Atrial fibrillation (AF) increases the likelihood of ischemic strokes, including those most likely to result in death or permanent disability. This combined with the growing number of patients living with AF highlights that stroke prevention in AF is a top priority. However, despite the availability of safe, very low-burden oral anticoagulants (OAC) and relatively widespread availability of left atrial appendage occlusion, a significant proportion of patients with AF at high risk for stroke do not receive any preventative therapy. A study of over 1.2 million Medicare beneficiaries with AF at high risk for stroke revealed that fewer than half were prescribed OAC. Older age, female sex, and Black race were factors associated with OAC nonuse. The news was slightly better in the Veterans Health Administration (VHA), where OAC nonuse increased from 52% to 65.1% of eligible patients with AF between 2014 and 2018. Patients from racial and ethnic minority groups were less likely to receive OAC than their White counterparts. Untreated AF is also costly. The cost for untreated patients covered by Medicare who had AF and experienced an ischemic stroke in 2018 was nearly $2.5 billion with per person, averaging approximately 3.7 times higher than the average Medicare beneficiary.

Given all of this, it makes sense to pull out all of the stops and use novel approaches to address underuse of OAC in high-risk patients with AF. Such is the case with the randomized clinical trial in JAMA Network Open, in which Sandhu et al. took the novel approach of partnering with community pharmacies in Alberta, Canada, to identify untreated patients with AF at increased risk of stroke. After comprehensive training, community pharmacists with independent prescribing authority and electronic health record (EHR) access screened patients 65 years or older with a CHADS2 (congestive heart failure, hypertension, age, diabetes, and stroke or transient ischemic attack) score of at least 2 for undertreated AF. Eligible patients had a history of either newly diagnosed or known AF with (1) no OAC, (2) inappropriate medication (ie, antiplatelet agent), or (3) suboptimal OAC dosing. Atrial fibrillation was confirmed either through documentation in the medical record or via a single-lead mobile electrocardiographic apparatus used in the community pharmacy. Those patients found to have actionable AF (either newly diagnosed or identified as undertreated) were randomized in a 1:1 fashion to early vs delayed intervention by the community pharmacist. The early intervention group received AF education, blood pressure assessment, and OAC prescription on the spot with a summary of the intervention faxed to the primary care physician (PCP). They were followed up at the 1- and 3-month marks at the community pharmacy. Those randomized to the control group (delayed intervention) received AF education and the PCP was notified of actionable AF with a medication list. If after 3 months OAC treatment had not been optimized by the PCP, the community pharmacist intervention was then delivered. All participants received passive follow-up for assessment of clinical events and OAC therapy adherence to the 12-month mark. Screening 235 patients across 27 pharmacies resulted in 80 patients randomized, of whom 71 (88.8%) had previously (as opposed to newly) recognized AF. Thirty-six of 39 patients in the early intervention group (92.3%) were receiving guideline-concordant OAC at 3 months compared with only 23 of 41 (56.1%) in the control group (34% absolute difference; P < .001). At the 12-month mark, OAC adherence was at least 90% in both groups and neither clinical events nor use of health care services differed significantly between groups. A patient survey revealed high satisfaction with pharmacists' services.

Although this study affected a relatively small number of patients, it highlights several important points. First, the options for AF detection have greatly expanded in the modern age with less bulky extended event monitors, implantable loop recorders, wearable devices, and portable wireless single-lead devices. However, use of these devices by pharmacists is novel, even if a minority
of patients enrolled in this study were found to have newly diagnosed AF. Second, sending recommendations to busy PCPs may be less effective than a more direct approach that empowers community pharmacist prescribing, as evidenced by the statistically significant 34% absolute difference in the likelihood of patients ending up receiving guideline-concordant OAC. Third, this study highlights a novel partnership between community pharmacists and PCPs in Canada. For decades, clinical pharmacists have been an important part of the health care team, often operating inpatient services or within outpatient clinics. Hundreds of reports have been published demonstrating the benefits of clinical pharmacy services across multiple health care settings and specialties. In contrast, empowering community pharmacists to initiate new medication prescriptions is innovative and effective, as patients and community pharmacists have previously reported a high degree of satisfaction and impact of screening for AF.6

Despite the excitement and success from this study, appropriate caution is warranted as well. First, most data defining rates of OAC nonuse in populations with AF are based on high-level claims data that are unable to determine reasons for nontreatment. These may include inaccurate AF diagnosis or stroke risk calculation, historical or transient AF, very low-burden AF, lack of accurate OAC documentation despite patient use, and an unfavorable risk-to-benefit ratio after thoughtful consideration (eg, end-of-life considerations, OAC not aligning with goals of care). As such, data validation, detailed review of the AF history and care, and shared decision-making should be critical components of any project aimed at closing the gap in OAC nonuse among patients with AF. The pharmacists in the current project had access to the electronic health record, independent prescribing authority, and partnership with physicians to—among other things—assist in electrocardiogram interpretation and verify that OAC contraindications do not exist. This is quite unique: most community pharmacists in the US and other parts of Canada do not have these tools in place, limiting the reproducibility of this project. While some pharmacists in clinical settings have limited prescriptive authority under scopes of practice or collaborative practice agreements, pharmacists typically do not operate with provider status, and community pharmacies rarely have health record access. In the US, the VHA would be an ideal place to introduce an approach similar to that proposed by Sandhu et al.5 The VHA is an enclosed health system with clinical, laboratory, and pharmacy data housed in a single electronic record system with a decades-long experience of clinical pharmacists operating with prescriptive authority. The VHA has also led the way in pharmacist-managed anticoagulation oversight with national guidance defining roles and responsibilities.

Sandhu et al⁵ show that targeting patients with AF at high risk of stroke who are not receiving OAC could be 1 more tool in the toolbox of a strong anticoagulation stewardship model. Anticoagulation stewardship is defined as “coordinated, efficient, and sustainable system-level initiatives designed to achieve optimal anticoagulant-related health outcomes and minimize avoidable adverse drug events through (i) the application of optimal evidence-based care; (ii) appropriate prescribing, dispensing, and administration of anticoagulants and related agents; and (iii) provision of appropriate patient monitoring and clinical responsiveness.” Anticoagulation stewardship approach that empowers clinical or community pharmacists to identify and rectify undertreatment of AF may have significant benefits for a high-risk, often vulnerable population of patients.
Conflict of Interest Disclosures: Dr Allen reported serving on the speakers bureaus of Alexion Pharmaceuticals, AstraZeneca, and Janssen Global Services LLC, receiving consulting fees from Pfizer Inc and Bristol-Myers Squib, and served on the board of directors for the Anticoagulation Forum outside the submitted work. Dr Barnes reported receiving grant funding from Boston Scientific Corporation, consulting fees from Pfizer Inc, Bristol-Myers Squib, Janssen Global Services LLC, Bayer AG, Sanofi SA, Boston Scientific Corporation, Abbott Vascular, Anthos Therapeutics, and AstraZeneca, and serving on the board of directors for the Anticoagulation Forum during the conduct of the study.

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