that showed no difference between the treatment arms.⁴ Along this vein, it is not clear whether amiodarone was used as a prophylactic drug or used as treatment for atrial fibrillation. Finally, there remains a paucity of information regarding the long-term outcomes of these patients in this study. Although most POAF cases resolve within 7 days, there is a long-term increased risk of stroke and bleeding in those with persistent atrial fibrillation beyond 30 days that is not captured in this analysis. Further information regarding stroke and bleeding readmission by low-, medium-, and high-risk CHADS₂-Vasc score would have been informative.

Despite these limitations, the authors should be congratulated on this important study because it sheds light on the treatment of a common complication of cardiac surgery. The fact that the authors found significant geographical variation in North America on the treatment of POAF suggests that treatment may be independent of patient factors and affected by institution and geographical practice patterns. These findings suggest that there remains a need to better delineate the role of anticoagulation in patients with POAF, and this is currently being investigated in the Anticoagulation for New-Onset Post-Operative Atrial Fibrillation After CABG (PACES) trial (NCT04045665) of oral

anticoagulant to antiplatelet therapy for the management of POAF. In the PACES trial, patients may receive warfarin or a direct oral anticoagulant. Although the direct oral anticoagulants have a faster onset of action and do not require titration compared with warfarin, concerns regarding bleeding and lack of availability of reversal agents for all direct oral anticoagulants may limit their popularity among surgeons concerned about postoperative bleeding. Thus, while we await the completion and reporting of the PACES trial, less may be more in the management of POAF.

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Commentary: A step toward solving a stubborn problem... maybe

Nathaniel B. Langer, MD, MSc, and
Gus J. Vlahakes, MD

In this issue of the *Journal*, Matos and colleagues¹ report the prescribing patterns of anticoagulation and amiodarone in patients with new-onset atrial fibrillation (AF) after

Nathaniel B. Langer, MD, MSc (left), and Gus J. Vlahakes, MD (right)

CENTRAL MESSAGE

Ideal management of atrial fibrillation after coronary artery bypass grafting remains elusive, and actual national practice patterns deviate from society guidelines.

From the Department of Surgery, Harvard Medical School; and Division of Cardiac Surgery, Massachusetts General Hospital, Boston, Mass.

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Address for reprints: Gus J. Vlahakes, MD, Division of Cardiac Surgery, Massachusetts General Hospital, 55 Fruit St, Cox 630, Boston, MA 02114 (E-mail: vlahakes.gus@mgh.harvard.edu).

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coronary artery bypass grafting (CABG), as well as their early postoperative outcomes. Practice guidelines include recommendations for management of postoperative AF.^{2,3} Until now, however, adherence, or lack thereof, to the recommendations was not known. Matos and colleagues¹ present a thought-provoking study that will certainly inform future investigations.

Bleeding complications occur in patients receiving anticoagulation for postoperative AF. Guidelines recommend anticoagulation for patients with an at-risk CHADS₂VASc score to reduce the risk of stroke. Matos and colleagues¹ found departure from guidelines without an increase in stroke. Nearly 75% of patients with post-CABG AF were discharged on a regimen of amiodarone but without anticoagulation, yet with no increase in stroke readmissions for these patients. There was, however, the expected increase in readmissions for major bleeding for those discharged with anticoagulation. Furthermore, in the patients discharged without anticoagulation, there was no difference in stroke between those who were or were not treated with amiodarone. So, how should this inform contemporary practice? Does this finding suggest that we should stop treating postoperative AF or that our current therapies do not affect the actual risk factors for post-CABG stroke? Finding a key piece of missing information may help interpret these confounding results.

Unfortunately, patients' discharge rhythm data are missing from the study of Matos and colleagues.¹ Consequently, we do not know whether patients were discharged without anticoagulation because they were in sinus rhythm before discharge or because of concerns about anticoagulation. Patients who were discharged on a regimen of anticoagulation and amiodarone had a lower rate of stroke than did those discharged on a regimen of amiodarone alone. Could this be because patients discharged on a regimen of amiodarone and anticoagulation were more likely to be in AF at the time of discharge, and thus more likely to benefit from anticoagulation? These questions cannot be answered given the data analyzed, and

Matos and colleagues¹ appropriately acknowledge this issue. With this limitation, the only conclusion that we can safely make is that by incorporating amiodarone and cardioversion, if needed, patients may be more likely to be discharged in sinus rhythm, thus obviating the need for anticoagulation. This is an important conclusion in and of itself.

An additional important finding is that use of direct oral anticoagulants (DOACs) in this patient population may not be safe. Although there was no difference in readmission for stroke or bleeding in patients discharged with warfarin versus a DOAC, there was a significant increase in mortality in patients receiving a DOAC. As anticoagulation shifts to DOACs, the use of these agents demands further investigation to understand fully their bleeding risk.

We congratulate Matos and colleagues¹ for demonstrating that national practice managing post-CABG AF deviates from current guidelines. Reluctance to anticoagulate may represent collective wisdom that post-CABG AF is different than other forms, but it also underscores the risk of anticoagulation early after surgery. Firmer conclusions cannot be drawn without discharge rhythm information, and a final answer will come from future randomized trials, not only for AF treatment but also for use of DOACs early after surgery.

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