

## Atrial Fibrillation - SDU - Full Clinical Guideline

Reference no.:CG-STEP/2023/002

### Purpose

- To provide guidance for 1<sup>st</sup> and possible 2nd line treatments Perioperative management of new, paroxysmal or rapid atrial fibrillation across critical care and theatres
- Defined as slow AF <110, rapid AF >130

### If unstable or shocked

Patient requires urgent DC cardioversion according to Resus policy guidance.  
Contact Senior Anaesthetist for help, or on-call SpR anaesthetist or ICU resident out of hours

### New onset AF in theatre or critical care-aim is cardioversion

Consider hypovolaemia, pain, sepsis and electrolyte imbalance.

Ensure correction of any hypokalaemia to >4.0mmol / hypomagnesaemia is commenced. (Consider a 10 mmol magnesium bolus for **rate** control).

### New acute AF (non-paroxysmal)

If HR > 110 and consider for HR > 60, attempted chemical cardioversion is indicated.

If patient in AF for >12 hrs, anticoagulation should be considered in consultation with the surgeons prior. A CHADS2-VASc score would also be useful to consider.

If cardioversion has not been attempted within 12 hrs of AF onset an echo should be performed to exclude the presence of a clot.

### **1<sup>st</sup> line treatment**

Amiodarone – Give 300mg in 1<sup>st</sup> hour, 900mg over 23 hours via antecubital cannula or central line. A second 300mg dose can be given after 24 hours for rate control alongside the continuing infusion.

If rhythm cardioverted or rate controlled then continue infusion for 24 - 48hrs, depending on likely AF trigger factors

If patient remains in slow AF after 48 hrs stop amiodarone and consider conversion to IV/oral - B blocker/ digoxin (for sedentary pts), and depending on gut function.

If patient remains in fast AF (>130) contact cardiology regarding further 2<sup>nd</sup> line management as this is variable.

When most appropriate and practical, order appropriate tests

- ECG
- Echo – not urgent (unless to exclude a clot prior to cardioversion)
- TFTs with next bloods
- CXR – if HAP or LVF suspected

**Known paroxysmal AF**

If heart rate <130. Manage fluids and analgesia appropriately. Restart normal meds when appropriate.

If HR >130 use IV B-blocker if no contraindication, or amiodarone, as above.

**Rapid AF in pts with stable chronic AF – aim is rate control <130**

Consider hypovolaemia, pain, sepsis and electrolyte imbalance.

Ensure correction of any hypokalaemia / hypomagnesaemia is commenced. (Consider 10mmol magnesium bolus for rate control).

Treatment depends on patient's usual maintenance therapy,

**If beta-blocker:**

- give iv metoprolol up to 5mg by incremental 1mg boluses until ventricular response <130/min
- metoprolol may be repeated three times in a single day

**If digoxin:**

- give 250mcg digoxin iv 2 hourly until ventricular response <130/min or until 1mg has been given.
- remember that digoxin may take 30-120 minutes to show a response
- request digoxin level

If first line treatment above does not rate control <130/min, consider use of the other the alternative drug above, if not contraindicated.

**If warfarin only:**

- Use metoprolol unless contraindicated by COPD history, allergy etc – in this instance give digoxin

**Notes:**

1. Consider referral to cardiology in “office hours” for new presentations and those with poor rate control.
2. Consider the need for therapeutic anticoagulation when AF >12 hrs, in consultation with surgical team.
3. Ca channel blockers, flecainide, and other anti-arrhythmics may be advised by cardiology for certain pts
4. Consider underlying cause for AF

**References**

Ref. Atrial fibrillation: management. Clinical guideline [CG180], Published: 18 June 2014  
[nice.org.uk/guidance/cg180](https://www.nice.org.uk/guidance/cg180)

©

**Documentation Controls**

Development of Guideline:	Dr Paul Marval, Consultant Anaesthetist & SDU Lead Dr Sophie Evans, SpR in Anaesthesia
Consultation with:	Cardiology
Approved By:	03/09/2020 - Anaesthetics 15/09/2020 - Surgical Division Review no change – Approved Surgery Dec 2023
Review Date:	Dec 2026
Key Contact:	Dr Paul Marval