

For all patients with fast AF, evaluate for underlying cause and treat appropriately:
Infection, hyperthyroidism, dehydration, myocardial infarction, COPD, haemorrhage, medication error, poisoning

Anti-arrhythmics – cautions & contra-indications:

All may be negatively inotropic, especially in combination. Check BNF for drug interactions

- Amiodarone: Sino-atrial block and conduction disturbances, severe hypotension, thyroid disease, CCF, pregnancy & breast-feeding.
- Flecainide: Atrial flutter, CCF, structural heart disease, recent MI
- B-blockers: asthma / COPD, uncontrolled heart failure, sick sinus syndrome, heart block, hypotension, severe peripheral vascular disease
- Ca channel blockers: heart failure, hypotension, sick sinus syndrome, heart block, AF with WPW, VT, pregnancy & breast-feeding
- Digoxin: heart block, WPW, VT

Investigations: FBC, VBG (all), TFT, LFT, CXR (if new AF), additional tests if condition requires

Are there signs of haemodynamic compromise DUE to the AF?

Caution: compromise due to AF is rare. Compromise is more frequently due to the underlying condition, which **must be treated first:** eg sepsis causing hypotension, chronic LV dysfunction, AMI causing chest pain. If unsure that the fast AF is the **primary** problem, seek senior advice

No

Yes

Is the AF **known** to have started within 48 hours? If not **certain**, assume No

No

Yes

Contacts
Electrophysiology SpR at Barts (24/7):
Mobile: 07810 878 450
Fax: 0207 600 3069
Cardiology SpR: bleep 417 (in hours)

Rate Control

If **rapid** rate control needed, use iv doses
CAUTION: Higher risk of side-effects

1. Metoprolol 25 mg tds po
Metoprolol 5mg iv (repeat if necessary)
- OR
2. Verapamil 40 mg tds po
Verapamil 5 mg iv (**see cautions above**)
If discharging, use Diltiazem 120 mg MR po od
- OR
3. Digoxin 500 mcg po/iv, repeat after 4 hours
(a third dose may be given)
Maintenance 62.5 – 250 mcg depending on age, weight and renal function
Use digoxin as first line in:
 - elderly
 - immobile
 - CCF
- OR
4. If haemodynamically unstable or shock resistant:
Amiodarone 150 – 300 mg iv over 20 minutes

Anticoagulate

Indicated if CHA₂DS₂VASc score of 2 or more
Consider if score 1 and male
IF HAS-BLED 3 or more discuss with senior
Prescribe clexane 1.5 mg / kg sc od until seen in anticoagulation clinic

Discharge Criteria:

No haemodynamic compromise
Heart rate < 110 for 2 hours

If first presentation, request **Holter monitor** & ECHO: Fax referral form to ??
Rapid access heart rhythm clinic form and ECG to be faxed to **0203 594 5700**
Give patient copy of letter & ECG

Anticoagulant Clinic follow-up if needed:
Refer to ambulatory care by contacting medical SPR and putting copy of notes into ambulatory care folder in reception.

Advise patient to attend ambulatory care the next day.

Rhythm Control

If symptoms or signs of heart failure or structural heart disease, request urgent ECHO

If none of the above, ECHO is not required

0900 – 1700:
Cardiology SpR bleep 417 or
Echo Technician on 5101/5728

Is the Echo normal / not required?
(assume abnormal if unable to do)

No

Yes

Treatment

- Option 1:**
Synchronised DC Cardioversion (see red box)
- Option 2:**
Flecainide 2mg/kg iv over 30 – 60 minutes
Max 150 mg

Has the patient cardioverted to sinus rhythm?

No

Yes

Synchronised DC Cardioversion

- Senior Dr to review
- Procedural sedation (RSI not usually required)
- Call anaesthetist bleep 018 if support required
- Anteroposterior pad positions
- Synchronised DC shock:
 - 200 J
 - 360 J

Consider Amiodarone if resistant to 2nd shock – discuss with Barts

Cardioverted to sinus rhythm?
If No, follow Rate Control

Yes

Admit

- Indications for monitored bed:
- ACS with on-going chest pain (even if ECG normal)
 - Ischaemic ECG (unless 6 hour troponin negative)
 - AF persists with rate > 130 or ongoing anti-arrhythmic drug infusions
 - Haemodynamic instability
 - GCS less than 15 post sedation

CHA₂DS₂VASc Score

C = history of CCF	1
H = history of hypertension	1
A = Age 75 years or more	2
D = Diabetes Mellitus	1
S = History of stroke or TIA	2
V = Vascular disease	1
A = Age 65 – 74	1
S = Sex (female)	1

HAS-BLED

H = history of hypertension	1
A = Abnormal renal function	1
A = Abnormal liver function	1
S = Stroke	1
B = Bleeding	1
L = Labile INR	1
E = Elderly (> 65)	1
D = Drugs / Alcohol	1

Lead Author

Consultant Emergency Medicine

Co-Authors / Collaborators

Consultant Cardiologists
Anticoagulation Nurses

Reference Documents

Management of Atrial Fibrillation, NICE CG180, June 2014
British National Formulary