

Global AFIB patient registry shows new tools needed to assess patient risk

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Initial results from the AVIATOR 2 international registry are being presented as late-breaking clinical science at the Society for Cardiovascular Angiography and Interventions (SCAI) 2019 Scientific Sessions. The AVIATOR 2 is a multicenter prospective observational study of patients with atrial fibrillation (AF) undergoing percutaneous coronary intervention (PCI) in 11 international sites. The use of a novel smartphone-based survey shows potential to improve outcomes by accessing the patient need for new tools to quantify risk.

AF is one of the most common abnormal heart arrhythmias that affects more than 2.7 million adults in the United States (CDC). PCI is a nonsurgical procedure that improves [blood flow](#) to the heart by using a stent to open up blood vessels. Patients with AF undergoing PCI present a particular challenge for antithrombotic therapy (ATT) selection. Finding the right balance that minimizes bleeding risk and maintains anti-ischemic efficacy remains a complex situation in these unique [patients](#). In the era of novel antithrombotic therapy, the optimal ATT for patients with AF undergoing PCI is undetermined.

The choice of ATT was made by the physician. After PCI, physicians were asked to complete a survey to rate subjective perception of ischemic and bleeding risk in patients. In addition, patients also completed a questionnaire to assess their understanding of clinical risk and the importance of prescribed medications. Findings from the survey demonstrate that while clinicians weigh safety and efficacy almost equally in therapeutic decision-making, patients are much more

concerned with prevention of ischemic events, such as heart attack or stroke with safety considerations a lower priority. The survey was completed via a [smartphone app](#) called AVIATOR, which was developed at the Icahn School of Medicine at Mount Sinai. The calculated risk scores including CHA2DS2VASc and HASBLED were compared against physician rated risks. One year follow ups were conducted.

A total of 514 patients with AF undergoing PCI were enrolled with a mean age of 73 ± 10 years including 25.9 percent females. Clinical assessment of both ischemic and bleeding risk was poorly aligned with empiric estimates as clinicians only rated 44 percent of patients with an elevated CHA2DS2VASc score (> 3) as high or very high risk. Similar findings were observed for bleeding assessment. Moreover, choice of ATT was inversely related to clinical perception of ischemic risk, indicating that physicians were more likely to treat low risk patients aggressively and vice versa for higher risk individuals, consistent with a risk-treatment paradox. In contrast, bleeding risk did not influence choice of ATT.

"We wanted to leverage easy to use smartphone technology to gain insight into how ATT regimens are being selected at discharge. By deploying a study-specific mobile app, we were able to collect information on both clinician decision-making and patient perceptions to help identify where exactly we need to make improvements." said lead author Roxana Mehran, MD, Director of Interventional Cardiovascular Research and Clinical Trials at the Zena and Michael A. Weiner Cardiovascular Institute at Icahn School of Medicine at Mount Sinai in New York, NY. "Our study opens the door to make changes to our current risk scores for AF patients undergoing PCI and we believe that these insights will help inform next generation tools to anticipate the needs of patients and physicians ultimately resulting in better patient outcomes

The authors note that they are working towards developing a new tool that will better assess risk. The study was conducted by physicians from around the world including Jaya Chandrasekhar, Usman Baber, Melissa Aquino, Birgit Vogel, Snyder, Samantha Sartori, and Annapoorna Kini from Mount Sinai.

More information: "Featured Clinical Research, Part I: AVIATOR-2: Antithrombotic Strategy Variability in Atrial Fibrillation and Obstructive Coronary Disease Revascularized with Percutaneous Coronary Intervention Registry" [May 21, 2019, 11:25 a.m. - 11:35 a.m. PDT, Belmont Ballroom 4]

Provided by Society for Cardiovascular Angiography and Interventions

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