non-ID regions in atrial myocytes than ventricular. STORM defined the NaV1.5, K\textsubscript{2.1} and NKA distribution relative to the junctions: In the ventricle, NaV1.5 associated most closely with GJ (median intercluster distance: 117 nm), K\textsubscript{2.1} with Des (151 nm), and NKA with both GJ (165 nm) and AJ (150 nm). Next, percent of each electrogenic protein localized within 100 nm from ID junctions: 35% of NaV1.5 around GJs, 49% of K\textsubscript{2.1} around Des and 33% and 39% of NKA near GJ and AJ respectively. Protein organization within atria ID had some notable differences: NaV1.5, K\textsubscript{2.1} and NKA was shifted closer to GJs, NaV1.5 to Des, and K\textsubscript{2.1} and NKA to Ncad.

Conclusion: These data provide the first-ever comprehensive quantitative picture of ID ultrastructure and molecular organization. Functional implications of these nanoscale structural differences will be elucidated by implementation into our recently published 3D finite-element computational model.

ABSTRACT CE-543:
The Early the Better: Afib Detection and Stroke
Sunday, May 1, 2022
10:30 AM - 11:30 AM

CE-543-01

4-FOLD HIGHER RATE OF ATRIAL FIBRILLATION DETECTION AFTER STROKE OF PRESUMED KNOWN ETIOLOGY WITH CONTINUOUS VERSUS INTERMITTENT MONITORING: RESULTS FROM THE STROKE AF STUDY
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Background: In patients (pts) with recent ischemic stroke, atrial fibrillation (AF) may be common regardless of the stroke etiology. Timely diagnosis and intervention may prevent more disabling recurrent strokes.

Objective: We sought to compare incidence rates of AF, defined as an episode ≥2 minutes, between various intermittent monitoring strategies vs continuous monitoring with an insertable cardiac monitor (ICM) in pts with strokes attributed to large artery atherosclerosis (LAA) or small vessel occlusion (SVO).

Methods: The STROKE AF study enrolled pts with a recent ischemic stroke attributed to LAA or SVO. Included pts were ≥60 years old (or 50-59 with heart failure, hypertension, diabetes, prior stroke, or vascular disease) and had no history of AF. One-time monitoring strategies were simulated by computing the AF incidence using 1, 2, 7, 14, and 30-day recording periods. Repeated monitoring strategies (quarterly 24 h, 48 h, 7d, or monthly 24 h) were simulated over a 1-year period. The initial day for all simulations was randomly selected 1-14 days after ICM placement from a uniform distribution. Repeated monitoring strategies were simulated 10,000 times with mean values and ranges reported.

Results: We obtained data from 242 pts (age 66.6±9.3, 60% male, CHA\textsubscript{2}DS\textsubscript{2}-VASc 5.0 [IQR4.0-5.0]). The AF incidence rate via ICM at 12 months was 11.57%, exceeding the estimated rates from all forms of modeled intermittent monitoring (range 0.22-2.55%, p<0.001, Figure).

Conclusion: In the vast majority of LAA/SVO stroke pts, AF detected via ICMs would go undetected via conventional intermittent monitoring strategies and therefore these pts may not be optimally managed for recurrent stroke prevention.

CE-543-02

DEVELOPMENT OF THE HARMS\textsuperscript{2}-AF LIFESTYLE RISK SCORE TO PREDICT INCIDENT AF
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Background: Lifestyle risk factors (RFs) are a modifiable target in atrial fibrillation (AF) management. The relative contribution of individual lifestyle RFs to the development of AF has not been described.

Objective: To develop and validate an AF-lifestyle risk score to identify people at risk of AF in the general population.

Methods: The UK Biobank is a large prospective cohort with outcomes measured >10 years. Incident AF was based on ICD-10 coding. Prior AF was excluded. Regression analysis identified independent predictors of AF, which were evaluated in a multivariable model. A weighted score was developed in the derivation cohort (70% study population) and validated in the validation cohort (remaining 30%). Kaplan-Meier estimates ascertained the 10-year risk of AF.

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