Supplemental Material for:

**Current Practices of Cardiac Monitoring and Early Rhythm-Control Therapy for Atrial Fibrillation and Stroke Prevention**

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* Supplemental Methods
* Table 1 - Full List of Survey Questions and Respondent Answers

**Supplemental Methods:**

Potential participants were approached by email through the Canadian Stroke Consortium (CSC) and World Stroke Organization (WSO) using the email addresses registered with these organizations. The Canadian Stroke Consortium is the national professional association for physicians interested in stroke, with over 120 professional association members that are stroke-focused physicians (primarily neurologists) and over 600 associate members (other physicians, nurses, allied health professionals, trainees, and clinical research coordinators). The World Stroke Organization is the only global body focused on stroke and represents over 55,000 stroke specialists in clinical, research, and community settings. The survey was extended to not only stroke physicians but all specialities that managed stroke patients (e.g. cardiologists, internal medicine physicians). Participation in the survey was voluntary and contained an integrated e-consent. No questions were shown until the physician agreed to participate. We also used the social media professional accounts of some of the co-authors to promote the survey. Data were analyzed and interpreted using descriptive statistics. Data was managed using REDCAP. The survey opened on March 27, 2023 and closed on June 23, 2023.

**Supplemental Table 1: Survey Questions and Respondent Answers.** Respondents’ answers are in red. Rounding may not equal to 100% due to rounding.

|  |  |  |
| --- | --- | --- |
|  | **Question** | **Answer** |
| 1 | What is your age? | * Under 21 **(1/240, <1%)**
* 21-30 **(9/240, 4%)**
* 31-40 **(90/240, 37%)**
* 41-50 **(73/240, 30%)**
* 51-60 **(48/240, 20%)**
* 61-70 **(13/240, 5%)**
* >70 **(6/240, 3%)**

Missing **(n=1, <1%)** |
| 2 | What is your sex? | * Female **(81/239, 34%)**
* Male **(155/239, 64%)**
* Prefer not to say **(3/239, 1%)**

Missing **(n=2, <1%)** |
| 3 | What is your specialty? | * Neurology **(200/238, 83%)**
* Cardiology **(12/238, 5%)**
* Medicine **(13/238, 5%)**
* Other **(13/238, 5%)**

Missing **(n=3, 1%)** |
| 4 | What is your current position? | * Resident **(16/238, 7%)**
* Fellow **(18/238, 8%)**
* Faculty **(156/238, 65%)**
* Independent Practice **(48/238, 20%)**

Missing **(n=3, 1%)** |
| 5 | How many years of practice do you have? (Including residency, fellowship, and as an attending) | * <5 years **(19/240, 8%)**
* 5-9 years **(47/240, 20%)**
* 10-14 years **(47/240, 20%)**
* 15-19 years **(39/240, 16%)**
* >20 years **(88/240, 37%)**

Missing **(n=1, <1%)** |
| 6 | What is your current city of residence? | Free Text |
| 7 | What is your current country of residence? | Free Text |
| 8 | Which of the following options best represents your main practice setting? | * Academic hospital, public sector **(158/238, 66%)**
* Academic hospital, private sector **(39/238, 16%)**
* Non-academic hospital, public sector **(28/238, 12%)**
* Non-academic hospital, private sector **(13/238, 5%)**

Missing **(n=3, 1%)** |
| 9 | Have you ever enrolled patients in a clinical trial? | * Yes **(207/237, 86%)**
* No **(30/237, 12%)**

Missing **(n=4, 2%)** |
| 10 | What is the most common standard of care strategy in current clinical routine in your region of practice for cardiac monitoring to identify atrial fibrillation in all stroke/TIA patients? | * 24 hours **(108/240, 45%)**
* 48 hours **(93/240, 39%)**
* 7 days **(11/240, 5%)**
* 14 days **(11/240, 5%)**
* 30 days **(15/240, 6%)**
* 2-3 years (implantable loop recorder, **2/240,** **<1%**)

Missing **(n=1, <1%)** |
| 11 | What is the most common standard of care strategy in current clinical routine in your region of practice for cardiac monitoring to identify atrial fibrillation in cryptogenic or ESUS patients? | * 48 hours **(101/239, 42%)**
* 7 days **(52/239, 22%)**
* 14 days **(32/239, 13%)**
* 30 days **(23/239, 10%)**
* 2-3 years (implantable loop recorder, **31/239**, **13%**)

Missing **(n=2, <1%)** |
| 12 | The following is the latest evidence on cardiac monitoring post-stroke and AF burden-related stroke risk:A. The efficacy of PCM for reducing stroke recurrence or vascular events after stroke is suggested but has not been proven (Tsivgoulis et al. Neurology 2022;e1942 and Sposato et al. 2022 Mar;53:e94). B. A large majority of risk of future stroke is explained by atrial fibrillation duration ≥24h (Van Helder et al. Eur Heart J. 2017;38:1339-1344 and Healey N Engl J Med.2012;366:120-129). C. It is unknown whether atrial fibrillation lasting < 24h bears a significant risk of stroke. D. Current evidence does not necessarily support a practice of broad anticoagulation when long-term monitoring shows proven atrial fibrillation only of short duration.Based on the data provided above, do you think there is equipoise for a clinical trial focused on (a) finding the most efficient duration of cardiac monitoring post-stroke and(b) identifying the lowest burden of newly-diagnosed AF post-stroke associated with increased risk of a second stroke? | * Yes **(223/238, 93%)**
* No **(15/238, 6%)**

Missing **(n=3, 1%)** |
| 13 | We are planning a clinical trial using standard of care monitoring + implantable loop recorders (ILRs) for all patients with ischemic stroke. All patients will have access to the results of standard of care monitoring. In one of two study arms, all ILR-detected atrial fibrillation paroxysms lasting >6 minutes will be informed to treating physicians. In the other arm, we will only disclose ILR-detected atrial fibrillation paroxysms lasting>24 hours, but physicians will still have access to the results of standard of care monitoring. Would you invite your ischemic stroke patients to participate in this study? | * Yes **(185/241, 77%)**
* Yes, but only selected patients **(39/241, 16%)**
* No **(17/241, 7%)**
 |
| 14 | If you selected "Yes, but only selected patients”, please explain which patients you would be open to including. | Summarized answers included:* Cryptogenic stroke or ESUS populations
* Patients with high risk of having atrial fibrillation.
* Younger patients
 |
| 15 | Short clinical case. Your patient had an ischemic stroke. An implantable loop recorder shows atrial fibrillation. Among the atrial fibrillation durations listed below, which is the HIGHEST total duration of atrial fibrillation paroxysms that you would feel comfortable with NOT being notified about in the context of a clinical trial. All patients would still receive standard of care monitoring as per the treating physicians in parallel to the implantable loop recorder, so no patient would be left without monitoring. | * 30 seconds **(79/341, 33%)**
* 2 minutes **(44/241, 18%)**
* 6 minutes **(48/241, 20%)**
* 24 hours **(24/241, 10%)**
* None **(39/241, 16%)**
* Other **(7/241, 3%)**
 |
| 16 | Short clinical case. You are seeing a male patient who had a recent embolic ischemic stroke, with a CHA2-DS2-VASc score of 4. He was diagnosed with atrial fibrillation three months before the stroke but was not anticoagulated when he had the stroke. During the first in-hospital days, he is still on rapid atrial fibrillation, with a ventricular rate of 120 beats/min. Would you consider the following treatment options [Yes/No]:* Rate control and anticoagulation
* Rhythm control and anticoagulation
* Anticoagulation and enrollment into a RCT
* Anticoagulation, rhythm, and rate control
* Anticoagulation alone
 | * Rate control and anticoagulation **(155/241, 64%)**
* Rhythm control and anticoagulation **(62/241, 26%)**
* Anticoagulation and enrollment into a RCT **(127/241, 53%)**
* Anticoagulation, rhythm, and rate control **(26/241, 11%)**
* Anticoagulation alone **(23/241, 10%)**
 |
| 17 | Have you heard or read the results of the EAST-AFNET 4 trial? | * Yes **(118/238, 49%)**
* No **(120/238, 50%)**

Missing **(n=3, 1%)** |
| 18 | The EAST-AFNET 4 trial (Kirchoff et al. N Engl J Med 2020;383:1305-1316) was a large randomized controlled trial comparing rhythm control vs. routine care (rate control) after a recent diagnosis of atrial fibrillation; both groups were anticoagulated as indicated. Most patients were treated medically, and a smaller minority underwent atrial fibrillation ablation. Among 2,789 patients, rhythm control was superior on the composite outcome of cardiovascular or stroke death, hospitalization for worsening heart failure, or acute coronary syndrome (HR 0.79,96%CI 0.66-0.94). There was a one-third reduction in recurrent stroke: HR 0.65 (95%CI0.44 to 0.97) over and above anticoagulation. However, the EAST-AFNET 4 trial did not primarily involve stroke patients. Do you think there is equipoise for a similar clinical trial only focused on ischemic stroke patients? | * Yes **(209/240, 87%)**
* No **(31/240, 13%)**

Missing **(n=1, <1%)** |
| 19 | Would you randomize stroke patients with atrial fibrillation to rhythm control strategies post-stroke, over and above routine anticoagulation - e.g. into the EAST-Stroke trial? | * Yes **(202/238, 84%)**
* No **(36/238, 15%)**

Missing **(n=3, 1%)** |
| 20 | Up to 30% of incident atrial fibrillation is first identified at the time of ischemic stroke. What proportion of all ischemic stroke patients have new atrial fibrillation identified on your stroke unit? | * <11% **(44/238, 18%)**
* 11-20% **(135/238, 56%)**
* 21-30% **(40/238, 17%)**
* 31-40% **(17/238, 7%)**
* >40% **(2/238, <1%)**

Missing **(n=3, 1%)** |
| 21 | Can you estimate how many stroke patients with known and newly diagnosed atrial fibrillation require rhythm control treatment (e.g. amiodarone, flecainide, ablation)? | * <11% **(112/240, 47%)**
* 11-20% **(45/240, 19%)**
* 21-30% **(47/240, 20%)**
* 31-40% **(16/240, 7%)**
* >40% **(20/240, 8%)**

Missing **(n=1, <1%)** |