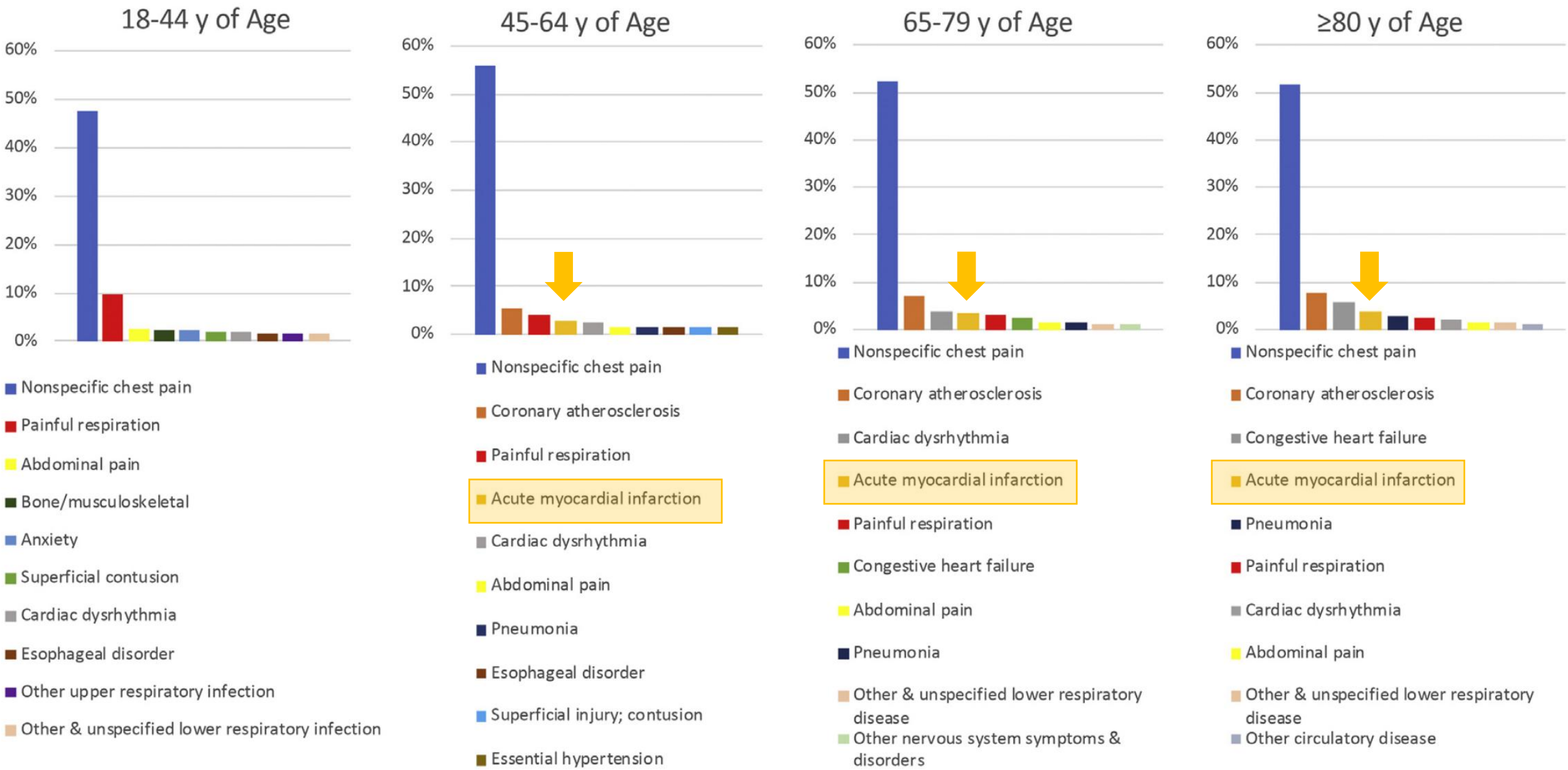

18-44 y of Age
45-64 y of Age
65-79 y of Age
≥80 y of Age
60%
50%
40%
30%
20%
10%
0%
Nonspecific chest pain
Painful respiration
Abdominal pain
Bone/musculoskeletal
Anxiety
Superficial contusion
Cardiac dysrhythmia
Esophageal disorder
Other upper respiratory infection
Other & unspecified lower respiratory infection
Nonspecific chest pain
Coronary atherosclerosis
Painful respiration
Acute myocardial infarction
Cardiac dysrhythmia
Abdominal pain
Pneumonia
Esophageal disorder
Superficial injury; contusion
Essential hypertension
Nonspecific chest pain
Coronary atherosclerosis
Cardiac dysrhythmia
Acute myocardial infarction
Painful respiration
Congestive heart failure
Abdominal pain
Pneumonia
Other & unspecified lower respiratory disease
Other nervous system symptoms & disorders
Nonspecific chest pain
Coronary atherosclerosis
Congestive heart failure
Acute myocardial infarction
Pneumonia
Painful respiration
Cardiac dysrhythmia
Abdominal pain
Other & unspecified lower respiratory disease
Other circulatory disease

Table 4. Accuracy of History, Physical Examination, and ECG Findings for Detecting Myocardial Infarction in Patients with Chest Pain in the Emergency Department

Finding	*Sensitivity (%)*	*Specificity (%)*	*LR+*	*LR–*
History				
Prior abnormal stress test result	12	96	3.1	0.92
Peripheral artery disease	7.5	97	2.7	0.96
Prior coronary artery disease	41	79	2.0	0.75
Diabetes mellitus	26	82	1.4	0.9
Symptoms				
Diaphoresis	41	85	2.44	0.72
Pain in the right arm or shoulder	32	86	2.35	0.81
Pain in both arms	32	86	2.35	0.81
Pain similar to previous ischemia	47	79	2.2	0.67
Change in pattern over the past 24 hours	27	86	2.0	0.84
Oppressive pain	77	35	1.79	0.70
Pain in the left arm or shoulder	54	65	1.49	0.76
Absence of chest wall tenderness	92	36	1.47	0.23
Physical examination				
Hypotension	3.1	99	3.9	0.98

NINGUNO de estos síntomas es suficiente para excluir o confirmar un SCA sin una evaluación adicional..

Fanaroff AC, et al. JAMA. 2015;314(18):1955-1965.

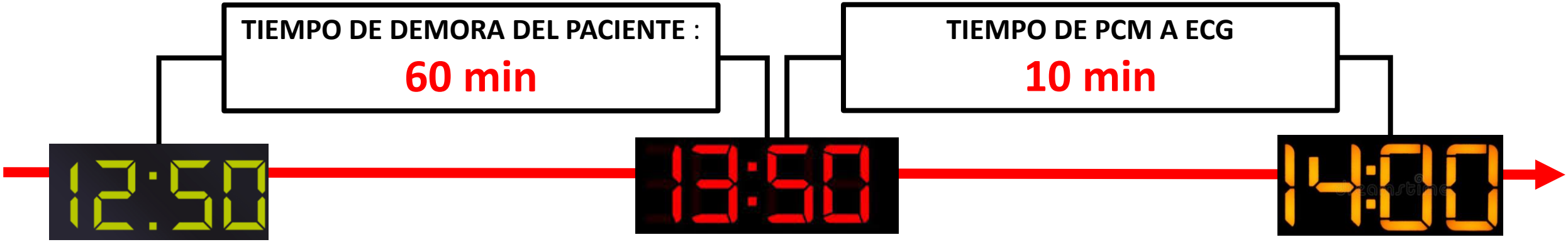
Diagnóstico diferencial del dolor torácico agudo

Cardiaco	Pulmonar	Vascular	Gastrointestinal	Ortopédico	Otros
Miopericarditis[a]	**Embolia pulmonar**[a]	**Disección aórtica**[a]	Rotura Esofagica	**Trastornos osteomusculares**[a]	**Trastornos de ansiedad**[a]
Miocardiopatías[a,b]	**Neumotórax (por tensión)**[a]	Aneurisma aórtico sintomático	Úlcera péptica, gastritis	Traumatismo torácico	Herpes zóster
Taquiarritmias[a]	Bronquitis, neumonía	Ictus	Pancreatitis	Daño o inflamación muscular	Anemia
Insuficiencia cardiaca aguda[a]	Pleuritis		Colecistitis	Costocondritis	
Urgencia hipertensivas[a]				Afecciones de la columna cervical	
Estenosis valvular aórtica[a]					
Síndrome de *tako-tsubo*[a]					
Espasmo coronario[a]					
Traumatismo cardiaco[a]					

Rev Esp Cardiol. 2021;74(6):436.e1–436.e73

1	B-NR

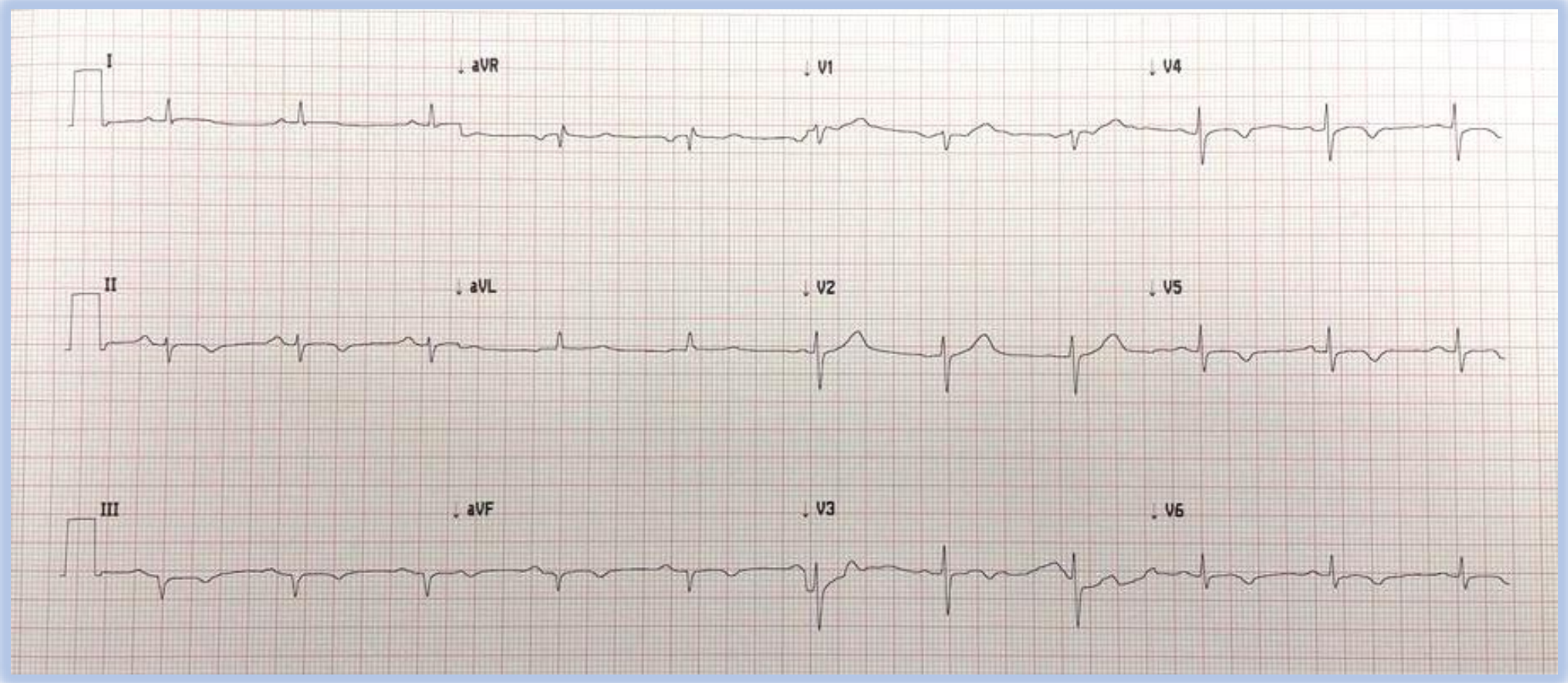
1. In patients with suspected ACS, acquisition and interpretation of an ECG within 10 minutes is recommended to help guide patient management.*[1,2]



PRIMER CONTACTO MEDICO

VARON DE 74 AÑ0S ……..

PA : 145/85 FR 16 FC 80 cpm P: 88 k T 168 cm
LOTEP. IY – 45 T Y P : MV PASA BIEN ACP
CV: RCR ,BI , NO SOPLOS , NO FROTE



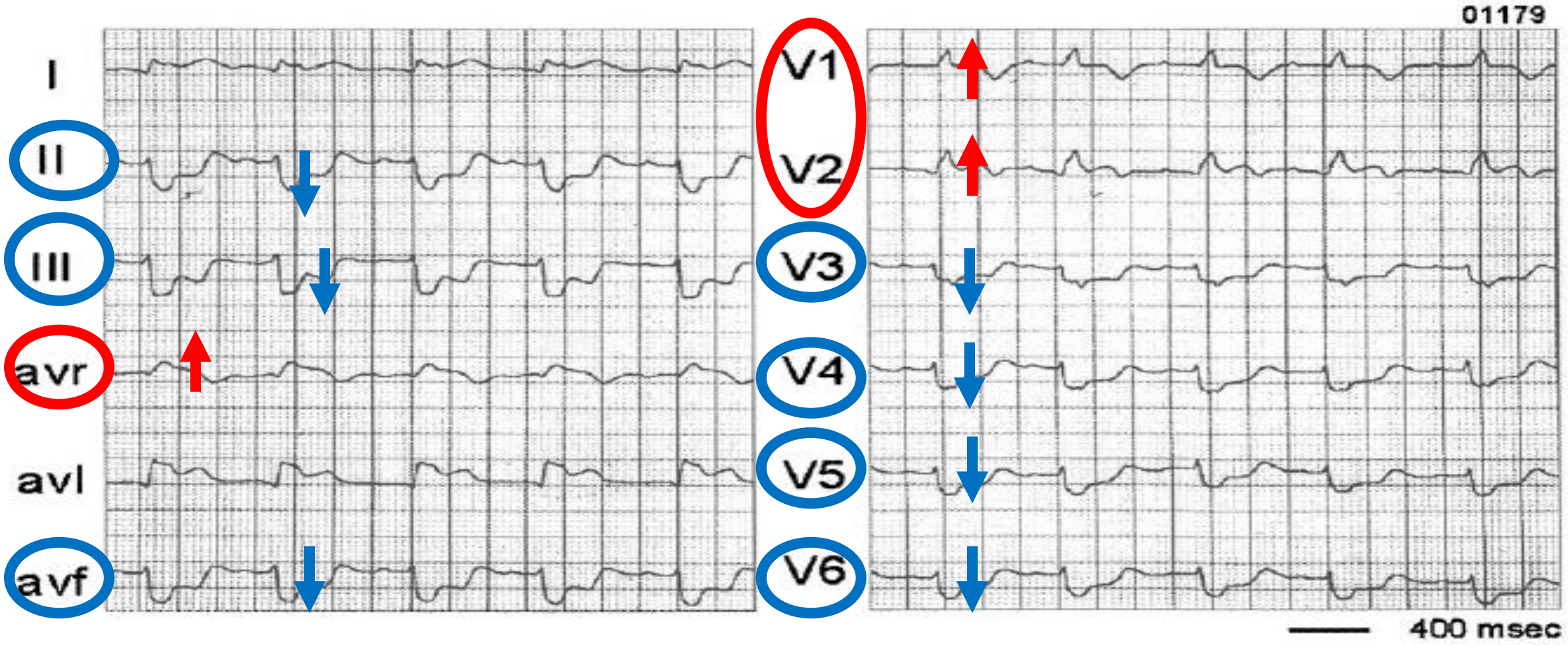
Electrocardiograma.

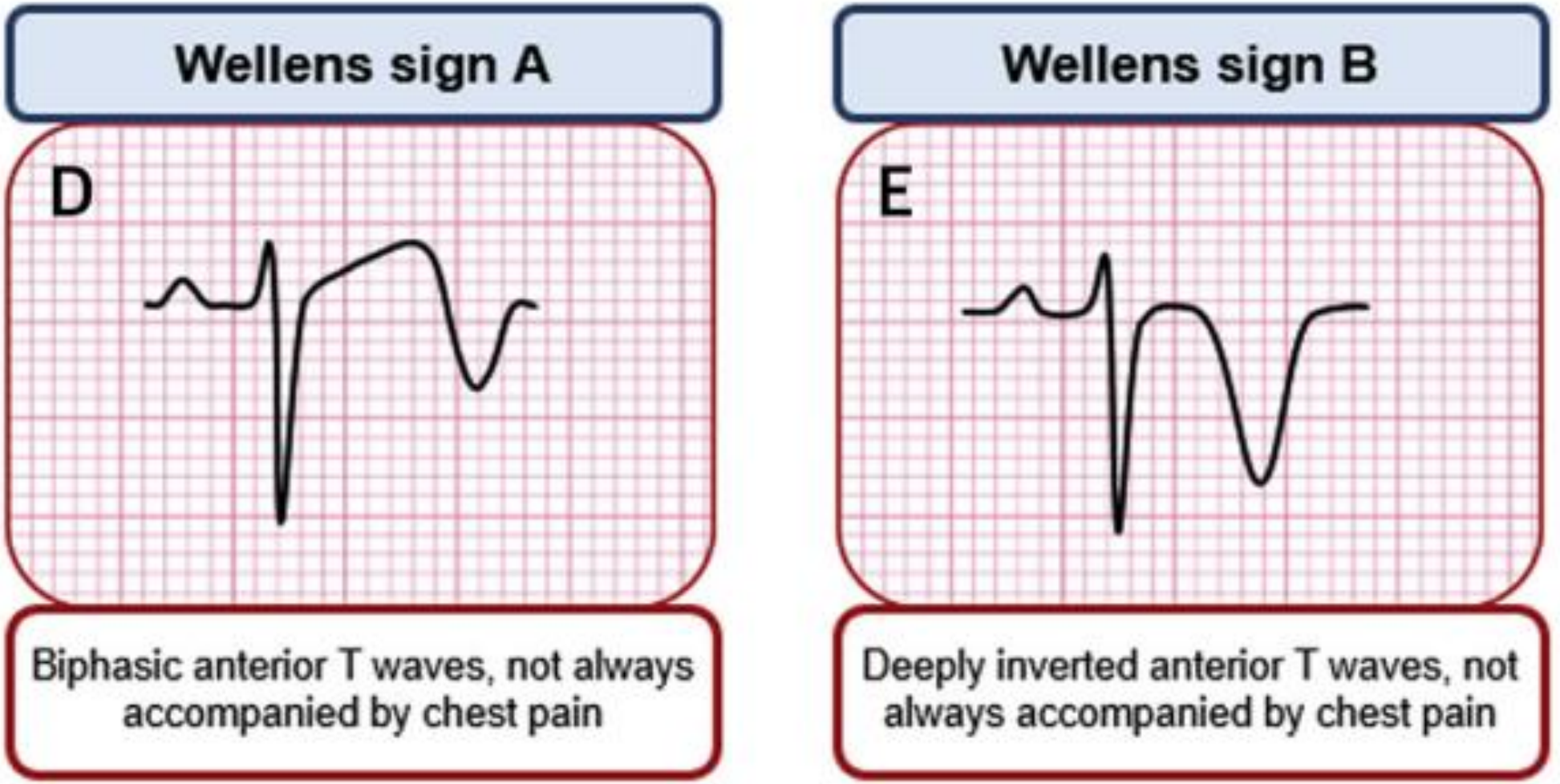
- Tecnicamente adecuado.
- 6% de los IAM son enviados a casa por un ECG normal.
- Idealmente comparar con los previos.

1	B-NR

2. In patients with suspected ACS in whom the initial ECG is non-diagnostic, serial 12-lead ECGs should be performed to detect potential ischemic changes, especially when clinical suspicion of ACS is high, symptoms are persistent, or clinical condition deteriorates.*[3]

Tronco Coronario / Multivaso





Babken Asatryan, MD, PHD, . Electrocardiographic Diagnosis of Life-Threatening STEMI Equivalents When Every Minute Counts. JACC: CASE REPORTS VOL. 1, NO. 4, 2019

De Winter syndrome

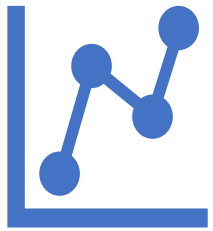
J-point depression and upsloping ST depression in V1-V6 that continues into tall, positive symmetrical T-waves, often with 1-2 mm ST elevation in aVR

Posterior STEMI

ST depression ≥0.05 mV (horizontal or downsloping and concave) in V1-V3 (or V4) especially if there is a tall R in V1/V2 with R/S ratio >1 in V2

Babken Asatryan, MD, PHD, . Electrocardiographic Diagnosis of Life-Threatening STEMI Equivalents When Every Minute Counts. JACC: CASE REPORTS VOL. 1, NO. 4, 2019

VARON DE 74 AÑ0S ……..



CK MB : 10 (VN < 5)

TROP T US (Elecsys Roche) : 1.6 (VN < 0.014)

GLU 140.

HB : 13

LDL 135

CR: 1.3 (DEP : 49)

GB 8,000

Troponinas - US

Tabla 3
Implicaciones clínicas de la determinación de troponinas cardiacas de alta sensibilidad

Comparadas con las determinaciones convencionales de troponina cardiaca, las pruebas de alta sensibilidad:
• Tienen mayor valor predictivo negativo de IAM
• Reducen el intervalo «ciego a la troponina» y permiten detectar más rápidamente el IAM
• Resultan en un aumento absoluto de un ~4% y un aumento relativo de un ~20% en la detección del infarto de tipo 1 y una reducción correspondiente del diagnóstico de angina inestable
• Se asocian con un aumento al doble en la detección del infarto de tipo 2

IAM: infarto agudo de miocardio; Hs-cTn: troponina cardiaca de alta sensibilidad.

Tabla 4
Entidades distintas del infarto agudo de miocardio de tipo 1 asociadas con daño cardiomiocitario (= elevación de troponinas cardiacas)

Taquiarritmias[a]
Insuficiencia cardiaca[a]
Urgencias hipertensivas[a]
Enfermedades críticas (p. ej., *shock*/sepsis/quemaduras)[a]
Miocarditis[ab]
Miocardiopatía de *tako-tsubo*[a]
Cardiopatía estructural (p. ej., estenosis aórtica)[a]
Disección aórtica[a]
Embolia o hipertensión pulmonar[a]
Disfunción renal y cardiopatías asociadas[a]
Evento neurológico agudo (p. ej., ictus o hemorragia subaracnoidea)[a]
Contusión cardiaca o procedimientos cardiacos (CABG, ICP, ablación, marcapasos, cardioversión o biopsia endomiocárdica)
Hipotiroidismo e hipertiroidismo
Enfermedades infiltrativas (p. ej., amiloidosis, hemocromatosis, sarcoidosis, escleroderma)
Toxicidad farmacológica o envenenamiento (doxorubinina, 5-fluorouracilo, herceptina, veneno de serpiente)
Esfuerzo físico extremo[a]
Rabdomiolisis

CABG: cirugía de revascularización coronaria; ICP: intervención coronaria percutánea.
[a] Entidades más frecuentes.
[b] Incluye la extensión miocárdica de la endocarditis o la pericarditis.

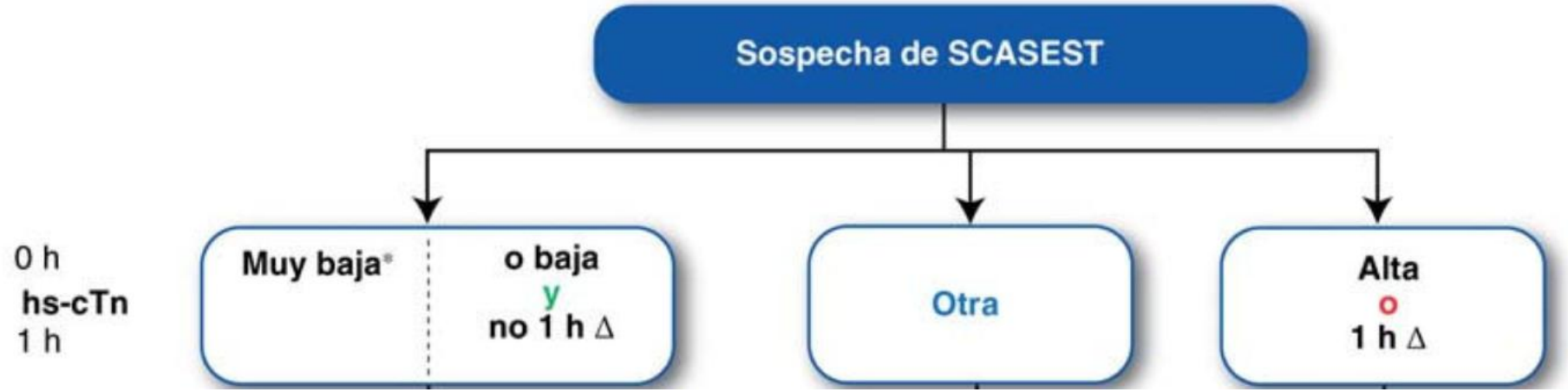


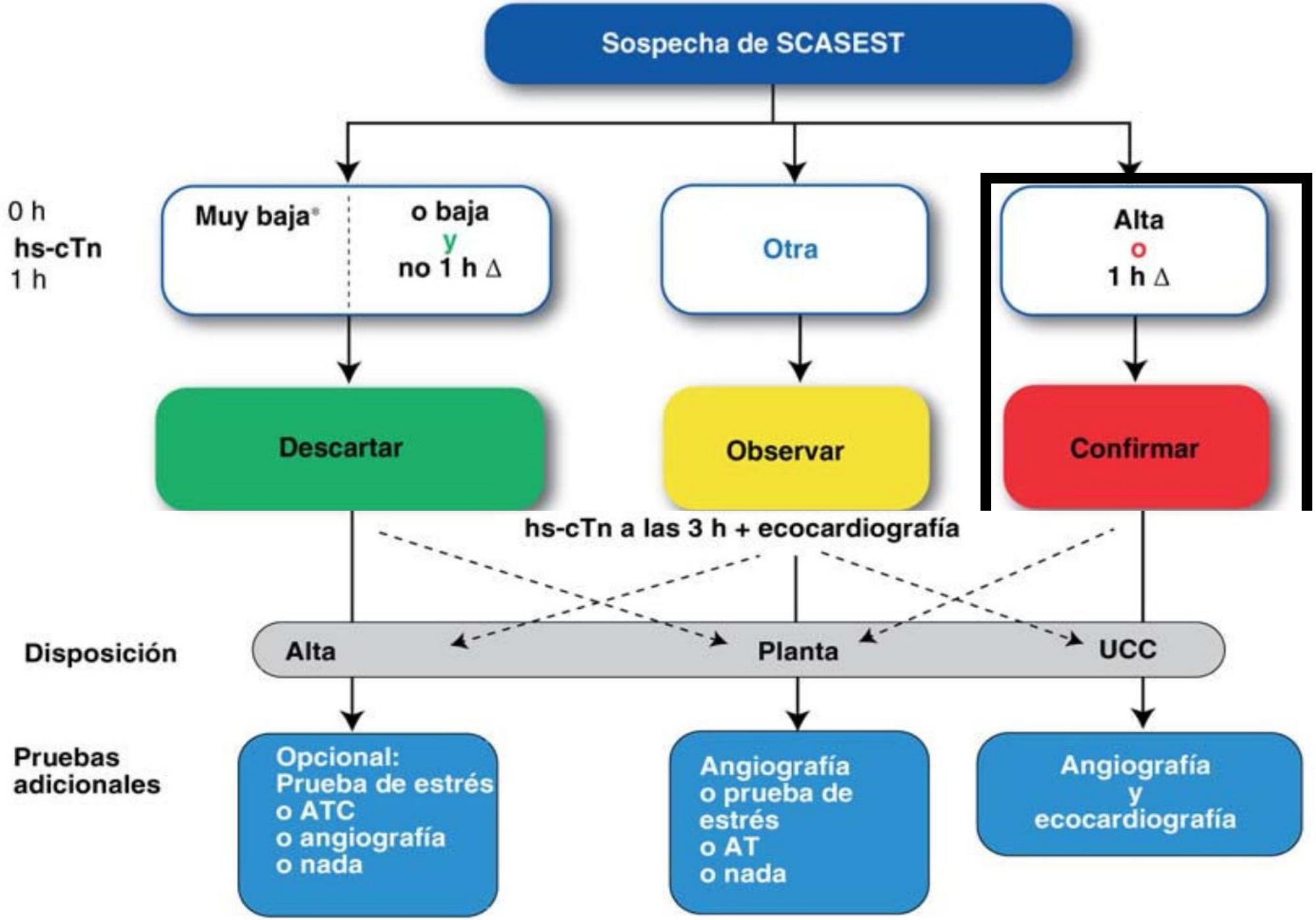
Tabla 5
Puntos de corte específicos en ng/l para distintas pruebas y los algoritmos de 0 h/1 h y 0 h/2 h

Algoritmo de 0 h/1 h	Muy bajo	Bajo	No 1 h Δ	Alto	1 h Δ
hs-cTn T (Elecsys; Roche)	< 5	< 12	< 3	≥ 52	≥ 5

TROP T US (Elecsys Roche) : 1.6 (VN < 0.014)

160 (VN 1.4)

> 5 veces


Sospecha de SCASEST
0 h
hs-cTn
1 h
Muy baja*
o baja
y
no 1 h Δ
Otra
Alta
o
1 h Δ
Descartar
Observar
Confirmar
hs-cTn a las 3 h + ecocardiografía
Disposición
Alta
Planta
UCC
Pruebas adicionales
Opcional:
Prueba de estrés
o ATC
o angiografía
o nada
Angiografía
o prueba de estrés
o AT
o nada
Angiografía
y
ecocardiografía

Modified HEART Score

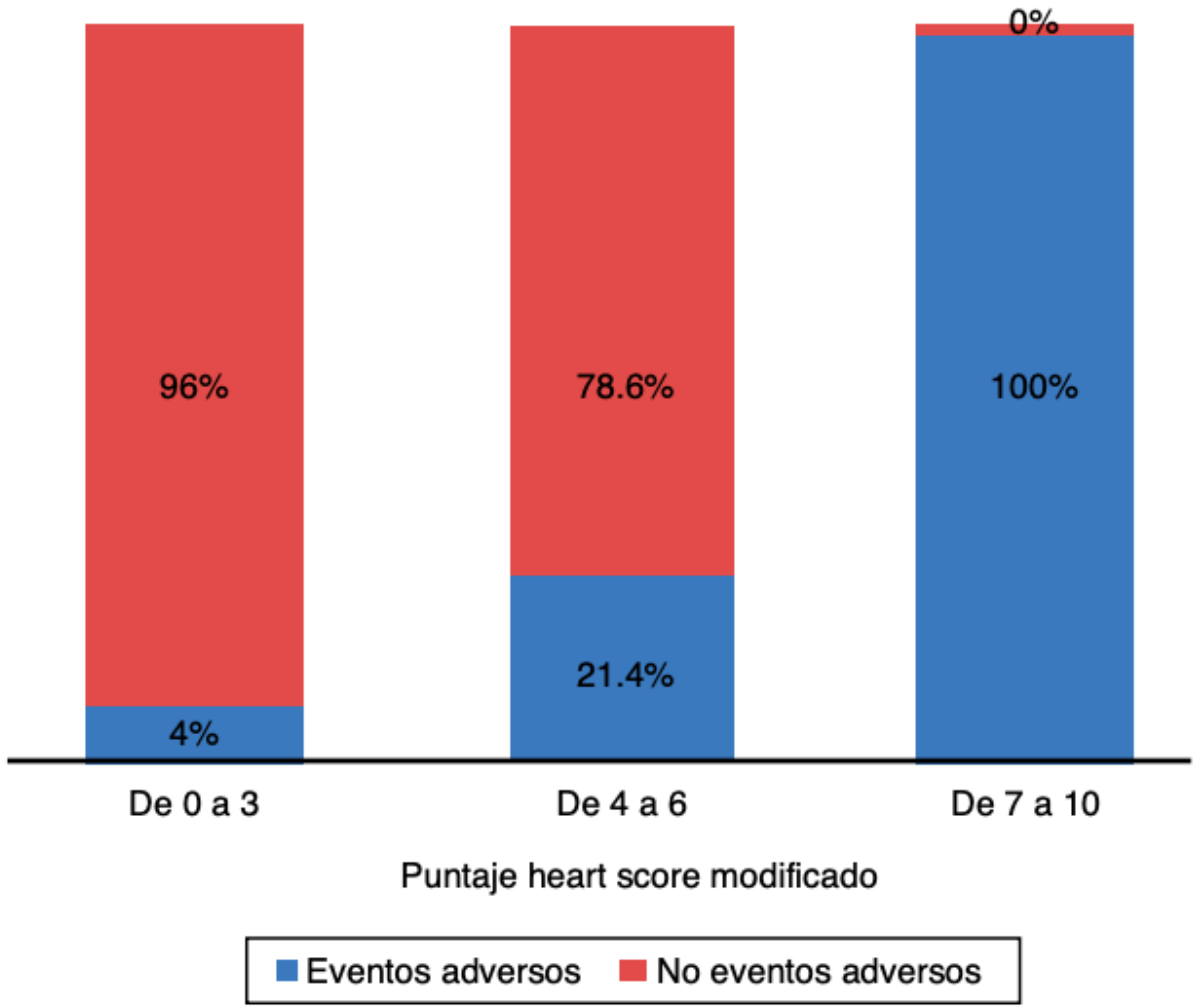
History	Highly suspicious	2
	Moderately suspicious	1
	Slightly suspicious	0
ECG	Significant ST-segment depression	2
	Non specific repolarization disturbance	1
	LBBB or PM	1
	Normal	0
Age	≥65 years	2
	45-65 years	1
	<45 years	0
Risk factors	≥3 risk factors *OR* history of atherosclerotic disease	2
	1 or 2 risk factors	1
	No risk factors	0
Troponin T point of care	>60 ng/L	2
	40-60 ng/L	1
	<40 ng/L	0

Risk factors:

- **Smoking**
- **Hypertension**
- **Diabetes mellitus**
- **Obesity (BMI > 30 kg/m^2)**
- **Hypercholesterolemia**
- **Positive family history**

HEART Score	MACE 6 ss	Riesgo
0 - 3	1.7 %	Leve
4 - 6	16.6%	Moderado
7 - 10	50.1%	Severo

Backus et al; International Journal of Cardiology 168 (2013) 2153–2158

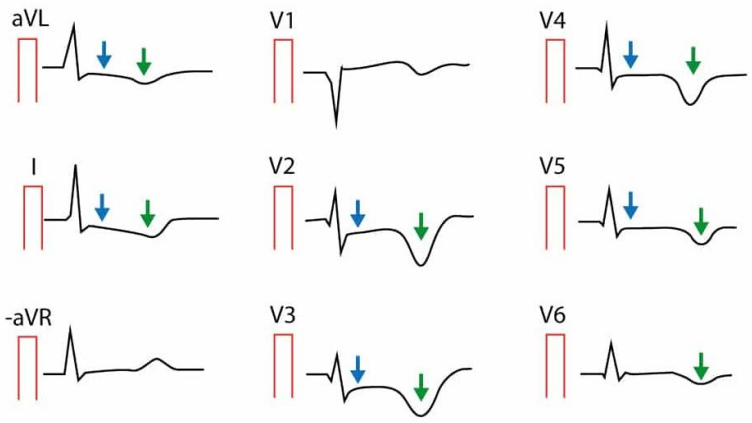


Chacón-Diaz M MD.Estratificacion del dolor torácico con el score HEART modificado y su relación con eventos adversos cardiovasculares a corto plazo. Arch Cardiol Mex. 2018;88(5):333-338.

Sindrome isquemico coronario agudo

Dx.
SCASEST

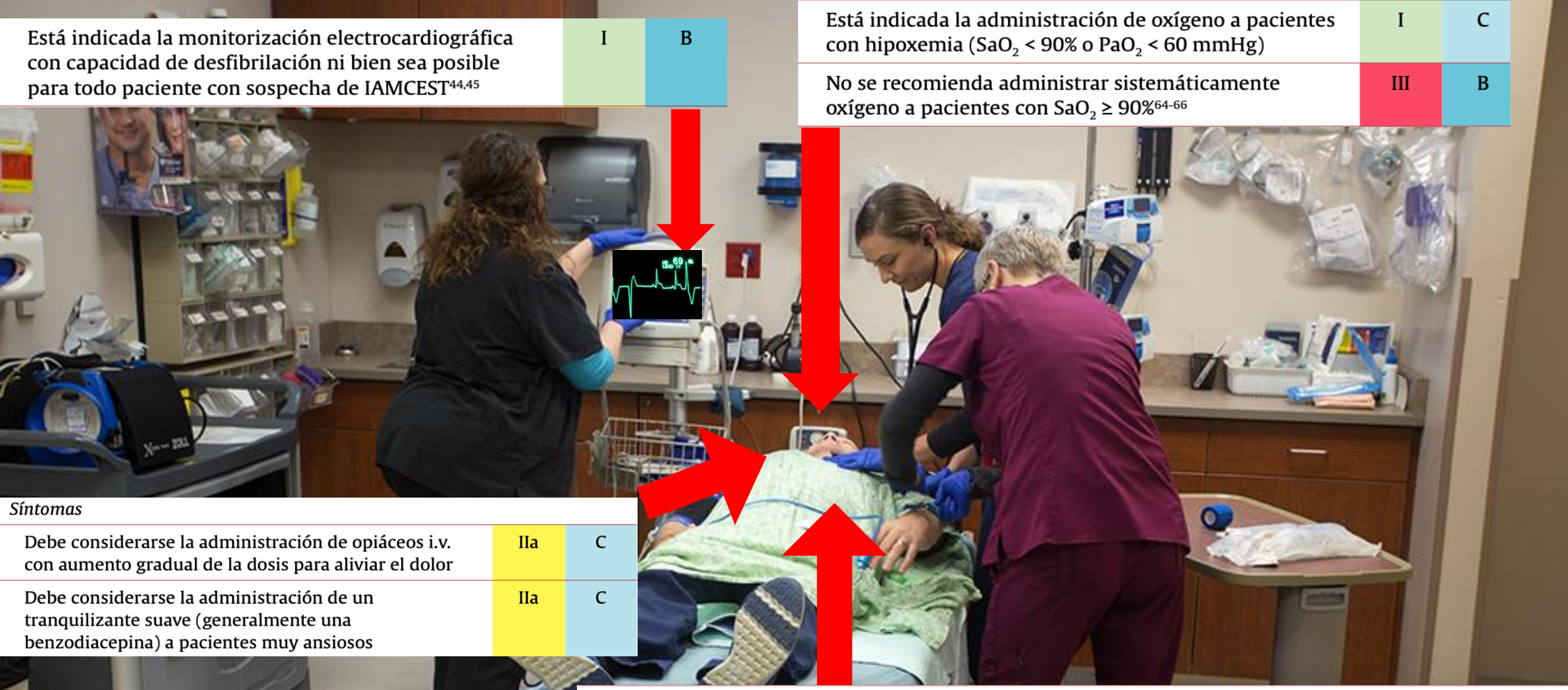
Electrocardiograma



Troponinas

Está indicada la monitorización electrocardiográfica con capacidad de desfibrilación ni bien sea posible para todo paciente con sospecha de IAMCEST[44,45]	I	B

Está indicada la administración de oxígeno a pacientes con hipoxemia (SaO_2 < 90% o PaO_2 < 60 mmHg)	I	C
No se recomienda administrar sistemáticamente oxígeno a pacientes con SaO_2 ≥ 90%[64-66]	III	B

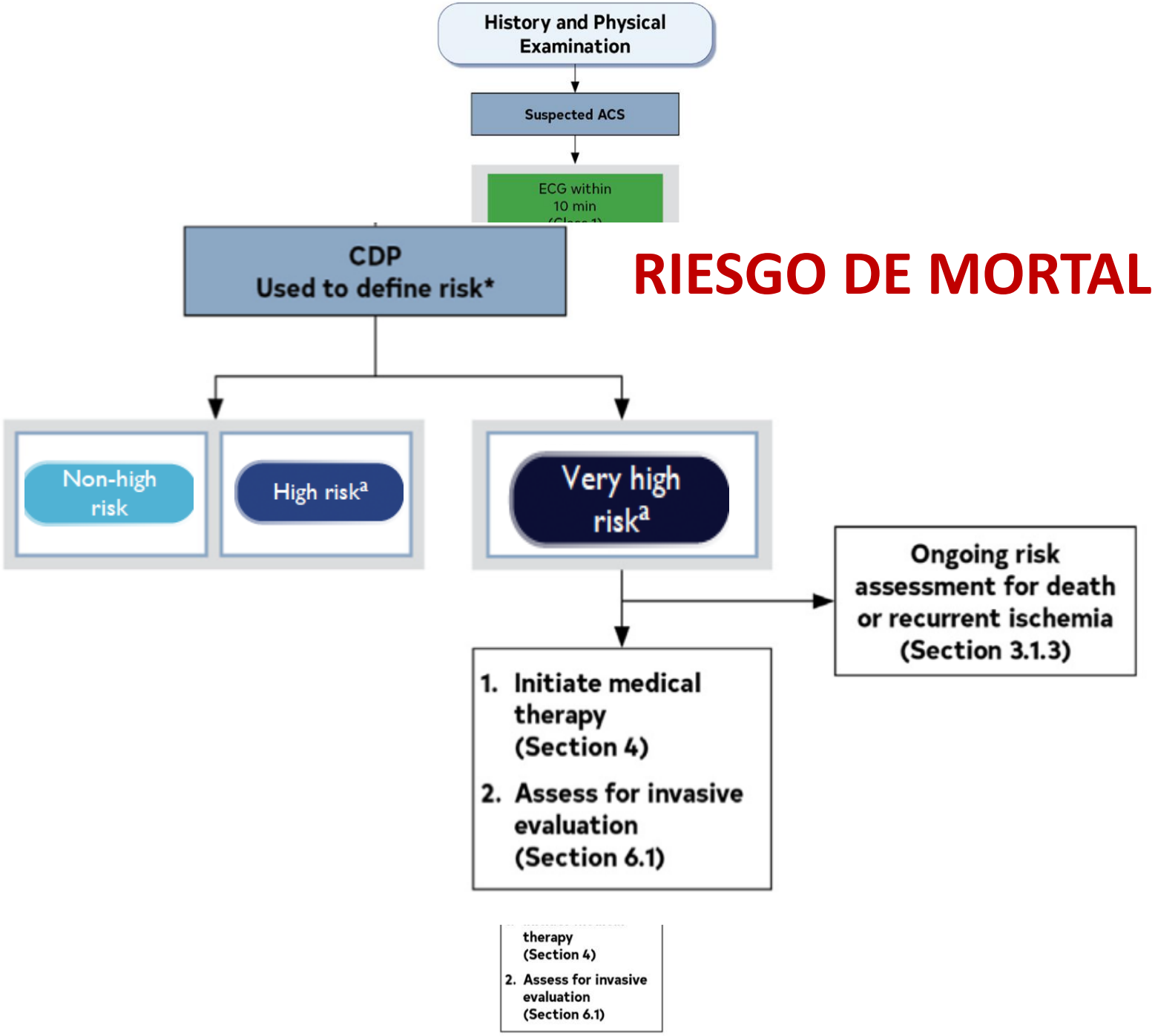


Síntomas

Debe considerarse la administración de opiáceos i.v. con aumento gradual de la dosis para aliviar el dolor	IIa	C
Debe considerarse la administración de un tranquilizante suave (generalmente una benzodiacepina) a pacientes muy ansiosos	IIa	C

Muestras de sangre

Está indicado tomar muestras de sangre para determinar marcadores séricos en la fase aguda cuanto antes, pero esto no debe retrasar el tratamiento de reperfusión[8]	I	C



RIESGO DE MORTALIDAD

Risk category (tertile)	GRACE risk score	In-hospital death (%)
Low	≤108	<1
Intermediate	109–140	1–3
High	>140	>3

Risk category (tertile)	GRACE risk score	Post-discharge to 6-month death (%)
Low	≤88	<3
Intermediate	89–118	3-8
High	>118	>8

doi:10.1371/journal.pone.0007947.t003

Risk stratify and determine therapeutic strategy

Very high risk[a] — Immediate transfer

- Haemodynamic instability or cardiogenic shock
- Recurrent or ongoing chest pain refractory to medical treatment
- Acute heart failure presumed secondary to ongoing myocardial ischaemia
- Life-threatening arrhythmias or cardiac arrest after presentation
- Mechanical complications
- Recurrent dynamic ECG changes suggestive of ischaemia

2023 ESC Guidelines for the management of acute coronary syndromes
(European Heart Journal; 2023 – doi:10.1093/eurheartj/ehad191)

VARON DE 74 AÑ0S ……..

SICA STNE DE ALTO RIESGO

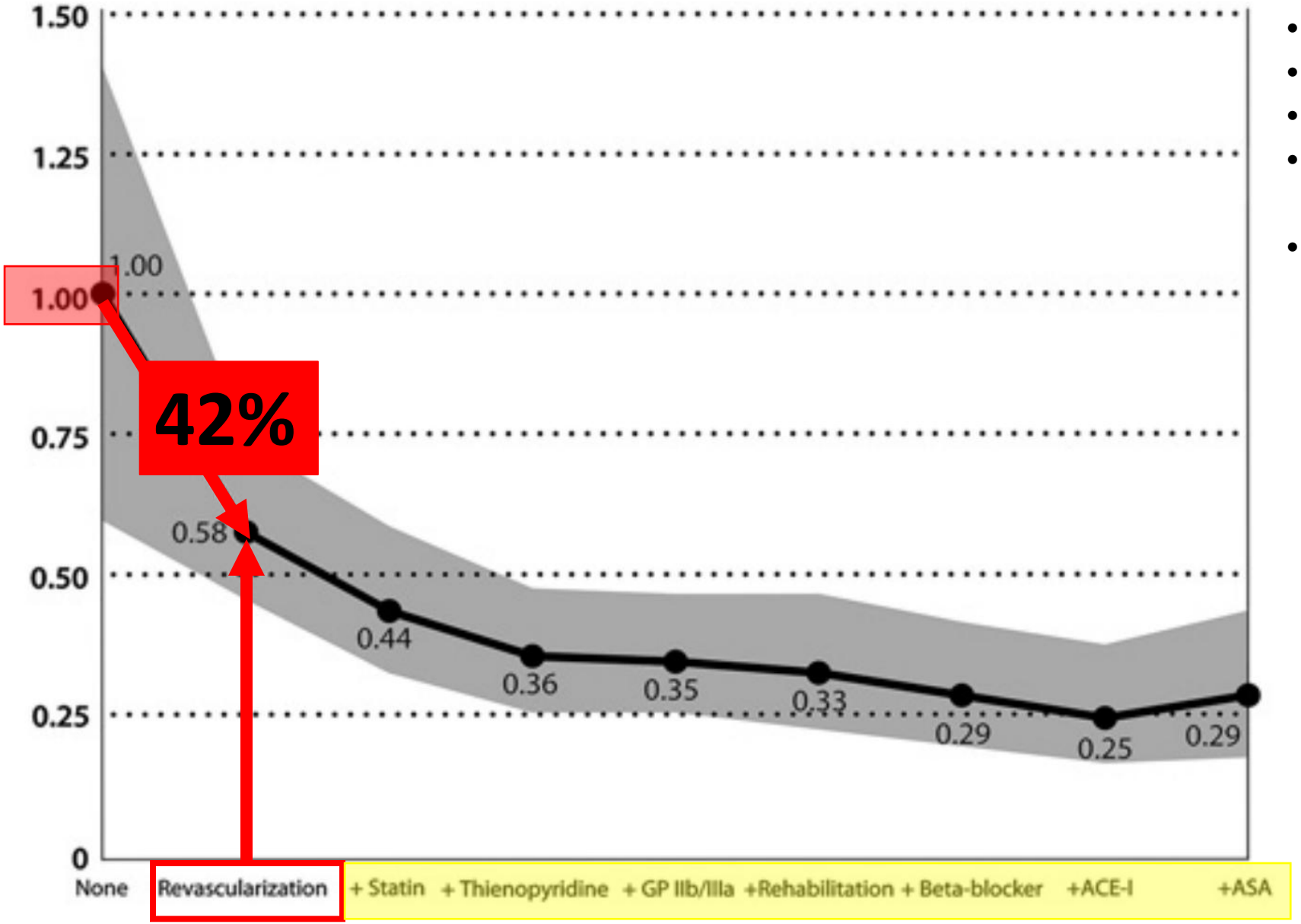
MUY ALTO RIESGO, ALTO RIESGO O NO ALTO RIESGO ?

- ❖ Diagnostico confirmado en base a los Algorritmos ESC
- ❖ Clinicamente estable , sin angina recurrente
- ❖ EKG seriados con cambios dinamicos T en precordiales
- ❖ GRACE SCORE : 142

High risk

- Established NSTEMI diagnosis
- Dynamic new or presumably new contiguous ST/T-segment changes (symptomatic or silent)
- Resuscitated cardiac arrest without ST-segment elevation or cardiogenic shock
- GRACE risk score >140

The mean effect of the sequential application of each guideline for 6-month mortality in patients with an ACS



- N=1716
- Controls: **3432.**
- 37.2% STEMI.
- Similar effect STEMI and NSTEMI
- AF: Attributable fraction

Chew DP et col. Six-month survival benefits associated with clinical guideline recommendations in acute coronary syndromes Heart 2010;96:1201e1206. doi:10.1136/hrt.2009.184853

ESC European Society of Cardiology
European Heart Journal (2022) 43, 3148–3160
https://doi.org/10.1093/eurheartj/ehac213

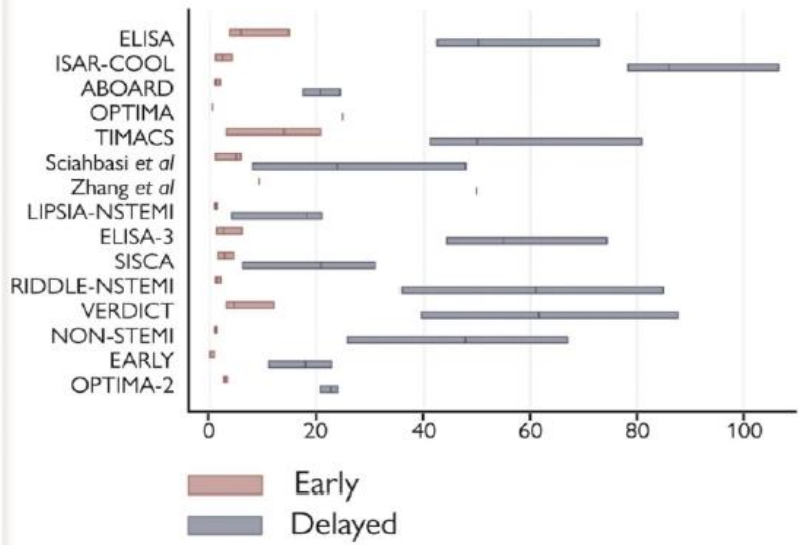
META-ANALYSIS
Interventional cardiology

Timing of invasive strategy in non-ST-elevation acute coronary syndrome: a meta-analysis of randomized controlled trials

Meta-analysis of 17 randomised trials

10,209

Time to angiography (hours)

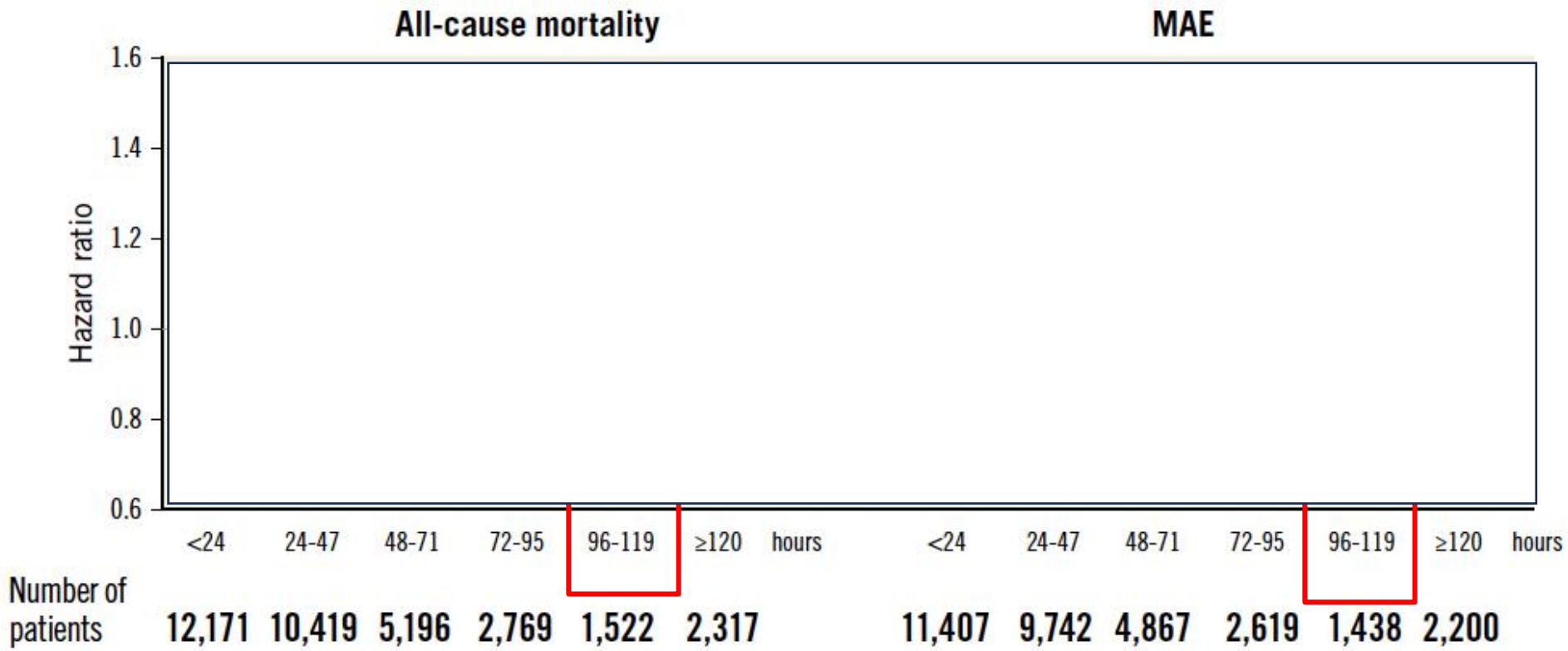


2023 ESC Guidelines for the management of acute coronary syndromes
(European Heart Journal; 2023 – doi:10.1093/eurheartj/ehad191)

Timing of coronary angiography in patients with non-ST-elevation acute coronary syndrome: long-term clinical outcomes from the nationwide SWEDEHEART registry

Kai M. Eggers[1]*, MD, PhD; Stefan K. James[1], MD, PhD; Tomas Jernberg[2], MD, PhD; Bertil Lindahl[1], MD, PhD

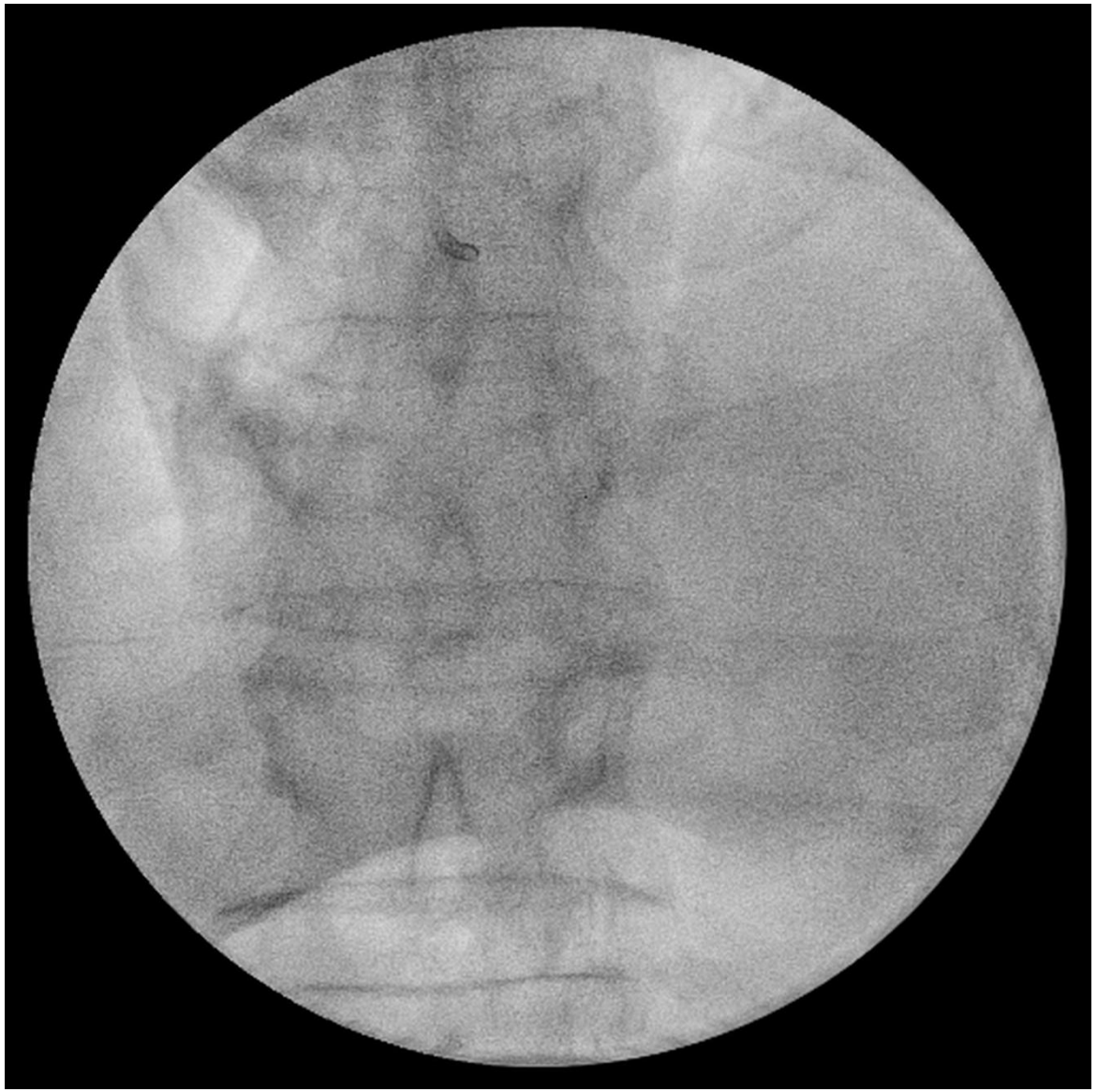
1. Department of Medical Sciences and Uppsala Clinical Research Center, Uppsala University, Uppsala, Sweden; 2. Department of Clinical Sciences, Cardiology, Danderyd Hospital, Karolinska Institute, Stockholm, Sweden



EuroIntervention 2022;18:582-589 published online ahead of print March 2022

VARON DE 74 AÑ0S CON SICA STNE ALTO RIESGO …..

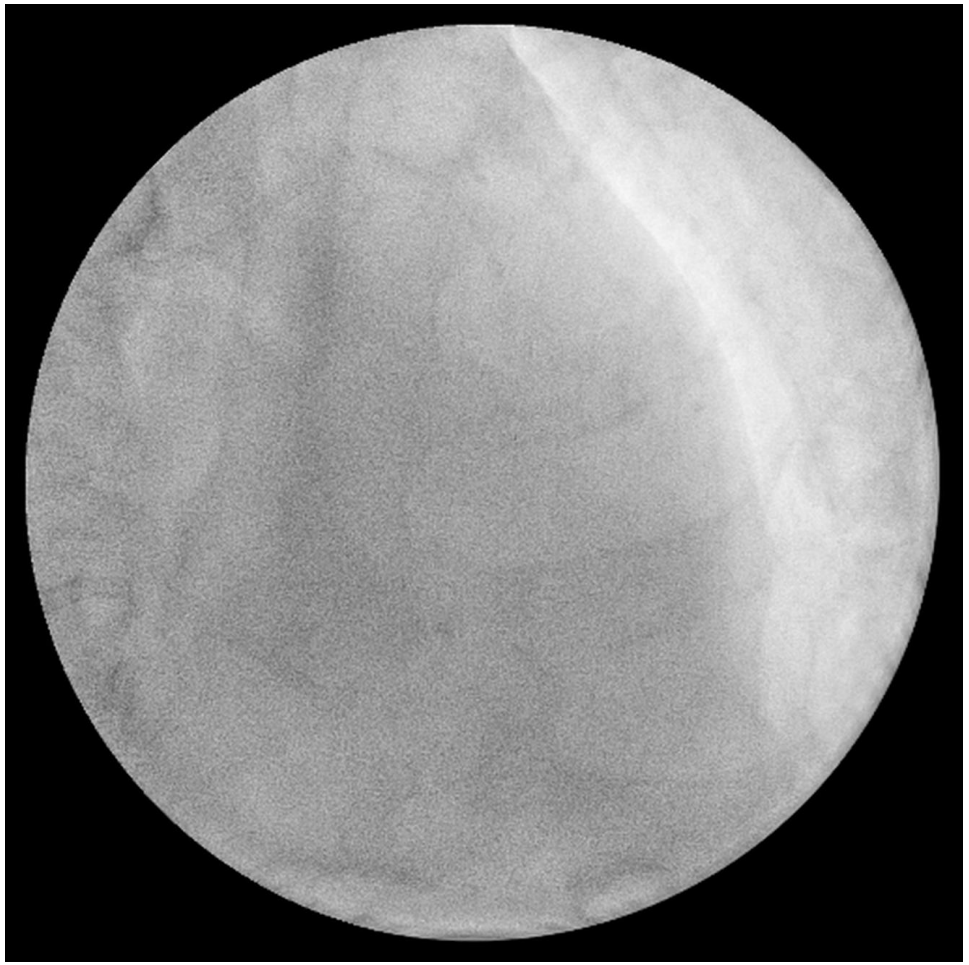
- ENOXAPARINA 1 MG / K. SC C / 12 HS
- ASPIRINA 300 mg STAT , luego 100 mg. QID
- CLOPIDOGREL 300 mg STAT , luego 75 mg QID
- ATORVASTATINA 80 mg QID
- BISOPROLOL 5 mg BID
- **TRANSFERENCIA AL 3 DIA**  **CON** 



CORONARIA DERECHA

CD : LESION SEVERA TERCIO DISTAL +LESION SEVERA TERCIO MEDIO RAMO DP

CORONARIA IZQUIERDA.



TCI :SEVERA DISTAL
DA : SEVERAS OSTIAL ,PROXIMAL, ½ , ½ DISTAL
CX : OCLUIDA EN ORIGEN

VARON DE 74 AÑ0S ……..

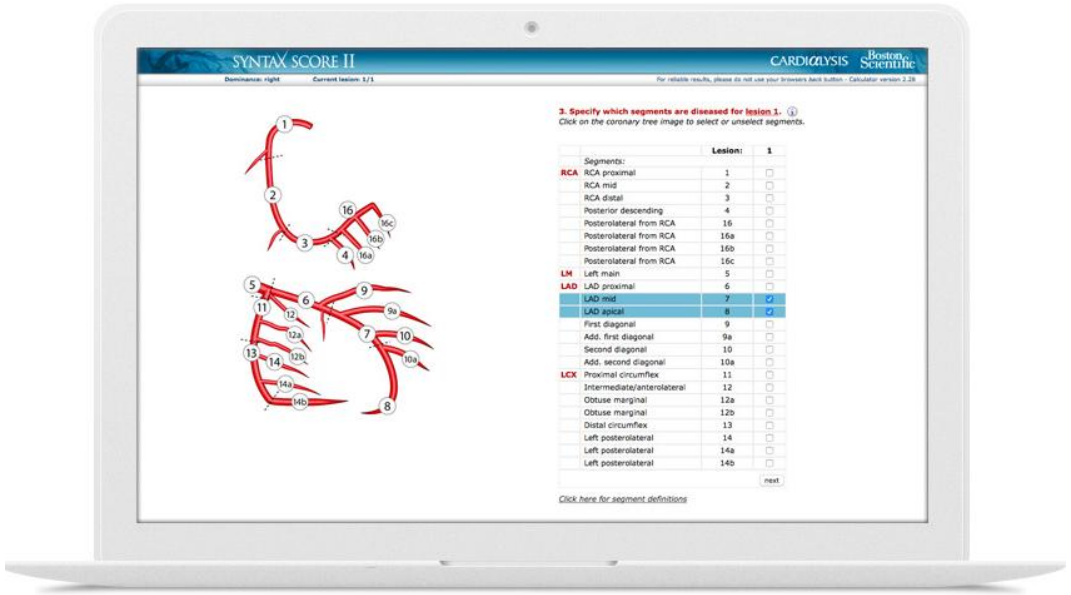
SICA STNE ALTO RIESGO

- MULTIARTERIAL

- ¿ICP o QX?

Syntax Score I y II

❖SYNTAX I: 32



❖SYNTAX II: ICP 27 VS CABG 34

SYNTAX score II

SYNTAX II

Decision making - between CABG and PCI - guided by the SYNTAX score II to be endorsed by the Heart Team.

PCI

SYNTAX score II:	27
PCI 4-year mortality:	5.5%

CABG

SYNTAX score II:	34
CABG 4-year mortality:	9.5%

Treatment recommendation ⓘ: *CABG or PCI*

EuroSCORE I, EuroSCORE II y STS

❖**EUROSCORE II : 9**

	EuroSCORE	EuroSCORE II	STS score
Outcome	In-hospital mortality	30-day Mortality	Mortalitày and post-operative complications
Surgery	Mainly CABG	Not specific	Specific for surgery
High risk threshold	>20%	>7%	>10%
Discrimination: ability to differentiate between low and high-risk patients (assessed using the 'under the ROC curve area' or the c-index)	AUC for valvular surgery = 0.72; Acceptable	AUC = 0.81 Acceptable	AUC For lone valvular surgery = 0.80 For valvular surgery + CABG = 0.75 Acceptable
Calibration: report predicted/observed mortality	Greatly overestimated mortality in all categories of risk, especially in the high-risk group: suboptimal. Documented calibration loss in time because of the update to EuroSCORE II I	Low-risk group calibration: good Overestimated mortality in high-risk group: suboptimal	Low-risk group calibration: good Underestimated mortality in high-risk group: suboptimal

La opinión del paciente cuenta

Recomendaciones sobre las perspectivas de los pacientes en la atención de los síndromes coronarios agudos		
Se recomienda la atención centrada en el paciente mediante la evaluación y la adherencia a las preferencias individuales, necesidades y creencias del paciente, con el fin de garantizar que los valores de los pacientes se tienen en consideración a la hora de tomar decisiones clínicas	I	B
Se recomienda incluir a los pacientes con SCA en el proceso de toma de decisiones (en la medida que lo permita su estado) e informar a los pacientes sobre los riesgos de eventos adversos, exposición a la radiación y opciones terapéuticas alternativas. Deben emplearse herramientas para la toma de decisiones que faciliten la discusión	I	B
Se recomienda evaluar los síntomas empleando métodos que ayuden a los pacientes a describir su experiencia	I	C
Se debe considerar el uso de la técnica «teach back» para ayudar al paciente a tomar decisiones durante la obtención del consentimiento informado	IIa	B
Se debe proporcionar información oral y escrita a los pacientes antes del alta. Se debe considerar la adecuada preparación y educación del paciente antes del alta. Para ello se puede emplear la técnica «teach back» y/o entrevista motivacional, ofrecer información en bloques claros y comprobar la comprensión de los pacientes	IIa	B
Se debe considerar la evaluación del estado mental de los pacientes mediante herramientas validadas y la derivación a apoyo psicológico cuando sea preciso	IIa	B

Guía ESC 2023 sobre el diagnóstico y tratamiento de los síndromes coronarios agudos

VARON DE 74 AÑ0S ……..

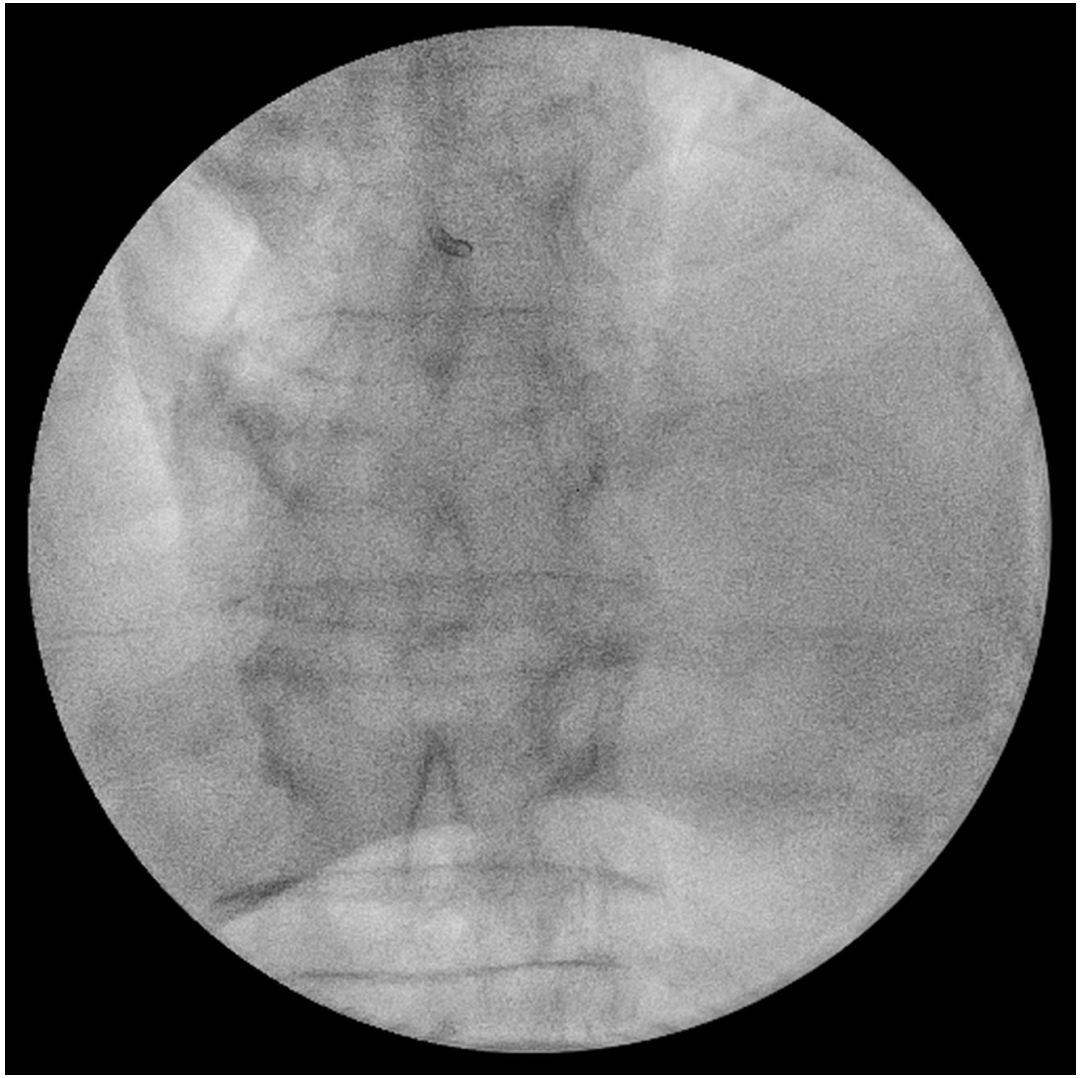
SICA STNE ALTO RIESGO

- MULTIARTERIAL

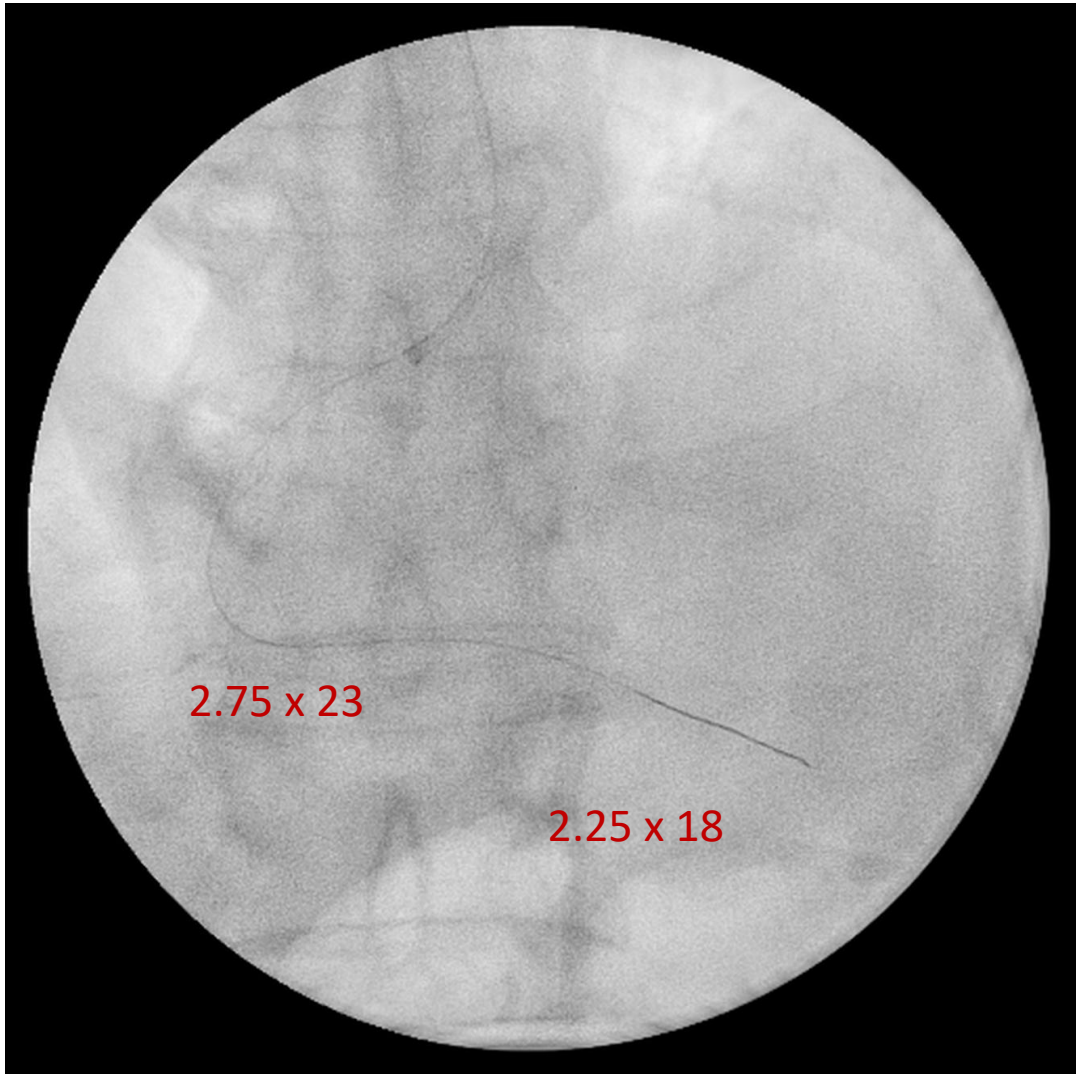
- SYNTAX I: 32
- SYNTAX II: ICP 27 VS CABG 34

- EUROSCORE II : 9

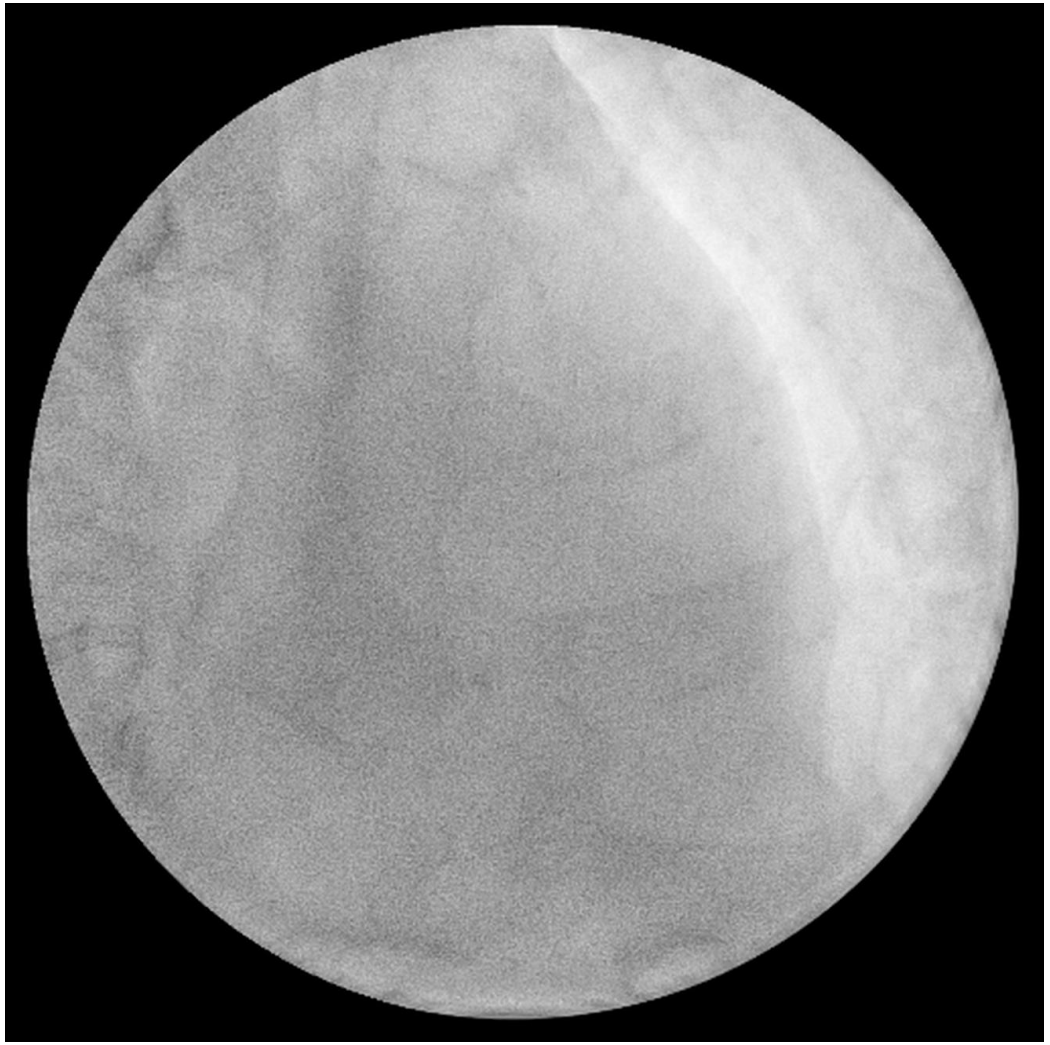
- ICP



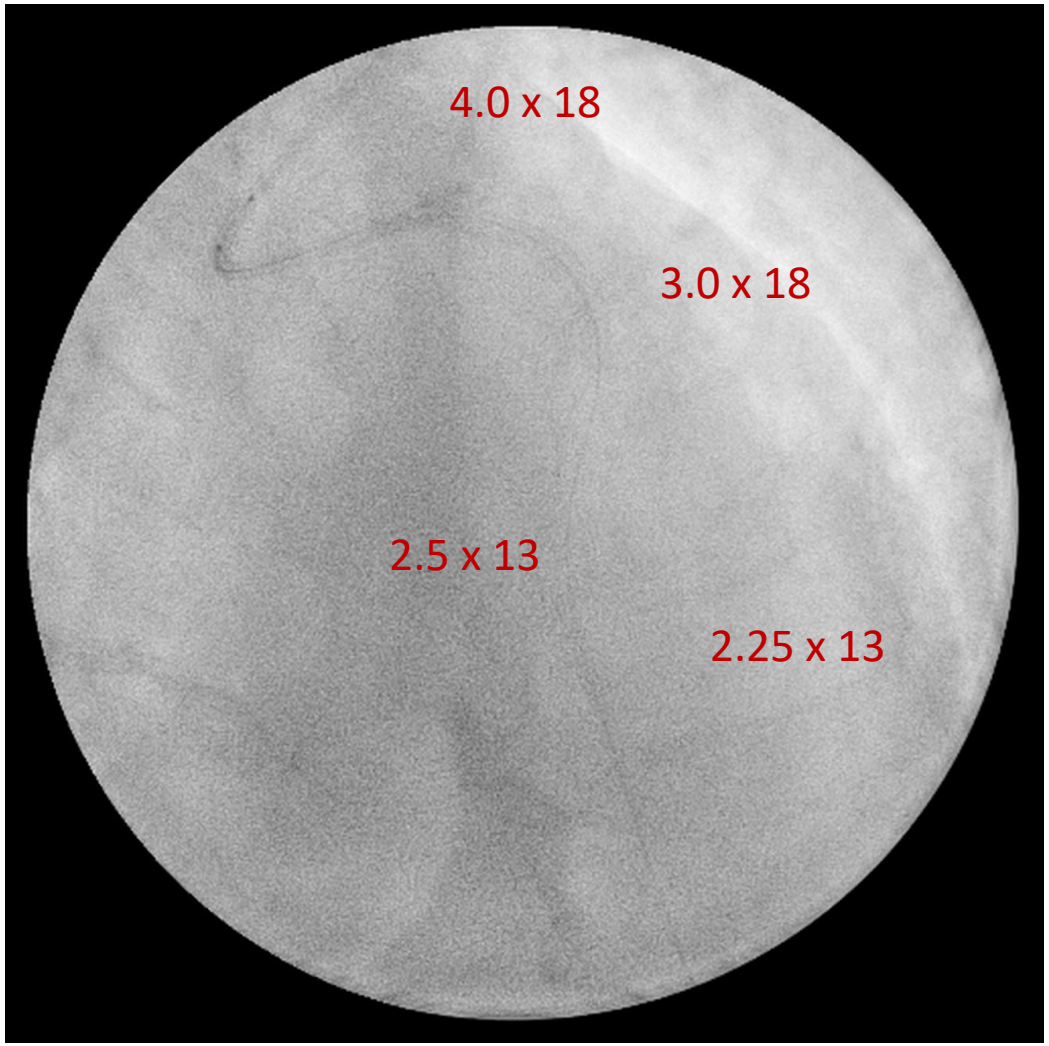
CORONARIA DERECHA PRE



CORONARIA DERECHA POST ATC



CORONARIA IZQUIERDA PRE

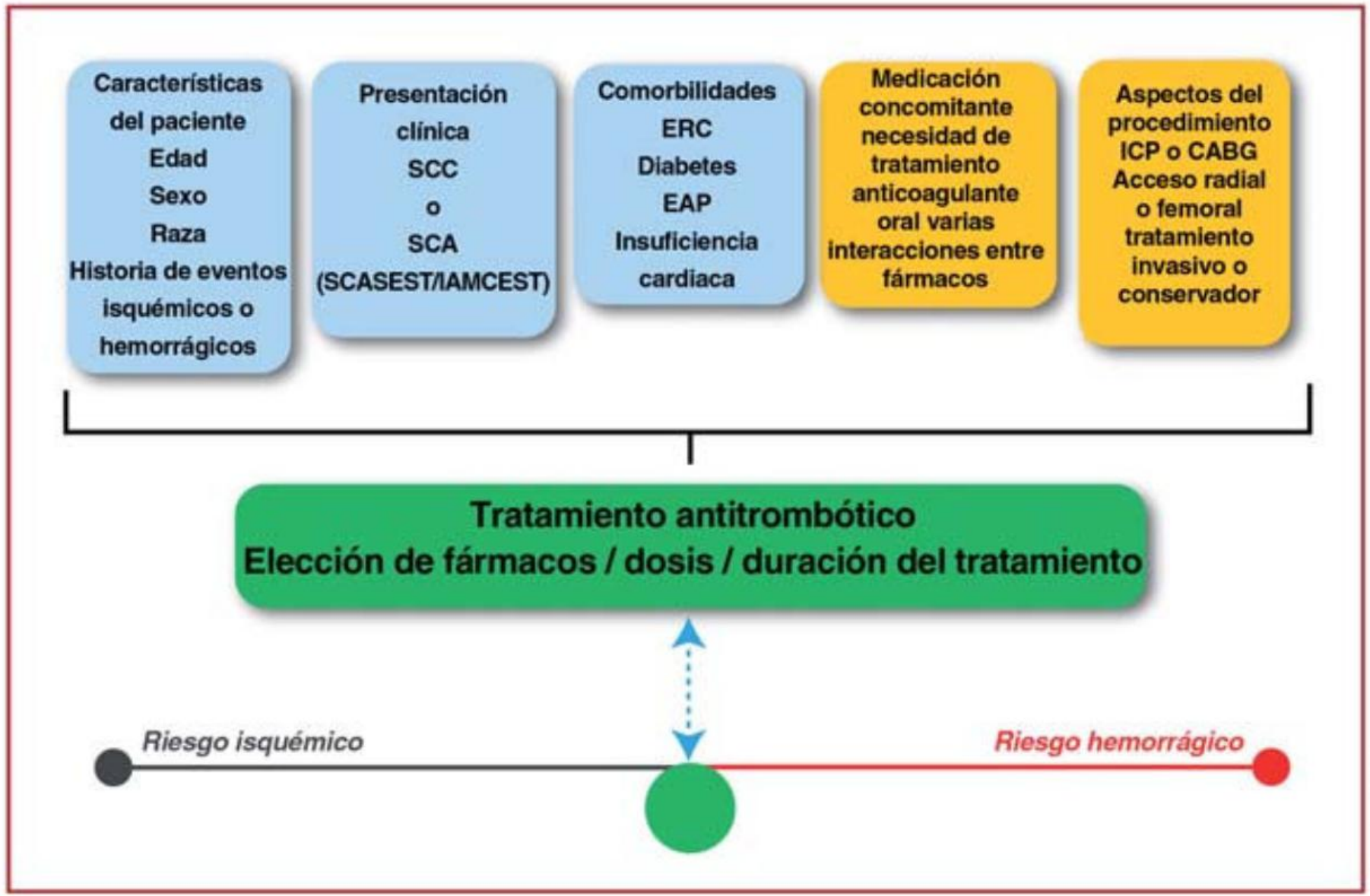


CORONARIA IZQUIERA POST

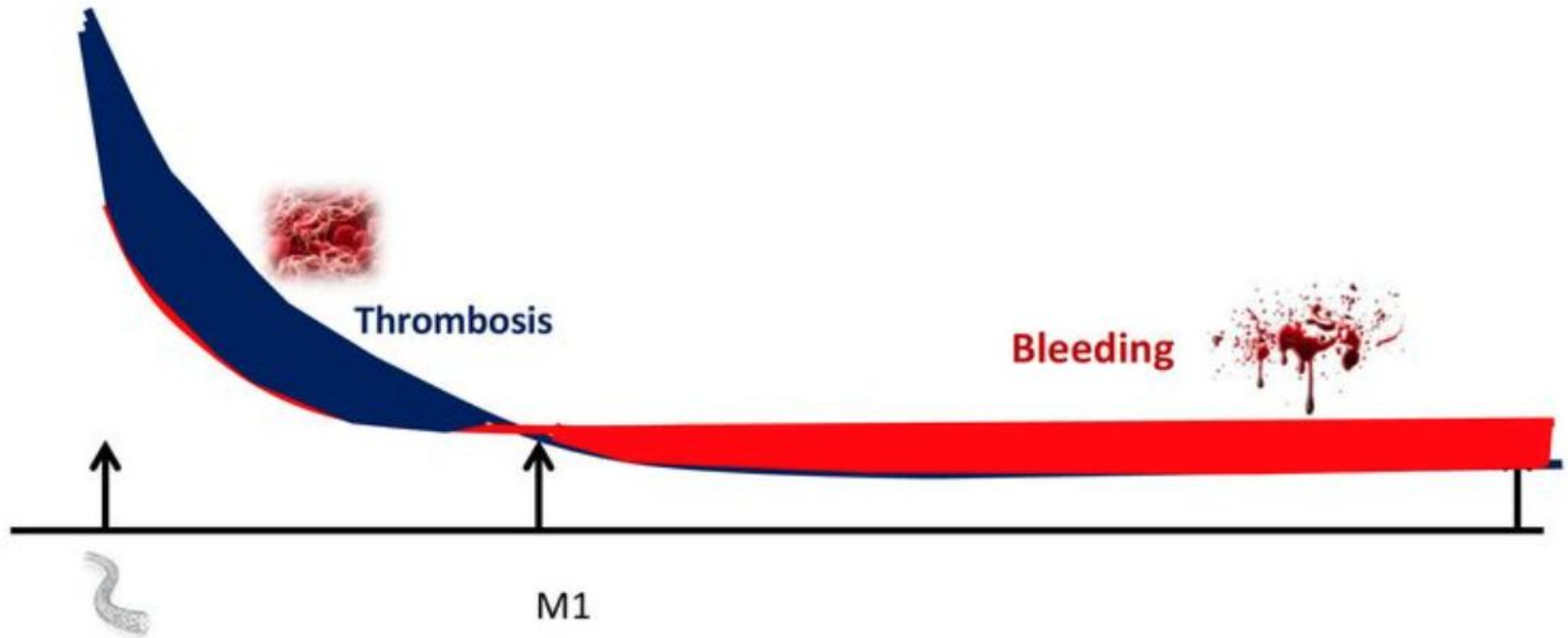
VARON DE 74 AÑ0S ……..

SICA STNE ALTO RIESGO DE MORTALIDAD

- ¿Riesgo isquemico ?
- ¿Riesgo hemorragico ?


Características del paciente
Edad
Sexo
Raza
Historia de eventos isquémicos o hemorrágicos
Presentación clínica
SCC
o
SCA
(SCASEST/IAMCEST)
Comorbilidades
ERC
Diabetes
EAP
Insuficiencia cardiaca
Medicación concomitante necesidad de tratamiento anticoagulante oral varias interacciones entre fármacos
Aspectos del procedimiento
ICP o CABG
Acceso radial o femoral
tratamiento invasivo o conservador
Tratamiento antitrombótico
Elección de fármacos / dosis / duración del tratamiento
Riesgo isquémico
Riesgo hemorrágico
©ESC 2020

Ischemic / bleeding risks
Evolution after ACS



Thrombotic risk > Bleeding Risk

Bleeding Risk >Thrombotic risk

RIESGO ISQUEMICO - TROMBOTICO

Table 11 **Risk criteria for extended treatment with a second antithrombotic agent**

High thrombotic risk (Class IIa)	Moderate thrombotic risk (Class IIb)
Complex CAD and at least 1 criterion	**Non-complex CAD and at least 1 criterion**
Risk enhancers	
Diabetes mellitus requiring medication	Diabetes mellitus requiring medication
History of recurrent MI	History of recurrent MI
Any multivessel CAD	Polyvascular disease (CAD plus PAD)
Polyvascular disease (CAD plus PAD)	CKD with eGFR 15–59 mL/min/1.73 m^2
Premature (<45 years) or accelerated (new lesion within a 2-year time frame) CAD	
Concomitant systemic inflammatory disease (e.g. human immunodeficiency virus, systemic lupus erythematosus, chronic arthritis)	
CKD with eGFR 15–59 mL/min/1.73 m^2	
Technical aspects	
At least 3 stents implanted	
At least 3 lesions treated	
Total stent length >60 mm	
History of complex revascularization (left main, bifurcation stenting with ≥2 stents implanted, chronic total occlusion, stenting of last patent vessel)	
History of stent thrombosis on antiplatelet treatment	

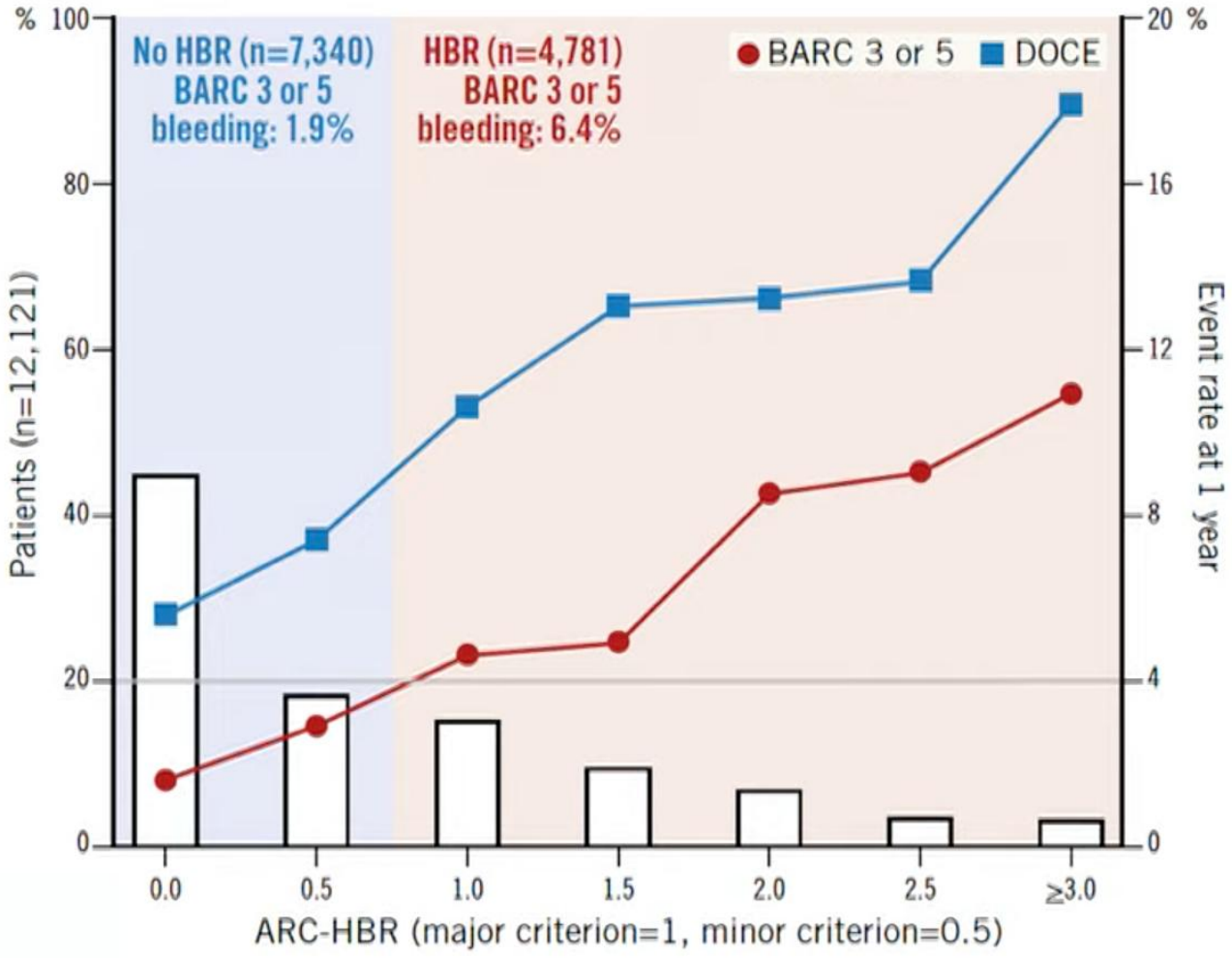
RIESGO DE SANGRADO

Table 7 **Major and minor criteria for high bleeding risk according to the Academic Research Consortium for High Bleeding Risk at the time of percutaneous coronary intervention (bleeding risk is high if at least one major or two minor criteria are met)**

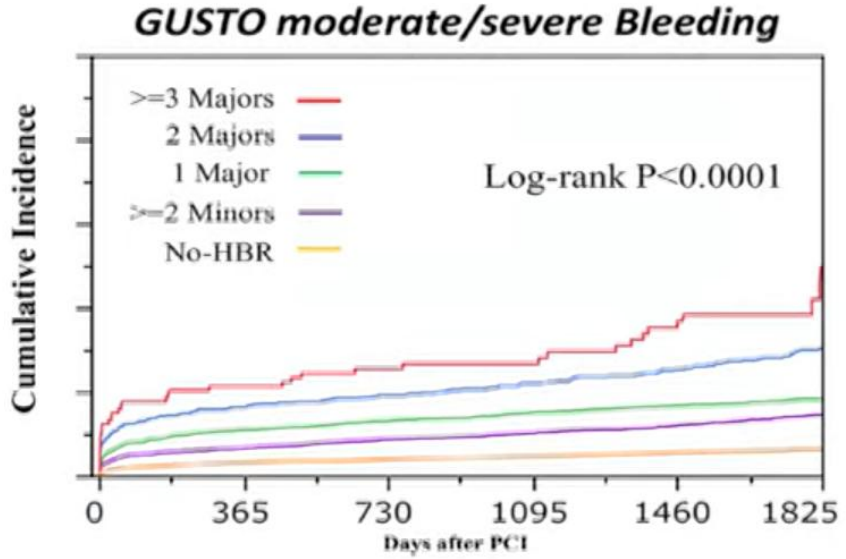
Major	Minor
• Anticipated use of long-term OAC[a]	• Age ≥ 75 years
• Severe or end-stage CKD (eGFR <30 mL/min)	• Moderate CKD (eGFR 30–59 mL/min)
• Haemoglobin <11 g/dL	• Haemoglobin 11–12.9 g/dL for men or 11–11.9 g/dL for women
• Spontaneous bleeding requiring hospitalization and/or transfusion in the past 6 months or at any time, if recurrent	• Spontaneous bleeding requiring hospitalization and/or transfusion within the past 12 months not meeting the major criterion
• Moderate or severe baseline thrombocytopenia[b] (platelet count <100 × 10^9/L)	• Chronic use of oral non-steroidal anti-inflammatory drugs or steroids
• Chronic bleeding diathesis	• Any ischaemic stroke at any time not meeting the major criterion
• Liver cirrhosis with portal hypertension	
• Active malignancy[c] (excluding non-melanoma skin cancer) within the past 12 months	
• Previous spontaneous intracranial haemorrhage (at any time) • Previous traumatic intracranial haemorrhage within the past 12 months • Presence of a brain arteriovenous malformation • Moderate or severe ischaemic stroke[d] within the past 6 months	
• Recent major surgery or major trauma within 30 days prior to PCI • Non-deferrable major surgery on DAPT	

Urban P, Mehran R, Colleran R, Angiolillo DJ, Byrne RA, Capodanno D, *et al.* Defining high bleeding risk in patients undergoing percutaneous coronary intervention: a consensus document from the Academic Research Consortium for High Bleeding Risk. *Eur Heart J* 2019;**40**:2632–2653. https://doi.org/10.1093/eurheartj/ehz372

A mas criterios, mas probabilidad de presentar un episodio de sangrado.



Ueki et al. | EuroIntervention 2020



Natsuaki et al. | Circ Cardiovasc Interv 2020

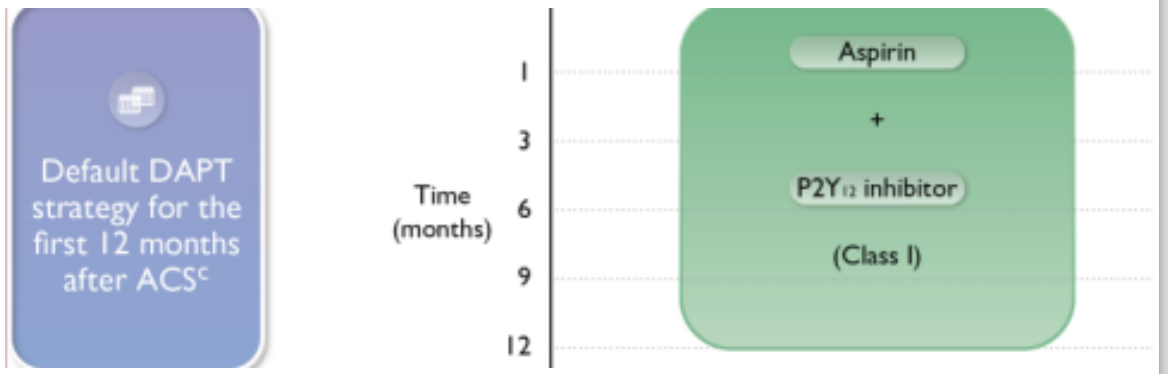
VARON DE 74 AÑ0S ……..

SICA STNE ALTO RIESGO

- **ALTO** RIESGO ISQUEMICO
- **BAJO** RIESGO HEMORRAGICO

Recommendations for antiplatelet therapy in ACS

Recommendations	Class	Level
Antiplatelet therapy		
Aspirin is recommended for all patients without contraindications at an initial oral LD of 150–300 mg (or 75–250 mg i.v.) and an MD of 75–100 mg o.d. for long-term treatment.	I	A
In all ACS patients, a $P2Y_{12}$ receptor inhibitor is recommended in addition to aspirin, given as an initial oral LD followed by an MD for 12 months unless there is HBR.	I	A
A proton pump inhibitor in combination with DAPT is recommended in patients at high risk of gastrointestinal bleeding.	I	A
Prasugrel is recommended in $P2Y_{12}$ receptor inhibitor-naïve patients proceeding to PCI	I	B
Ticagrelor is recommended irrespective of the treatment strategy (invasive or conservative) (180 mg LD, 90 mg b.i.d. MD).	I	B

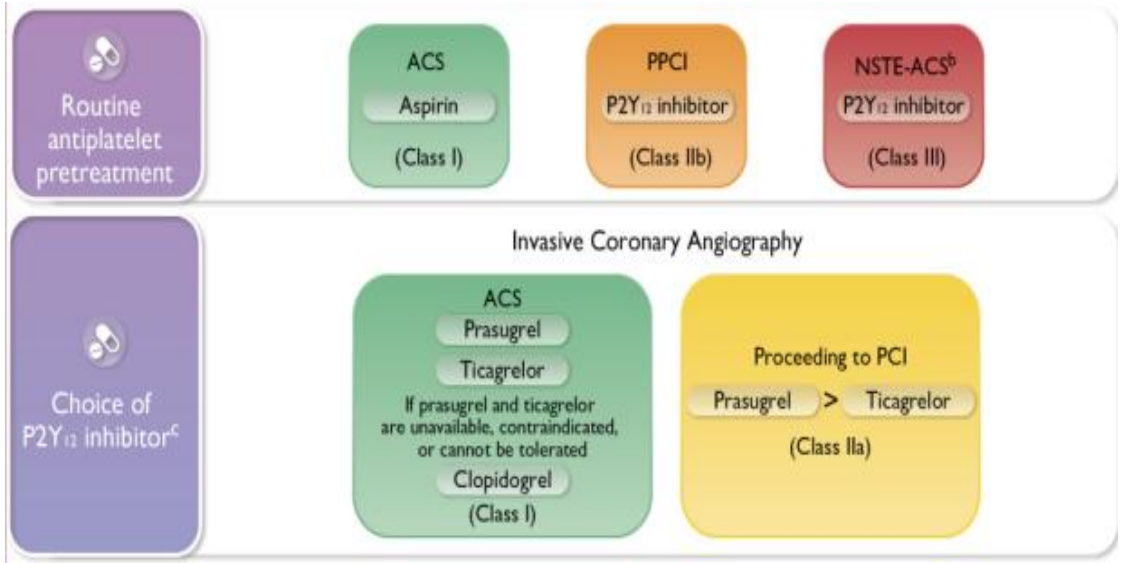


2023 ESC Guidelines for the management of acute coronary syndromes
(European Heart Journal; 2023 – doi:10.1093/eurheartj/ehad191)

Recommendations for antiplatelet therapy in ACS

Recommendations: Pretreatment	Class	Level
Pretreatment with a $P2Y_{12}$ receptor inhibitor may be considered in NSTE-ACS patients who are not expected to undergo an early invasive strategy (<24 h) and do not have HBR.	IIb	C
Routine pretreatment with a $P2Y_{12}$ receptor inhibitor in NSTE-ACS patients in whom coronary anatomy is not known and early invasive management (<24 h) is planned is not recommended.	III	A

ACCOAST
SCAAR



ISAR -REACT 5

2023 ESC Guidelines for the management of acute coronary syndromes
(European Heart Journal; 2023 – doi:10.1093/eurheartj/ehad191)

Acceso público a ICP primaria

> 33 Millones de Peruanos

> 30 000 casos por año de IAMCEST

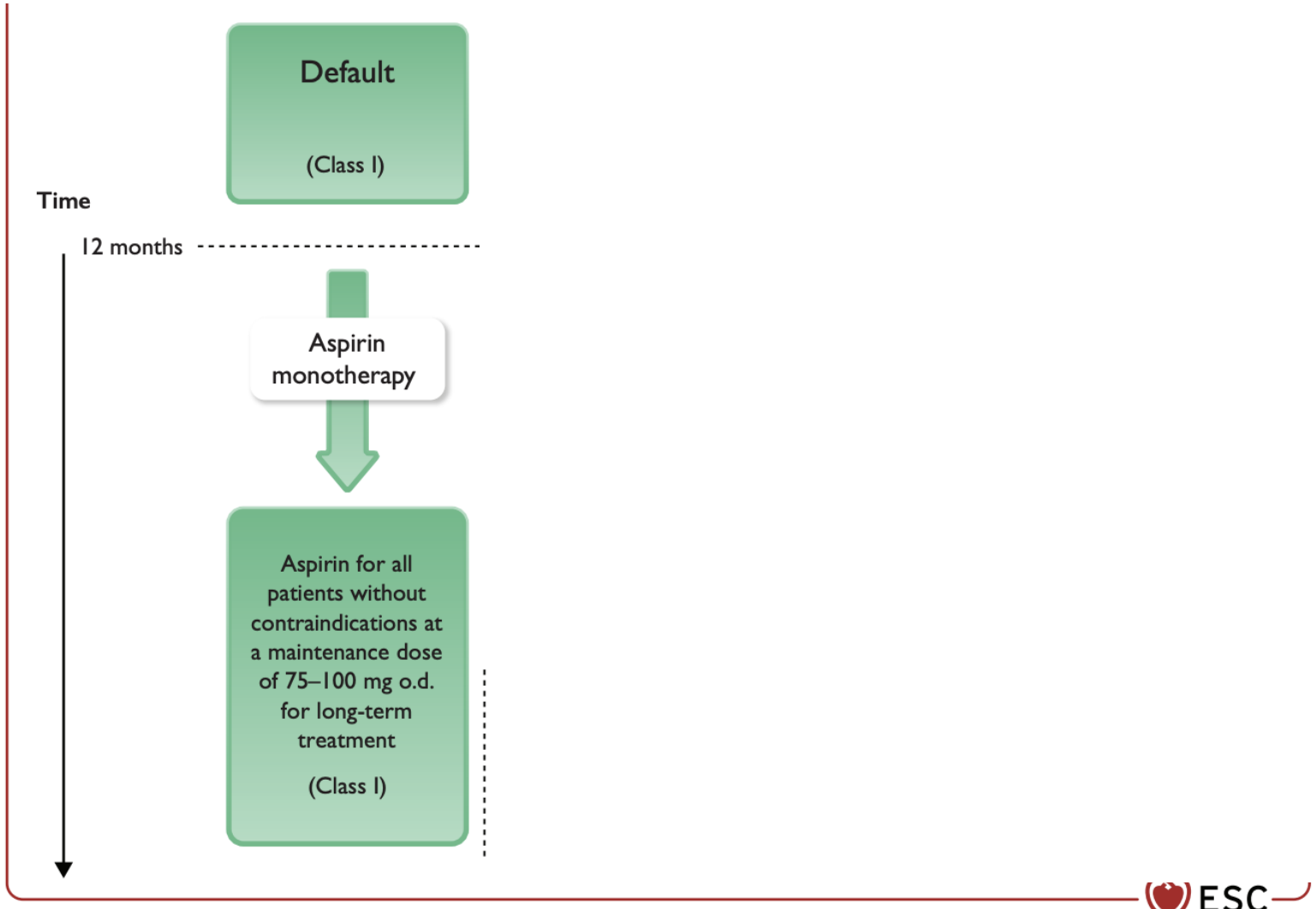
< 30 Hemodinamistas en el S.P.

Sólo 3 salas de cateterismo 24/7

Actualizado hasta el 22 de Marzo del 2025

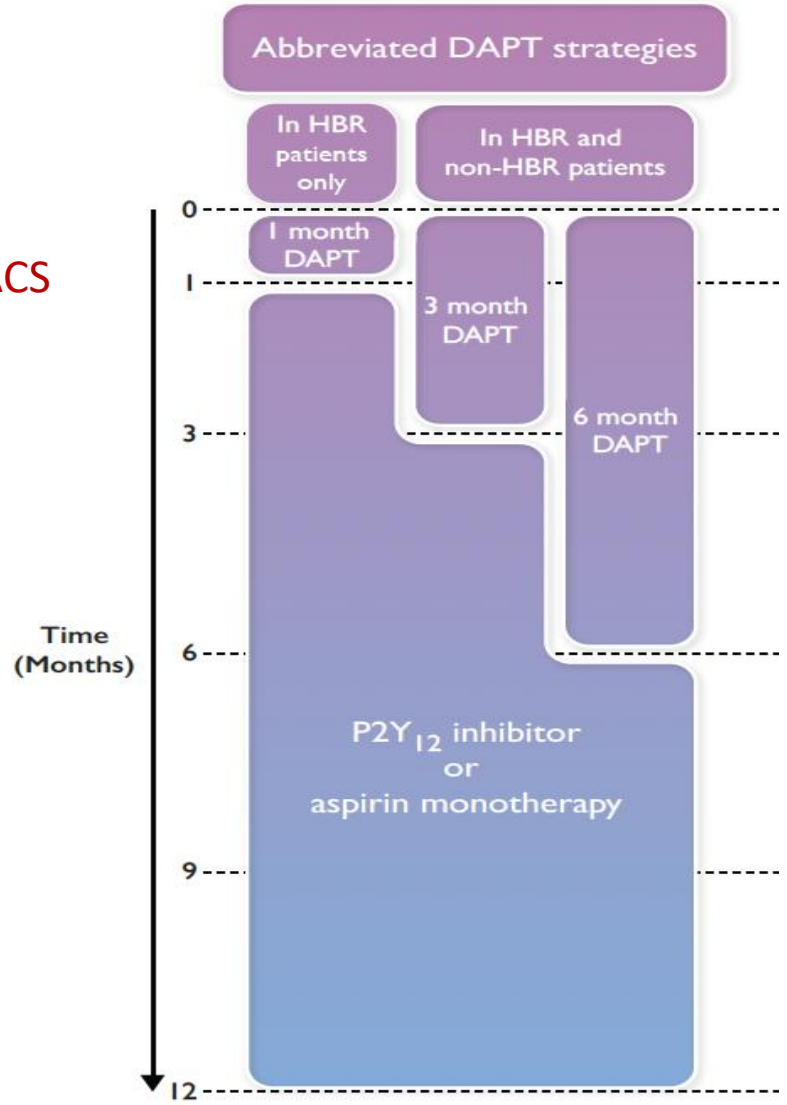
RIESGO ISQUEMICO - TROMBOTICO

- **ALTO** RIESGO ISQUEMICO y **BAJO** RIESGO HEMORRAGICO



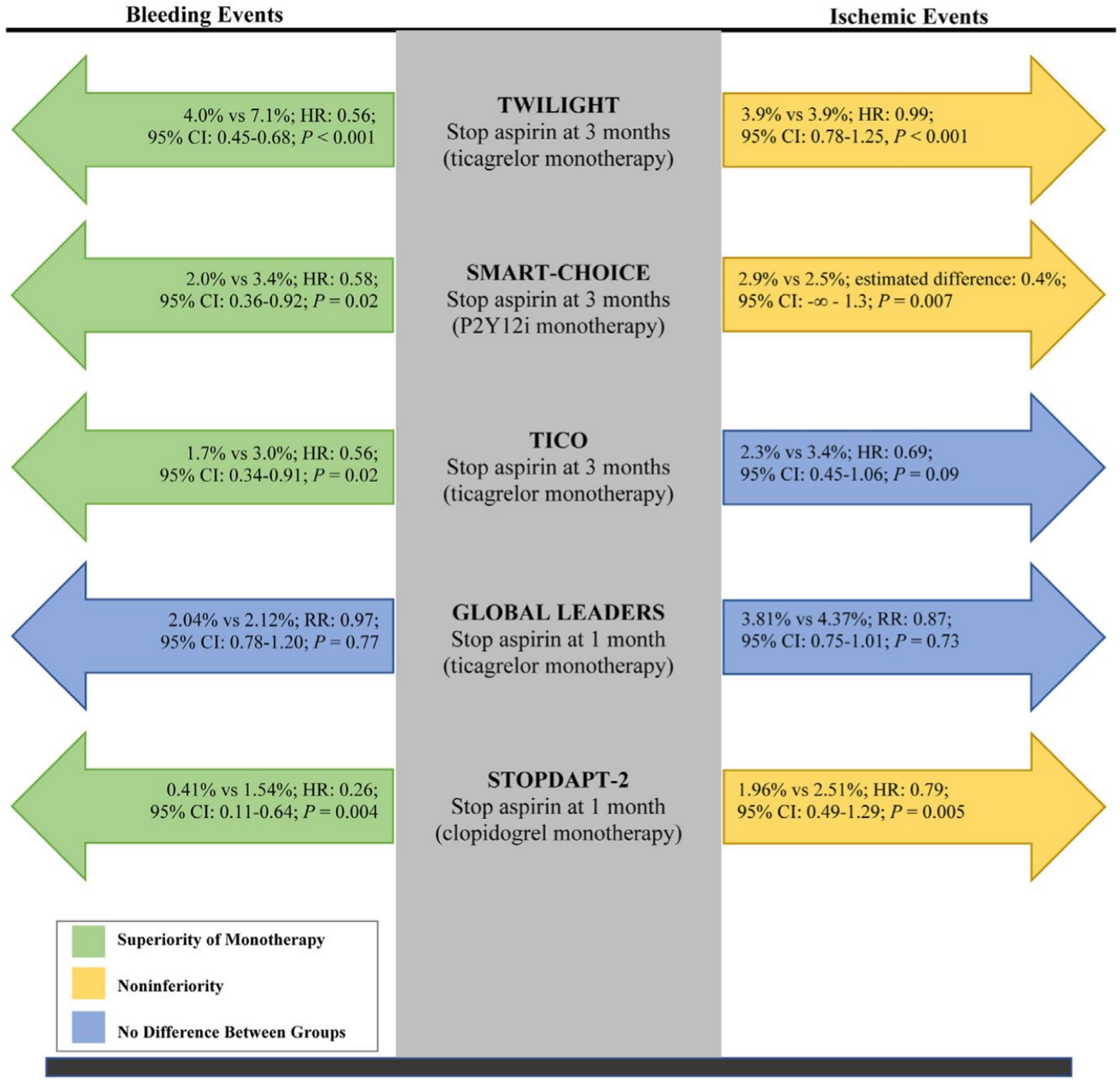
ALTO RIESGO DE SANGRADO

TWILIGHT
TICO
STOPDAPT-2-ACS
MASTER DAPT

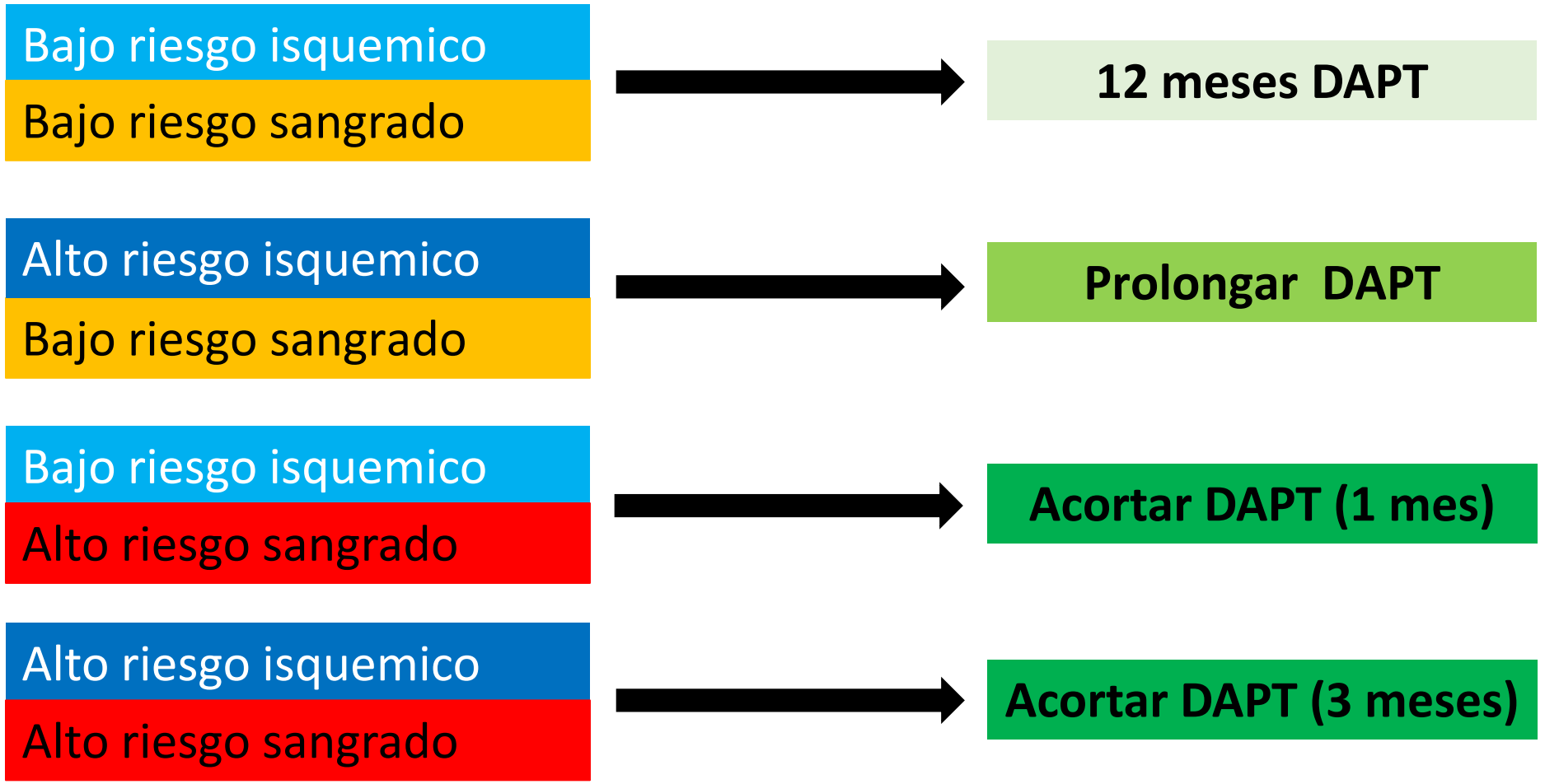


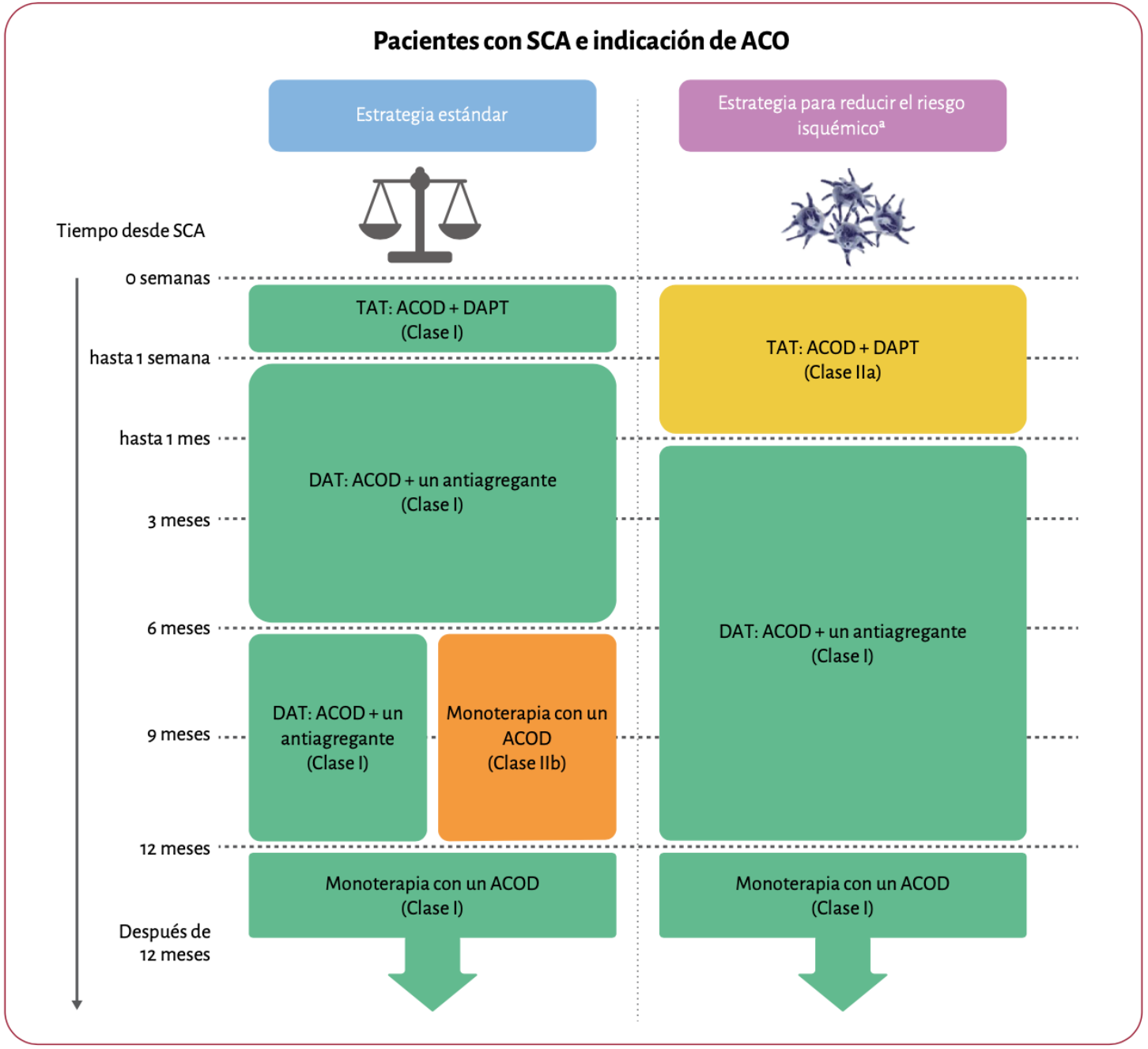
TROPICAL-ACS
TOPIC
POPular Genetics
TALOS AMI

2023 ESC Guidelines for the management of acute coronary syndromes
(European Heart Journal; 2023 – doi:10.1093/eurheartj/ehad191)


Bleeding Events
Ischemic Events
4.0% vs 7.1%; HR: 0.56;
95% CI: 0.45-0.68; P < 0.001
TWILIGHT
Stop aspirin at 3 months
(ticagrelor monotherapy)
3.9% vs 3.9%; HR: 0.99;
95% CI: 0.78-1.25, P < 0.001
2.0% vs 3.4%; HR: 0.58;
95% CI: 0.36-0.92; P = 0.02
SMART-CHOICE
Stop aspirin at 3 months
(P2Y12i monotherapy)
2.9% vs 2.5%; estimated difference: 0.4%;
95% CI: -∞ - 1.3; P = 0.007
1.7% vs 3.0%; HR: 0.56;
95% CI: 0.34-0.91; P = 0.02
TICO
Stop aspirin at 3 months
(ticagrelor monotherapy)
2.3% vs 3.4%; HR: 0.69;
95% CI: 0.45-1.06; P = 0.09
2.04% vs 2.12%; RR: 0.97;
95% CI: 0.78-1.20; P = 0.77
GLOBAL LEADERS
Stop aspirin at 1 month
(ticagrelor monotherapy)
3.81% vs 4.37%; RR: 0.87;
95% CI: 0.75-1.01; P = 0.73
0.41% vs 1.54%; HR: 0.26;
95% CI: 0.11-0.64; P = 0.004
STOPDAPT-2
Stop aspirin at 1 month
(clopidogrel monotherapy)
1.96% vs 2.51%; HR: 0.79;
95% CI: 0.49-1.29; P = 0.005
Superiority of Monotherapy
Noninferiority
No Difference Between Groups

Valorar Tx. según riesgo Isquemico/hemorragico





Dosis recomendadas

- Apixabán 5 mg dos veces al día
- Dabigatrán 110 mg o 150 mg dos veces al día
- Edoxabán 60 mg una vez al día
- Rivaroxabán 15 mg o 20 mg una vez al día

* Se recomienda la reducción de la dosis de ACOD según los criterios que apliquen a cada fármaco

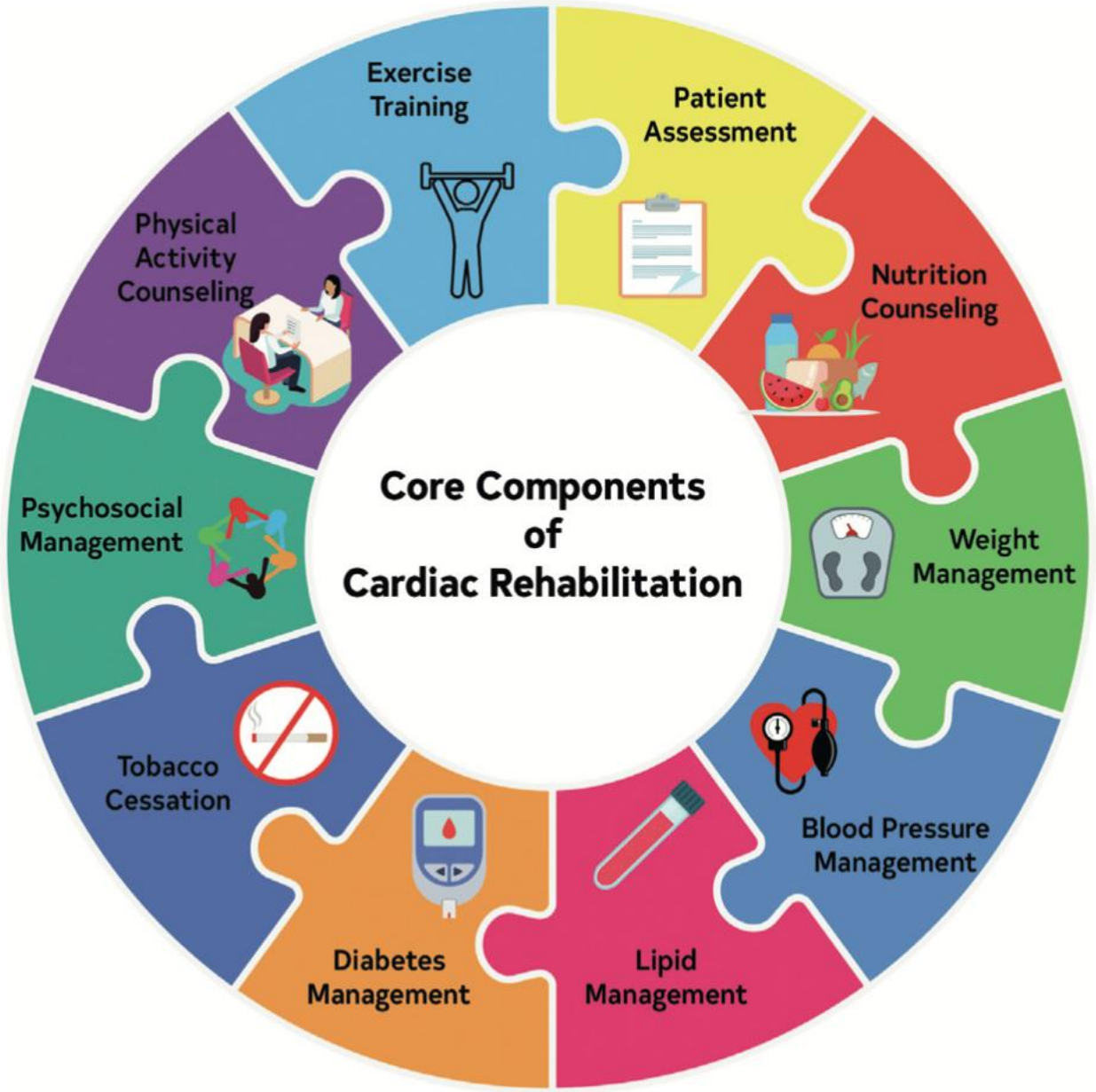
Tratamiento a largo plazo tras un SCA

Medicación cardioprotectora antes del alta, intervenciones en el estilo de vida y derivación a rehabilitación cardiaca

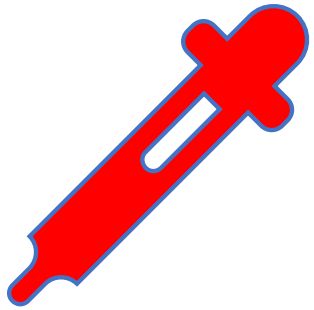
Planifique la revisión en consulta ambulatoria para el tratamiento de comorbilidades y discuta los objetivos y preferencias de los pacientes

Objetivos del tratamiento

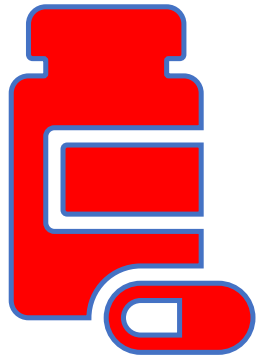
1	2	3
Apoye medidas sobre un estilo de vida saludable	Continúe el tratamiento farmacológico óptimo y el tratamiento cardioprotector	Consecución y mantenimiento de los objetivos de tratamiento para los factores de riesgo
Abandono del tabaquismo	Tratamiento antitrombótico	PAS < 130 mmHg y PAD < 80 mmHg (si se tolera)[b]
Dieta saludable	Tratamiento hipolipemiante	
Ejercicio regular	Inmunización anual contra la gripe	cLDL < 1,4 mmol/l (< 55 mg/dl)
Peso saludable	Promueva la adherencia al tratamiento farmacológico + a otros tratamientos, según proceda[a]	
Apoyo psicosocial		HbA1c < 53 mmol/mol (< 7%)c



VARON DE 74 AÑ0S CON SICA STNE …..



- ASPIRINA 100 mg. QID INDEFINIDO
- TICAGRELOR 90 mg BID X 1 AÑO
- ATORVASTATINA 80 mg QID
- BISOPROLOL 5 mg BID
- ESOMEPRAZOL 2O mg QID
- REHABILITACION CARDIACA

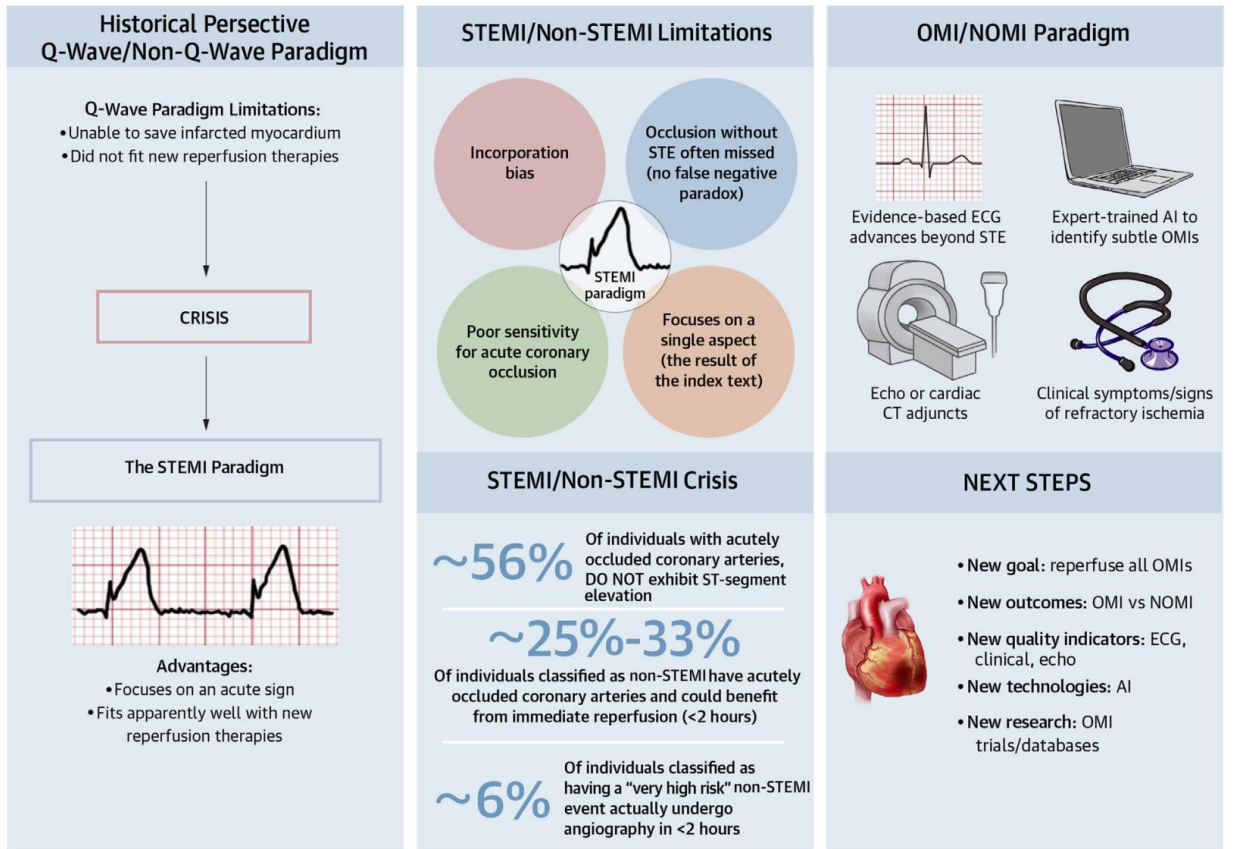


From ST-Segment Elevation MI to Occlusion MI

The New Paradigm Shift in Acute Myocardial Infarction

Jesse McLaren, MD,[a] José Nunes de Alencar, MD,[b] Emre K. Aslanger, MD,[c] H Pendell Meyers, MD,[d] Stephen W. Smith, MD[e]

CENTRAL ILLUSTRATION From ST-Segment Elevation MI to occlusion MI



McLaren J, et al. JACC Adv. 2024;3(11):101314.

Tiempo es Musculo

Musculo es vida

Consideraciones finales

- La mortalidad de un SCASEST es mayor a largo plazo que un IAMCEST
- La Clínica, el ECG, las Troponinas US y el HEART score hacen el DX y Triaje.
- La Revascularización es fundamental
- El manejo Antitrombotico depende de un balance del riesgo isquemico y hemorragico.
- Seguimiento cercano a largo plazo.

Muchas Gracias

magawym@hotmail.com

Marcos Lopez

marcoslopez.md

@MarcosLopezRoj2