PlabLab

PLAB 1 & UKMLA

SESSION 01

Acute AF: the 3-gate routine

Your mental routine for every acute atrial fibrillation question.

Screenshot this sheet

GATE 1 Is it atrial fibrillation?

Irregularly irregular rhythm, no P waves.

BOTH PRESENT

AF confirmed. Go to Gate 2.

GATE 2 Adverse features?

Shock, chest pain, syncope, heart failure.

YES

Synchronised DC cardioversion

Under sedation. Resuscitation Council UK.

NO

Rate control

Go to Gate 3 to choose the drug.

GATE 3 Asthma or bronchospasm?

Check the past medical history before you pick the rate-control drug.

NO

Bisoprolol

First-line beta-blocker (NICE NG196).

YES

Rate-limiting CCB

Diltiazem or verapamil (NICE NG196).

CASE 1

71-year-old, BP 78/50, chest pain. **Adverse features: DC cardioversion.**

CASE 2

67-year-old, BP 132/84, no chest pain or breathlessness. **Stable: bisoprolol.**

CASE 3

64-year-old woman, severe asthma. **Beta-blocker out: diltiazem.**

TEACHING NOTES

- **Unstable:** drug rate control in a patient with adverse features depresses cardiac output further and delays life-saving care.
- **Stable:** first-line management is rate control with a standard beta-blocker (NICE NG196). Cardioversion is not indicated.
- **Digoxin:** a classic exam trap. NICE only recommends it as monotherapy in sedentary patients or those with heart failure.
- **Asthma:** beta-blockers such as bisoprolol and propranolol are contraindicated because blocking beta-2 receptors can precipitate bronchospasm. NICE recommends a rate-limiting calcium channel blocker as the first-line alternative.
- **Do not confuse:** adenosine is for SVT, not AF. Ramipril does not slow AV nodal conduction.