

Global Spotlights

The ‘10 commandments’ for the 2023 ESC Guidelines for the management of acute coronary syndromes

Robert Byrne ^{1,2*}, J.J. Coughlan¹, Xavier Rossello^{3,4,5,6}, and Borja Ibanez ^{6,7,8*}

¹Cardiovascular Research Institute, Mater Private Network, Eccles Street 73, Dublin 7 D07 WKW8, Ireland; ²School of Pharmacy and Biomolecular Sciences, RCSI University of Medicine and Health Sciences, Dublin, Ireland; ³Health Research Institute of the Balearic Islands (IdISBa), Palma, Spain; ⁴Cardiology Department, Hospital Universitari Son Espases, Palma, Spain; ⁵Faculty of Medicine, Universitat de les Illes Balears (UIB), Palma, Spain; ⁶Centro Nacional de Investigaciones Cardiovasculares (CNIC), C. de Melchor Fernández Almagro, 3, Fuencarral-El Pardo, 28029 Madrid, Spain; ⁷Cardiology Department, IIS-Fundación Jiménez Díaz, Madrid, Spain; and ⁸CIBERCV, Av. Monforte de Lemos, 3-5. Pabellón 11. Planta 0 28029 Madrid, Spain

- (1) Acute coronary syndromes (ACS) should be considered as a clinical spectrum, encompassing unstable angina (UA), non-ST-segment elevation myocardial infarction (NSTEMI) and ST-segment elevation myocardial infarction (STEMI). While there are some differences in the timing of invasive strategies, the basic principles underpinning the assessment, diagnosis, and management of ACS are similar for all three ACS subtypes (*Figure 1*).
- (2) Think ‘A.C.S.’ when initially assessing patients presenting with suspected ACS. This involves performing an electrocardiogram (ECG) to assess for electrocardiographic evidence of ischaemia (Abnormal ECG), considering the Clinical context of the patients’ presentation (including presenting symptoms, the results of any available investigations, and the clinical background), and performing a focused clinical examination to assess if the patient is clinically Stable.
- (3) Invasive coronary angiography (ICA) during the index hospitalization is generally recommended for patients with ACS. A key component of the ACS care pathway is identifying patients who require immediate ICA and revascularization, including patients presenting with STEMI and non-ST-segment elevation ACS (NSTEMI-ACS) with very high-risk features (i.e. haemodynamic instability/cardiogenic shock, recurrent/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, and recurrent dynamic ECG changes suggestive of ischaemia). Invasive coronary angiography within 24 h of admission should be considered for NSTEMI-ACS patients with high-risk features [confirmed diagnosis of NSTEMI as per European Society of Cardiology (ESC) algorithms, GRACE score > 140, transient ST-segment elevation, or dynamic ST-segment/T-wave changes].
- (4) For patients who are not presenting with STEMI or NSTEMI-ACS with an indication for immediate ICA, an algorithmic approach, using the ESC 0/1- or 0/2-h algorithms should be used to rule in or rule out NSTEMI.
- (5) All patients with a diagnosis of ACS are recommended to be treated initially with a combination of antiplatelet therapy and parenteral anticoagulation. While anticoagulation does not need to be continued beyond the acute hospitalization phase in patients without a separate indication for long-term oral anticoagulation, oral antiplatelet therapy is recommended to be continued beyond the acute hospitalization phase in all ACS patients.
- (6) Dual antiplatelet therapy (DAPT), consisting of aspirin and a P2Y₁₂ receptor inhibitor (preferably one of the potent P2Y₁₂ receptor inhibitors, prasugrel or ticagrelor), for 12 months remains the default recommended DAPT regimen for patients with a diagnosis of ACS (*Figure 2*). However, this 12 month default duration of DAPT can be abbreviated or prolonged depending on the clinical situation and bleeding risk of the patient.
- (7) Complete revascularization (via percutaneous coronary intervention or coronary artery bypass grafting) is generally recommended for patients with ACS, although the timing and guidance of this can vary slightly depending on the clinical presentation.
- (8) All patients presenting with ACS require aggressive secondary prevention to reduce their risk of recurrent events. Prevention of the next cardiovascular event begins at the time of the ACS diagnosis.
- (9) All patients with ACS should be discharged on cardioprotective medications, with information on lifestyle management, a referral to cardiac rehabilitation, and a follow-up outpatient appointment. The treatment goals at outpatient follow-up should be to support healthy lifestyle choices, to promote adherence to and persistence with pharmacological cardioprotective therapies, and to reach and sustain risk factor treatment targets. Key treatment targets for patients with ACS include a blood pressure of

* Corresponding authors. Tel: +353-1-2483190, Email: Robert.Byrne@materprivate.ie (R.B.); Tel: +3491 4531200, Email: ibanez@cnic.es (B.I.)

© The Author(s) 2024. Published by Oxford University Press on behalf of the European Society of Cardiology. All rights reserved. For permissions, please e-mail: journals.permissions@oup.com

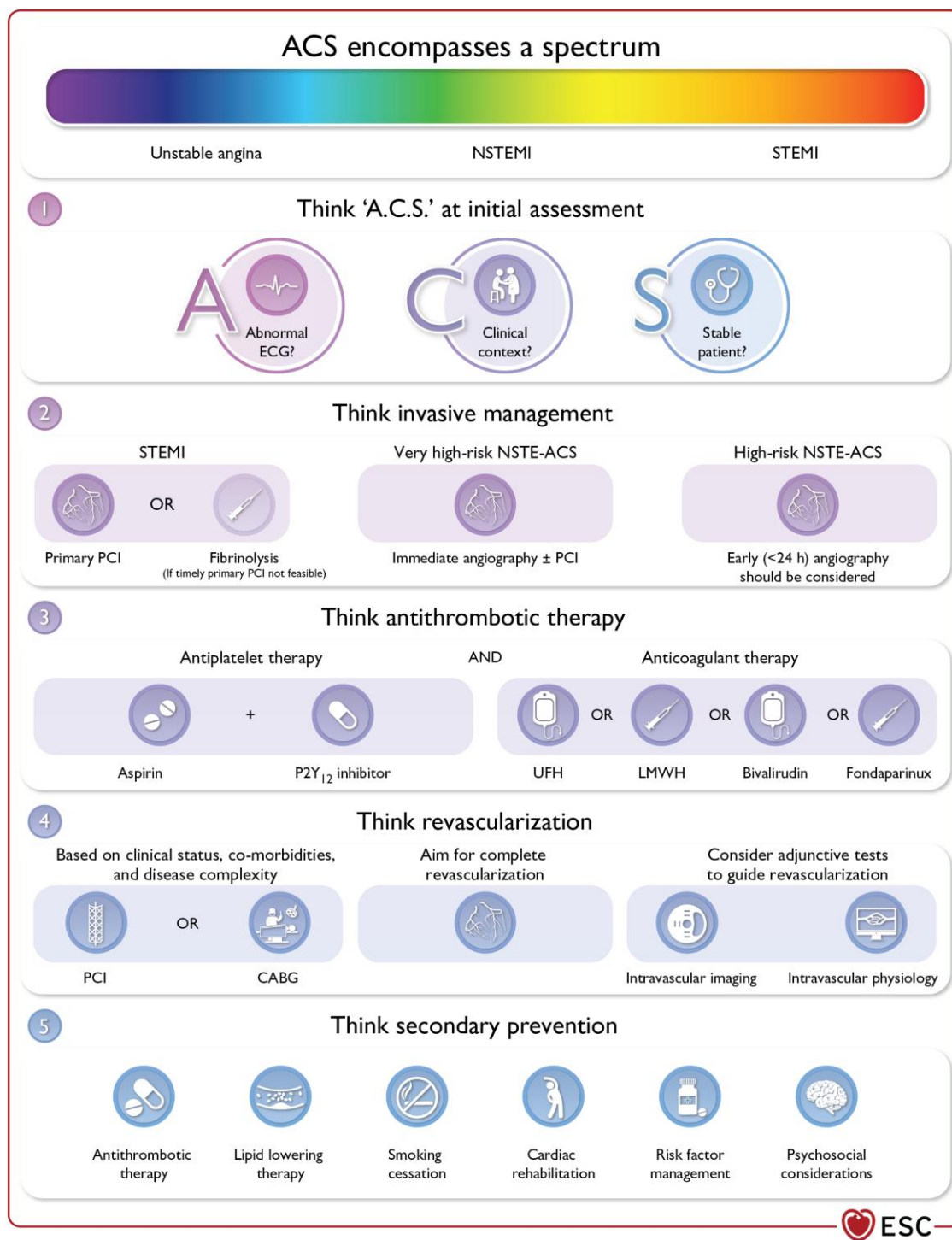


Figure 1 Key messages of the 2023 ESC Guidelines for the management of acute coronary syndromes. ACS, acute coronary syndrome; DAPT, dual antiplatelet therapy; NSTEMI-ACS, non-ST elevation acute coronary syndrome; PCI, percutaneous coronary intervention; PPCI, primary percutaneous coronary intervention; STEMI, ST elevation myocardial infarction; UFH, unfractionated heparin

<130 mmHg systolic and <80 mmHg diastolic, a LDL cholesterol (LDL-C) of <1.4 mmol/L (55 mg/dL), and, for diabetic patients, a HbA1c of <53 mmol/L (7%).

- (10) The care of patients presenting with ACS should not only reflect the best scientific evidence but should also try to promote care

that is respectful of, and responsive to, the individual patients' preferences, needs, and values. This should be applied to all aspects of the care of patients with ACS, from the initial presentation throughout the hospital inpatient journey, extending through to long-term outpatient follow-up.

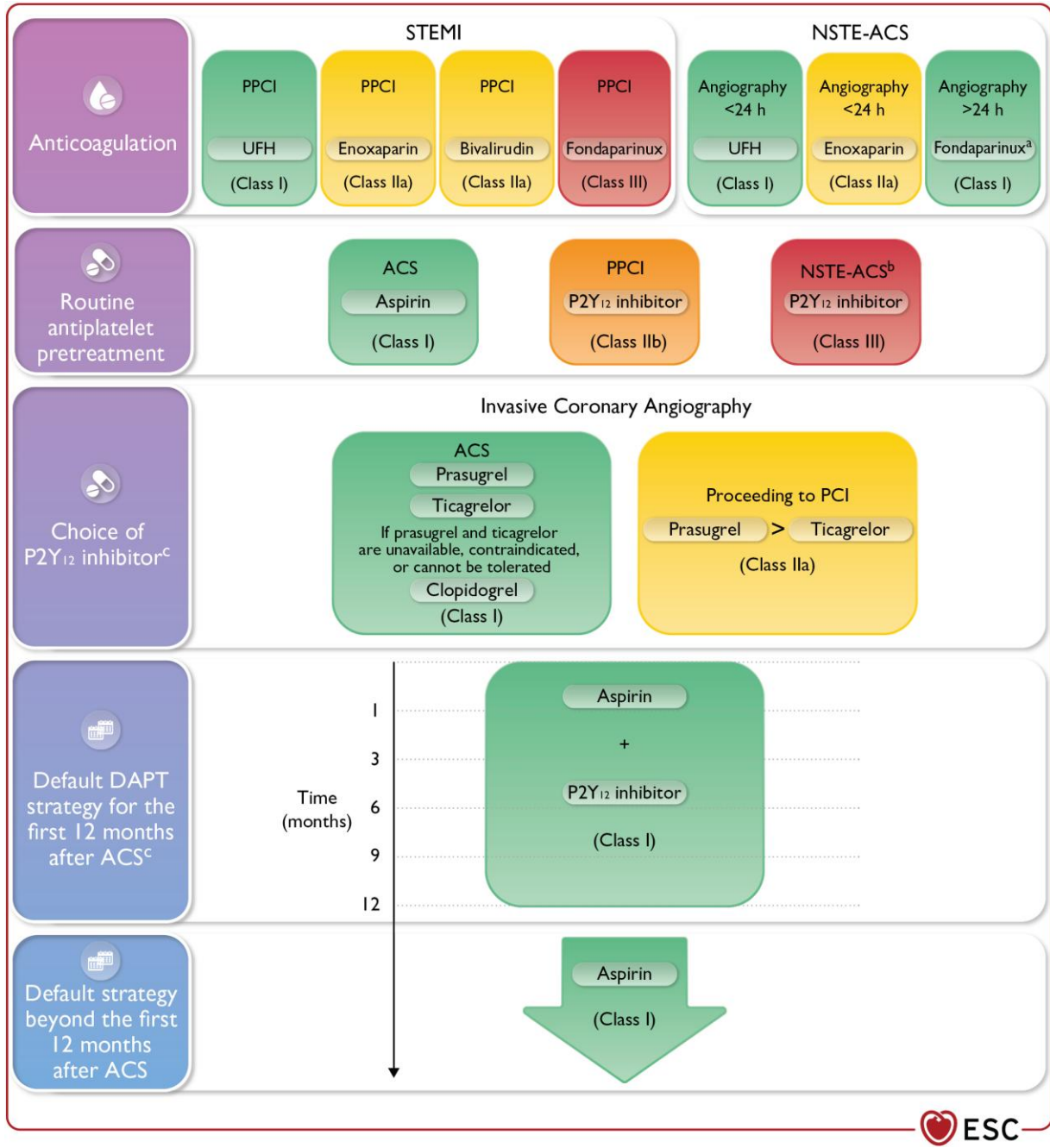


Figure 2 Recommended default antithrombotic regimens in patients with acute coronary syndromes without an indication for oral anticoagulation

Declarations

Disclosure of Interest

R.B. reports research grants received by the institutions of employment from Abbott Vascular, Biosensors, Boston Scientific, and Translumina without impact on personal remuneration and does not accept

personal payments from medical device or pharmaceutical industry. J.J.C. reports no conflicts of interest in relation to this work. X.R. reports no conflicts of interest in relation to this work. B.I. reports that his institution (CNIC) is a public non-profit institution that receives royalties for the sales of Trinomia and Sincronium, but he does not receive any personal benefit (neither direct nor indirect).