

# South African cardiovascular risk stratification guideline for non-cardiac surgery

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## The executive summary of the guidelines for non-cardiac surgery read as follows;

*"The South African guidelines for the cardiac patient for non-cardiac surgery guidelines were developed to address the need for cardiac risk assessment and risk stratification for elective non-cardiac surgical patients in South Africa, and more broadly in Africa.*

*The guidelines were developed by updating the Canadian Cardiovascular Society Guidelines on Perioperative Cardiac Risk Assessment and Management for Patients Who Undergo Non-Cardiac Surgery, with a search of literature from African countries and recent publications. The updated proposed guidelines were then evaluated in a Delphi consensus process by South African anaesthesia and vascular surgical experts.*

*The recommendations in these guidelines are:*

- 1. We suggest that elective non-cardiac surgical patients 45 years and older with either a history of coronary artery disease, congestive cardiac failure, stroke or transient ischaemic attack, or vascular surgical patients 18 years or older with peripheral vascular disease require further preoperative risk stratification, as their predicted 30-day major adverse cardiac event (MACE) risk exceeds 5% (Conditional recommendation: moderate-quality evidence).*
- 2. We do not recommend routine non-invasive testing for cardiovascular risk stratification prior to elective adult non-cardiac surgery (Strong recommendation, low to moderate quality evidence).*

- 3. We recommend that elective non-cardiac surgical patients 45 years and older with a history of coronary artery disease, or stroke or transient ischaemic attack, or congestive cardiac failure or vascular surgical patients 18 years or older with peripheral vascular disease should have preoperative natriuretic peptide (NP) screening (Strong recommendation; high-quality evidence).*
- 4. We recommend daily postoperative troponin measurements for 48–72 hours for non-cardiac surgical patients 45 years and older with a history of coronary artery disease, or stroke or transient ischaemic attack, or congestive cardiac failure or vascular surgical patients 18 years or older with peripheral vascular disease, i.e. i) a baseline risk > 5% for MACEs at 30 days after elective surgery (if no preoperative NP screening), or ii) an elevated B-type natriuretic peptide (BNP)/N-terminal-prohormone B-type natriuretic peptide (NT-proBNP) measurement before elective surgery (defined as BNP > 99 pg/ml or a NT-pro BNP > 300 pg/ml) (Conditional recommendation; moderate quality evidence).*

*Additional recommendations are given for the management of myocardial injury after non-cardiac surgery (MINS) and medications for comorbidities.<sup>1</sup>*

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## References:

1. CS Alphonsus, N Naidoo, P Motshabi Chakane, et al. South African cardiovascular risk stratification guideline for non-cardiac surgery. SAMJ. 2021;111(10b):1019-25.