

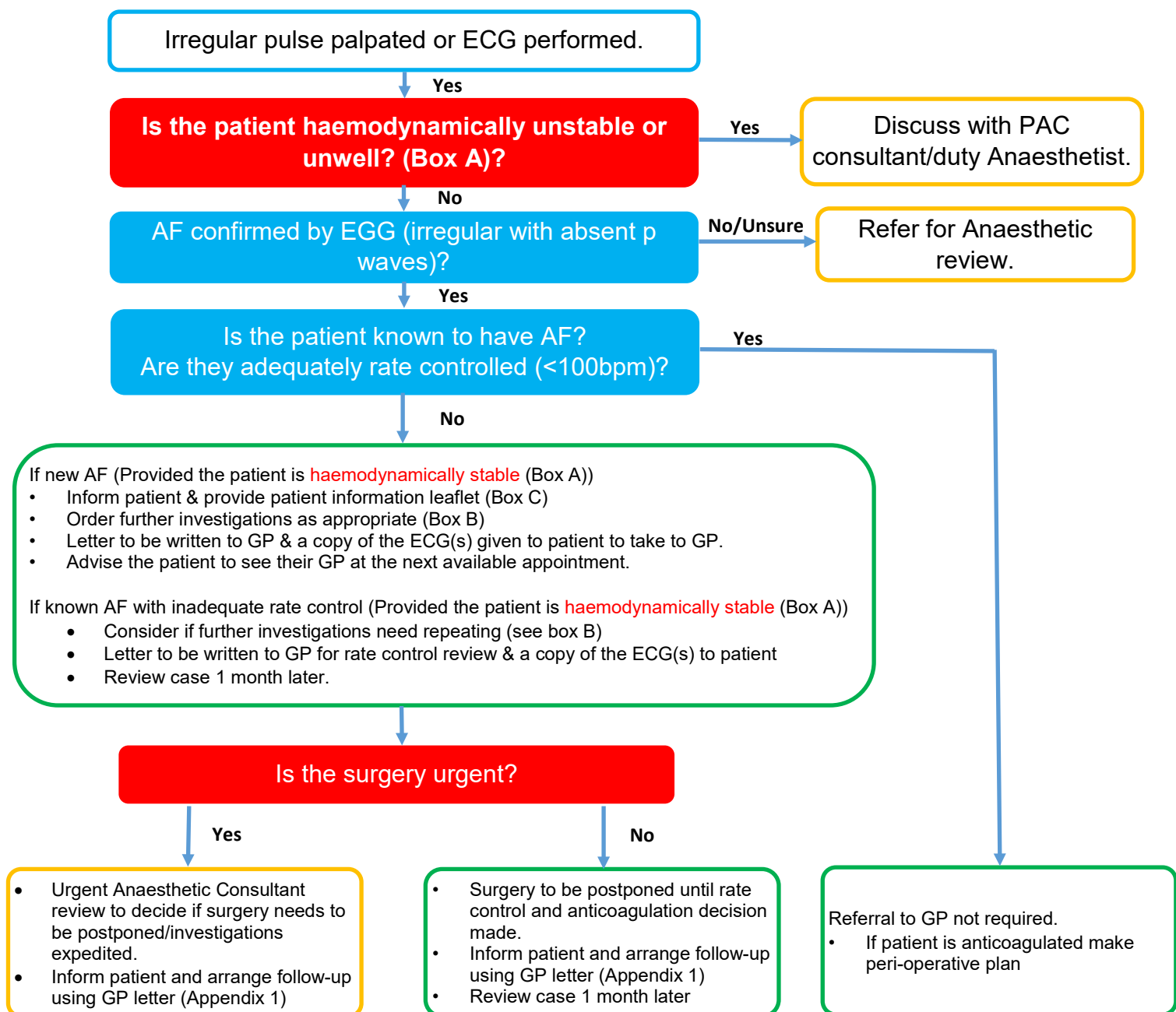


Swansea Bay Pre Assessment Guideline:

MANAGEMENT OF ATRIAL FIBRILLATION IN PRE-ASSESSMENT CLINIC.

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ATRIAL FIBRILLATION IDENTIFIED IN PRE-OP ASSESSMENT OF NON-CARDIAC SURGERY PATIENTS



Box A. Haemodynamic instability

- A patient may be considered **unstable** if their HR <50*, >140, BP <90 systolic, they have ongoing chest pain, severe breathlessness, dizziness or syncope, altered/loss of consciousness, clinical features of underlying acute pathology (e.g., stroke, infection, PE) or there is clinical concern from those assessing.
- *Note a resting heart rate of 40-50 even in AF may be normal for a young or very fit patient. Seek advice if uncertain.

Box B. Further investigations. (See full guideline for more details on when to request)

- Bloods: Full blood count, urea and electrolytes, serum magnesium, liver function tests, coagulation screen. Consider HbA1c and thyroid function tests
- Consider indications for chest x-ray and echocardiogram
- Refer for Anaesthetic review

Box C. Patient Information Leaflet

- Can be printed from <https://patient.info/heart-health/atrial-fibrillation-leaflet> and download the PDF.

1. Introduction:

Purpose of this guideline

- To create an easily understandable and workable pathway for patients who are reviewed by nursing staff in the pre-op assessment clinic
- To safely manage patients who are unwell and/or require urgent inpatient/hospital assessment or assessment by GP OOH
- To prevent unnecessary referrals to the acute medical team for patients who can be safely managed in the community by their GP
- To provide a guide as to which investigations are indicated to facilitate the patient's operation and/or management by the patient's GP
- To identify further medical problems which may impact the patient peri-operatively and require further referral and/or management

The purpose of the guideline is NOT

- To risk assess patients to decide if they need to commence anticoagulation
- To commence or adjust anticoagulation or medical management of AF
- To manage co-morbidities that may be identified

Atrial fibrillation is a common cardiac arrhythmia, caused by abnormal electrical activity within the heart, generated within the atria (1). ECG findings are classically an irregularly irregular rhythm, with an absence of 'p' waves (1). Patients with atrial fibrillation are commonly tachycardic until treatment is initiated.

Identification and management of AF is important: AF is associated with a higher risk of post-operative mortality, stroke, and heart failure (2). In the general population, it is associated with a higher risk of ischaemic stroke and requires consideration of long-term anticoagulation.

2. Investigations:

Identification of treatable/reversible triggers for AF is important.

NICE advises using clinical judgement regarding blood tests (3). A full blood count will help assess for infection or anaemia (4). Liver function and Renal function (urea and electrolytes) tests are suggested as it will guide the anticoagulation (if indicated). For this reason, a baseline coagulation can also be helpful. There is an association between chronic kidney disease and AF (5). Those with low serum magnesium are more likely to develop AF, therefore a serum magnesium should be checked (6). There is significant association between AF and diabetes, therefore we recommend an HbA1C is undertaken in those with newly diagnosed AF (provided one has not been performed in the last 3 months) (4). Thyroid function tests should be undertaken in newly diagnosed AF (provided they have not been performed in the preceding 6 weeks) or those with an increased rate with known AF (7) (8) (4).

A troponin is not recommended unless a diagnosis of acute ischaemic heart disease is suspected (i.e., you suspect a patient to be having active cardiac ischaemia) (4). AF alone is not an indication to suspect myocardial ischaemia (4).

Assess the patient for any clinical signs of symptoms of DVT or PE. The association between AF and VTE is poorly defined, although studies have suggested the development of AF is significant higher in those with VTE than those without (9).

An echo is indicated in those with suspected underlying structural heart disease (3). Heart failure and AF often co-exist, and each may predispose to the development of and worsen the severity of the other (10). Valvular lesions are associated with the development of AF (the risk varies with the specific lesion, although disease of the mitral valve is associated with a higher risk than the aortic) (11).

In those with Wolff-Parkinson-White syndrome, AF may be caused by retrograde conduction through an accessory pathway and therefore ablation of the pathway may reduce the development of AF and referral to cardiology is indicated (12).

A chest x-ray may be indicated in those who may have suspected lung cancer (consider in smokers >50 years, persistent coughs, weight loss or unexplained breathlessness) (13). If obstructive sleep apnoea is suspected, complete an Epworth/Stopbang supplement and check serum bicarbonate. Refer for anaesthetic review for consideration of the indications for sleep studies. (13)

3. Inpatient management/specialist referral

Guidelines suggest inpatient assessment is indicated for a heart rate of ≥ 150 (13). Given the irregular nature of the rhythm there is a potential pitfall of assessing rate from the automated reading at the top of the ECG, therefore the upper limit of acceptable rate has been reduced to 140. (13)

Other indications for managing a patient in the acute hospital setting include heart failure, hypotension, severe bradycardia or pauses, or treatment of an associated medical problem (malignant hypertension, infection, pulmonary embolism, myocardial ischaemia, pericarditis) (4) (13).

There is no need to refer patients who have asymptomatic AF with a rate of <140 for assessment in an acute hospital setting) (13). This is because they can be safely managed by their GP, and as the AF is likely to have persisted for more than 48 hours, they are not suitable for cardioversion until an appropriate duration of anticoagulation.

Specialist referral should be considered in those with a pre-excitation syndrome, valvular heart disease, heart failure or those with a reversible cause. We recommend that the decision for these referrals remains with the patient's own GP unless waiting for a referral would otherwise delay an urgent/cancer surgery (and that this should be discussed with an anaesthetist in this scenario) (13) (3).

4. References

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Appendix 1:

GP Referral Template



Pre-Assessment Unit,
Singleton Hospital, Sketty Lane,
Swansea. SA2 8QA.
01792 703651
SBU.PreAssessmentMorrison@wales.nhs.uk

Dear Dr [insert GP name]

RE [patient identifiers]

[patient name] was reviewed in the pre-op assessment clinic today. An ECG undertaken as part of the pre-op assessment process was consistent with atrial fibrillation at a rate of []. As they are clinically well, we have advised them to attend their own GP practice for follow-up and/or consideration of anticoagulation.

I have included a copy of the ECG.

I have requested the following investigations today as part of their pre-op assessment (tick as appropriate)

- Full blood count []
- Urea and electrolytes []
- Liver function tests []
- Hba1c if none within 3 months []
- Thyroid function tests if none within 3 months []
- Coagulation screen []
- Serum magnesium []
- Chest x-ray []
- Echocardiogram []

I would be grateful if you could see them at your earliest convenience for review and consideration of anticoagulation and or rate control as appropriate. Once these have been arranged, and the patient stabilised on whatever medication is indicated, please ask the patient to contact the pre-assessment clinic (or you inform us) on 01792 703651. We will then update their record and complete the pre-assessment and peri-operative planning process.

Kind regards,



Swansea Bay University Health Board

Authorisation Form for Publication onto COIN

PLEASE ENSURE THAT ALL QUESTIONS ARE ANSWERED – IF NOT APPLICABLE PLEASE PUT N/A

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Document Title.	Management of Atrial Fibrillation
Name of Author.	Dr. Georgina Pudge, ST4, Anaesthetics.
Name of Lead Pharmacist.	N/A
Is the document New, Revised or a Review of a previous version.	New
Where on COIN do you want the document to be published.	Anaesthetics – Pre-assessment and Peri-operative.
Is the document relevant to the GP Portal.	No
Sign to confirm that the document has been authorised by an approved governance process in a specialty or delivery unit.	Dr. Nathan Tweed, Consultant Anaesthetist. (Circulated to PAC Anaesthetists and an interested GP – Feedback incorporated)
If NICE guidance been considered/referenced when producing this document, please provide the title or reference number.	Yes
Please provide a brief description/abstract of the document.	Guideline for the management of patients with Atrial Fibrillation identified in Pre-op Assessment of Non Cardiac Surgery Patients.
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