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Cardio**Advanced**Forum

Formación online en actualizaciones en Cardiología

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Principales novedades de las guías SCA 2023

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- Otros cambios y novedades
- Conclusiones

Presentación

Nuevas guías 2023 para el manejo del SCA



ESC




















European Society
of Cardiology

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<https://doi.org/10.1093/eurheartj/ehad191>

ESC GUIDELINES

2023 ESC Guidelines for the management of acute coronary syndromes

Developed by the task force on the management of acute coronary syndromes of the European Society of Cardiology (ESC)

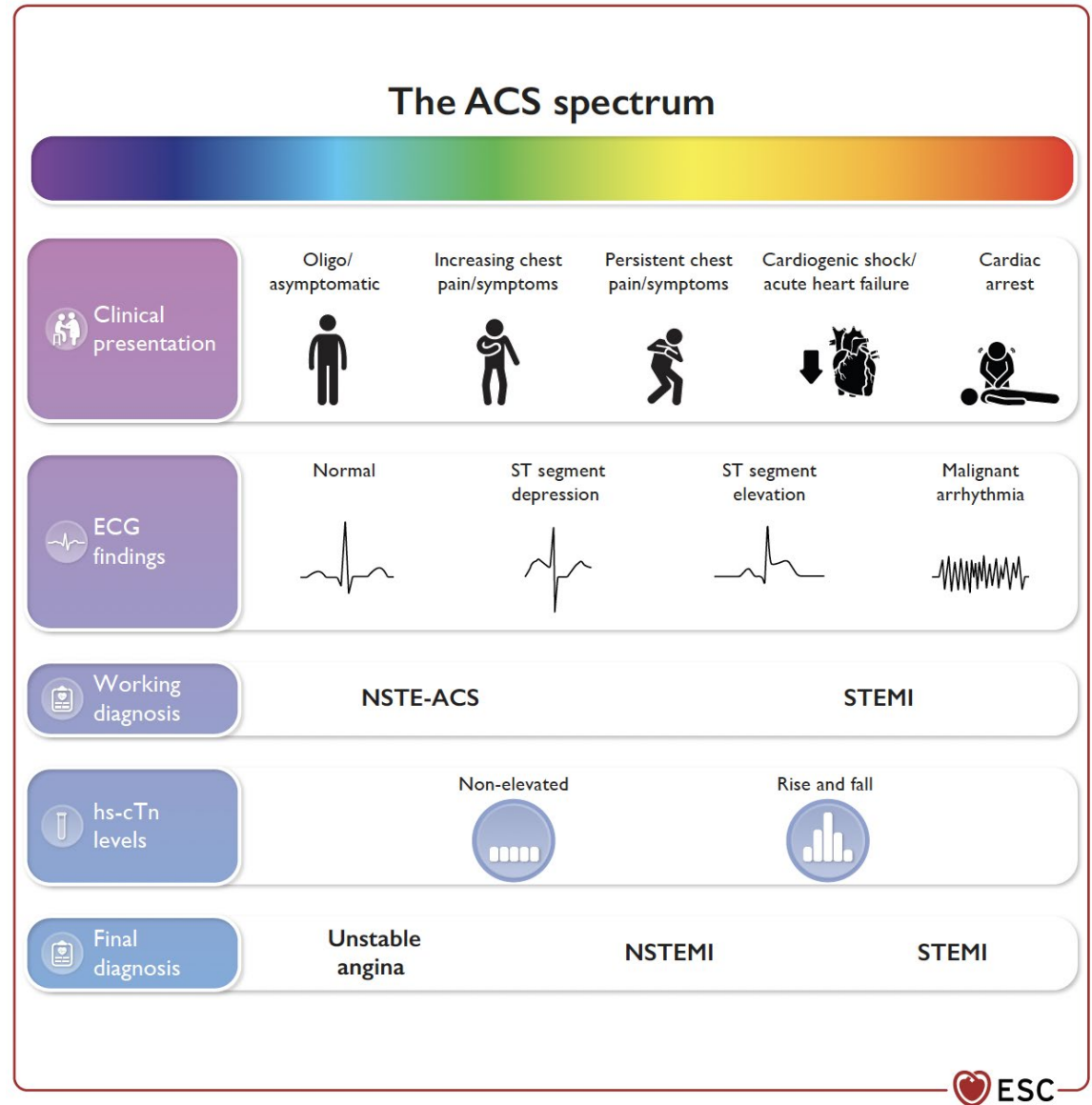
Authors/Task Force Members: Robert A. Byrne *[†], (Chairperson) (Ireland), Xavier Rossello [‡], (Task Force Co-ordinator) (Spain), J.J. Coughlan [‡], (Task Force Co-ordinator) (Ireland), Emanuele Barbato  (Italy), Colin Berry  (United Kingdom), Alaide Chieffo  (Italy), Marc J. Claeys  (Belgium), Gheorghe-Andrei Dan  (Romania), Marc R. Dweck  (United Kingdom), Mary Galbraith  (United Kingdom), Martine Gilard (France), Lynne Hinterbuchner  (Austria), Ewa A. Jankowska  (Poland), Peter Jüni (United Kingdom), Takeshi Kimura (Japan), Vijay Kunadian  (United Kingdom), Margret Leosdottir  (Sweden), Roberto Lorusso  (Netherlands), Roberto F.E. Pedretti  (Italy), Angelos G. Rigopoulos  (Greece), Maria Rubini Gimenez  (Germany), Holger Thiele (Germany), Pascal Vranckx (Belgium), Sven Wassmann (Germany), Nanette Kass Wenger (United States of America), Borja Ibanez *[†], (Chairperson) (Spain), and ESC Scientific Document Group

Una Guía = Un Espectro

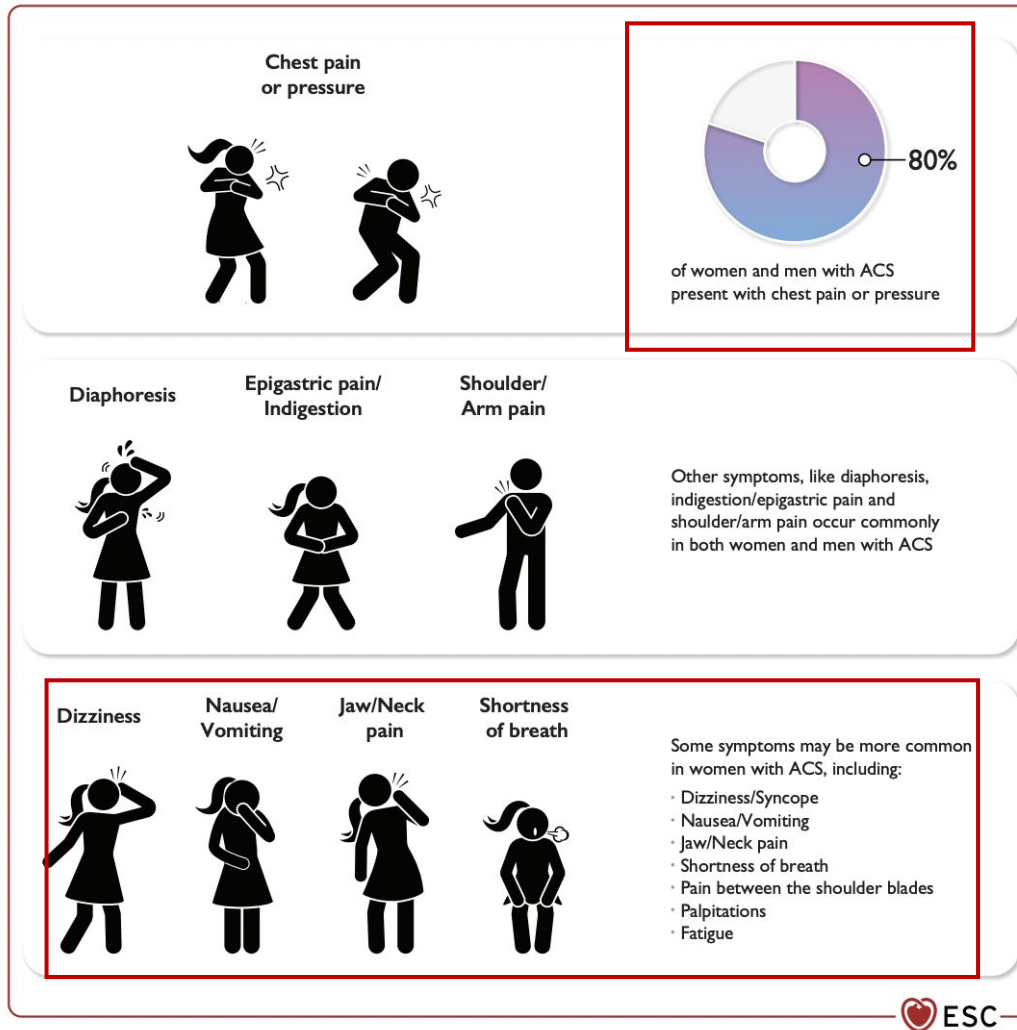
2017 STEMI

2020 NSTEMI

2023 ACS



Diagnóstico dolor atípico



The use of the descriptor 'atypical' should be avoided. Chest pain-equivalent symptoms include dyspnoea, epigastric pain, and pain in the left or right arm or neck/jaw.

Misdiagnosis or delayed diagnosis is sometimes due to an incomplete history or difficulty in eliciting symptoms from the patient. In order to understand the complexity of ACS-related symptomatology, careful history taking and comprehensive interaction with the patient are crucial and may help to facilitate an early and accurate diagnosis.

En línea con la AHA 2021



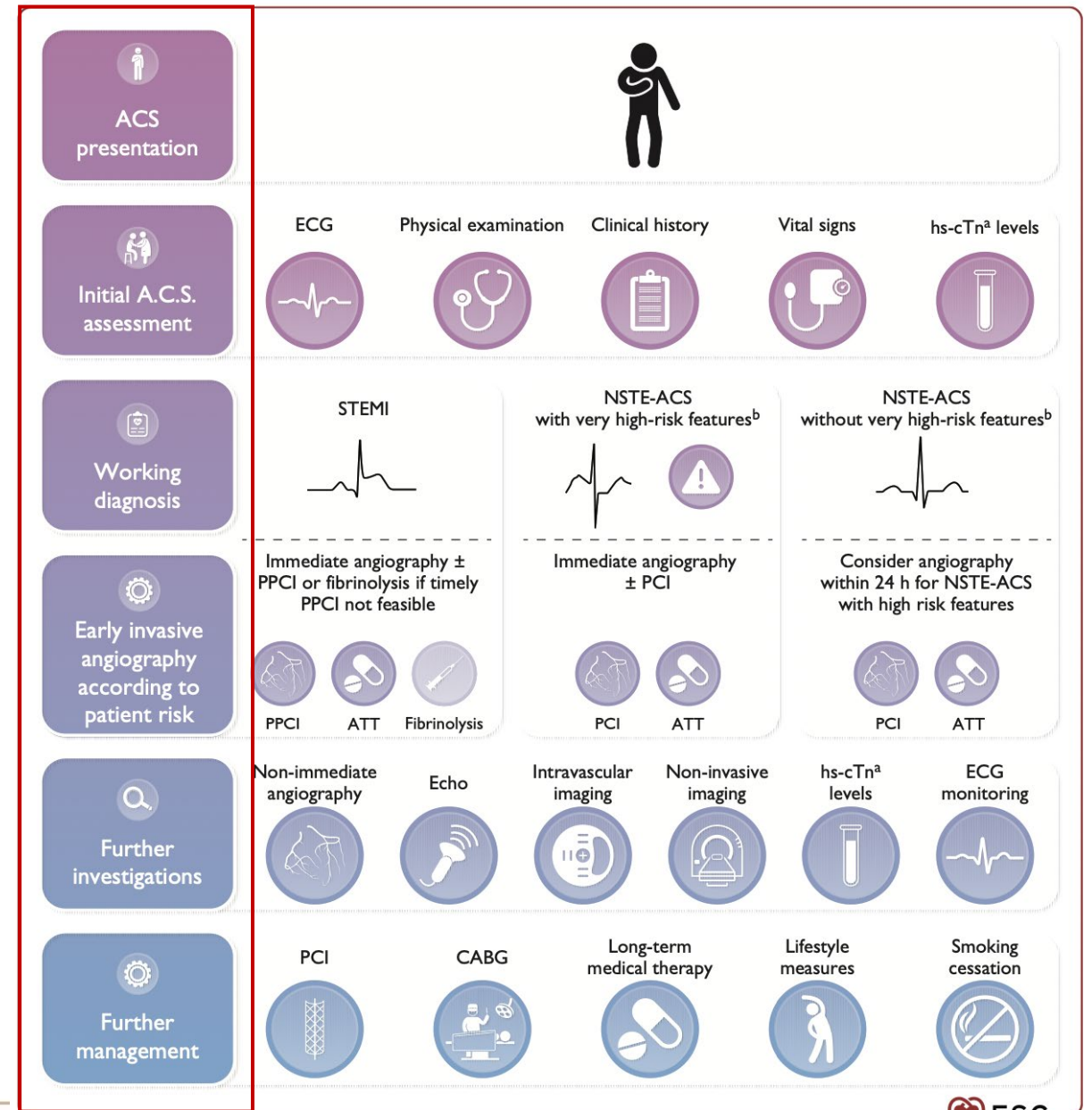
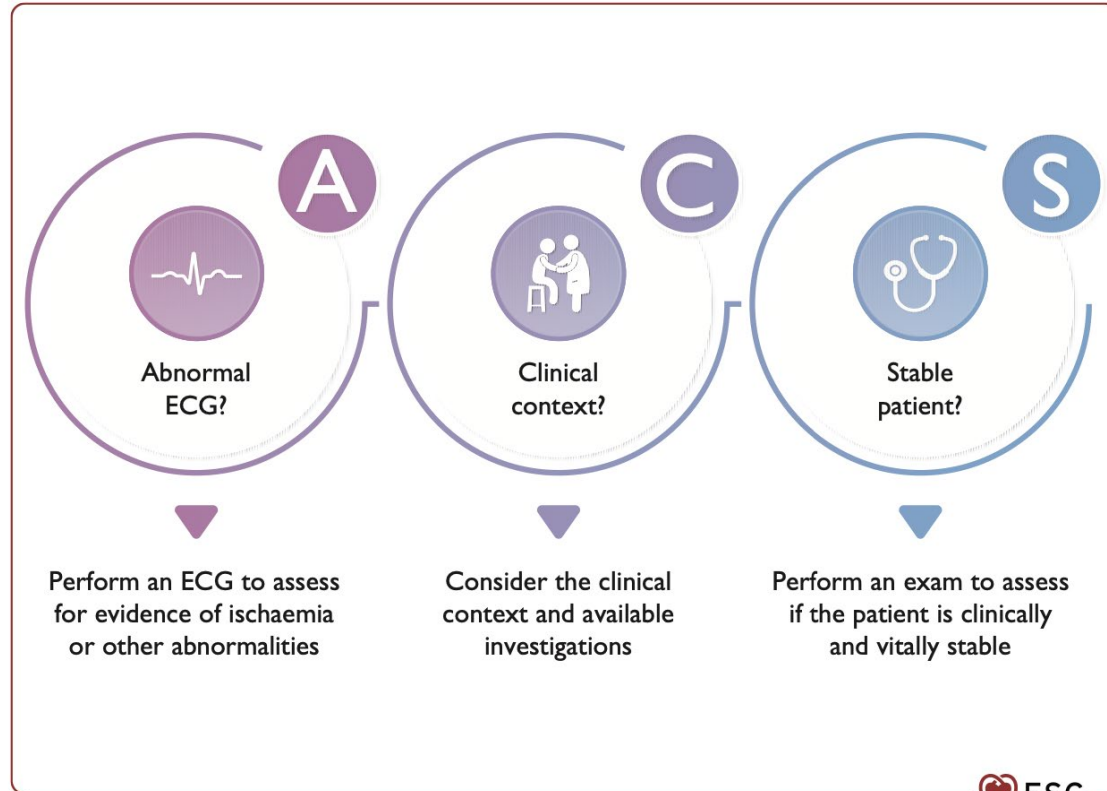
Chest pain should not be described as atypical, because it is not helpful in determining the cause and can be misinterpreted as benign in nature. Instead, chest pain should be described as cardiac, possibly cardiac, or noncardiac because these terms are more specific to the potential underlying diagnosis.

Patrones en el electrocardiograma

ECG pattern	Criteria	Signifying	Figure
i STEMI	New ST-elevation at the J-point in ≥ 2 contiguous leads ^a ≥ 2.5 mm in men <40 years, ≥ 2 mm in men ≥ 40 years, or ≥ 1.5 mm in women regardless of age in leads V2-V3 and/or ≥ 1 mm in the other leads (in the absence of LV hypertrophy or left bundle branch block) ^a Including V3R and V4R	Ongoing acute coronary artery occlusion	
ii Posterior STEMI	ST-segment depression in leads V1-V3, especially when the terminal T-wave is positive (ST-segment elevation equivalent), and concomitant ST-segment elevation ≥ 0.5 mm recorded in leads V7-V9	Posterior STEMI	
iii LCx occlusion/ right ventricular MI	ST-segment elevation in V7-V9 and V3R and V4R, respectively	Left circumflex (LCx) artery occlusion or right ventricular MI	
iv Multivessel ischaemia/ left main obstruction	ST depression ≥ 1 mm in six or more surface leads (inferolateral ST depression), coupled with ST-segment elevation in aVR and/or V1	Multivessel ischaemia or left main coronary artery obstruction, particularly if the patient presents with haemodynamic compromise	
v Left bundle branch block/ paced rhythm	QRS duration greater than 120 ms Absence of Q wave in leads I, V5 and V6 Monomorphic R wave in I, V5 and V6 ST and T wave displacement opposite to the major deflection of the QRS complex	Patients with a high clinical suspicion of ongoing myocardial ischaemia should be managed in a similar way to STEMI patients	
vi Right bundle branch block	QRS duration greater than 120 ms rsR' "bunny ear" pattern in the anterior precordial leads (leads V1-V3) Slurred S waves in leads I, aVL and frequently V5 and V6	Patients with a high clinical suspicion of ongoing myocardial ischaemia should be managed in a similar way to STEMI patients	

ECG pattern	Criteria	Signifying	Figure
a Isolated T-wave inversion	T-wave inversion >1 mm in ≥ 5 leads including I, II, aVL, and V2-V6	Only mildly impaired prognosis	
b ST-segment depression	J point depressed by ≥ 0.05 mm in leads V2 and V3 or ≥ 1 mm in all other leads followed by a horizontal or downsloping ST-segment for ≥ 0.08 s in ≥ 1 leads (except aVR)	More severe ischaemia	
c Transient ST-segment elevation	ST segment elevation in ≥ 2 contiguous leads of ≥ 2.5 mm in men <40 years, ≥ 2 mm in men ≥ 40 years, or ≥ 1.5 mm in women regardless of age in leads V2-V3 and/or ≥ 1 mm in the other leads lasting <20 min	Only mildly impaired prognosis	
d De Winter ST-T	1-3 mm upsloping ST-segment depression at the J point in leads V1-V6 that continue into tall, positive, and symmetrical T waves	Proximal LAD occlusion/ severe stenosis	
e Wellens sign	Isoelectric or minimally elevated J point (<1 mm) + biphasic T wave in leads V2 and V3 (type A) or symmetric and deeply inverted T waves in leads V2 and V3, occasionally in leads V1, V4, V5, and V6 (type B)	Proximal LAD occlusion/ severe stenosis	

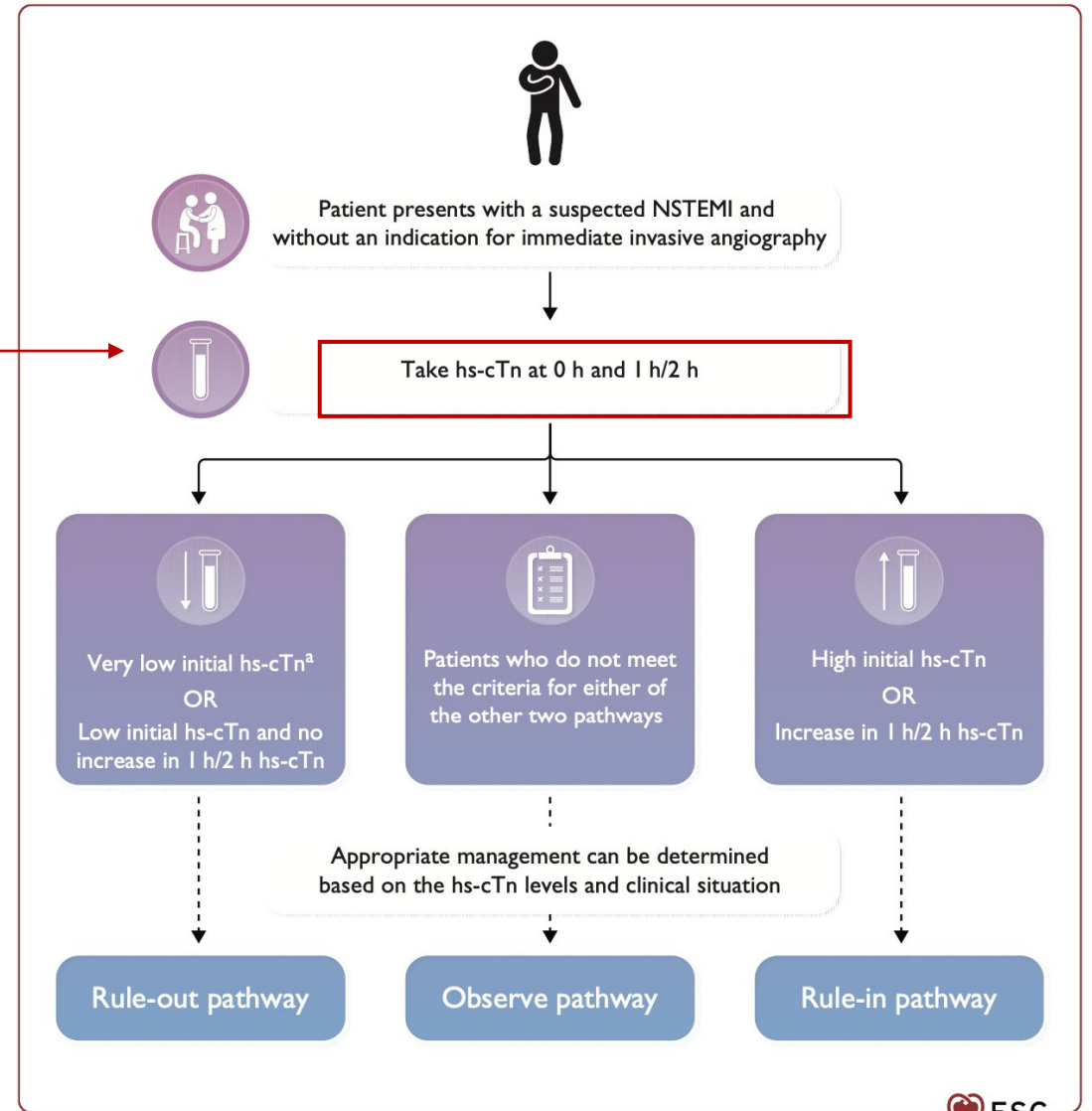
Ruta del paciente con SCA



Evaluación del SCA Troponinas

Blood sampling		
It is recommended to measure cardiac troponins with high-sensitivity assays immediately after presentation and to obtain the results within 60 min of blood sampling. ^{15,25-27}	I	B
It is recommended to use an ESC algorithmic approach with serial hs-cTn measurements (0 h/1 h or 0 h/2 h) to rule in and rule out NSTEMI. ²⁸⁻⁴⁴	I	B
Additional testing after 3 h is recommended if the first two hs-cTn measurements of the 0 h/1 h algorithm are inconclusive and no alternative diagnoses explaining the condition have been made. ^{45,46}	I	B
The use of established risk scores (e.g. GRACE risk score) for prognosis estimation should be considered. ⁴⁷⁻⁴⁹	IIa	B
Triage for emergency reperfusion strategy		
It is recommended that patients with suspected STEMI are immediately triaged for an emergency reperfusion strategy. ⁵⁰⁻⁵²	I	A

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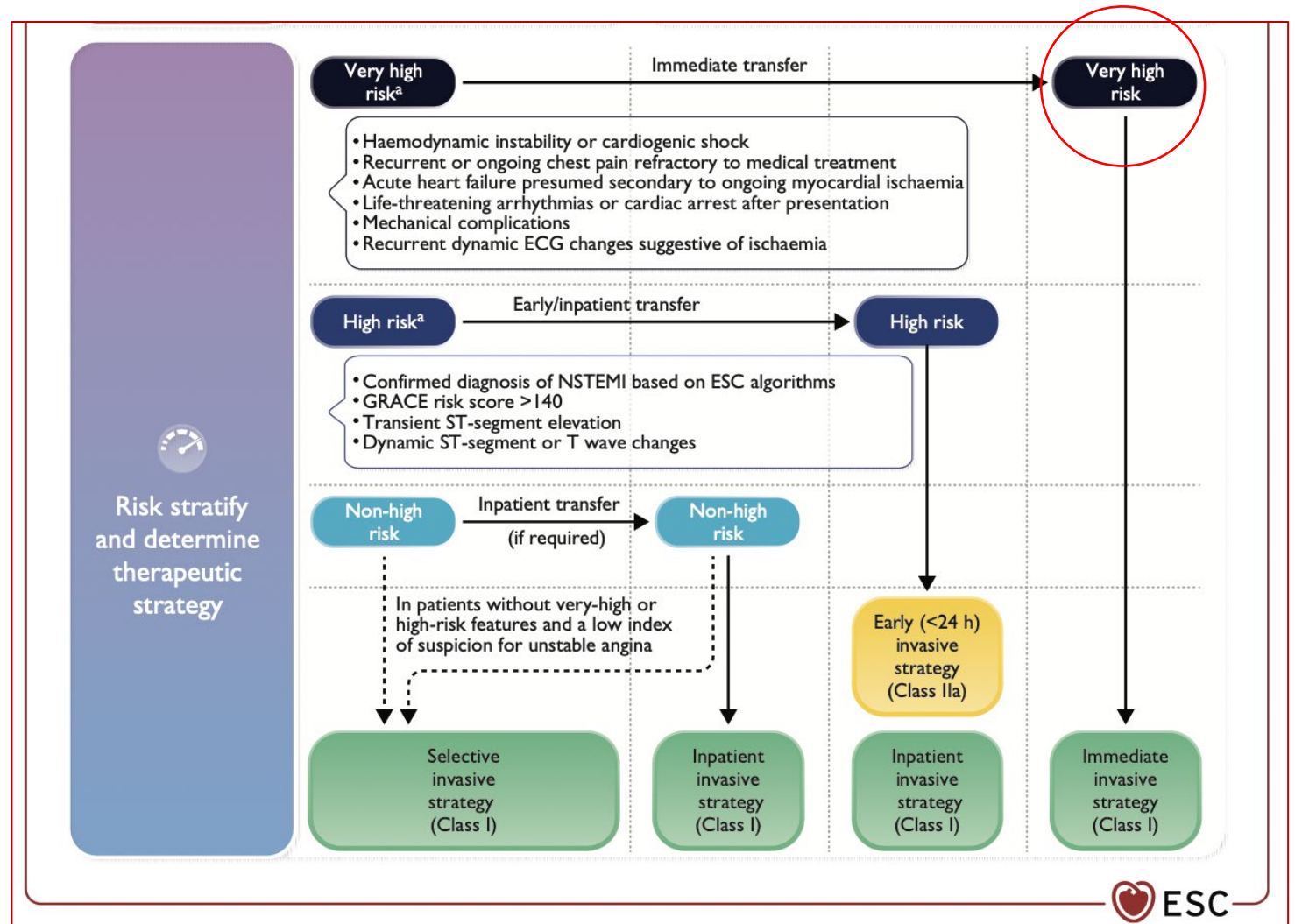


Algoritmo de manejo SCASEST

Técnicas de imagen ganan protagonismo

Recommendations	Class ^a	Level ^b
Emergency TTE is recommended in patients with suspected ACS presenting with cardiogenic shock or suspected mechanical complications.	I	C
In patients with suspected ACS, non-elevated (or uncertain) hs-cTn levels, no ECG changes and no recurrence of pain, incorporating CCTA or a non-invasive stress imaging test as part of the initial workup should be considered. ^{116,122–127}	IIa	A
Emergency TTE should be considered at triage in cases of diagnostic uncertainty but this should not result in delays in transfer to the cardiac catheterization laboratory if there is suspicion of an acute coronary artery occlusion.	IIa	C
Routine, early CCTA in patients with suspected ACS is not recommended. ¹¹⁷	III	B

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Algoritmo de manejo SCASEST

Estrategia invasiva

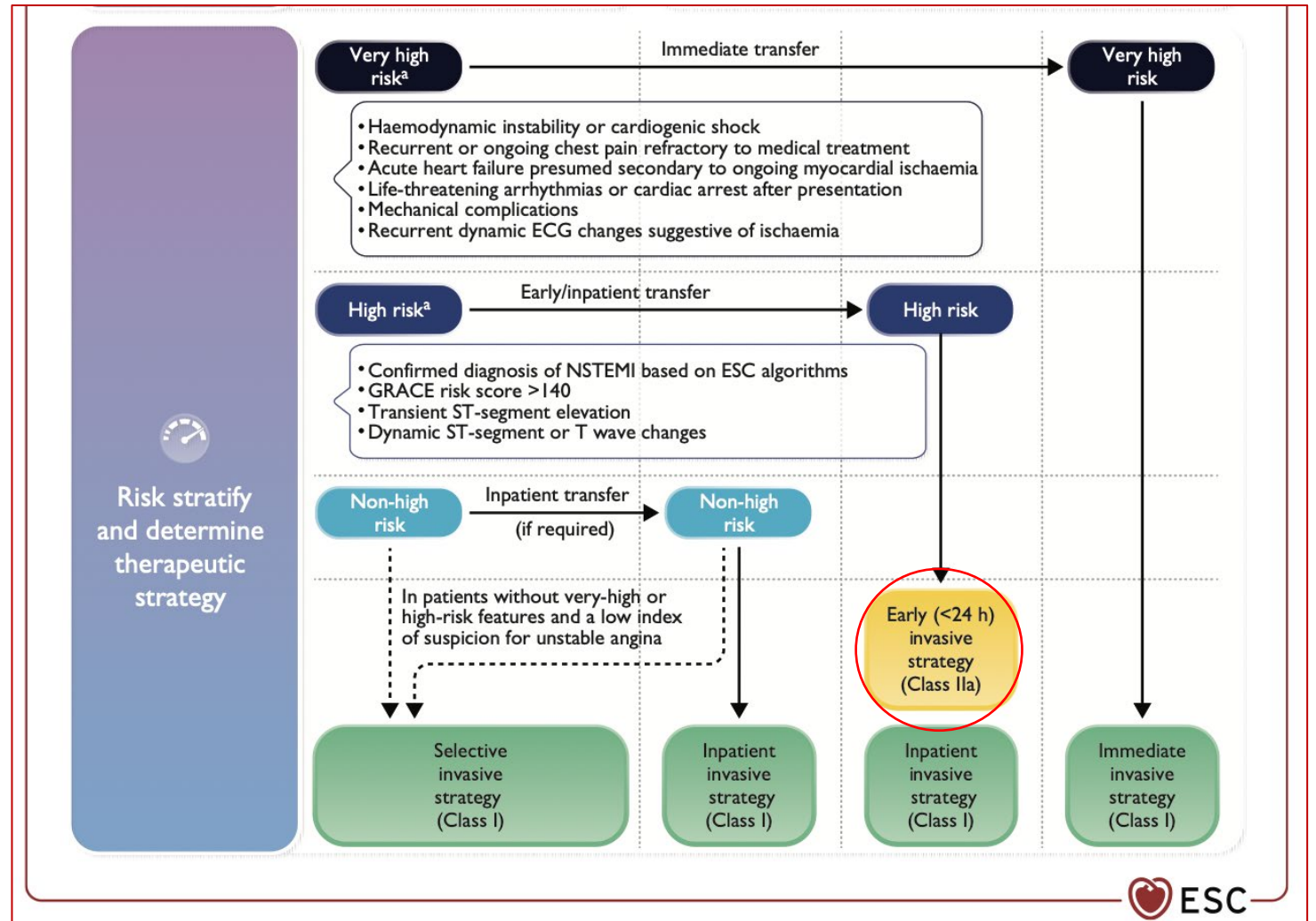
Baja de recomendación clase IA a IIa A

An early invasive strategy within 24 h should be considered in patients with at least one of the following high-risk criteria:

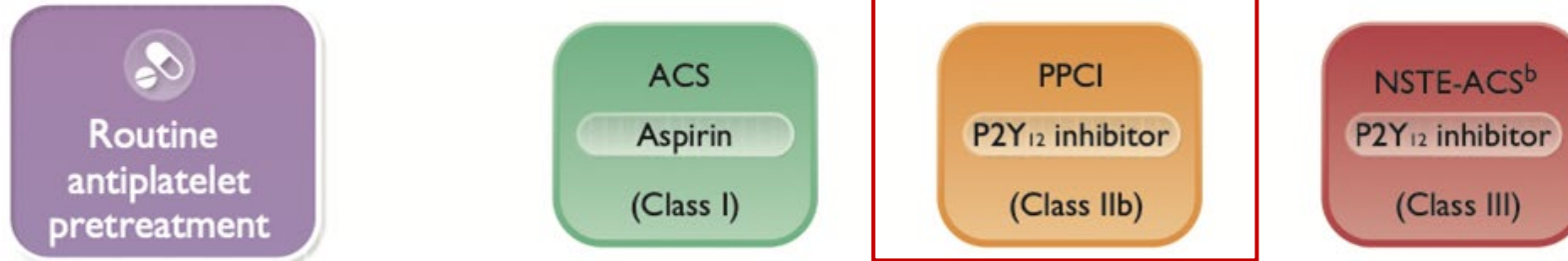
- Confirmed diagnosis of NSTEMI based on current recommended ESC hs-cTn algorithms
- Dynamic ST-segment or T wave changes
- Transient ST-segment elevation
- GRACE risk score >140^{202,226–230}



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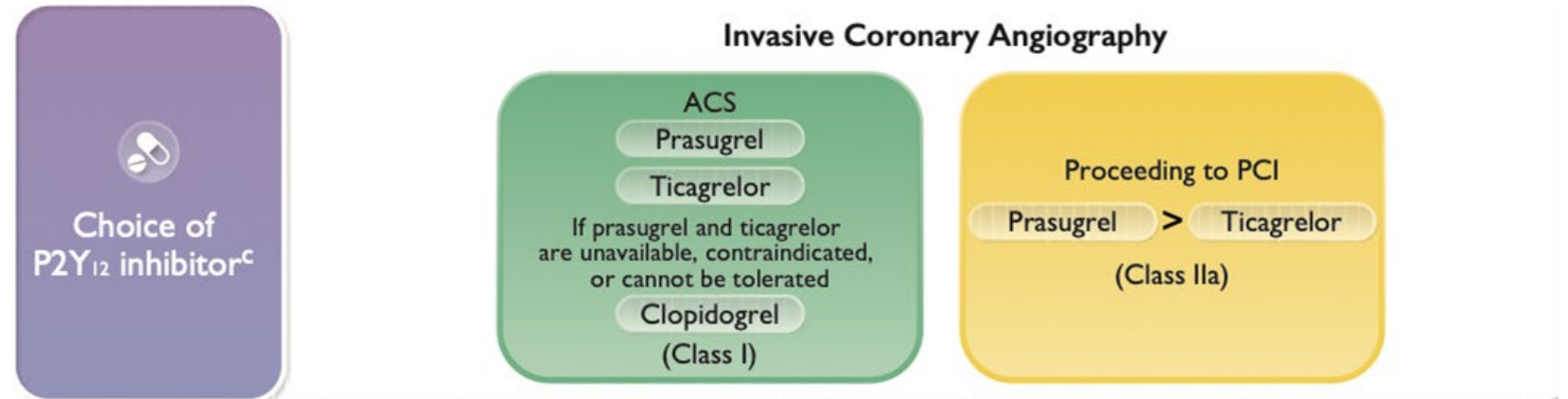
Pretratamiento en SCACEST



Baja la recomendación de IA a IIb B

Recommendations	Class	Level
Antiplatelet therapy (continued)		
Pretreatment with a P2Y ₁₂ receptor inhibitor may be considered in patients undergoing a primary PCI strategy.	IIb	B
Pretreatment with a P2Y ₁₂ receptor inhibitor may be considered in NSTEMI-ACS patients who are not expected to undergo an early invasive strategy (<24 h) and do not have HBR.	IIb	C
Pretreatment with a GP IIb/IIIa receptor antagonist is not recommended.	III	A
Routine pretreatment with a P2Y ₁₂ receptor inhibitor in NSTEMI-ACS patients in whom coronary anatomy is not known and early invasive management (<24 h) is planned is not recommended.	III	A

¿Qué segundo antiagregante debo elegir?



¿Qué estrategia seguir?

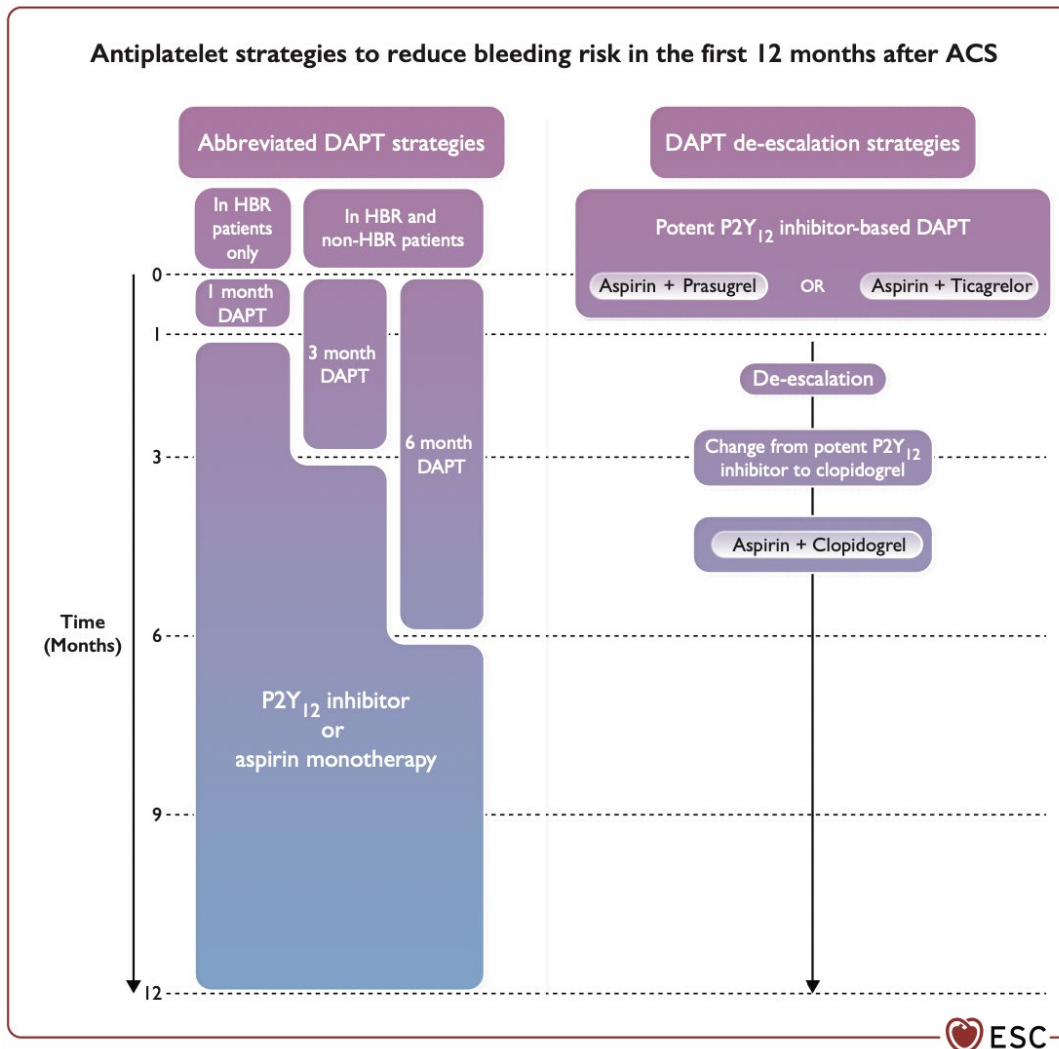
Casos especiales

Prasugrel is recommended in P2Y ₁₂ receptor inhibitor-naïve patients proceeding to PCI (60 mg LD, 10 mg o.d. MD, 5 mg o.d. MD for patients aged ≥75 years or with a body weight <60 kg). ²³⁹	I	B
Ticagrelor is recommended irrespective of the treatment strategy (invasive or conservative) (180 mg LD, 90 mg b.i.d. MD). ²³⁸	I	B
Clpidogrel (300–600 mg LD, 75 mg o.d. MD) is recommended when prasugrel or ticagrelor are not available, cannot be tolerated, or are contraindicated. ^{263,289}	I	C
If patients presenting with ACS stop DAPT to undergo CABG, it is recommended they resume DAPT after surgery for at least 12 months.	I	C

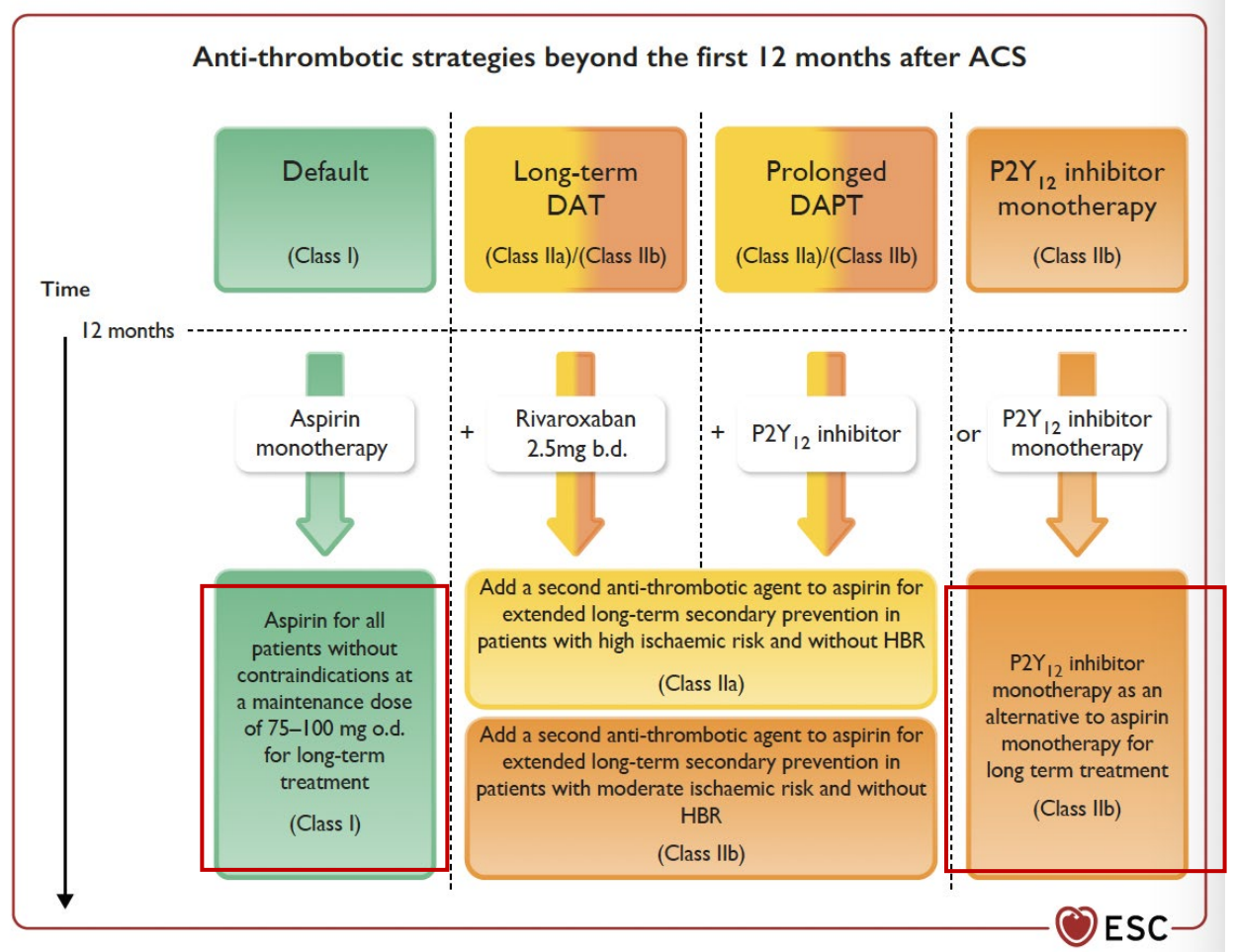
Prasugrel should be considered in preference to ticagrelor for ACS patients who proceed to PCI. ^{244,290}	IIa	B
GP IIb/IIIa receptor antagonists should be considered if there is evidence of no-reflow or a thrombotic complication during PCI.	IIa	C
In P2Y ₁₂ receptor inhibitor-naïve patients undergoing PCI, cangrelor may be considered. ^{251–254}	IIb	A
In older ACS patients, ^d especially if HBR, ^c clpidogrel as the P2Y ₁₂ receptor inhibitor may be considered. ^{242,243,291}	IIb	B

¿Abbreviated DAPT or DAPT de-escalation strategies?

Recommendations	Class	Level
Shortening/de-escalation of antithrombotic therapy		
In patients who are event-free after 3–6 months of DAPT and who are not high ischaemic risk, single antiplatelet therapy (preferably with a P2Y ₁₂ receptor inhibitor) should be considered.	IIa	A
De-escalation of P2Y ₁₂ receptor inhibitor treatment (e.g. with a switch from prasugrel/ticagrelor to clopidogrel) may be considered as an alternative DAPT strategy to reduce bleeding risk.	IIb	A
In HBR patients, aspirin or P2Y ₁₂ receptor inhibitor monotherapy after 1 month of DAPT may be considered.	IIb	B
De-escalation of antiplatelet therapy in the first 30 days after an ACS event is not recommended.	III	B



Estrategia antitrombótica de mantenimiento DAPT más allá de los 12 meses del SCA



Recommendations for long-term management

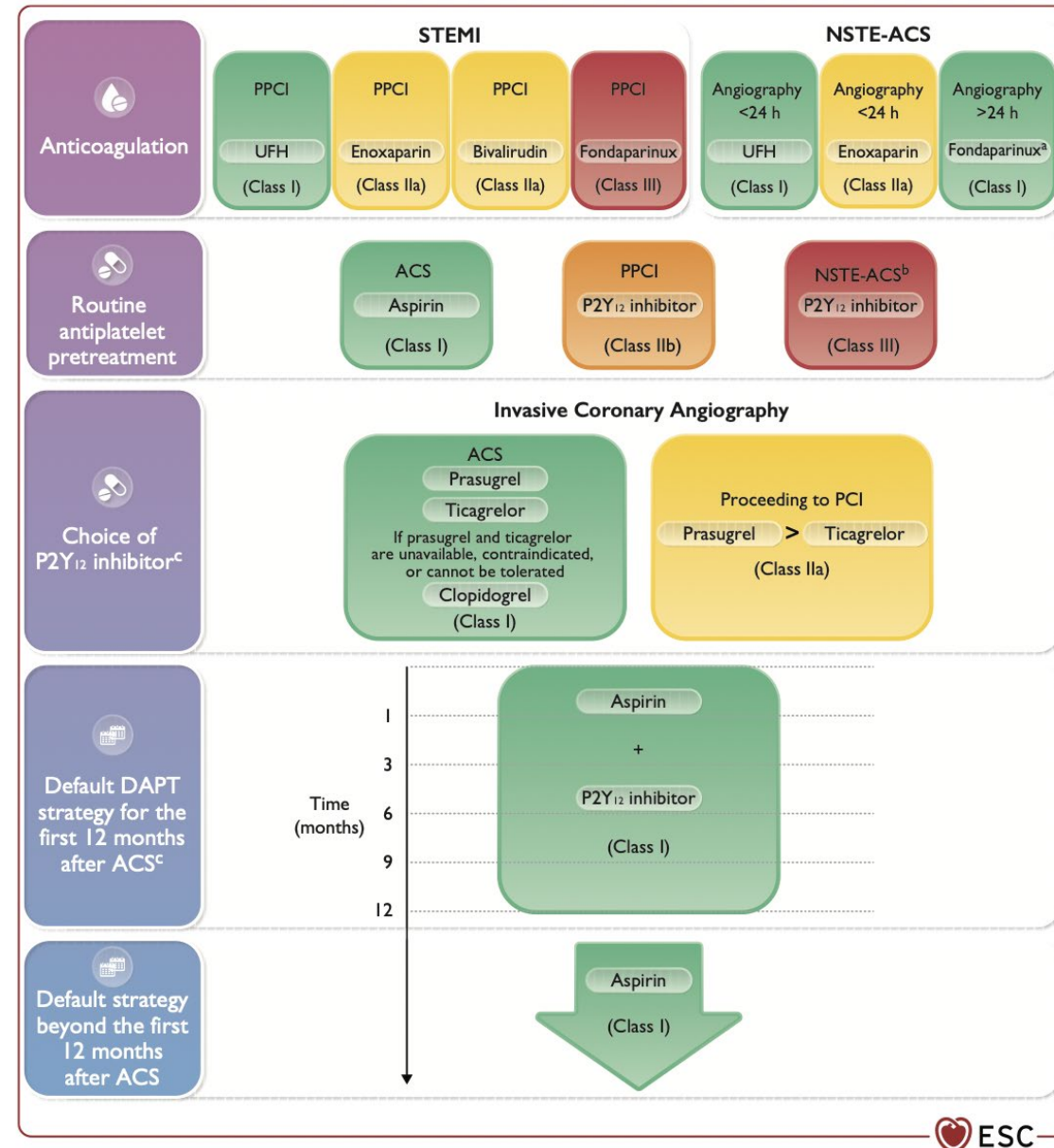
It is recommended to intensify lipid-lowering therapy during the index ACS hospitalization for patients who were on lipid-lowering therapy before admission.

Low-dose colchicine (0.5 mg once a day) may be considered, particularly if other risk factors are insufficiently controlled or if recurrent cardiovascular disease events occur under optimal therapy.

Combination therapy with a high-dose statin plus ezetimibe may be considered during index hospitalization.

I	C
IIb	A
IIb	B

Terapia antitrombótica a medio y largo plazo



Régimen antitrombótico en pacientes con SCA e indicación de anticoagulación oral

Combining antiplatelets and OAC

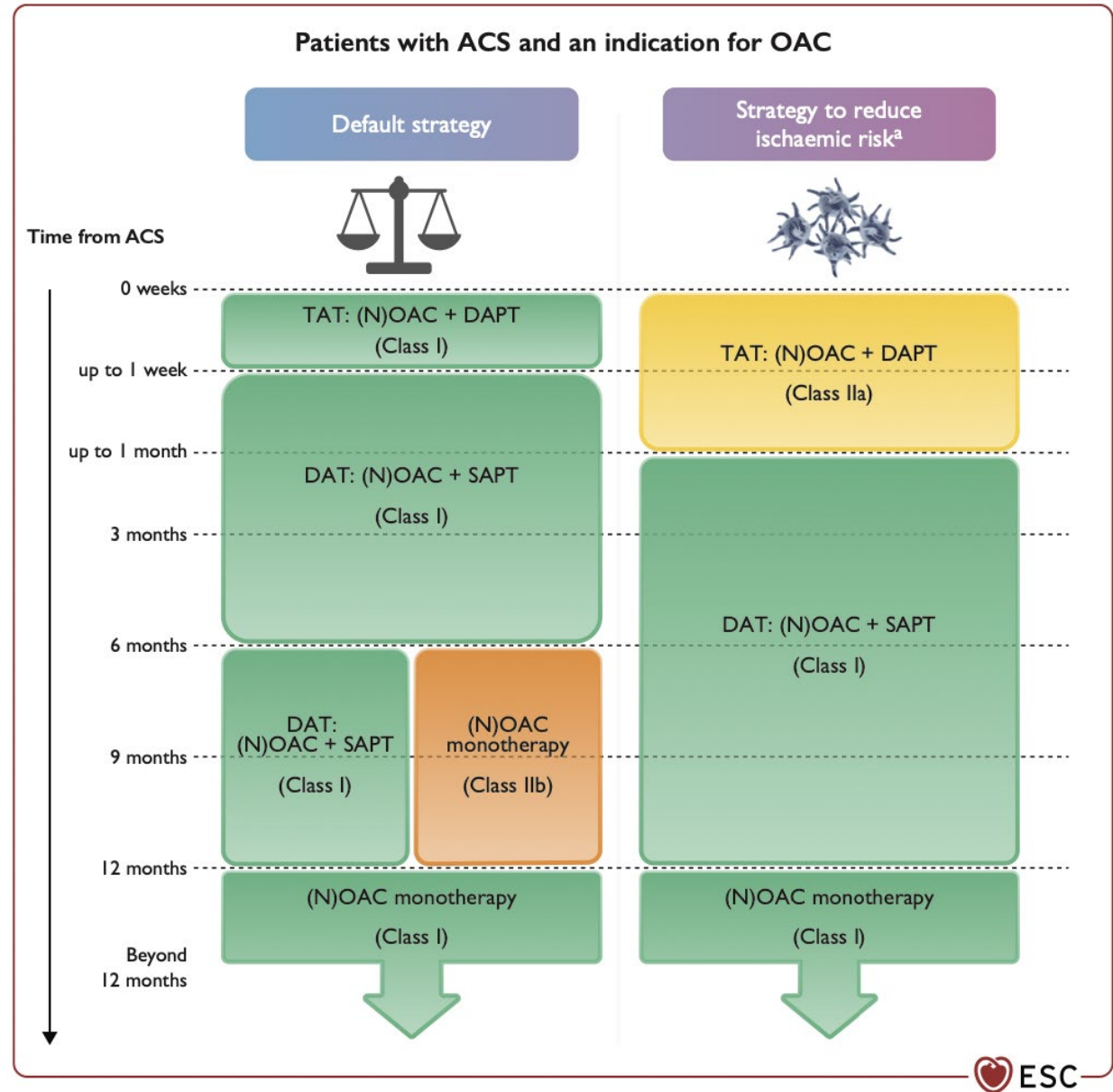
As the default strategy for patients with atrial fibrillation and CHA₂DS₂-VASc score ≥ 1 in men and ≥ 2 in women, after up to 1 week of triple antithrombotic therapy following the ACS event, dual antithrombotic therapy using a non-vitamin K antagonist oral anticoagulant at the recommended dose for stroke prevention and a single oral antiplatelet agent (preferably clopidogrel) for up to 12 months is recommended.

During PCI, a UFH bolus is recommended in any of the following circumstances:

- if the patient is on a NOAC
- if the INR is <2.5 in VKA-treated patients.

The use of ticagrelor or prasugrel as part of triple antithrombotic therapy is not recommended.

I	A
I	C
III	C



PCR y Shock

Cardiac arrest



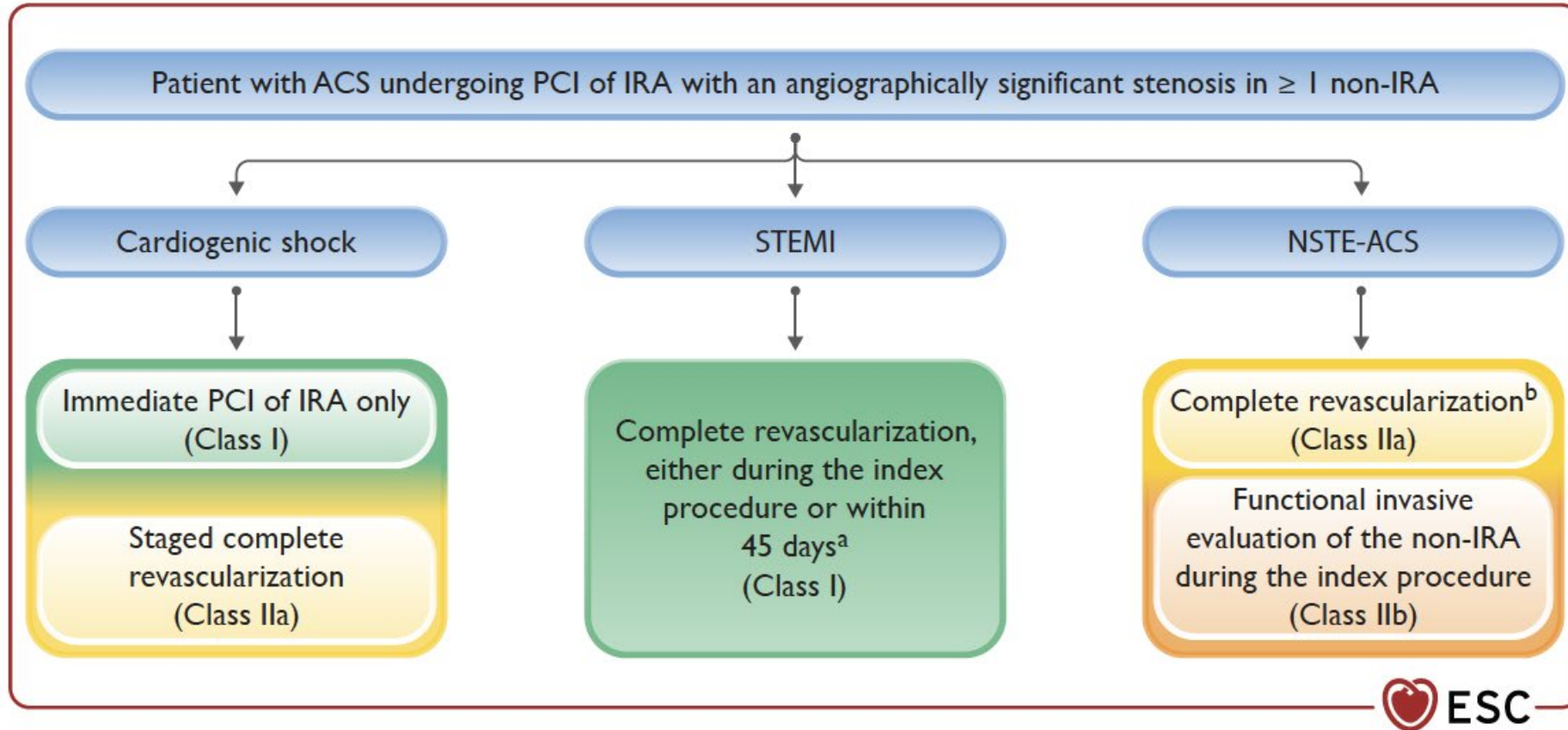
Recommendations	Class ^a	Level ^b
Cardiac arrest and OHCA		
A PPCI strategy is recommended in patients with resuscitated cardiac arrest and an ECG with persistent ST-segment elevation (or equivalents). ^{368,387,388}	I	B
Routine immediate angiography after resuscitated cardiac arrest is not recommended in haemodynamically stable patients without persistent ST-segment elevation (or equivalents). ^{373–377}	III	A
Temperature control		
Temperature control (i.e. continuous monitoring of core temperature and active prevention of fever [i.e. >37.7°C]) is recommended after either out-of-hospital or in-hospital cardiac arrest for adults who remain unresponsive after return of spontaneous circulation. ^{378–385,389}	I	B
Systems of care		
It is recommended that healthcare systems implement strategies to facilitate transfer of all patients in whom ACS is suspected after resuscitated cardiac arrest directly to a hospital offering 24/7 PPCI via one specialized EMS. ^{390–392}	I	C
Transport of patients with OHCA to a cardiac arrest centre according to local protocols should be considered. ^{391,393}	IIa	C
Evaluation of neurological prognosis		
Evaluation of neurological prognosis (no earlier than 72 h after admission) is recommended in all comatose survivors after cardiac arrest. ³⁸⁶	I	C

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Recommendations	Class ^a	Level ^b
Immediate coronary angiography and PCI of the IRA (if indicated) is recommended in patients with CS complicating ACS. ^{394,396,404}	I	B
Emergency CABG is recommended for ACS-related CS if PCI of the IRA is not feasible/unsuccessful. ^{394,395}	I	B
In cases of haemodynamic instability, emergency surgical/catheter-based repair of mechanical complications of ACS is recommended, based on Heart Team discussion.	I	C
Fibrinolysis should be considered in STEMI patients presenting with CS if a PPCI strategy is not available within 120 min from the time of STEMI diagnosis and mechanical complications have been ruled out. ^{184,354}	IIa	C
In patients with ACS and severe/refractory CS, short-term mechanical circulatory support may be considered. ⁴⁰²	IIb	C
The routine use of an IABP in ACS patients with CS and without mechanical complications is not recommended. ^{399,405–407}	III	B

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Revascularización en enfermedad multivaso

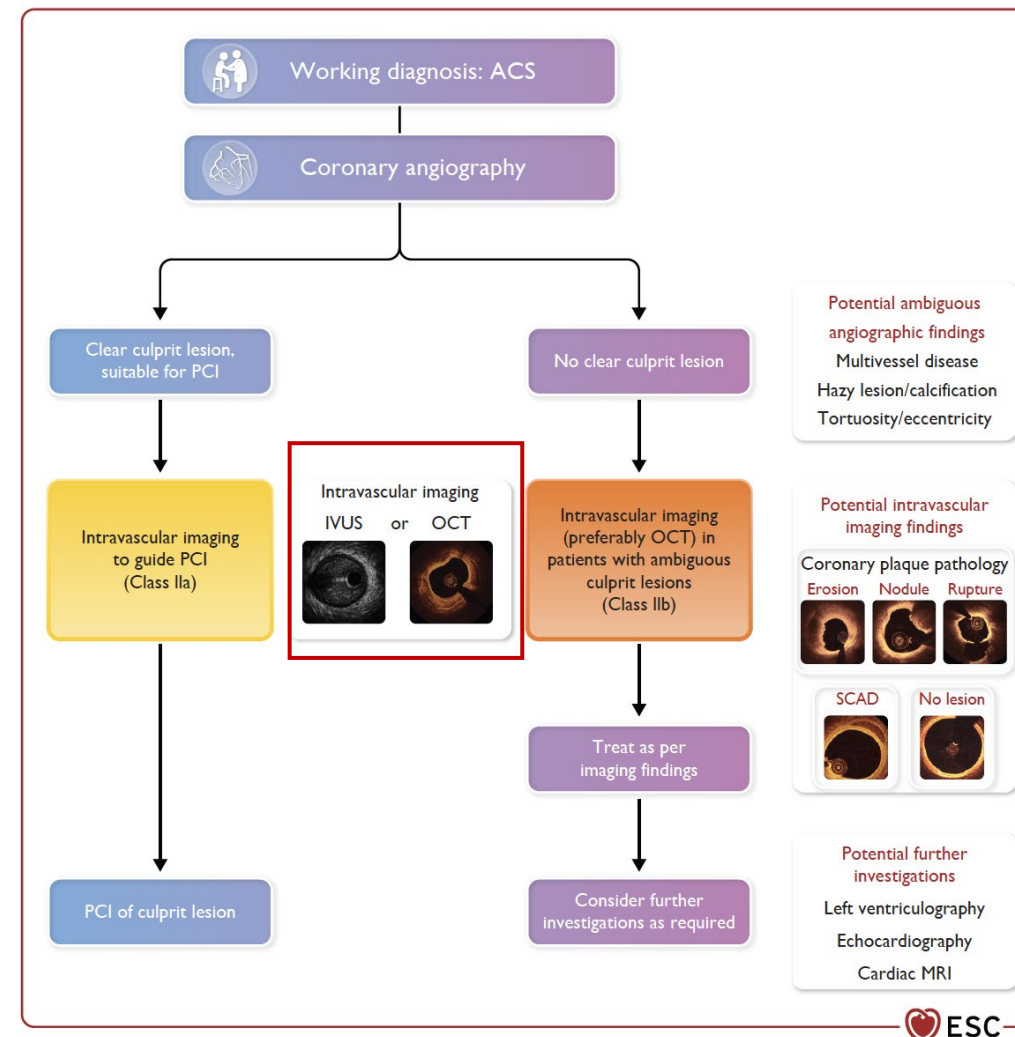


Recomendaciones en hemodinamia

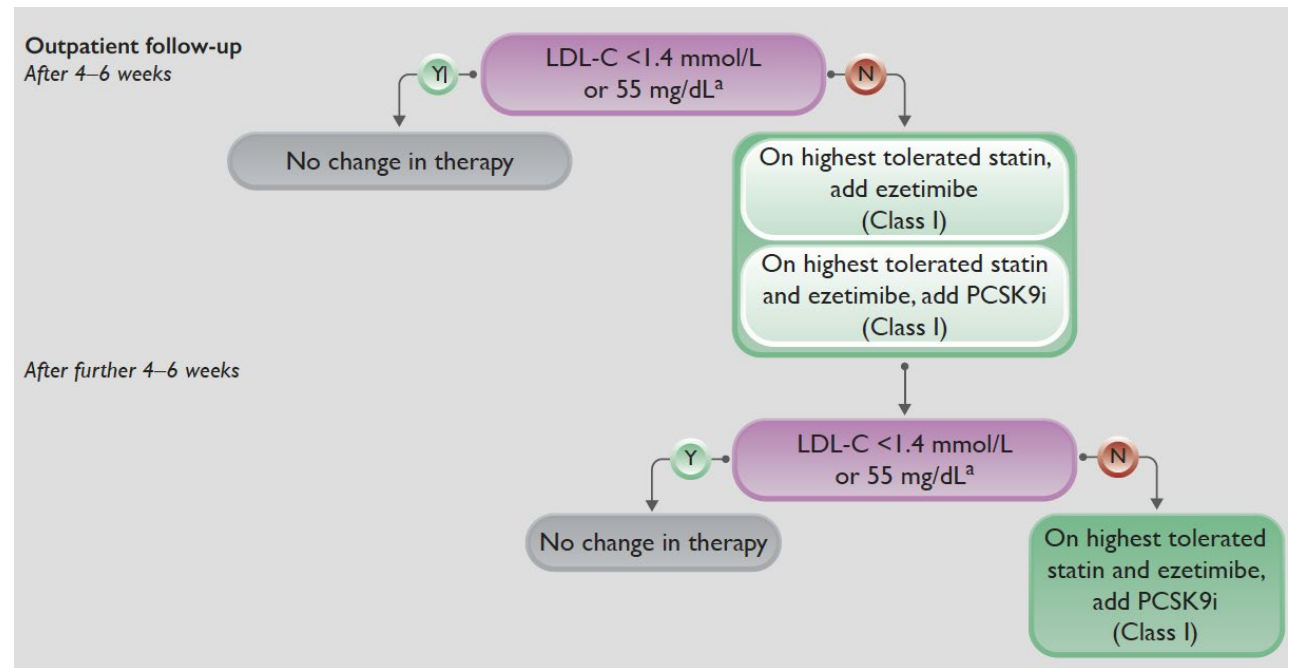
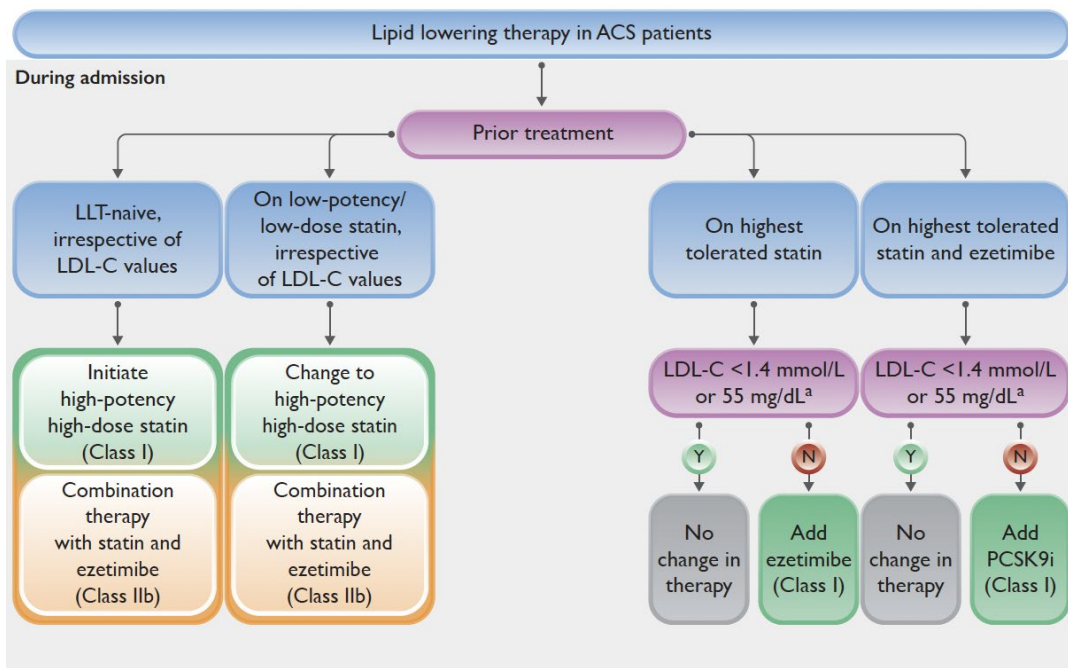
Técnicas de imagen intracoronarias: IVUS y OCT

Drug-eluting stents are recommended in preference to bare metal stents in all cases. ^{463,466,468}	I	A
In patients with spontaneous coronary artery dissection, PCI is recommended only for patients with symptoms and signs of ongoing myocardial ischaemia, a large area of myocardium in jeopardy, and reduced antegrade flow.	I	C
Intravascular imaging should be considered to guide PCI. ^{495–499}	IIa	A
Coronary artery bypass grafting should be considered in patients with an occluded IRA when PPCI is not feasible/unsuccessful and there is a large area of myocardium in jeopardy.	IIa	C
Intravascular imaging (preferably optical coherence tomography) may be considered in patients with ambiguous culprit lesions.	IIb	C
The routine use of thrombus aspiration is not recommended. ^{472–474}	III	A

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Prevención secundaria “the earlier the better”



It is recommended to intensify lipid-lowering therapy^c during the index ACS hospitalization for patients who were on lipid-lowering therapy before admission.

I	C
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For patients with a recurrent atherothrombotic event (recurrence within 2 years of first ACS episode) while taking maximally tolerated statin-based therapy, an LDL-C goal of <1.0 mmol/L (<40 mg/dL) may be considered.^{785,786}

IIb	B
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Combination therapy with high-dose statin plus ezetimibe may be considered during index hospitalization.⁷⁸⁸

IIb	B
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Adherence to medication

A polypill should be considered as an option to improve adherence and outcomes in secondary prevention after ACS.⁷⁵³

IIa	B
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Comorbilidades y complicaciones

LV thrombus		
CMR imaging should be considered in patients with equivocal echocardiographic images or in cases of high clinical suspicion of LV thrombus. ^{577,578}	IIa	C
Oral anticoagulant therapy (VKA or NOAC) should be considered for 3–6 months in patients with confirmed LV thrombus. ⁶⁰³	IIa	C
Following an acute anterior MI, a contrast echocardiogram may be considered for the detection of LV thrombus if the apex is not well visualized on echocardiography. ⁶⁰⁴	IIb	C

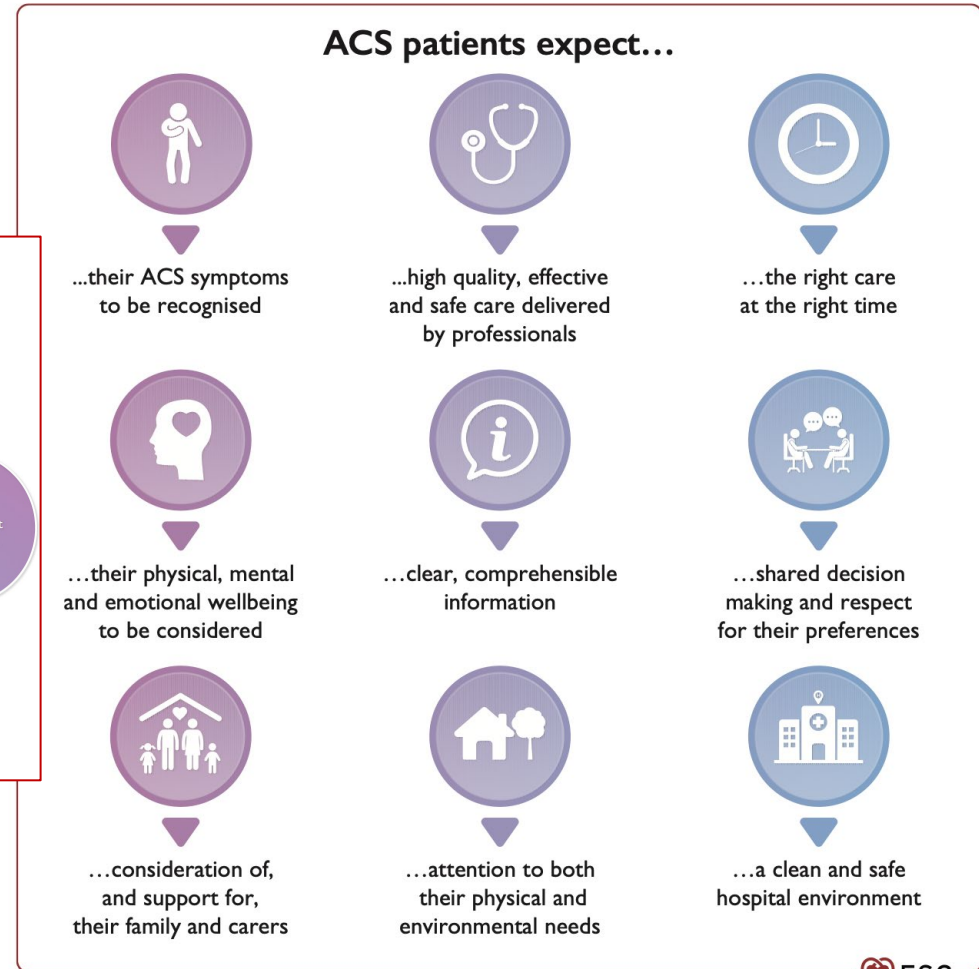
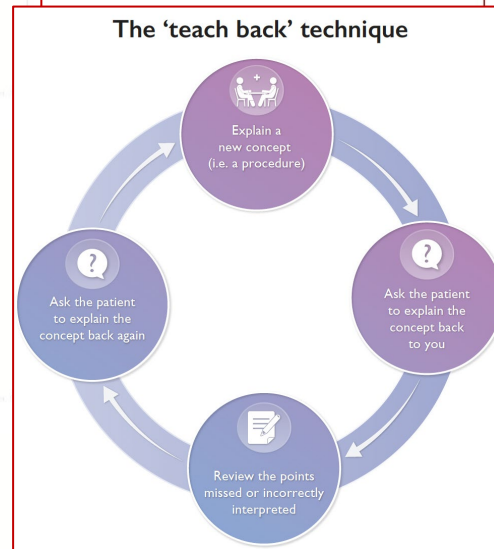
Implantation of a permanent pacemaker is recommended when high-degree AV block does not resolve within a waiting period of at least 5 days after MI.	I	C
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Recommendations	Class ^a	Level ^b
Chronic kidney disease		
The use of low- or iso-osmolar contrast media (at the lowest possible volume) is recommended for invasive strategies. ^{691–693}	I	A
It is recommended to assess kidney function using eGFR in all patients with ACS.	I	C
It is recommended to apply the same diagnostic and therapeutic strategies in patients with CKD (dose adjustment may be necessary) as in patients with normal kidney function.	I	C
Hydration during and after angiography should be considered in patients at risk of contrast-induced nephropathy, especially in patients with acute kidney injury and/or CKD with eGFR <30 mL/min/1.73 m ² . ^{694–697}	IIa	B
Diabetes		
It is recommended to base the choice of long-term glucose-lowering treatment on the presence of comorbidities, including heart failure, CKD, and obesity. ^{698–704}	I	A
It is recommended to assess glycaemic status at initial evaluation in all patients with ACS. ^{705–707}	I	B
It is recommended to frequently monitor blood glucose levels in patients with known diabetes mellitus or hyperglycaemia (defined as glucose levels ≥11.1 mmol/L or ≥200 mg/dL).	I	C
Glucose-lowering therapy should be considered in patients with ACS with persistent hyperglycaemia, while episodes of hypoglycaemia should be avoided. ^{708,709}	IIa	C

Older adults		
It is recommended to apply the same diagnostic and treatment strategies in older patients as in younger patients. ^{662,664,665,710,711}	I	B
It is recommended to adapt the choice and dosage of antithrombotic agent, as well as of secondary prevention medications, to renal function, co-medications, comorbidities, frailty, cognitive function, and specific contraindications. ^{363,712}	I	B
For frail older patients with comorbidities, a holistic approach is recommended to individualize interventional and pharmacological treatments after ACS. ^{668,673,674}	I	B
Patients with cancer		
An invasive strategy is recommended in cancer patients presenting with high-risk ACS with expected survival ≥6 months. ^{682,689,690}	I	B
A temporary interruption of cancer therapy is recommended in patients in whom the cancer therapy is suspected to be a contributing cause of ACS. ^{713,714}	I	C
A conservative non-invasive strategy should be considered in ACS patients with poor cancer prognosis ^d (i.e. with expected survival <6 months) and/or very high bleeding risk. ⁶⁹⁰	IIa	C
Aspirin is not recommended in cancer patients with a platelet count <10 000/μL. ⁷¹⁵	III	C
Clopidogrel is not recommended in cancer patients with a platelet count <30 000/μL.	III	C
In ACS patients with cancer and <50 000/μL platelet count, prasugrel or ticagrelor are not recommended.	III	C

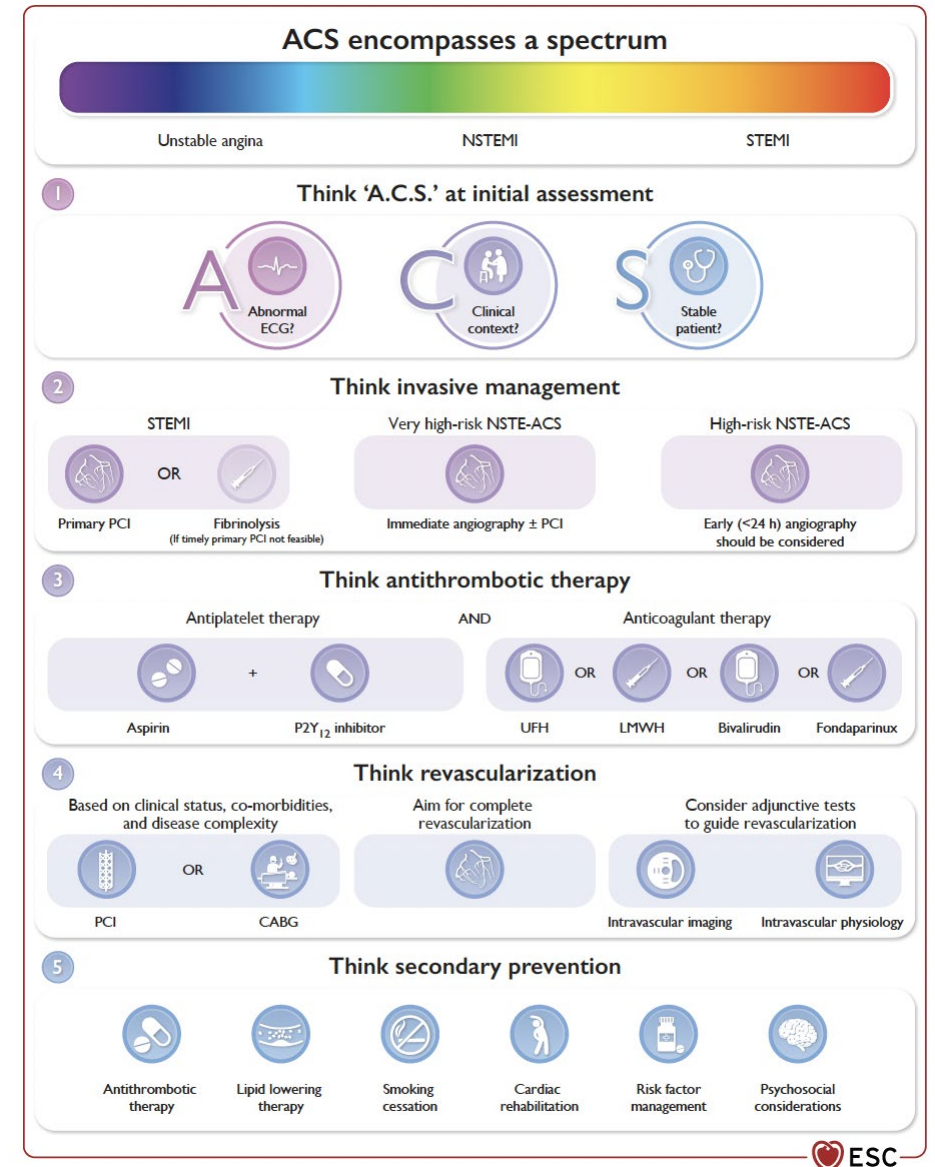
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Atención centrada en el paciente



Conclusiones

- Abarca el espectro diagnóstico del SCA
- Mayor relevancia a las imágenes
- Mayor importancia a comorbilidades y complicaciones (diabetes, cáncer, trombo, pacientes mayores, ERC).
- Pensar en el manejo invasivo, terapia antitrombótica, revascularización y prevención secundaria.
- Descenso de lípidos temprano.
- Polipíldora para mejora de la adherencia terapéutica.
- Atención centrada en el paciente





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