

RE: Myocardial Injury After Noncardiac Surgery and Perioperative Atrial Fibrillation: From Evidence to Clinical Practice

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Submitted: 24 May 2021. **Accepted** 7 June 2021. **Published:** 28 July 2021.

DOI: <https://doi.org/10.22374/cjgim.v16i3.563>

In the perioperative medicine special issue, Borges et al.¹ discussed aspects of myocardial injury after noncardiac surgery (MINS) care and recommend initiating aspirin and moderate-to-high dose statin in all patients diagnosed with MINS. One aspect of MINS management that was not discussed in the article was whether MINS management might differ in certain subgroups of patients, such as those on dialysis or those without evidence of ischemia. Borges et al. are not alone in this regard: the CCS perioperative guidelines do not mention any specific exclusions for the initiation of ASA and statin in patients diagnosed with MINS.² However, there is insufficient evidence to generalize MINS care by recommending ASA and statins in all patients diagnosed with MINS.

The studies cited by the CCS perioperative guidelines as evidence for statin and aspirin use in MINS either examined patients undergoing elective infrarenal aortic reconstruction,³ who are known to have a high likelihood of coexisting coronary artery disease, or patients diagnosed with perioperative MI,⁴ who comprise only a small portion of MINS diagnoses. In the VISION trial,⁵ 94% of patients underwent non-vascular surgeries, and 78% of MINS patients did not meet criteria for perioperative MI. Therefore, data to support the use of ASA and statin in all patients with MINS is extrapolated in the majority of cases.

If patients on dialysis are considered, the evidence is even weaker. Devereaux et al.⁴ had 4.8% of patients with a creatinine above 175 $\mu\text{mol/L}$ (the number of dialysis patients was not reported) and the study by Fouchier et al.³ reported that only 1.2% of enrolled patients had received dialysis. In the MANAGE trial,⁶ patients who had an estimated glomerular filtration rate of less than 35 mL/min that persisted for 35 days after suffering MINS were excluded, which would exclude chronic dialysis patients. In VISION,⁵ 3.6% of patients had an eGFR < 30 mL/min/1.73m² or were on dialysis.

Current KDIGO guidelines recommend not initiating statin therapy in patients on dialysis, due to a lack of evidence of benefit.⁷ Although some evidence exists for statin therapy in dialysis patients presenting with acute coronary syndrome, their use in primary prevention of coronary artery disease is controversial.⁸ It seems prudent, therefore, not to extend a recommendation for statin therapy to patients receiving dialysis who present with MINS, especially in those without ischemic features.

Could the authors comment on the strength of the evidence behind the recommendation to treat all MINS patients with ASA and statin? Should certain MINS patients, such as those undergoing non-vascular surgery who do not meet criteria for perioperative MI and those undergoing dialysis, be managed differently?

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