Parcours patients dans la recherche des causes de l'AVC : quels examens et quelles organisations au sein des centres ?

- Détection de la FA en post-AVC (Expérience Marseillaise)

  Laurent Suissa & Baptiste Maille (Marseille)

- Détection du FOP en post-AVC (Expérience Bordelaise)

  Xavier Iriart (Bordeaux)

27es Journées de la Société Française Neuro-Vasculaire

Symposium ALLIANCE BMS / PFIZER

Bristol Myers Squibb | Pfizer

Détection de la FA en post-AVC:

L'expérience Marseillaise

Laurent Suissa & Baptiste Maille

Aix*Marseille université Initiative d'excellence

Hôpitaux Universitaires de Marseille | ap·hm

C2VN Centre de Recherche en CardioVasculaire et Nutrition

Conflits d’intérêts

J'ai actuellement, ou j'ai eu au cours des deux dernières années, une affiliation ou des intérêts financiers ou des intérêts de tout ordre avec une entreprise ou je perçois une rémunération ou des honoraires ou des bourses de recherche avec une entreprise commerciale :

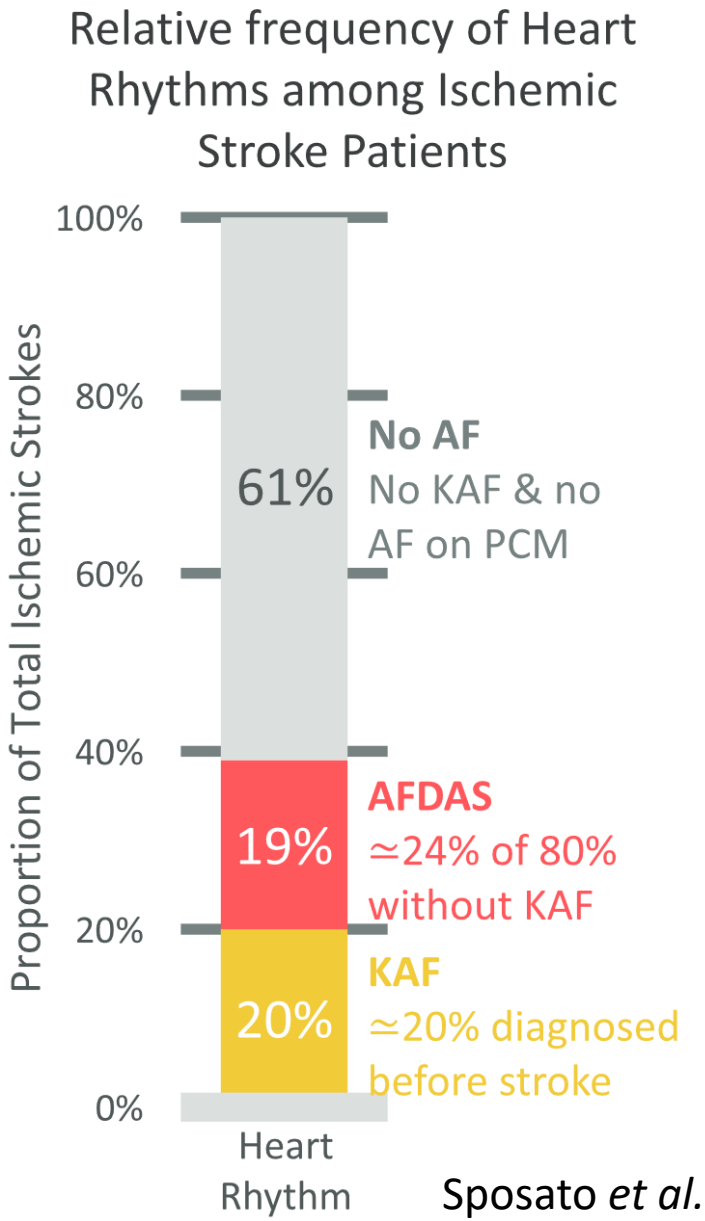
Intervenant: Laurent SUISSA (Marseille)

☑ *J'ai les conflits d'intérêts potentiels suivants à signaler :*

Consultant, honoraires, et/ou subventions :

- **Alliance BMS/Pfizer,**
- **Boehringer Ingelheim,**
- **Bayer Healthcare,**
- **Cardio-online,**
- **Abbott,**
- **Novartis.**

Le challenge de la détection de la FA après l'infarctus cérébral



➔ **2 périodes pour la détection de la FA**

➔ **Période hospitalière en UNV**

➔ **Période post-hospitalière (ambulatoire, SSR,…)**

Sposato *et al.* **Stroke.** 2022.

Que disent les guidelines ?

ESC European Society of Cardiology
European Heart Journal (2020) **42**, 373–498
doi:10.1093/eurheartj/ehaa612

ESC GUIDELINES

2020 ESC Guidelines for the diagnosis and management of atrial fibrillation developed in collaboration with the European Association for Cardio-Thoracic Surgery (EACTS)

Recommendations for the search for AF in patients with cryptogenic stroke

Recommendations	Class[a]	Level[b]
In patients with acute ischaemic stroke or TIA and without previously known AF, monitoring for AF is recommended using a short-term ECG recording for at least the first 24 h, followed by continuous ECG monitoring for at least 72 h whenever possible.[1113–1116]	I	B
In selected[c] stroke patients without previously known AF, additional ECG monitoring using long-term non-invasive ECG monitors or insertable cardiac monitors should be considered, to detect AF.[1112]	IIa	B

[c]Not all stroke patients would benefit from prolonged ECG monitoring; those deemed at risk of developing AF (e.g. elderly, with cardiovascular risk factors or comorbidities, indices of LA remodelling, high C_2HEST score, etc.) or those with cryptogenic stroke and stroke characteristics suggestive of an embolic stroke should be scheduled for prolonged ECG monitoring.

Que disent les guidelines ?

Guideline

EUROPEAN STROKE JOURNAL

European Stroke Journal
2022, Vol. 7(3) CVII–CXXXIX

DOI: 10.1177/23969873221099478
journals.sagepub.com/home/eso
SAGE

European Stroke Organisation (ESO) guideline on screening for subclinical atrial fibrillation after stroke or transient ischaemic attack of undetermined origin

In adult patients with ischaemic stroke or TIA of undetermined origin, we recommend a prolonged cardiac monitoring instead of standard 24 h monitoring to increase the detection of subclinical AF

Quality of evidence: **Moderate** ⊕⊕⊕

Strength of recommendation: **Strong for intervention** ↑↑

In adult patients with ischaemic stroke or TIA of undetermined origin, we suggest prolonged cardiac rhythm monitoring for AF for more than 48 h

In adult patients with ischaemic stroke or TIA of undetermined origin, we suggest the use of additional outpatient monitoring compared with in-hospital cardiac rhythm monitoring alone to increase the detection of subclinical AF

Quality of evidence: **Very low** ⊕

Strength of recommendation: **Weak for intervention** ↑?

In adult patients with ischaemic stroke or TIA of undetermined origin we suggest to initiate ECG monitoring as early as possible during the in-hospital stay, to increase the rate of AF detection

In adult patients with ischaemic stroke or TIA of undetermined origin, we suggest the use of implantable devices for prolonged cardiac monitoring instead of non-implantable devices to increase the detection of subclinical AF

Quality of evidence: **Low** ⊕⊕

Strength of recommendation: **Strong for intervention** ↑↑

In adult patients with ischaemic stroke or TIA of undetermined origin the presence of potential blood, echocardiographic, ECG or brain imaging biomarkers might increase the probability of AF detection, but given the limited current evidence we suggest avoiding their use for excluding patients from long-term ECG monitoring

Quels outils pour prédire la FA après un infarctus cérébral ?

Table 1. Broadly Available Indicators for a Higher Probability of Atrial Fibrillation Detection After Ischemic Stroke

Clinical characteristics
Older age, ≥75 y
Cardiovascular risk factors, in particular, heart failure, hypertension
Signs of atrial myopathy[20,57,72,73]
Left atrial diameter >46 mm
Supraventricular extrasystole ≥480/24 h
Atrial tachycardia ≥20 beats
Biomarkers[76,77]
BNP >100 pg/mL NT-proBNP >400 pg/mL
Stroke etiology[20]
Arterio-arterial embolism; cryptogenic or ESUS; cardiac cause other than atrial fibrillation

Schnabel *et al.* Circulation. 2019.

STAF (2009)

		Points
Age	>62 years	2
	≤62 years	0
Baseline NIHSS score	≥8	1
	<8	0
Left atrial dilatation	Yes	2
	No	0
Vascular aetiology[1]	Yes	0
	No	3
Total		0–8

[1] Defined by the absence of symptomatic extracranial stenosis ≥50% or occlusion presumed atherothrombotic, symptomatic arterial dissection, or clinicoradiologic lacunar syndrome.

Suissa et al. Stroke.2009.

HAVOC (2017)

Predictor	Coefficient	OR (95% CI)	*p*-value	Score
Hypertension	0.70	2.01 (1.53–2.68)	1.10E-06	2
Age ≥75	0.55	1.73 (1.39–2.16)	8.32E-07	2
Valve Disease	0.72	2.05 (1.55–2.69)	3.25E-07	2
Vascular Disease (Peripheral)	0.32	1.37 (1.02–1.84)	3.49E-02	1
Obesity	0.42	1.53 (1.05–2.18)	2.24E-02	1
Congestive Heart Failure	1.21	3.34 (2.61–4.28)	1.70E-21	4
Coronary Artery Disease	0.54	1.72 (1.35–2.19)	1.08E-05	2

Kwong et al. Cardiology.2017.

AS5F (2019)

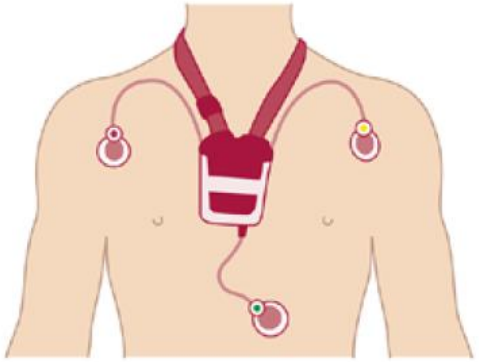
Table 4 Acronym AS5F (Age and Stroke Severity NIHSS >5 to Find AF) and calculation of the risk score

Age × 0.76	—
Stroke severity NIHSS ≤5	9 points
Stroke severity NIHSS >5	21 points
AS5F score	Total points

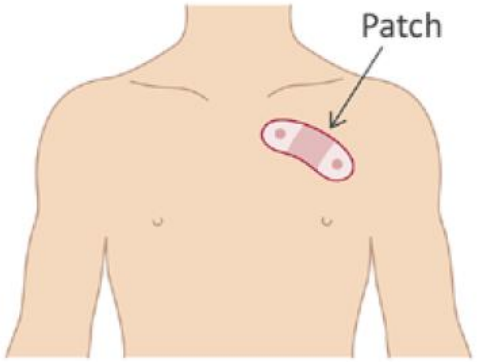
Uphaus et al. Neurology.2019.

Quels outils à notre disposition pour la détection de la FA ?

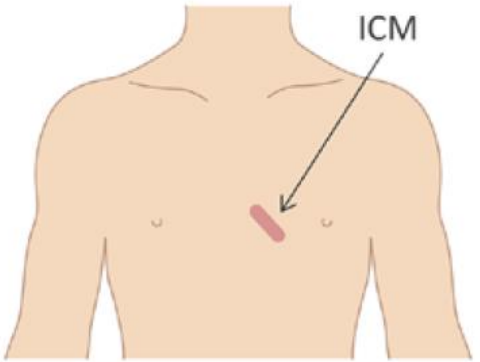
Stroke unit/in-hospital telemetry monitoring



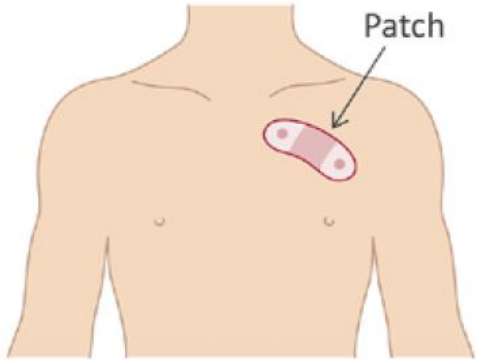
Long-term Holter



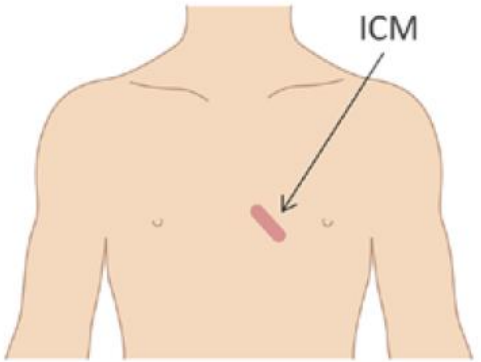
1-2 week continuous ECG patches



Implantable cardiac monitors



1-2 week continuous ECG patches



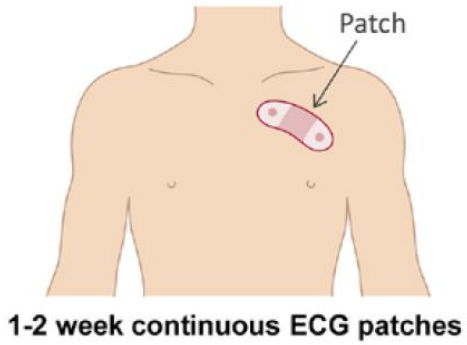
Implantable cardiac monitors

Notre organisation à Marseille

➔ 2 périodes pour la détection de la FA

➔ Période hospitalière en UNV (IC, patient naïf de FA)

- **Admission**



→ 72 h minimum

> 72 h si aucune cause déterminée

- **J-1 Sortie: Analyse du tracé par IA/Rythmologues**

FA

Pas de FA

Discussion Neurovasculaires/Rythmologues

- **Sortie: Implantation MCI (Hospitalière ou différée)**

➔ Période post-hospitalière (ambulatoire, SSR,…)

Télé-cardiologie

Staff cardio-neurologie