


Primary and Secondary Care Working Together to Manage Atrial Fibrillation More Effectively: One Centre's Experience

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Cardiac Rhythm Management (CRM) Team

- ▶ 5 Consultant Cardiologists
 - ▶ 1 Consultant Neurophysiologist
 - ▶ 6 CRM Specialist nurses
 - ▶ 1 Epilepsy Specialist Nurse
 - ▶ 1 Nurse Consultant
 - ▶ 8 Cardiac Physiologists
 - ▶ 2 Health Care Assistants
 - ▶ 3 Administrative Assistants
 - ▶ Specialist nurses – At least masters level/non medical prescribers, clinical skills, arrhythmia/syncope module, competency based in house training
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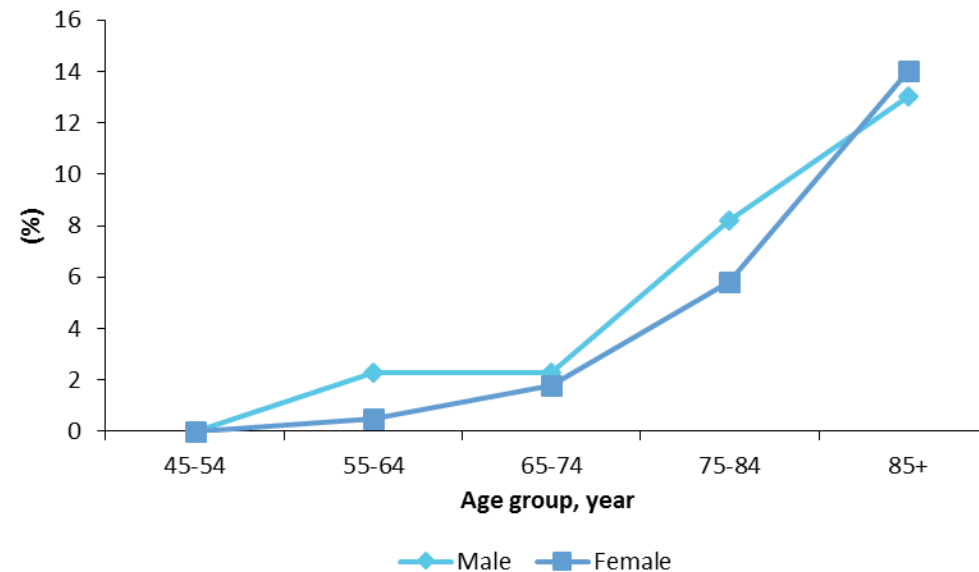
CRM Specialist Nurse Service

- ▶ Specialist nurses involved throughout the patient pathway
 - ▶ Pre assessment to discharge of all non complex patients
 - ▶ Patient helpline
 - ▶ Nurse led clinics new and review, blackout and arrhythmia
 - ▶ Nurse led Implantable loop recorder service – Implant/Explant and follow up
 - ▶ Nurse led community outreach service for patients with arrhythmia
 - ▶ Management of patients with atrial fibrillation in various settings
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Epidemiology of AF in the UK

- ▶ AF is the most common sustained cardiac arrhythmia
 - Prevalence in England considered to be ~2%^{1,2}
- ▶ Prevalence increases with age^{1,3}
- ▶ 85% of people are diagnosed with AF aged ≥ 65 years⁴
- ▶ AF is becoming more prevalent due to the rising population⁴
 - England population aged ≥ 65 years is predicted to rise by 23.6% between mid-2011 and 2021⁴

Prevalence of AF by age and sex³



Community Outreach Arrhythmia Clinics

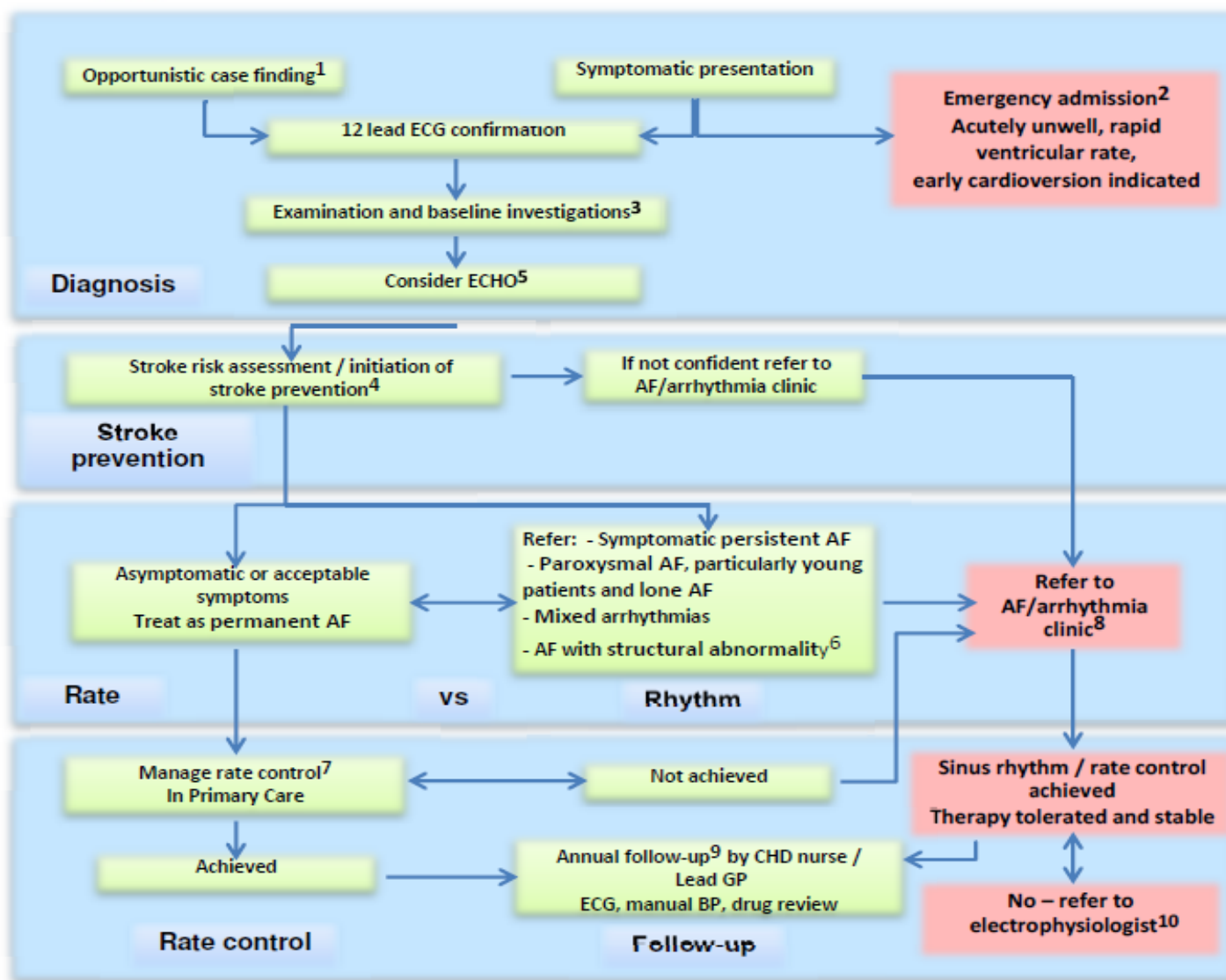
- ▶ 7 clinics per week delivered in various community settings
 - ▶ Approximately 1,200 new patients per annum
 - ▶ Approximately 60% are patients with AF
 - ▶ Audit demonstrates effective and efficient service
 - ▶ Delays and inefficiencies in patient pathways identified
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North of England Cardiovascular Network Atrial Fibrillation Pathway



Northern England
Strategic Clinical Networks



For details please refer to the Northern England Strategic Clinical Networks guidelines www.nescn.nhs.uk

1. Patients aged 65 and older should have a manual pulse palpitation at least annually and any irregularity should be followed up with a 12 lead ECG
2. Consider emergency hospital admission or attendance at ambulatory care unit for patients with haemodynamic instability, heart failure, chest pain, breathlessness at rest, light-headedness or syncope, stroke/TIA, rates in excess of 150bpm and wide QRS complexes. Patients considered for immediate cardioversion (clear history of AF onset within 48hrs)
3. Physical examination including manual BP evaluation, 12lead ECG if not already carried out, FBC, U & Es, TFTs and LFTs, CXR if appropriate
4. See reverse for details
5. Consider echocardiogram for patients with suspected structural heart disease murmur, abnormal ECG etc. and occasionally for refinement of stroke risk assessment
6. Structural heart disease such as valve disease, heart failure, cardiomyopathy
7. Target heart rate at rest <90bpm (<110 during exertion in sedentary individuals and 200 – age in active individuals). First line treatment beta-blockers or rate limiting calcium channel blockers
8. Provision of primary AF services vary across the network and may be provided by specialist nurses, GPwSi or within cardiology departments
9. Need to include review of stroke prevention and the appropriateness of the rate/rhythm strategy
10. For consideration of pulmonary vein isolation, pacemaker/AV node ablation or surgery

Problems identified

- ▶ Patients identified in surgical pre admission clinics with previously undetected AF leading to postponed/cancelled surgical procedures and delays in management of AF/stroke risk prevention
- ▶ Lack of confidence within primary care regarding initiation of oral anticoagulation
- ▶ Detection of AF in podiatry Clinics - Ensuring patients found to have an irregular pulse in podiatry clinics signposted to GP for further investigations



Streamlining the Patient Pathway



ACADEMIC HEALTH
SCIENCE NETWORK
NORTH EAST AND NORTH CUMBRIA



Projects

- ▶ Managing AF in surgical pre assessment clinics - Patients identified in surgical pre admission clinics with previously undetected AF assessed by STAT at point of diagnosis, prompt initiation of medical therapy and support given to GP's with regards to management of the patient
- ▶ Managing AF in Primary Care - South Tees Arrhythmia Team (STAT) working in collaboration with primary care colleagues to ensure all patients are appropriately anticoagulated
- ▶ Detection of AF in podiatry Clinics - Ensuring patients found to have an irregular pulse in podiatry clinics signposted to GP for further investigations

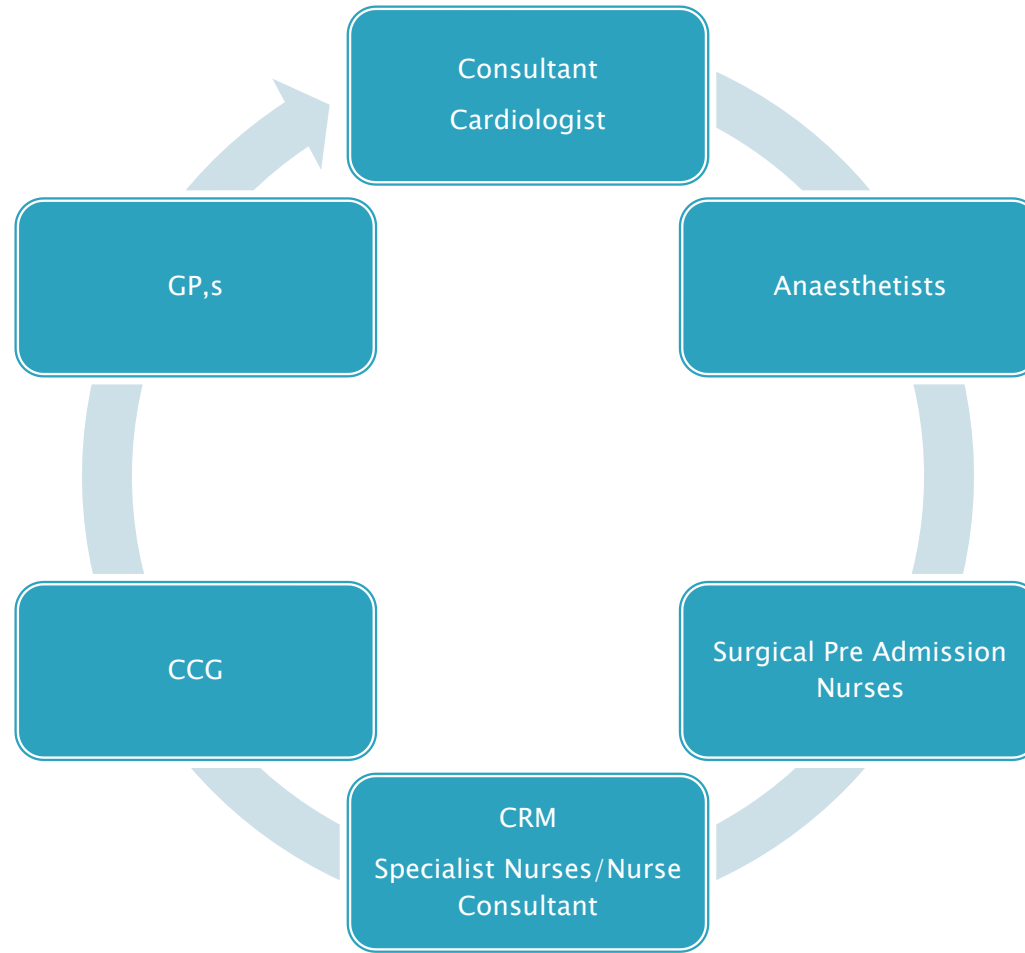


Surgical Pre-operative Assessment


- ▶ Inefficiency in existing pathway leading to delays of surgical procedures of up to 12 weeks and more
- ▶ Patients sent back to GP for management of AF some patients then referred on to CRM team for advice on management
- ▶ Significant delays in initiation of anticoagulation
- ▶ Lack of confidence amongst surgical pre admission staff with regards to ECG analysis and management of arrhythmias identified

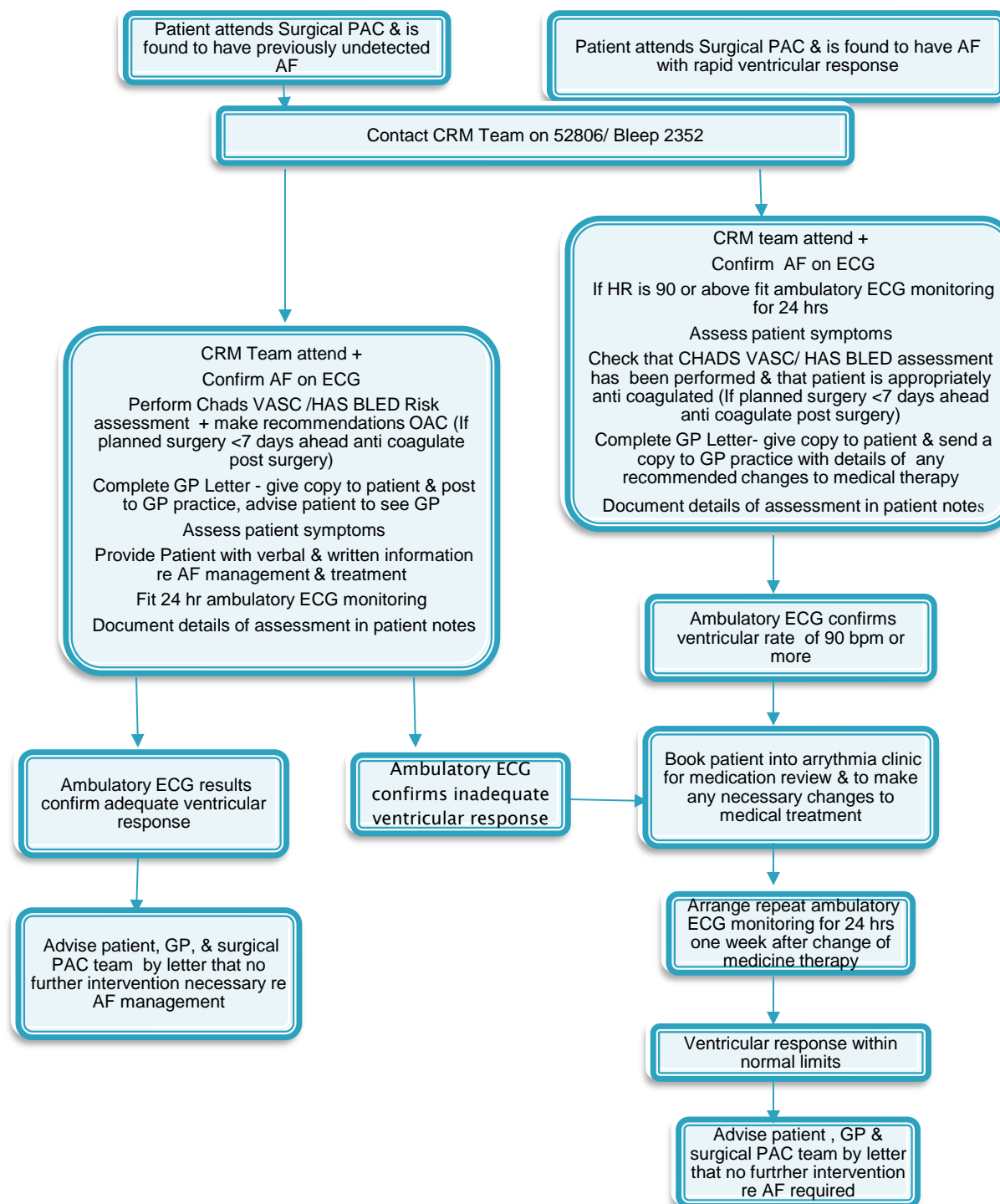


Steering Group



Aims

- ▶ Develop new pathway to ensure prompt patient assessment/management by appropriate health care professional
 - ▶ Reduce need for onward referrals between primary and secondary care
 - ▶ 3 month pilot
 - ▶ Provide education for surgical pre admission team with regards to ECG analysis and stroke risk assessment
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Dear Dr

I am writing to inform you that (patient name) has recently attended for a pre-operative assessment and has been found to be in atrial fibrillation. A stroke risk and bleeding assessment has been performed as below.

CHA ₂ DS ₂ -VASc	Score
Congestive heart failure	
Hypertension	
Age ≥ 75y	
Diabetes mellitus	
Stroke/TIA/TE	
Vascular disease	
Aged 65 to 74 y	
Female	
Total score	


HAS-BLED Risk Factors	Score
Hypertension	
Abnormal renal function	
Abnormal Liver	
Stroke	
Previous Bleeding	
Labile INRs (TTR <60%)	
Elderly Age >65	
Drugs (NSAIDS/ASPIRIN) ALCOHOL (8 or more units per week)	

We therefore recommend the following:

Anticoagulation	Yes	No	Details
Other medication changes	Yes	No	
Any other action required	Yes	No	
Follow up	Yes	No	

Yours sincerely

Results over 9 months

- ▶ CRM team contacted for advice 41 times
 - ▶ Nurses attend within 20 minutes
 - ▶ ECG analysis
 - ▶ Assessment of patients with previously undetected AF/stroke risk stratification
 - ▶ Management of patients with known AF with rapid ventricular response
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Management of Patients with AF

Patients with known AF with rapid ventricular response requiring rate control	Patients with previously undetected AF	Patients requiring new initiation of OAC	Patients with known AF identified as not being appropriately anti coagulated
11	19	17	6

Other findings

ECG finding	Numbers	Action
Atrial flutter	2	Same pathway as for patients with AF followed
Atrial tachycardia	2	Rate control recommended and patient reviewed in community arrhythmia clinic
Complete heart block	2	Patient admitted for pacemaker implant
Sinus rhythm with atrial ectopy	3	Reassurance given to patient and to surgical pre admission nurses
Pre excitation	2	Reviewed, diagnosed with WPW and listed for EPS/Ablation

Results

- ▶ Patients previously waiting up to 12 weeks for stroke risk stratification/initiation of anticoagulation. Now seen and managed within 20 minutes at point of detection of AF
 - ▶ Patients with AF rapid ventricular response receiving timely assessment and management
 - ▶ Reduction in delayed/cancelled surgical procedures
 - ▶ Removed the need for onward referral of patients between primary and secondary care
 - ▶ Increased ECG analysis skills within the surgical pre admission clinic team. Audit demonstrated that 100% of staff attending felt more confident in ECG interpretation
 - ▶ Improved communication between general surgery and cardiology
 - ▶ Improved communication between primary and secondary care
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Podiatry

- ▶ Identified a growing number of referrals from podiatrists identifying irregular pulses during routine diabetes foot checks
- ▶ Identified a possible route for increasing detection/diagnosis of atrial fibrillation
- ▶ Further investigation through the AHSN steering group revealed a gap in existing pathway with some podiatrists detecting irregular pulses but not referring back to the GP for investigation
- ▶ Pilot work in Durham and Dales with 45 podiatrists noting irregular pulses on Systm1 for GP to investigate for potential AF
- ▶ Aim is to discover % of patients with undiagnosed AF and ensure GP's are notified of any patients found to have irregular pulses



Results–Over 3 month period


Number of podiatrists	45
Number of foot checks	16,000
Number of patients with previously undiagnosed AF	10
Number of patients with previously undiagnosed AF requiring OAC	9
Extrapolated numbers of patients over 12 months in Durham and Dales alone	40
Pathway now in development with lead podiatrist in each area identified to implement this	

Management of AF in Primary Care


- ▶ Work with primary care colleagues to identify and manage patients who are not appropriately anti coagulated




What does the project offer?

- ▶ CRM nurses with IT support going into GP practices and running IT programmes to identify patients with AF and their management
 - ▶ Identifying patients who are not appropriately stroke/bleeding risk stratified
 - ▶ Making recommendations with regards to anti coagulation
 - ▶ Running clinics within the GP practices to see any patients identified as requiring review of/initiation of anticoagulation
 - ▶ Working closely and providing education for individuals within the practices to ensure that appropriate monitoring and management of patients is ongoing
 - ▶ Providing education sessions
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Managing AF in Primary Care

- ▶ Project implemented through the AHSN with financial support from industry
 - ▶ Letters and e mails sent to all GP Practices across South Tees and Hambleton and Richmondshire with details of project (70 practices)
 - ▶ Slow response! But positive impact in partaking practices
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Results

- ▶ Ongoing project which is in the process of evaluation
 - ▶ 22 practices expressed an interest and have either been completed or have work ongoing
 - ▶ Number of patients identified as not being appropriately anticoagulated has ranged from 8 – 32 per practice
 - ▶ 15 educational sessions for health care professionals have been delivered within practices
 - ▶ Following evaluation of the first stage of the project details of results will be sent to all GP practices with another invitation to take part in the project
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Conclusion/Future Plans

- ▶ Streamlined the pathway for patients with atrial fibrillation attending surgical pre admission
 - ▶ Identified a need for clear referral pathway for patients detected with irregular pulse in podiatry clinics
 - ▶ Work within GP practices has been challenging and slow to take off but is having a positive impact
 - ▶ Developed closer relationships between primary and secondary care
 - ▶ Increased job satisfaction for CRM nurses
 - ▶ Aim to continue with projects, evaluate and write up findings at 12 months
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Thank you for listening.....

Any Questions?

