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

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**Antithrombotic treatment**

Guidance for antiplatelet therapy has become more detailed. There is now a distinction based on if the patient is likely to undergo coronary intervention and there is formal guidance on treatment options for extended and shortening antithrombotic treatments.

Prasugrel is now the preferred choice of P2Y12 receptor inhibitor for dual antiplatelet therapy with Aspirin for patients undergoing coronary intervention. It is now recommeded that you do not routinely give pre-treatment with PY2Y12 inhibitors if coronary anatomy is unknown and intervention is planned. This significant change in practice has been made to reduce bleeding risk and there is evidence to suggest that early pretreatment does not reduce ischaemic burden. This is paired with a recommendation that all high-risk ACS, including all those diagnosed with NSTEMI, should undergo invasive angiography within 24 hours. This is in line with draft NICE ACS guidance.

The guidance suggests that almost all patients should have access to intervention if they are suitable candidates and if their coronary anatomy is amenable. The management in the guidance for patients who are not amenable to revascularisation is a little vague, however promotes aggressive secondary prevention with potent antiplatelet therapy and anti-anginals.

For extended treatment with a second anti thrombotic agent beyond 12 months there is greater guidance to the definition to high and moderate thrombotic risk. Shortening of dual antithrombotic therapy to 3 months is considered in patients who have a high risk of bleeding, using validated PRECISE\_DAPT scores or ARC-HBR criteria (IIa B). Switching antiplatelet therapy or de-escalation is also considered an option, with or without platelet function testing.

**Anticoagulation**

The algorithm has changed quite significantly, with the default recommendation now triple therapy (N)OAC and DAPT for 1 week followed by a single antiplatelet (clopidogrel) with a NOAC as a default in patients with AF and CHA2DS2-VASc score ≥1 in men, ≥2 in women. After 12 months antiplatelet medications can be stopped if the patient is on anticoagulation (I B).

Peri-interventional bivalirudin, as an alternative to unfractionated heparin, is retained as an option, although only in selected cases (IIb A).

**Intervention**

An invasive approach, including revascularisation wherever possible, is recommended throughout the document, as opposed to a conservative/medical approach. Age is not considered a sufficient reason not to perform angiography, although frailty may be used as part of a case-by-case decision making process.

Complete revascularisation should be considered for multivessel disease (IIa C), supported by UK registry data from BCIS. FFR guided revascularisation of nonculprit lesions maybe used during the index PCI (IIb B). Early invasive management (<24 hours) for all high-risk patients (including all those with NSTEMI) remains a class I A recommendation. NICE currently recommend angiography within 72 hours for intermediate and high-risk patients.

With regards to rhythm monitoring, the guidance has been upgraded to Class 1 C, recommending rhythm monitoring up to 24 hours or until PCI for patients with low risk for arrhythmias and >24 hours for patients with increased risk of arrhythmia. The guidance regarding management of stable, post-cardiac arrest patients has changed, recommending delayed as opposed to immediate angiography, based on the findings of the COACT trial (IIb B).

**Spontaneous coronary artery dissection**

Spontaneous coronary artery dissection is a new section in the 2020 guidelines. Although there is paucity in evidence, the guidance suggests the use of OCT or IVUS should be considered to help guide diagnosis in patients where diagnosis is unclear (IIa C). There is some evidence for aggressive management of hypertension with B-blockers as the preferred agent, however evidence to support this is still required.

**MINOCA (Myocardial infarction with non-obstructive coronary arteries)**
The inclusion of MINOCA is one of the biggest changes in the guidance. It is recommended that patients without an obvious underlying diagnosis should receive a cardiac MRI to try and ascertain a diagnosis.