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Commentary: What will make surgeons do more atrial fibrillation ablations?

Leonid Sternik, MD

I wish to thank authors of this important multicentral study dealing with barriers to atrial fibrillation (AF) ablation during mitral surgery.¹ The authors mention that nearly 40% of patients with AF undergoing mitral valve surgery do not receive concomitant ablation despite societal guidelines. Badhwar and colleagues² reported in 2017 that surgical ablation during mitral surgery was performed in only 68.4% of patients with AF in the United States. Nine years earlier, Gammie and colleagues³ published that a surgical AF ablation was done just in 52% (6415 of 12,235) of mitral valve surgeries in patients with AF. Although we have seen an increase in the rate of surgical concomitant AF ablation over the last decade, still too many patients with AF do not undergo an ablation during mitral surgery.

Mehaffey and colleagues¹ reported that stratifying by mitral valve surgical volume, a majority of high-volume (≥ 50 cases/year) and medium-volume (10-50 cases/year) surgeons reported no barriers in performing AF ablation. A significantly greater proportion of low-volume (< 10 cases/year) mitral valve surgeons reported risk (eg, patients too high risk, additional crossclamp time, worsens arrhythmias) as a barrier to a concomitant ablation ($P = .023$). Surgeons with no barriers report that they perform a concomitant Cox maze IV in 78% of open atrial operations compared with 27% for surgeons who report barriers. The authors of the commented paper conclude that knowledge of recommendations and practice patterns vary widely across surgeons. They provide specific interventions to

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About one-third of atrial fibrillation patients undergo mitral surgery without concomitant ablation. Surgical AF ablation is a safe and easy procedure that improves survival. Reimbursement is needed.

overcome these barriers, including mentorship, systematic protocols, peer-to-peer education, and additional research.¹ I agree that high-volume surgeons usually do a better job. In contrast, an AF ablation is a relatively not complex surgery that can be performed easily almost by any surgeon. We have seen a lot of courses and proctoring dealing with AF surgical ablation in the last decade. I feel that we have a plenty of hard data proving the advantages of concomitant surgical AF ablation. The 2017 Society of Thoracic Surgeons guidelines assigned Class I, Level of evidence A for surgical AF ablation at the time of mitral surgery. Guidelines said that surgical ablation for AF can be performed without an additional risk of operative mortality or major morbidity.⁴ In a recent meta-analysis of randomized controlled trials, McClure and colleagues⁵ found that concomitant surgical ablation of AF had no significant effect on mortality. Suwalski and colleagues⁶ showed the survival benefit of surgical concomitant AF ablation on thousands of patients with long-term follow-up and strong statistical analysis. This survival benefit was maintained in all groups of patients.⁶ Petersen and colleagues⁷ reported that AF ablation is as effective in elderly patients as in younger patients in mitral surgery. No ablation-related complications were found.⁷ I agree with the authors' conclusion that education and proctoring are very important. However, we already have enough hard data proving that surgical

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Disclosures: The author reported no conflicts of interest.

The *Journal* policy requires editors and reviewers to disclose conflicts of interest and to decline handling or reviewing manuscripts for which they may have a conflict of interest. The editors and reviewers of this article have no conflicts of interest.

Received for publication April 1, 2021; revisions received April 1, 2021; accepted for publication April 5, 2021; available ahead of print April 20, 2021.

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J Thorac Cardiovasc Surg 2023;165:659-60

0022-5223/\$36.00

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<https://doi.org/10.1016/j.jtcvs.2021.04.012>

concomitant AF ablation is a great procedure. I feel that what we need now is a reimbursement of this procedure.

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Commentary: Navigating a MAZE of implementation science for surgical atrial fibrillation ablation

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Contemporary trials in cardiovascular medicine focus on studying new treatments or techniques for existing diseases that impact public health. There is often a clear progression of knowledge from bench research to phase I clinical trials (translation to humans; T1), then phase II and III trials (translation to patients; T2), and finally phase IV trials (translation to clinical practice; T3). However, significant gaps exist in our understanding of how research findings are disseminated and implemented in common practice

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Significant barriers to broader use of concomitant MAZE exist, but addressing these barriers through continued education, using an implementation science framework, provide opportunity for improvement.

among physicians, patients, health care systems, and populations (translation to real world settings; T4). On average, it takes approximately 17 years for only 14% of new scientific evidence to enter clinical practice.¹ Moreover, Americans receive only one half the recommended acute, preventative, and long-term quality health care measures.² As such, the National Heart, Lung, and Blood Institute has identified implementation science, the study of methods to promote the uptake of research findings into routine clinical practice, as an area of high priority for outcomes research.³ Mehaffey and colleagues⁴ highlight this gap between research and clinical practice through their analysis of

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Disclosures: Dr Fenton is an employee of the National Heart, Lung, and Blood Institute (NHLBI), National Institutes of Health (NIH). The views expressed in this article are those of the authors and do not necessarily represent the views of the NHLBI, the NIH, or the US Department of Health and Human Services. Dr Iribarne reported no conflicts of interest.

The *Journal* policy requires editors and reviewers to disclose conflicts of interest and to decline handling or reviewing manuscripts for which they may have a conflict of interest. The editors and reviewers of this article have no conflicts of interest.

Received for publication April 11, 2021; revisions received April 11, 2021; accepted for publication April 12, 2021; available ahead of print April 18, 2021.

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J Thorac Cardiovasc Surg 2023;165:660-1

0022-5223/\$36.00

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<https://doi.org/10.1016/j.jtcvs.2021.04.029>