ACCURACY OF PATIENT PERCEIVED ATRIAL FIBRILLATION MEASUREMENTS: A COMPARATIVE ANALYSIS OF OBJECTIVE MONITOR DATA AND SUBJECTIVE PATIENT REPORTING

Abstract Category: 4. Arrhythmias: AF/VT
Presentation Number: 1105M-36

Authors: Roja S. Garimella, Eugene H. Chung, J. Paul Mounsey, Jennifer Schwartz, Irion Pursell, Anil Gehi, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA, William G. Enloe Magnet High School, Raleigh, NC, USA

Background: Atrial Fibrillation (AF) guidelines recommend that symptom relief be a primary goal in management. However, inaccurate patient-reported measurements may interfere with such treatment. The factors that may predict inaccuracies are unknown.

Methods: Demographic, EKG and health status data were captured by baseline questionnaires for 243 outpatients with documented AF. Of these, AF burden was captured for 206 (85%) by 1-week continuous heart monitors (Lifewatch, Inc. or iRhythm Tech, Inc.). Patients reported whether they believed they were in AF at the time and estimated the length and frequency of their episodes by completing the University of Toronto AF symptom severity questionnaire. Reports were compared to EKG and AF burden as measured by the monitors. AF burden outliers were broken into two groups: patients with AF burden<10% who indicated near-continuous AF (over-estimators) and patients with burden>90% who estimated very slight AF (under-estimators).

Results: By EKG, 6.5% of patients were mistaken about whether they were in AF at the time. Women (11.8% vs. 4.2%, p=.026) were more than twice as likely to be incorrect. By continuous monitor, 22.8% of patients were found to be over- or under-estimators. Women (32.7% vs. 19.2%, p=.041) were more likely to be over- or under-estimators, primarily driven by a tendency to over-estimate. Nearly half of the total AF burden outlier patients arose from patients with a history of anxiety disorder. Those with a history of anxiety disorder (46.9% vs. 18.5%, p<.001) were more likely to be over- or under-estimators, which was driven by both a tendency to over-estimate and under-estimate AF burden.

Conclusion: The frequency and extent of inaccuracy, particularly among women and patients with a history of anxiety, is startling. Such modulating factors should be considered when evaluating treatment strategies.