

Cardiac and Stroke Networks in
Lancashire & Cumbria
Lancaster Morecambe Carnforth
and Garstang PBC
North Lancashire Teaching PCT

Management of Atrial Fibrillation in Primary Care

Jeannie Hayhurst, CSNLC

Lauren Butler, CSNLC

Andrew Gallagher, GPwSI

Tom Pickering, PBC Director

Background

- Fylde Coast Primary Care Guidelines
- Cardiac Network Primary Care Group
- Network Clinical Advisory Group
- Ratified by Clinical Governance of host organisation
- National Priority Project with NHS Improvement – Heart and Stroke
- Sign up from NHS North Lancashire (PBC)
- Six participating practices in Lancaster and Morecambe

Issues

- Diagnosis
 - Uncertainties with ECG diagnosis
 - Difficulties catching PAF
- Rate or rhythm control
- Who to anti-coagulate
 - Multiple guidelines
 - Worries re older patients
 - Role of echocardiography
 - Poorly defined pathways

Project aims

- **Primary study**

- To promote opportunistic screening in primary care
- Ensure accurate and timely confirmation of diagnosis
- Encourage use of evidence based pathways

- **Secondary study**

- Application of telemedicine
- ECG interpretation
- Use of 'mini-clinic' single lead ECG device

Participants

- PBC: 13 practices
- Six practices in Lancaster and Morecambe participated:
 - Smallest 7 161 3 partners
 - Largest 31 306 21 partners
 - Total nearly 92 000 patients

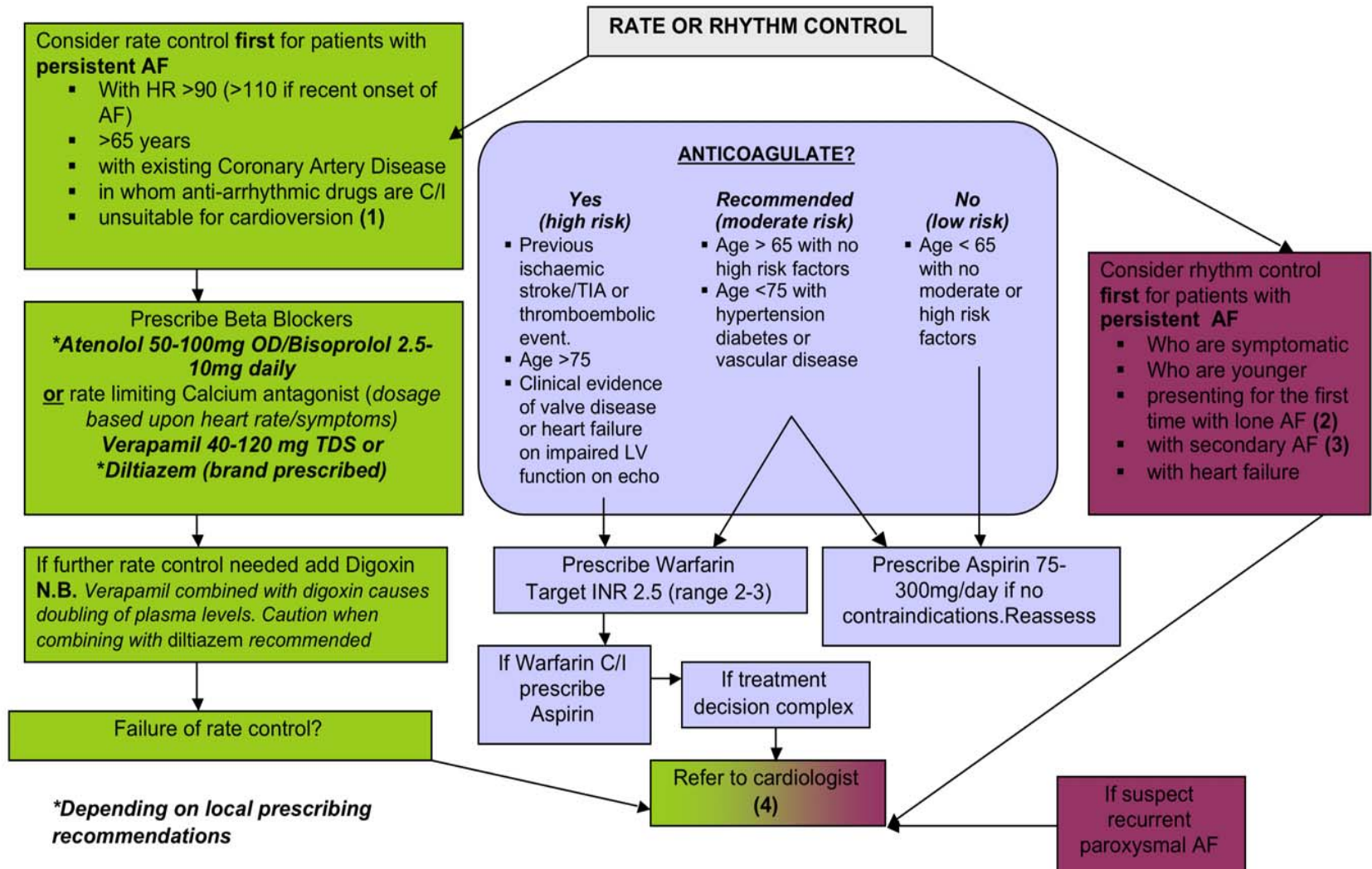
A partner from each practice acted as practice lead for the project

Practice visit

- Project Guide
- Guidelines
- Discussed practice prevalence – register validation – opportunistic screening
- Confirmation of diagnosis – training needs
- Local anticoagulation service
- Prescribing trends

The Algorithm

Lancashire & South Cumbria Cardiac Network



Anticoagulation

ANTICOAGULATE?

Yes (high risk)

- Previous ischaemic stroke/TIA or thromboembolic event.
- Age >75
- Clinical evidence of valve disease or heart failure on impaired LV function on echo

Recommended (moderate risk)

- Age > 65 with no high risk factors
- Age <75 with hypertension diabetes or vascular disease

No (low risk)

- Age < 65 with no moderate or high risk factors

NICE guideline but age > 75 high risk factor in it's own right

Raising awareness

CHECK YOUR PULSE



SAXMUNDHAM
HEALTH

An irregular pulse can make strokes more likely. If you think your pulse is uneven then please see the Practice Nurse.

110,000 strokes occur in England and Wales every year and up to 30,000 are thought to be due to Atrial Fibrillation.

Atrial Fibrillation is often a silent condition that causes an irregular and completely unpredictable pulse. It can lead to small blood clots in the heart that can result in strokes but these can usually be prevented by 'thinning the blood'.

We want to try to find these people who are four times more likely to have a stroke and work towards reducing this risk together.

So, stroke the beat

TO BEAT A STROKE

- Practices put manual pulse check in relevant templates
- Reminders on electronic BP machines

Audit

- Figures were collected at baseline and 12 months after introduction of the guideline
- Figures were collected by practice pharmacists and practice nurses using QoF data
- Collected
 - Patient numbers by age
 - Warfarin and aspirin
 - Rate and rhythm controlling treatments

Results: overall prevalence

	Pre			Post			
Practice	Practice population	Total number AF register	Prevalence %	Practice population	Total number AF register	Prevalence %	Relative change %
A	10500	189	1.8	10397	199	1.9	+6.33
B	13372	217	1.6	13450	216	1.6	-1.03
C	9218	143	1.6	9168	150	1.6	+5.5
D	20059	116	0.6	19882	119	0.6	+3.5
E	31306	573	1.8	32002	619	1.9	+5.7
F	7161	135	1.9	7098	146	2.1	+9.1
Total	91616	1373	1.50	91997	1449	1.58	+5.1

Already exceed national prevalence figures of 1.3%

D is the university practice with 12 000+ student population; this would have diluted overall prevalence; prevalence excluding students 1.76% pre, 1.84% post

Increase in patients on AF register 76

Absolute increase 0.08%, relative increase of 5.1%

Results: prevalence > 75 years

	Pre			Post			
	Practice population > 75 years	Number on AF register > 75 years	Prevalence % > 75 years	Practice population > 75 years	Number on AF register > 75 years	Prevalence % > 75 years	Relative change %
A	942	100	10.6	911	117	12.8	+21.0
B	997	109	10.9	1041	120	11.5	+5.4
C	622	74	11.9	633	83	13.1	+12.8
D	576	69	12.0	568	74	13.0	+8.8
E	3043	325	10.7	3014	352	11.7	+9.3
F	725	84	11.6	715	90	12.6	+8.6
Total	6905	761	11.02	6882	836	12.15	+10.2

Increase in patients on AF register over 75 of 75
 Absolute increase 1.13 % relative increase of 10.2%

Prophylaxis

- Aspirin use reduced slightly from 40.6 to 40.3%
- Warfarin usage increased from 41.2 to 47.5%
- Warfarin use in over 75s remained static at 45.9%

Rate and rhythm controlling drugs

- Digoxin usage dropped from 33.4 to 31.0%
- Beta-blocker usage and RLCCB usage both remained static at 41% and 14% respectively
- No significant change in rates of prescription of rhythm controlling drugs

Summary of findings

- Increase in prevalence especially in the over 75s
- Trend to increased warfarin use though no change in over 75s
- Trend to reduced use of digoxin

What it didn't tell us

- How many patients were new presentations and how many were due to register validation/improved coding
- Although we had good levels of anti-coagulation, how many were appropriate
- For those not on warfarin, were there contraindications
- If there was any impact on referral to secondary care

GP perception of study

- Felt to have been very useful
- Most practices have followed on with further audits

‘We have done a lot on AF as a result of this project, 2x medical student Special Study Modules since Jan 09 have had AF focus...’

‘I’m sure that the majority of us are more switched on about current guidelines for treatment of AF and the patient’s are getting a better quality of service. In summary I think it has been very worthwhile. It did involve a lot of work...’

Telemedicine pilot

- Practices identified uncertainty over ECG interpretation as an issue
- Seen as an opportunity to pilot role of telemedicine for interpretation of ECGs in Primary care
 - Assess ease of use and clinical and impact of technology for ECG interpretation and single lead diagnostic monitoring

Project outline

- Assess ease of use and clinical and personal impact of technology for ECG Interpretation and single lead diagnostic monitoring
- Assess patient population for clinical requirements for ECG recordings
- Assess GP competency levels for ECG Interpretation to inform GP's, secondary care and PCTs
- Share findings and support wider dissemination

Two parts:

- 12 lead ECG interpretation
- Use of single lead device

ECG Interpretation

- ECG taken
- Passed to GP
- Audit from completed
 - Indication for ECG: clinical symptoms (73%) long term conditions (21%) referral work up and screening (6%)
 - GP interpretation
- ECG faxed to Broomwell
- Result returned to practice
 - Review by GP and collation of results
- ECGs reviewed by local cardiologist

Results

- 4 out of the 6 practices participated
- 193 ECGs analysed
- Mismatch in 35 out of 193 = 18%
 - 25 different emphasis
 - ectopics, borderline axis deviation, partial RBBB, sinus brady
 - 10 felt to be significant = 5%
 - ST/T changes, long QT, 1° HB, LVH
- Changed outcome in 2/193

GP perceptions of the service

- Significant extra work (but this was a study)
- On the whole GPs felt this was a quality service but that it was unnecessary to send all ECGs
- In practice there are only a small number of ECGs where GPs feel they need a specialist opinion
- Felt this was best provided by local cardiologists (? protected time ? Use of non face-to-face consultation tariff)

Single lead device



- worn as wristwatch
- stores up to 5 recordings - advised transmission after each one
- USB modem to download to PC and transmit to Broomwell
- report and recording received within 24 hours by email or fax
- GP is able to view the ECGs

Single lead diagnostic results

Only eight patients used the single lead monitoring device, audit data received for 5, included:

+55 year old, exercise induced flutter, post stent, used out cycling to confirm this wasn't occurring

+60 year old female, history suggestive of ectopics, confirmed sinus rhythm

+45 year old female palpitations ? SVT. Confirmed SVT but unable to be precise re exact type

+55 year old male, known PAF, used in surgery to confirm he was in AF at the time

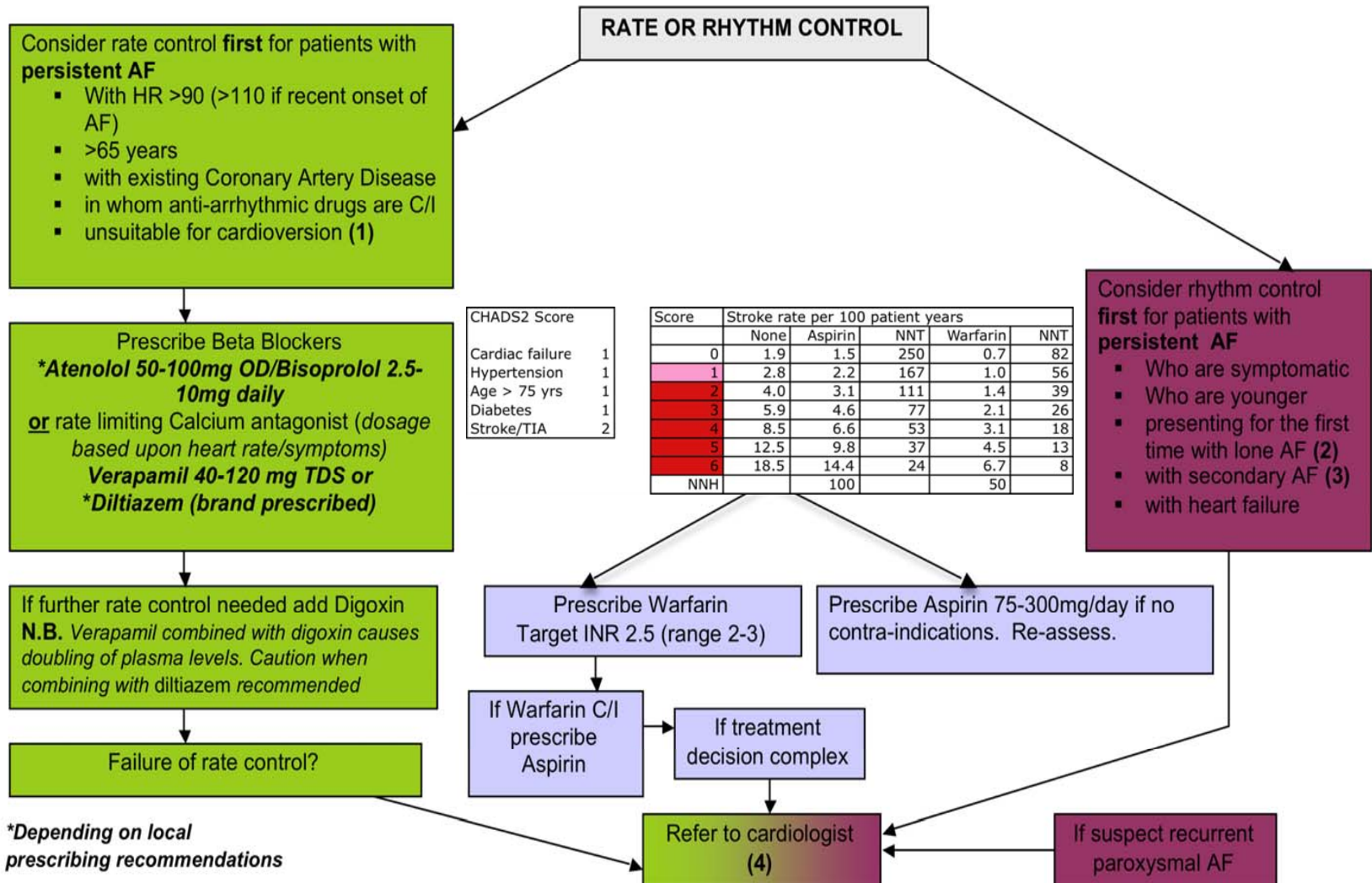
Summary of single lead device findings

- The single lead diagnostic device was seen as a very useful tool in investigation of arrhythmias
- Under utilized but we only had it for a short period
- Patients liked it and found it easy to use

Next steps

- Rolling out guideline to all of our PBC practices
- Introduce CHADS2 as standard decision making tool
- Encourage practices to use GRASP tool
- As a result of using the single lead device and a recent audit of 24 hour ECGs, would be useful to review open access investigations in light of newer technologies
- Possible redesign of arrhythmia service

Atrial Fibrillation algorithm



Any questions?