2019 ESC Guidelines on: Chronic Coronary Syndromes.

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Introduction

In 2019 the ESC gave stable coronary artery disease (CAD) a rebrand – now to be known as 'chronic coronary syndromes' (CCS).1 This change is intended to emphasise that CAD is dynamic and modifiable, and while patients may have stable periods, they are at risk of silent disease progression and further acute presentations.

The guideline is now organised by commonly encountered clinical scenarios:

1. suspected CAD and stable anginal symptoms
2. new onset LV dysfunction or heart failure
3. patients < 1 year after an acute coronary syndrome or revascularisation
4. patients > 1 year after diagnosis or revascularisation
5. patients with suspected microvascular angina
6. asymptomatic patients with CAD detected at screening.

Key recommendations and changes are highlighted here:

Diagnosis

The guidelines highlight new data demonstrating a lower prevalence of coronary disease in the population, resulting in a lower pre-test probability for all patient groups.2 The 'clinical likelihood of CAD', which integrates the pre-test probability of disease based on age, sex and symptoms, with risk factors, ECG changes and imaging findings such as coronary calcification should be used to guide up-front risk stratification and inform the choice of test to rule in, or rule out, significant CAD.

Functional imaging or coronary CT angiography (CTCA) is recommended as the initial test for patients in whom obstructive CAD cannot be excluded by clinical assessment alone, with a new class I (level of evidence B) recommendation. The choice of modality should be based on the clinical likelihood of CAD, patient factors which influence test performance (e.g. fast AF, inability to follow breath-hold commands), and local availability and expertise (class I, level of evidence C). Where CTCA indicates CAD of uncertain significance, functional imaging is recommended as the next step (class I level of evidence B). Coronary angiography has a class I (level of evidence B) recommendation as an alternative test to diagnose CAD in patients with a high clinical likelihood of disease, typical angina at a low level of exercise, or severe symptoms refractory to medical therapy. Exercise ECG testing is downgraded to class IIb (level of evidence B) as a rule-in or rule-out test.

Drugs
Tailored antithrombotic therapy is perhaps the most notable new recommendation. An additional antithrombotic drug alongside Aspirin *should* be considered in those with a high risk of ischaemic events without high bleeding risk (class IIa, level of evidence A), and *may* be considered in those at moderate ischaemic risk (class IIb, level of evidence A). Options include extended clopidogrel or ticagrelor post-MI in those who have tolerated dual antiplatelet therapy (DAPT) for 1 year, prasugrel post-PCI for MI in patients who have tolerated DAPT for 1 year, or low dose rivaroxaban 1 year after MI or in multivessel CAD.

For patients with chronic coronary syndromes and AF who are eligible for anticoagulation, a novel oral anticoagulant (NOAC) is preferred over a Vitamin K antagonist (class I, level of evidence A). Following PCI in patients in AF, individualised management of the duration of antiplatelet therapy receives a class IIa recommendation: in those where bleeding risk prevails over the risk of stent thrombosis, early cessation (≤1 week) of Aspirin should be considered, with continuation of NOAC and clopidogrel; where the risk of stent thrombosis prevails, triple therapy for 1-6 months is recommended.

New class I recommendations are given for use of a proton pump inhibitor in patients on antiplatelet or anticoagulant therapy who are at high risk of gastrointestinal bleeding, use of ezetimibe for those not reaching lipid targets on maximum tolerated dose of statin, and PCSK9 inhibitors for those at very high risk who do not achieve target on statin and ezetimibe. In addition, the SGLT2 inhibitors empagliglozin, canagliflozin and dapagliflozin, and the GLP1 agonists liraglutide or semaglutide, receive a class I (level of evidence A) recommendation for patients with diabetes and cardiovascular disease.

Cath lab
In the cath lab, the guidelines emphasise the role of coronary physiology, stating that invasive functional assessment must be available and used to evaluate coronary stenoses before revascularisation, unless there is a > 90% angiographic stenosis. Guidewire-based evaluation of coronary flow reserve and/or microcirculatory resistance gets an upgrade to class IIa (level of evidence B), and is recommended for use in patients with persistent symptoms but normal or unobstructed coronary arteries.

Conclusion

The 2019 CCS guidelines are notable for a front-line position for CTCA and functional imaging for the diagnosis of CAD, and a move towards tailored therapy for secondary prevention. This takes the form of escalating anti-thrombotic therapy according to ischaemic and bleeding risk, use of SGLT2 inhibitors and GLP1 agonists in diabetes, and support for enhanced lipid-lowering therapy with ezetimibe and PCSK9 inhibitors. Looking ahead, the guidelines highlight key gaps in the existing evidence base, including the cost-effectiveness of different diagnostic strategies, use of biomarkers to stratify risk of ischaemic and bleeding risk, functional lesion assessment before CABG, and how to manage asymptomatic subjects who receive a diagnosis of coronary disease after screening.