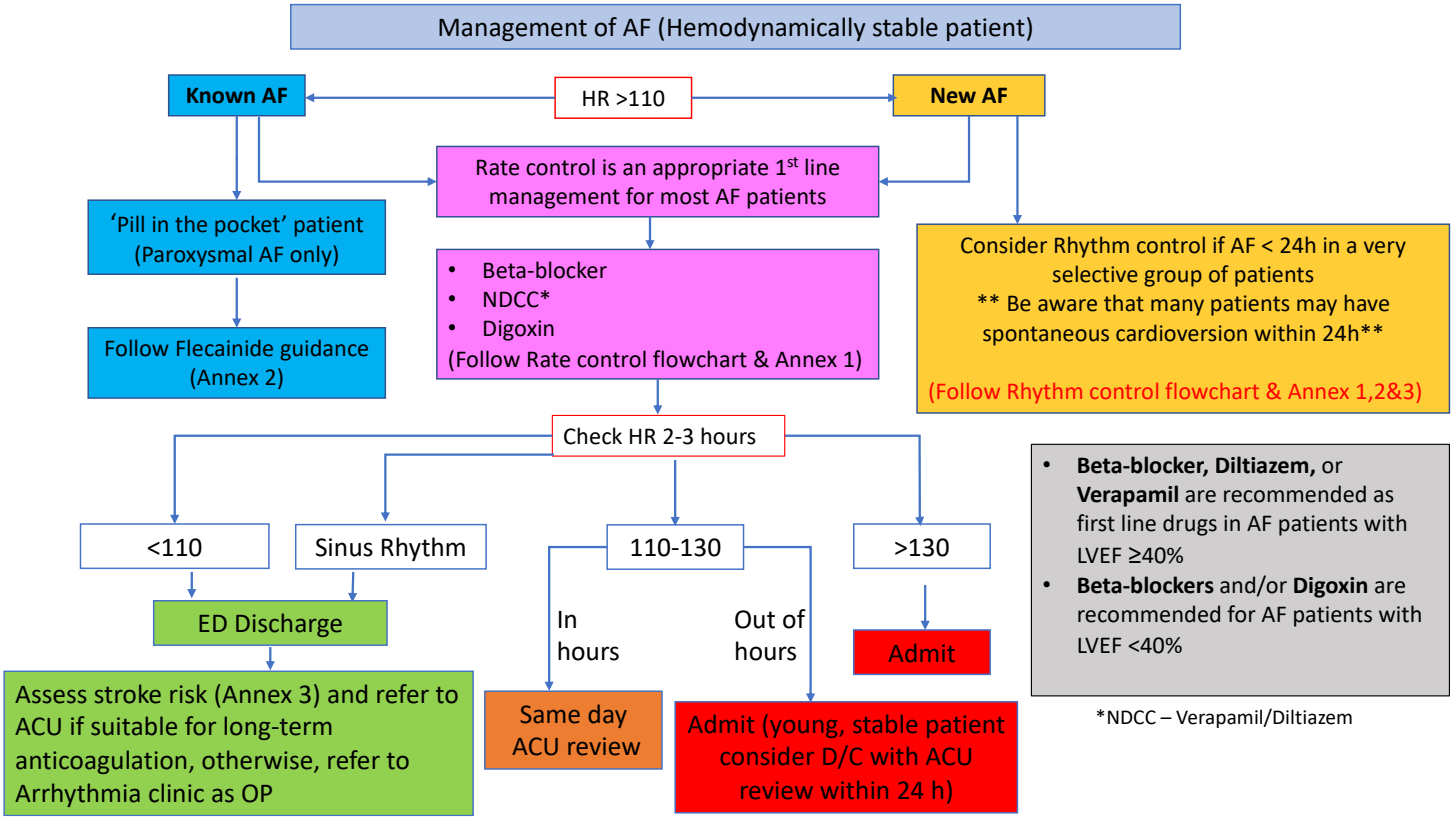
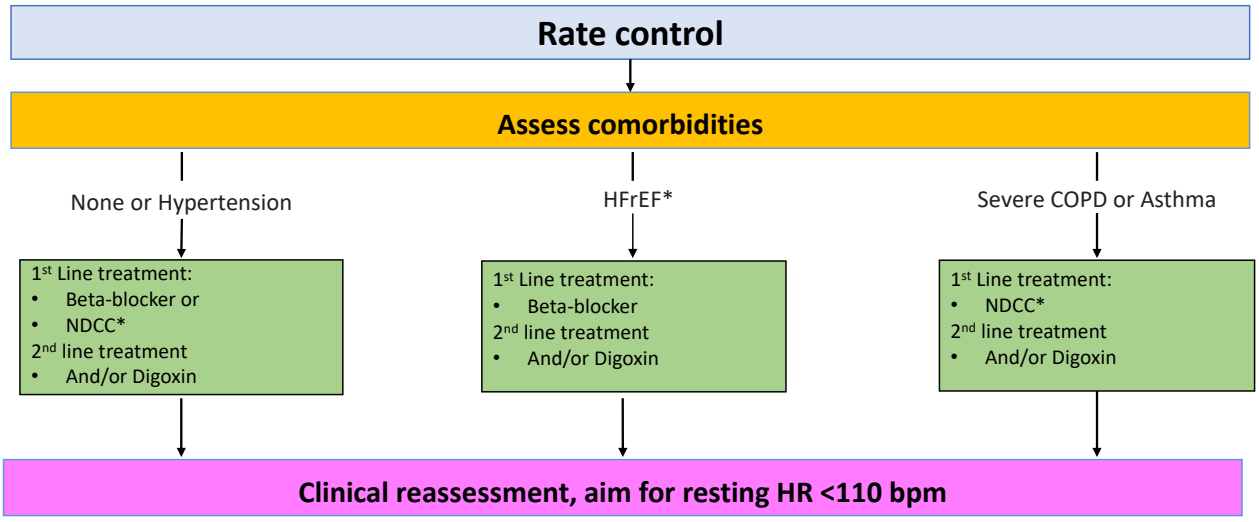
Atrial Fibrillation Management Pathway

Doncaster and Bassetlaw Teaching Hospitals NHS Foundation Trust

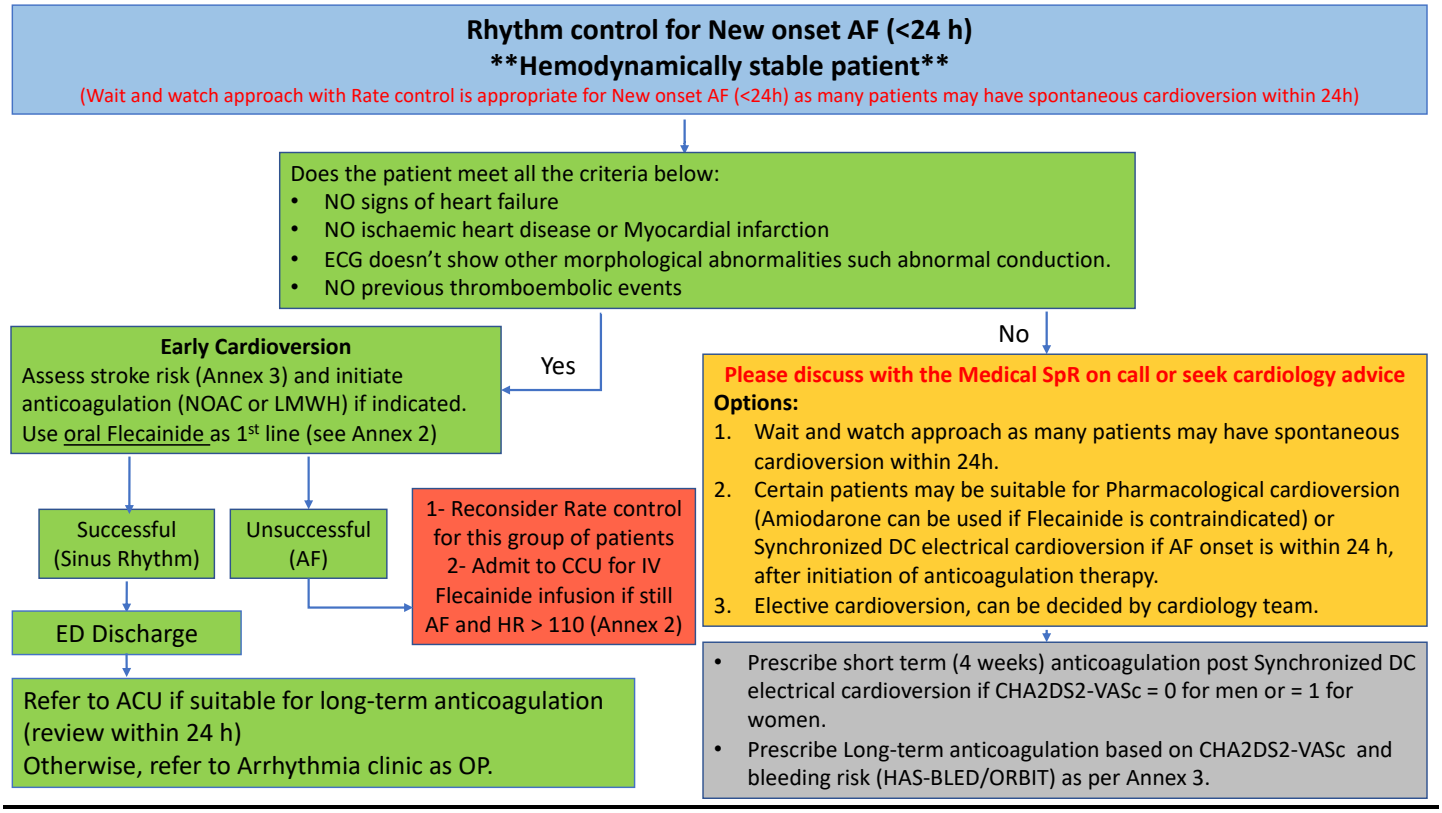


I. Rate control:



- ***NDCC:*** *Verapamil or Diltiazem,,* ***HFrEF:*** *heart failure with reduced ejection fraction*
- *Eur Heart J*, Volume 42, Issue 5, 1 February 2021, Pages 373–498, https://doi.org/10.1093/eurheartj/ehaa612

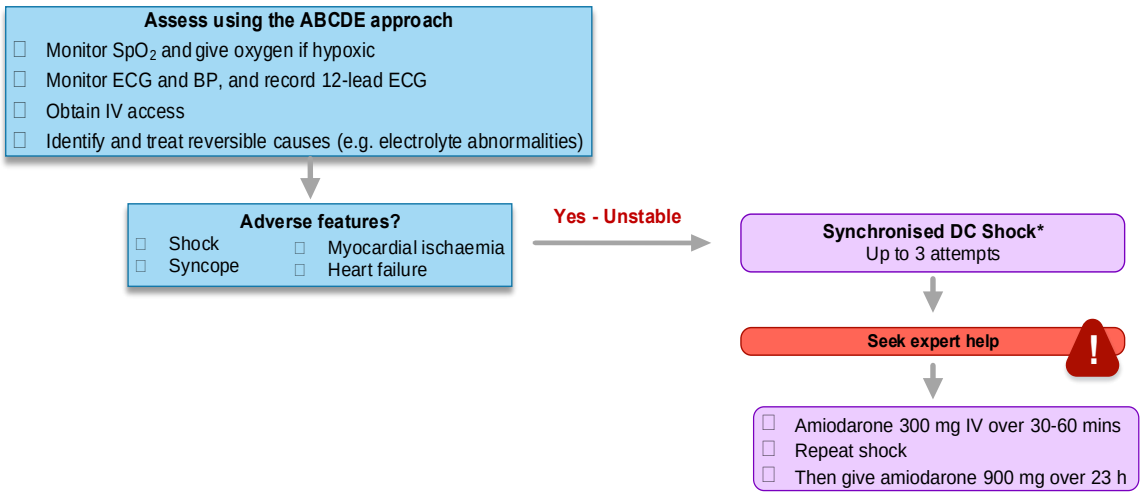
II. Rhythm control:



III. Cardioversion for Haemodynamically Unstable patient:

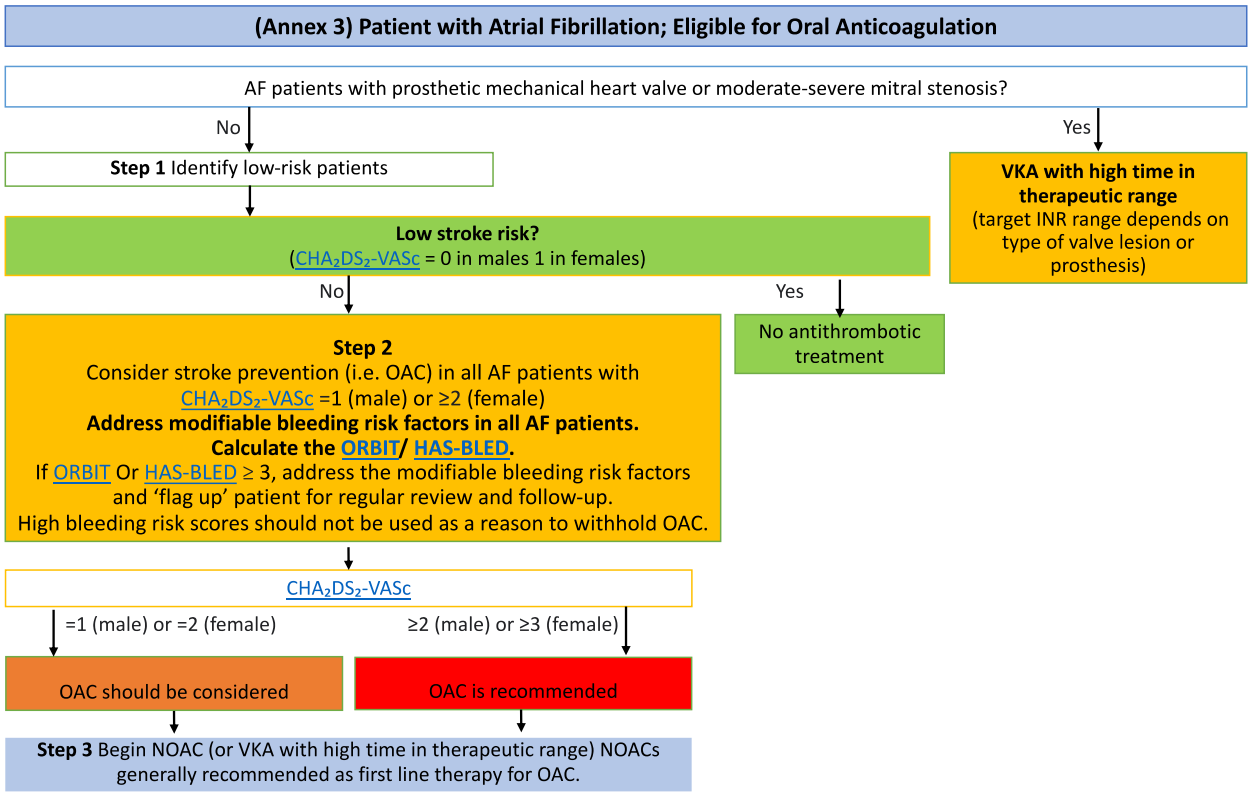
Cardioversion
Haemodynamically unstable patient

- Identify and treat reversible causes (e.g. electrolytes abnormality, hypovolaemia due to sepsis/ bleeding or dehydration …)
- Emergency DC Cardioversion (DCCV) in ED resus to be done only in case of Haemodynamic instability primarily due to AF (Rare)
- Consider stroke risk in case DCCV is required in patients, who are not previously/adequately anticoagulated.
- Follow ALS Tachycardia algorithm for haemodynamically unstable patients (consider sedation for Synchronised DC shock)
- Energy levels: 200 J, 300 J, 360 J.



Resuscitation Council (UK) ALS

IV. Stroke prevention: Assess eligibility for oral anticoagulant:



Note: NICE guideline [NG196] Published: 27 April 2021 recommendation:

1- Use the CHA_2DS_2-VASc stroke risk score to assess stroke risk in people with any of the following:

- symptomatic or asymptomatic paroxysmal, persistent or permanent atrial fibrillation
- atrial flutter
- a continuing risk of arrhythmia recurrence after cardioversion back to sinus rhythm or catheter ablation

2- Use the ORBIT bleeding risk score because evidence shows that it has a higher accuracy in predicting absolute bleeding risk than other bleeding risk tools. Although ORBIT is the best tool for this purpose, other bleeding risk tools such as HAS-BLED may need to be used until it is embedded in clinical pathways and electronic systems.

Guidelines for ACU

- A resting HR <110 bpm is the heart rate target for safe discharge.
- Can allow a higher heart rate (110-130) in young stable patients, discharge and review next day.
- Consideration and counselling for Anticoagulation if appropriate by calculating

CHA_2DS_2-VASc and ORBIT/HAS-BLED scores.

- Establish regular rate control therapy (Annexe 1).
- Blood tests, FBC, U&E, CRP, Coagulation screen, Bone profile, Mg, TFTs, HbA1C, Lipid profile
- Consider Ambulatory BP monitor if suspicion of HTN.
- Life style advice, Alcohol/caffeine reduction and smoking cessation.
- Address other cardiovascular risk factors.
- OP 24 hour tape.
- OP Echo (Refer to local guidelines regarding frequency of Echoes)
- Refer to Cardiology OPD (Applicable mainly for New onset AF and Symptomatic Paroxysmal AF or symptomatic AF despite rate control)

Annex 1: Doses (Please follow BNF for indications and contraindications)

Drug	IV Dose (IV administration is rarely used in AF for rate control, unless patient is NBM)	Oral dose
Metoprolol (tartrate)	• Up to 5mg, dose to be given at a rate of 1-2 mg/minute, then up to 5 mg after 5 minutes if required (A total dose of 10 – 15mg)	N/A
Bisoprolol	N/A	1.25 – 10 mg OD
Diltiazem	N/A	60 mg TDS using an immediate-release preparation, (max 360 mg/day)
Verapamil	• 5-10 mg slow IV over 3 minutes, with ECG monitoring. • Followed by 5 mg after 5-10 minutes if required, to be given over 3 minutes.	40 mg TDS using an immediate-release preparation, (max 360 mg/day)
Digoxin (Loading dose)	750 - 1000 **micrograms** in divided doses (to be given over at least 2 h) as IV infusion, reduce dose in the elderly	750 – 1500 **micrograms** in divided doses over 24 hours, reduce dose in the elderly
Amiodarone	300 mg IV infusion (via central line) over 30-60 min, then 900mg over 23h with ECG monitoring. IV Amiodarone, mainly indicated in HF patients, has a limited and delayed effect but can slow heart rate within 12 h	200 mg TDS for 1 week, then reduce to 200 mg BD for further 1 week, followed by a maintenance dose of 200 mg OD (oral Amiodarone is usually prescribed by cardiology) Amiodarone SCP link
Digoxin (Maintenance dose)	N/A	125 – 250 **micrograms**/day (reduce dose in the elderly)
Flecainide	2mg/kg over 10 minutes (maximum 150mg)	50 mg BD, max 300mg/day

Amiodarone SCP link

Annex 2: Flecainide guidance

- Some patients have a 'pill in the pocket' strategy (flecainide) for **paroxysmal AF** of a few hours' duration. This would have been decided by the Cardiology team previously, usually after an Echocardiogram

(Kindly review Clinic letters if unsure).

- Flecainide is also indicated for Rhythm control in patients with NEW onset AF (< 24h) who meet the criteria below:
  - NO evidence or signs of LV systolic dysfunction
  - NO ischaemic heart disease or Myocardial Infarction
  - NO other ECG morphological abnormalities such as abnormal conduction.
  - NO previous thromboembolic events

- Flecainide should be administered with ECG monitoring.
- Oral Dose (1st line):
  - ≥ 70 kg : 300mg OD PO Once
  - <70 kg : 200mg OD PO Once
- Reassess in 2 – 3 hours
  - If SR – Discharge and arrange appropriate follow up.
  - If Remains in AF – Admit to CCU for IV Flecainide 2mg/kg over 10 minutes (Maximum dose 150mg)

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References:

1- Atrial fibrillation: diagnosis and management NICE guideline [NG196] Published: 27 April 2021

https://www.nice.org.uk/guidance/ng196

2- 2020 Guidelines for Management of Atrial Fibrillation

ESC Clinical Practice Guidelines

https://www.escardio.org/Guidelines/Clinical-Practice-Guidelines/Atrial-Fibrillation-Management