

IMPLEMENTATION OF ATRIAL FIBRILLATION OPPORTUNISTIC SCREENING IN PEOPLE >60 YEAR-OLD: results, barriers and enablers (AFOSS prospective study).

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Background

The incidence of atrial or fibrillation (AF) and its complications increase with the constant aging of the population. It is estimated that atrial fibrillation (AF) increases the risk of suffering a stroke by 3-5 times. AF, along with high blood pressure, is one of the risk factors for ischemic stroke that is insufficiently detected and treated in the general population. AF was undiagnosed in 24-31% of patients who experienced an episode of stroke associated with AF.

Aims

Identify the barriers to opportunistic AF screening (AFs) in the general population ≥60 year-old and related stroke incidence.

Methods

We carried out a observational, longitudinal, prospective and multicentric study cohort of 48336 people between 01/01/16-31/12/2017. Main variable: a record in the patient's medical history of opportunistic screening for AF during the period from 01/01/2016 to 31/12/2017. The patient's record would indicate whether opportunistic screening was performed. It is defined as pulse palpation during routine GP consultations at least once a year with 12-lead ECG confirmation of an irregular pulse or an ECG for instance during an annual cardiac disease review with the result recorded as "rhythmic" (R) or "arrhythmic"(AR).

The effectiveness of the opportunistic screening was defined as the number of newly diagnosed AF cases that were directly detected by its realization vs the number of newly diagnosed AF cases without targeted screening. Adjusted incidence of new AF and number of screening cases needed to diagnose a new AF.

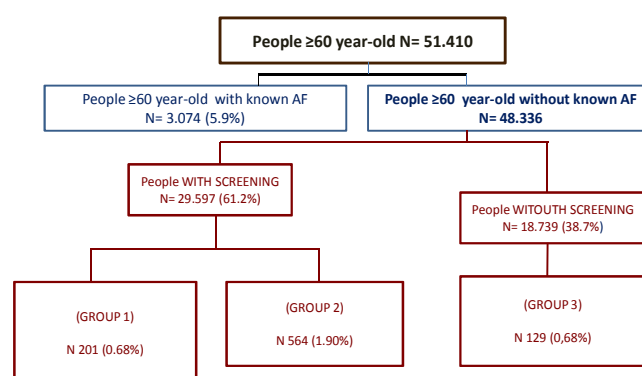
Descriptive analysis has been stratified according to whether the screening was performed. To measure the association of variables with the realization of AF screening we calculated the cross odds ratio and adjusted (multivariate model) value using logistic regression.

The project was approved by the Ethics Committee for Scientific Research IDIAP Jordi Gol, protocol number (P18/118), and has a public record at ClinicalTrials.gov. Identifier: NCT03589170.

Results

The flowchart of the activity is shown in **Figure 1**

Figure 1. Results Opportunistic Atrial Fibrillation Screening (2016-2017)



The adjusted incidence of AF in people ≥60 year-old [6.8 cases per 1000 people/year (CI95% 5.8-7.8)] associated with the opportunistic detection neither showed significant differences with the adjusted incidence of AF in the non-screening group [6.9 cases per 1000 people (CI95% 5.6-8.2)], nor differences in the adjusted stroke incidence as shown by the rate ratio of 1.13 [CI95% 0.398-3.252].

After adjusting all the variables, those identified in the multiple variant regressions as significantly associated to receiving or not opportunistic screening were the following:

Age ≥70 years (HR 2.47 CI95% 2.36-2.58, p <0.001)
 Rural residence (HR 1.38 CI95% 1.25-1.44, p <0.001)
 Charlson score ≥3 (HR 2.97 CI95% 2.75-3.19, p <0.001)
 Visit/year ≥7 (HR 1.07 CI95% 1.07-1.08, p <0.001)
 Institutionalized status (HR 0.37 CI95% 0.33-0.41, p <0.001)
 "Cognitive impairment" (HR 0.51 CI95% 0.45-0.55, p <0.001)

No differences associated with sex were identified (HR 0.98 CI95% 0.95-1.02, p 0.403)

Conclusions:

- **Opportunistic screening identifies variables that facilitate defining the target population in which to prioritize its implementation resulting in more effective results (<70 year-old, urban residence, and fewer consultation than average)**
- **The opportunistic screening results would include variables related to barriers or enablers as accessibility to health services, age, place of residence and comorbidity that the fact of constituting an opportunistic advantage in the detection of AF.**