

action had been taken to identify the episodes and notify the general practitioner (GP).

**Method** A retrospective analysis of pacing clinic notes was made for 100 consecutive patients attending pacemaker interrogation.

12 NEW cases of AF were diagnosed from the utilisation of pacemaker technology.

1 (8%) of the 12 was already anticoagulated and documented.

2 (17%) patients - no clear documentation of action taken e.g. GP informed.

9 (75%) patients - clear documentation that GP had been informed and action had been taken.

17 patients had episodes of MS greater than 30 s.

10 (59%) had intracardiac electrogram monitoring (EGM) activated and returned to clinic in two months time.

1 (6%) patient had an older device with no EGM monitoring available and was fitted with a holter monitor.

6 (35%) patients had no clear plan documented.

A repeat retrospective analysis of 100 patients was made 6 months later and the results showed:

19 NEW cases of AF were diagnosed.

3 (16%) of the 19 was already anticoagulated and documented.

16 (84%) patients - clear documentation that GP had been informed and action had been taken.

All patients were appropriately managed.

16 patients had episodes of MS greater than 30 s.

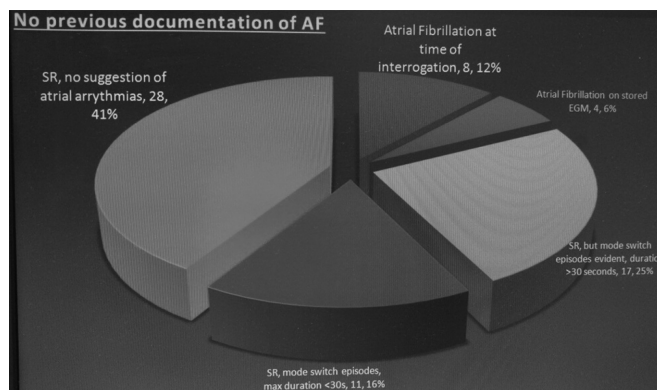
13 (81%) had EGM activated and returned to clinic in two months time.

1 (6%) patient had an older device with no EGM monitoring available and was already anticoagulated.

2 (13%) patients were nearing battery replacement and EGM storage was not activated to conserve battery life.

**Conclusion** AF is highly prevalent in our pacemaker population. Utility of pacemaker technology by cardiac physiologists improved early detection and treatment of AF in 83% patients. This improved patient outcomes and reduced stroke risk significantly.

Future improvements included a clear, auditable pathway for physiologists when AF is suspected/identified to ensure this is consistently communicated to patients and their doctors. This is reflected from the repeat retrospective study which has shown raising awareness can have an impact.



**Abstract 48 Figure 1** 32 of the 100 patients were diagnosed with AF previously

## Cardiac Rhythm Management

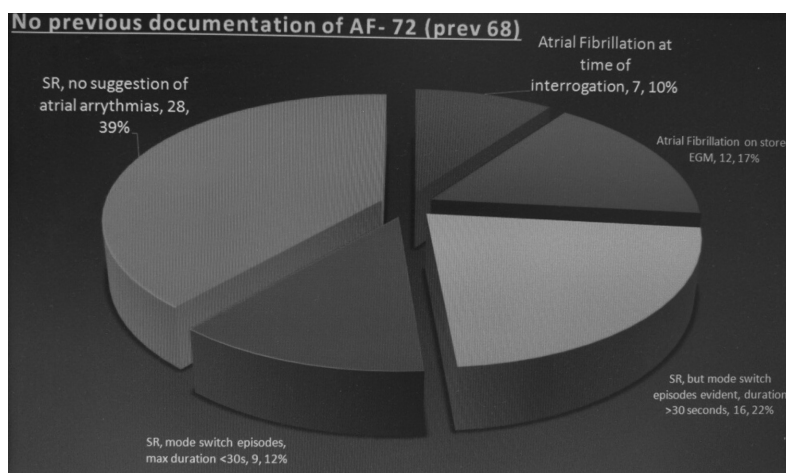
### 49 RAPID ACCESS AF CLINIC – A NEW SERVICE TOWARDS BETTER OUTCOME

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10.1136/heartjnl-2016-309890.49

**Introduction** Atrial fibrillation (AF) is one of the top ten reasons for hospital admissions. Failure to recognise this arrhythmia and risk stratify patients early on diagnosis can have detrimental consequences including high risk of thromboembolic events, stroke, heart failure and death. An audit conducted in our hospital (2011–2012) revealed that patients with AF stay an average 5.6 days in hospital. It has been estimated that billions of pounds are spent each year from health and social care budgets due to AF and AF related strokes.<sup>1</sup> To address this, a new service “Rapid access AF clinic (RAAFC)” was developed in our hospital in June 2012. This retrospective study explores the role of RAAFC on clinical outcomes since its introduction.

**Methods** 210 patients were seen in our clinic between 01/06/2012 and 30/10/2015. 56 patients were excluded from the analysis - 41 due to lack of access to records, 1 found to be in CHB and 14 in sinus rhythm. 154 patients were



**Abstract 48 Figure 2** 28 of the 100 patients were diagnosed with AF previously

included in the final analysis. Patients were divided into 2 groups depending on the duration of their symptoms. Group A (symptoms <48 h, n = 49) were seen in clinic on the same day. After clinical assessment, patients were cardioverted with flecainide and if failed underwent electrical cardioversion. Group B (symptoms >48 h, n = 105) were advised rate control medications, anticoagulants and arranged for cardioversion after 6 weeks when maintained in therapeutic INR. Those with poor rate control or early signs of instability, underwent TOE guided cardioversion. Follow-up ranged from 3 months to a year.

**Results** The mean age of the patients was  $63.8 \pm 13.8$  years and 67.5% were male. Patients characteristics at baseline are shown in Table 1 and final outcomes in Table 2. Worryingly 57.1% of the patients scored 2 or above on CHADS<sub>2</sub>Vasc risk assessment of which 61.4% were not on anticoagulants. During follow-up, a high proportion of patients (63.9%) were asymptomatic and 66.7% maintained in sinus rhythm. The average length of stay was  $2.72 \pm 8.44$  h. Only 4 patients (0.04%) were readmitted prior to their initial follow-up due to recurrence of AF. Two patients in group B developed complications related to thromboembolism. One had left femoral artery embolism requiring embolectomy and the other had TIA 2 days following TOE guided cardioversion. The patient who had embolic event had CHADS<sub>2</sub>Vasc score of 2 and developed symptoms 3 days after commencing warfarin when INR was subtherapeutic.

**Conclusions** RAAFC appear very effective in preventing hospital admissions, reduce length of stay and also helpful in identifying high risk patients who benefit from anticoagulation. We recommend RAAFC initiated in each trust to lower morbidity, mortality and also costs to NHS.

## REFERENCE

- 1 Camm AJ, Kirchhof P, Lip GY, *et al.* Guidelines for the management of atrial fibrillation. The task force for the management of atrial fibrillation of the European Society of Cardiology. *Eur Heart J.* 2010;**31**(19):2369–429

**Abstract 49 Table 1** Baseline characteristics clinical outcomes

Variable (n = 154)	< 48 h (n = 49) (%)	> 48 h (n = 105) (%)
Female	14 (28.6%)	34 (32.3%)
Source of referral	15 (30.6%)	70 (66.7%)
Primary	20 (40.8%)	18 (17.1%)
Secondary	14 (28.6%)	17 (16.2%)
Self		
CHA <sub>2</sub> DS <sub>2</sub> -VASc score	28 (57.1%)	19 (18.1%)
0	7 (14.3%)	14 (13.3%)
1	8 (16.3%)	22 (21.0%)
2	6 (12.2%)	50 (47.6%)
3+		
HASBLED	37 (75.5%)	37 (35.2%)
<1	12 (24.5%)	68 (64.8%)
>1		
Anticoagulation	11 (22.4%)	41 (39.0%)
Already established	9 (81.8%)	40 (97.6%)
Warfarin	2 (18.2%)	1 (2.4%)
NOAC	38 (77.6%)	64 (61.0%)
None		

**Abstract 49 Table 2** Clinical outcomes

Variable	n	Percentage
Maintaining Sinus Rhythm	72	66.7%
In AF	36	33.3%
Readmissions prior to first follow up	4	0.04%
Complication	0	0.01%
Stroke	1	0.01%
TIA	1	
VTE		
Symptomatic	39	36.1%
Asymptomatic	69	63.9%

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## A MEASURABLE CLINICAL PATHWAY FOR ATRIAL FIBRILLATION: WHAT ARE THE BENEFITS FOR PATIENTS, CLINICIANS, COMMISSIONERS AND CARDIAC NETWORKS?

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10.1136/heartjnl-2016-309890.50

**Introduction** The Strategic Clinical Network CM SCN has developed a unique clinical pathway for atrial fibrillation (AF) as part of a 3 phase approach to improve outcomes for people with AF or at risk of AF. Phases 1 and 2: promotion of NICE guidance (with audit review) on anticoagulation (AC) and education and support to primary care are complete.

The pathway includes key process and outcome measures based on best practice and guidance. This facilitates robust clinical management of AF and reduces associated morbidity and mortality. Clinicians, providers, cardiac networks and commissioning organisations can now measure the validity and effectiveness of clinical interventions across the full pathway of AF-related care in addition to promoting effective collaborative working.

**Methods** The CM SCN identified and brought together an expert panel of clinicians and managers to create the pathway. The experience of the expert panel ranged from public health, primary, secondary and tertiary care and included specialists from general practice, general cardiology, nursing, pharmacy, electrophysiology and interventionists.

An independent external facilitator (funded by Boehringer Ingelheim) managed the process and delivered the pathway on time. The pathway was developed by email (Delphi technique) and required three half day meetings. Process and outcome measures were agreed by both clinicians and managers.

Aims of the pathway are: Prevention of atrial fibrillation, early detection of atrial fibrillation, treatment of atrial fibrillation in acute and long-term settings, reduction of complications and support at the end of life.

There are four sections to the pathway 1) Screening 2) Identification and assessment of AF 3) Initial management 4) Long-term management. Each section contains a flow chart, key points on the purpose, importance and consequence of each section, specific notes on each section and a table with indicators, standards, guidelines and competencies.

**Conclusion** We have shown that it is possible within nine months to produce a comprehensive pathway for people with