



ESSENTIAL MESSAGES FROM ESC GUIDELINES

Committee for Practice Guidelines

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PERIOPERATIVE CARDIAC CARE

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ESC ESSENTIAL MESSAGES

ESC GUIDELINES FOR PREOPERATIVE CARDIAC RISK ASSESSMENT AND PERIOPERATIVE CARDIAC MANAGEMENT IN NON-CARDIAC SURGERY*

The Task Force for Preoperative Cardiac Risk Assessment and Perioperative Cardiac Management in Non-Cardiac Surgery of the European Society of Cardiology (ESC), endorsed by the European Society of Anaesthesiology (ESA)

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Table of contents

-  Section 1 - Take home messages
-  Section 2 - Major gaps in evidence

Take home messages

- 1.** Simple risk factor scoring is the first step of preoperative cardiac risk evaluation.
- 2.** Cardiac testing for the presence and extent of coronary artery disease is only recommended in patients with three or more clinical risk factors scheduled for high risk surgery.
- 3.** Stress-induced myocardial ischaemia, as a functional marker of coronary artery disease, is an important risk factor for perioperative cardiac events.
- 4.** Left ventricular dysfunction occurs frequently in the elderly and interferes with perioperative management, such as the starting dose of beta-blocker therapy.
- 5.** Secondary prevention of complications of atherosclerotic disease, such as lifestyle changes and medical therapy should be initiated prior to surgery, as interventions improve both perioperative and late outcome.
- 6.** Patients on chronic beta-blocker therapy should continue medication during surgery.
- 7.** In beta-blocker naïve patients in whom beta-blockers are recommended, a low-dose started at least one week prior to surgery is recommended. The beta-blocker dose should be titrated to achieve heart rate between 60 and 70 beats per minute.
- 8.** In patients on perioperative beta-blocker therapy tachycardia should lead first to the treatment of an underlying cause, for example hypovolaemia, pain, blood loss or infection, rather than simply increase the beta-blocker dose.
- 9.** Statins with a long half-life or extended-release formulations are recommended to bridge the period immediately after surgery when oral intake is not feasible.
- 10.** Discontinuation of aspirin therapy should be considered only in those in whom it is foreseen that haemostasis is difficult to control during surgery.
- 11.** Prophylactic coronary revascularization in cardiac stable patients is rarely indicated to get the patient through surgery.
- 12.** Timing and type of preoperative coronary intervention options should be discussed with the treating surgeon and anaesthesiologist, as anti-platelet therapy (aspirin and/or clopidogrel) influences perioperative management.
- 13.** Postoperative prevention of hyperglycaemia (targeting levels at least below 10.0 mmol/L (180 mg/dL) with intensive insulin therapy is recommended after high-risk or complicated major surgery requiring admission to ICU.

Major gaps in evidence

Magnitude of the problem

- The incidence of (a)symptomatic cardiac and neurological postoperative events needs to be defined.
- The impact of asymptomatic postoperative troponin release is unclear.

Preoperative risk stratification

- The prognostic value of different levels of functional capacity prior to non-cardiac surgery needs to be defined.
- Whether biomarkers can identify patients at risk prior to non-cardiac surgery remains unclear.

Pharmacological risk reduction

- The cardioprotective effect of aspirin initiation prior to non-cardiac surgery remains to be defined.
- Heart rate control with short-acting drugs (and which) during surgery on top of chronic beta-blocker therapy needs further assessment.
- The optimal perioperative statin dose remains to be defined.

Coronary revascularisation

- The anti-thrombotic effect of aspirin and/or clopidogrel during surgery after coronary stent placement needs further assessment.
- Whether and how to identify a subgroup of patients who benefit from prophylactic coronary revascularisation needs to be defined.



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