

Different guidelines, different recommendations: you should perform preoperative cardiac testing...

Moderators: Giovanna Lurati Buse

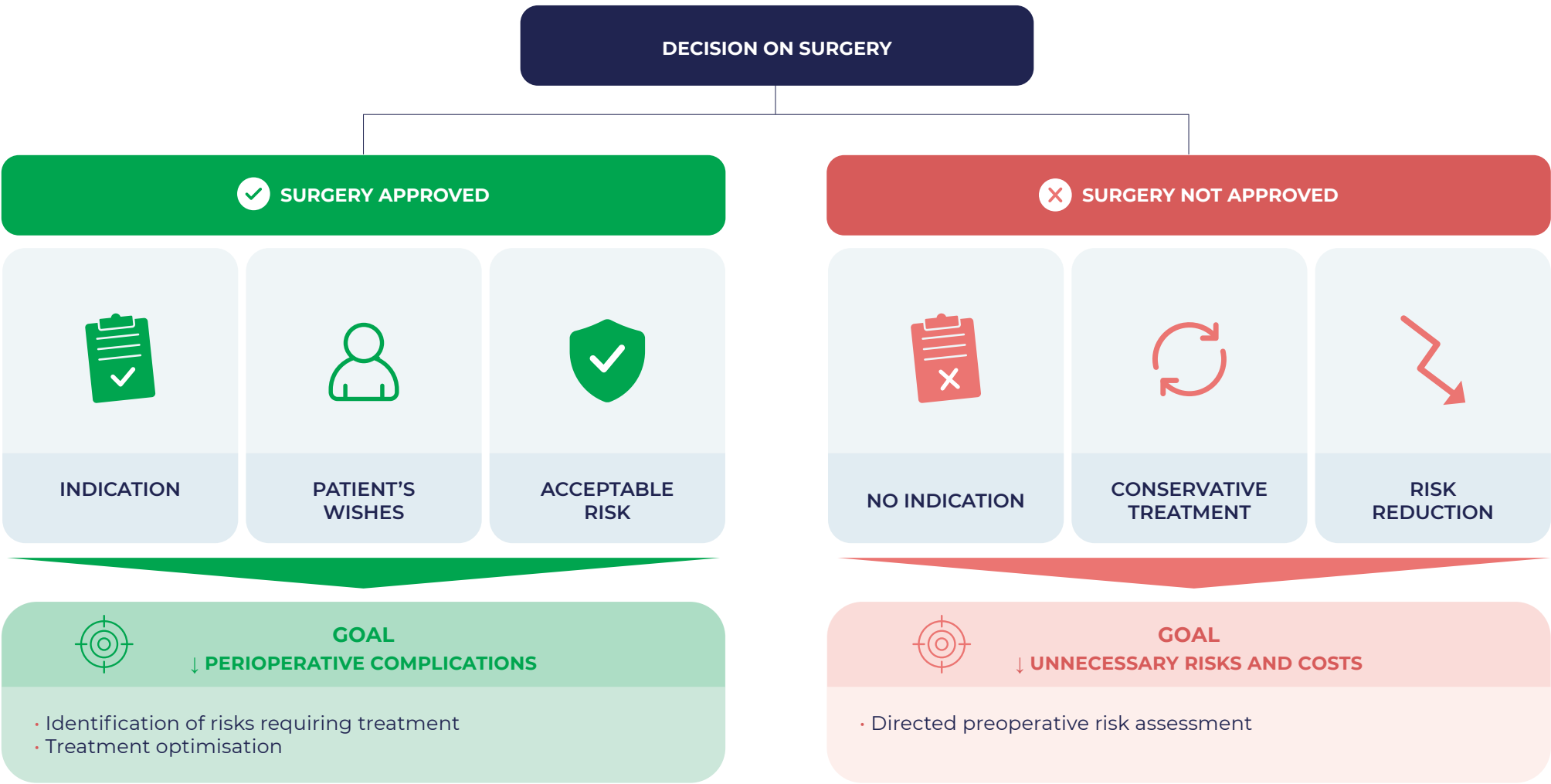
Monday, June 08, 2026

1. ... FOLLOWING THE GUIDELINES OF THE EUROPEAN SOCIETY OF CARDIOLOGY

Kai Zacharowski

The updated guidelines on cardiovascular assessment and management of patients undergoing non-cardiac surgery of the *European Society of Cardiology* (ESC), published in 2022¹, mark the first review conducted in the last decade and address an increasingly evident reality—every year, more surgical procedures are performed, and the population undergoing surgery is getting older and has a higher burden of comorbidities. Therefore, the risk of perioperative complications is increasing.

The guidelines are intended to facilitate decision-making regarding the suitability of surgery, by integrating the following factors and considering the following goals.





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2. ... FOLLOWING THE GUIDELINES OF THE EUROPEAN SOCIETY OF ANAESTHESIOLOGY AND INTENSIVE CARE

Bernardo Bollen Pinto

Cardiac complications account for approximately one third of deaths within 30 days of non-cardiac surgery. According to a meta-analysis, perioperative miocardial damage affects close to 18% of patients and is associated with an increase in short- and long-term mortality^{4,5}. In this context, the *European Society of Anaesthesiology and Intensive Care* (ESAIC) published a specific guideline in 2023 on the use of cardiac biomarkers in preoperative assessment, with the aim of determining their usefulness for conventional perioperative risk stratification⁶.

STRENGTHS OF THE ESAIC BIOMARKER GUIDELINE

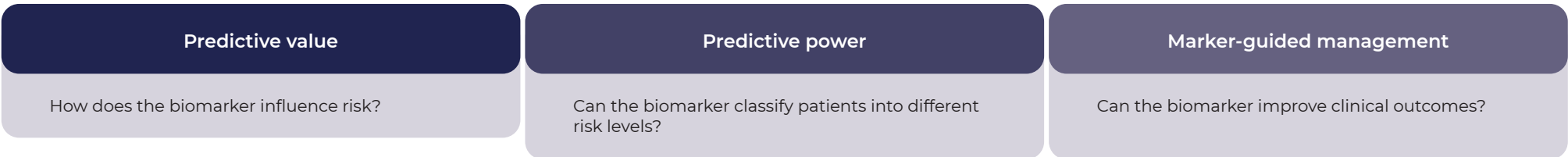
- 1. It was prepared by a diverse group of authors, comprising mainly anaesthesiologists from different European regions, but also including other specialities, methodologists, and patients.
- 2. It was developed using GRADE (*Grading of Recommendations Assessment, Development and Evaluation*).



The GRADE methodology has helped approach different key aspects in determining the quality of the available evidence, but also other aspects:

- Overall certainty of evidence
- Uncertainty on how patients value the outcomes
- Weighing up the pros and cons
- Balance between health benefits and resources required
- Impact on health equity
- Acceptability and feasibility

- 3. The guideline carries out the assessment in three independent dimensions.



- 4. Its implementation may be easier than with other guidelines, such as ESC's⁶⁻⁸.

The certainty of evidence was assessed through 12 different outcomes, including all-cause mortality, cardiovascular mortality, the incidence of major cardiovascular events and quality of life. In general, the evidence was robust for very few combinations of markers and outcomes.

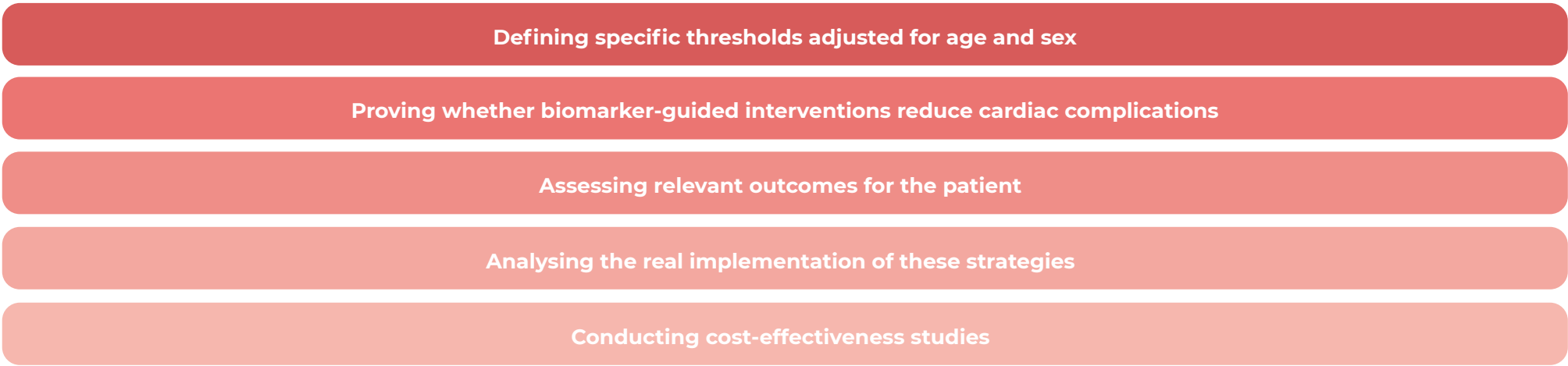
The biomarkers assessed were the following:

- Preoperative troponin levels
- Postoperative troponin levels
- Combined preoperative and postoperative troponin levels
- Preoperative natriuretic peptide levels
- Postoperative natriuretic peptide levels

The following recommendations were issued:

MARKER	PROGNOSIS	PREDICTIVE POWER	GUIDED MANAGEMENT
Preoperative troponin	Weak recommendation	For research purposes only	For research purposes only
Preoperative natriuretic peptides	Weak recommendation	Weak recommendation	For research purposes only
Combined troponin	Weak recommendation	Weak recommendation	Not recommended (no consensus)

The priority research areas going forward should be the following:



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3. CRITICAL APPRAISAL OF THE GUIDELINES

Carolina Soledad Romero

The AGREE *Reporting Checklist* is designed to improve transparency in the drafting and publication of clinical practice guidelines, and it is useful for checking whether the authors have reported all the necessary aspects for readers to assess their quality. It is part of the EQUATOR network to improve the quality and transparency in clinical research, and it should be used in the same way as the CONSORT checklist for randomised clinical trials..

1 GUIDELINE PREPARATION SYSTEMS

No all scientific societies prepare their guidelines using the same system for assessing evidence. The ESC, the *American Heart Association* (AHA), or the *Japanese Circulation Society*, have used the classification system developed by the AHA, based on recommendation classes (I, IIa, IIb, and III) and evidence levels (A, B, and C).

The ESAIC, however, drew up their recommendations using the GRADE methodology, which is currently used by many international organisations, including the World Health Organisation (WHO) and Cochrane.

The difference between both systems may have significant consequences. In the case of preoperative troponin testing, for example, although the various societies reviewed virtually the same evidence, and some of them did so using the same methodology, the level of recommendation is different. These differences reveal some limitations of the traditional AHA, and there may also be influences from the panel or the industry.

GUIDELINE	SYSTEM	LEVEL OF EVIDENCE	LEVEL OF RECOMMENDATION
ESC 2022	AHA	B	I
Japanese Circulation Society	AHA	C	IIb
ESAIC 2023	GRADE	Very low	Weak
UpToDate (adapted ESC)	AHA	B	1

2 SCOPE OF THE GUIDELINES

The ESAIC moves away from the so-called *book-style guidelines*, which were intended to address virtually all issues related to a disease in a single document. This is why they have developed targeted guidelines addressing specific clinical questions⁹. This approach has several benefits:

It makes it easier to prioritise relevant clinical questions

It improves the development process

It improves follow-up by the team

It makes it easier to read

It helps updating the recommendations

It favours implementation

It increases financial sustainability

In the case of the ESAIC biomarker guideline, the group decided to limit the document to three well-defined domains.

3 MANAGING CONFLICTS OF INTEREST

While some societies focus their disclosure of conflicts of interest on financial aspects, the ESAIC has broadened this process to include potential intellectual conflicts, including:

- Previously-published opinionss
- Active areas of research
- Potential professional benefits emerging from a recommendation
- Participation in advocacy groups for a certain intervention
- Personal beliefs, convictions or views that may influence the objectivity of decisions or actions

This model aims to minimise biases which are not always financial in nature, but may nevertheless have an impact on the preparation of recommendations. Moreover, all members sign confidentiality agreements while developing the guideline.

4 PANEL COMPOSITION

The quality of a guideline does not depend solely on the methodology, but also the people who produce it. The diversity and balance of the group are two aspects that may influence the interpretation of the evidence.

The ESAIC guideline includes an AuthorPlot summarising the composition of the panel responsible for its preparation and analyses the panel members by gender, age, origin, race, history, existence of conflicts of interest and other variables.

5 ORGANIZATIONAL ASPECTS

The ESAIC works as part of the *Guidelines International Network* (GIN), including other organizations that use GRADE. The GIN has defined protocols establishing necessary aspects for the proper development of the guidelines, including role allocation, participation and representation, budget negotiation, the role of methodologists, timelines and responsibilities, guideline updates and editorial policy.

In summary, the methodology used to prepare a guideline is just as important as the scientific evidence on which it is based. Furthermore, the guidelines should follow strict methodological standards, as required in randomised clinical trials; to this end, transparent processes must be implemented. The evidence assessment system, the scope of the document, the management of conflicts of interest, the composition of the panel and the methodology used may change the way in which such evidence is translated into recommendations for clinical practice.

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