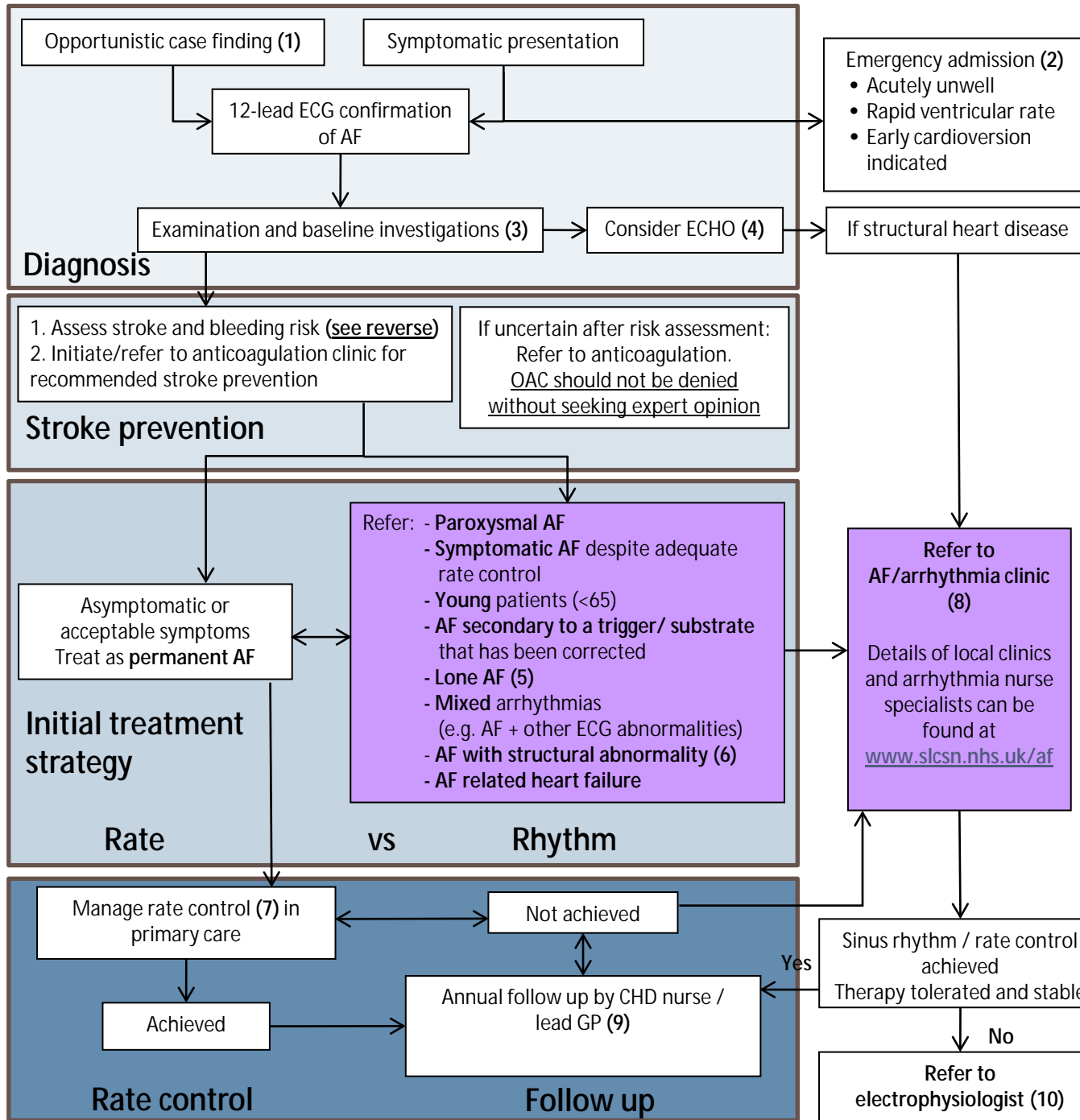


# South London Cardiac and Stroke Network Atrial Fibrillation Pathway for Primary Care



To be used in conjunction with:  
**SLCSN Arrhythmia Traffic Lights**

1. Patients aged 65 and older should have a manual pulse palpation at least annually and **any** irregularity should be followed up with a 12-lead ECG
2. Consider emergency hospital admission for patients with haemodynamic instability, heart failure, chest pain, breathlessness at rest, light-headedness or syncope, stroke / TIA, rates in excess of 150 bpm and wide QRS complexes. Patients should be considered for immediate cardioversion if there is a clear history of AF onset within 48 hours. Anticoagulate prior to cardioversion.
3. Physical examination including manual BP evaluation, 12-lead ECG if not already carried out, FBC, U & Es, glucose, TFTs and LFTs, CXR if appropriate
4. Consider echocardiogram for patients with suspected structural heart disease (murmur, abnormal ECG, etc.) and occasionally for refinement of stroke risk assessment
5. Such as no clinical history or echocardiographic evidence of cardiovascular disease
6. Structural heart disease such as valve disease, cardiomyopathy
7. Target heart rate at rest < 80 bpm; < 110 bpm during moderate exertion. (110 bpm at rest for sedentary individuals). First line treatment: beta-blockers (bisoprolol) or rate limiting calcium channel blockers (diltiazem or verapamil)
8. Provision of primary AF services vary across the network and may be provided by specialist nurses, GPwSI or within cardiology departments
9. Needs to include ECG, manual BP, drug review, 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

**Stroke prevention is the most important aspect of atrial fibrillation management.  
Anticoagulation is highly effective in reducing stroke risk – but is greatly underused.**

**AF as a cause of stroke**

National data

- The annual **risk of stroke is 5-6 times greater** in AF patients than in people with normal heart rhythm
- Without adequate anticoagulation, nearly 1 in 20 AF patients will suffer a stroke
- 18% of patients suffering a stroke are in AF at presentation
- AF-related stroke is associated with a heavier burden of morbidity and mortality than other types of stroke
- Warfarin is **highly effective** in preventing stroke in AF, reducing risk of stroke by 64% compared to placebo
- Aspirin only reduces stroke risk by 22%
- Particularly in the elderly, **the risk of major haemorrhage is similar** for warfarin and aspirin (1.9% versus 2.0% pa)
- For every 25 patients at high risk of stroke treated with warfarin approximately one stroke may be prevented each year
- The 2006 NICE guidance on AF concluded that **46% of patients who should have been receiving warfarin were not**

Further information/references can be found at: [www.slcsn.nhs.uk/af](http://www.slcsn.nhs.uk/af)

ESC guidelines for the management of AF can be found here: [www.escardio.org/guidelines-surveys/esc-guidelines/Pages/atrial-fibrillation.aspx](http://www.escardio.org/guidelines-surveys/esc-guidelines/Pages/atrial-fibrillation.aspx)

**Does my patient need anticoagulation (such as warfarin)?**

**Assessing stroke risk in AF patients using CHADS<sub>2</sub>**

**Paroxysmal AF, rate controlled AF and adequately rhythm controlled AF carry the same stroke risk as permanent or persistent AF. “Resolved” AF should also be considered as a thromboembolic risk and patients considered for anticoagulation**

**CHADS<sub>2</sub> stroke risk stratification tool is a validated means of assessing stroke risk**

- Identify stroke clinical risk factors in the patient from the table below
- Award the appropriate score for each risk factor
- Risk factors are cumulative. Sum the scores for the risk factors identified to give the patients CHADS<sub>2</sub> score

CHADS <sub>2</sub> score		CHADS <sub>2</sub> score	Stroke risk % pa
<b>Stroke clinical risk factor</b>	<b>Score</b>		
CHF	1	0	1.9
Hypertension	1	1	2.8
Age ≥75	1	2	4.0
Diabetes	1	3	5.9
Stroke /TIA	2	4	8.5
		5	12.5
		6	18.2

CHADS <sub>2</sub> score	Recommended stroke prevention
≥2	<b>Oral anticoagulant (OAC), (such as warfarin*)</b>
1	<b>Either OAC or aspirin 75–325 mg daily. Preferred: OAC rather than aspirin</b> <b>Consider applying CHA<sub>2</sub>DS<sub>2</sub>VASc. See <a href="http://www.slcsn.nhs.uk/af">www.slcsn.nhs.uk/af</a></b>
0	<b>Either aspirin or no antithrombotic therapy</b> <b>Preferred: no antithrombotic therapy</b>

\* Target INR 2-3 with time in therapeutic range >65%

**Notes:**

New oral anticoagulants (NOACs) are being introduced into the marketplace. Separate prescribing recommendations are available at the SLCSN’s Prescribing web page, [www.slcsn.nhs.uk/prescribing.html](http://www.slcsn.nhs.uk/prescribing.html), including the Network’s position statement on NOACs.

**GRASP-AF query and risk stratification tool is FREE and available for use with all GP clinical systems in England**

GRASP-AF identifies all patients on your AF register and calculates their CHADS<sub>2</sub> scores, highlighting those with a score of 2 or more not receiving OAC who would benefit from review.

To find out more and run the search, go to [www.improvement.nhs.uk/graspaf](http://www.improvement.nhs.uk/graspaf)

**The risks of anticoagulation AND aspirin**

**HAS-BLED bleeding risk score**

Hypertension	Systolic blood pressure >160mmHg	1
Abnormal renal and liver function (1 point each)	Abnormal renal function defined as presence of chronic dialysis or renal transplantation or serum creatine >200 µmol/L Abnormal liver function defined as chronic hepatic disease (e.g. cirrhosis) or biochemical evidence of significant hepatic derangement (e.g. bilirubin >2x uln, in association with AST/ALT/ALP >3x uln, etc)	1 or 2
Stroke / TIA		1
Bleeding diathesis	Previous bleeding history and/or predisposition to bleeding, e.g. bleeding diathesis, anaemia, etc.	1
Labile INRs	Unstable/high INRs or poor time in therapeutic range (e.g., 60%)	1
Elderly	(>65)	1
Drugs / alcohol (1 point each)	Concomitant use of drugs, such as antiplatelet agents, non-steroidal anti-inflammatory drugs, or alcohol abuse, etc.	1 or 2

A score of ≥3 is **NOT** a contraindication for OAC/aspirin. Exercise some caution with these patients and review regularly following initiation of OAC/aspirin.

If uncertain after risk assessment: patients with CHADS<sub>2</sub> score ≥2 (especially the elderly) should be referred to anticoagulation service. **OAC should not be denied to patients without seeking expert opinion**

**FALLS ARE NOT A MAJOR RISK FACTOR FOR BLEEDING IN ANTICOAGULATED PATIENTS** - Patients would need to fall ~300 times per year for risk of intracranial haemorrhage to outweigh benefits of stroke prevention

**Absolute contraindications to warfarin<sup>#</sup>**

- Hypersensitivity to warfarin
- Within two days of surgery
- Bacterial endocarditis
- Intracranial haemorrhage
- Bleeding diathesis
- Existing or recent peptic ulcer
- Uncontrolled hypertension >180 mmHg
- Pregnancy

<sup>#</sup> This is not an exhaustive list

Thanks to Surrey Heart and Stroke Network and North of England Cardiovascular Network