

Atrial Fibrillation (AF) and Stroke



Atrial Fibrillation is one of the most common cardiac arrhythmias. It is associated with a **five-fold** increase in stroke risk and **1 out of 5** strokes are caused by AF. This risk is largely modifiable with **anticoagulation** (blood thinners).

AF-related strokes are associated with **a greater risk of mortality and long-term disability** compared with other stroke subtypes.

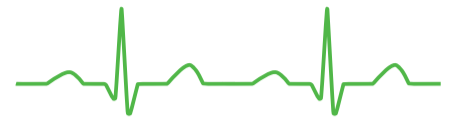
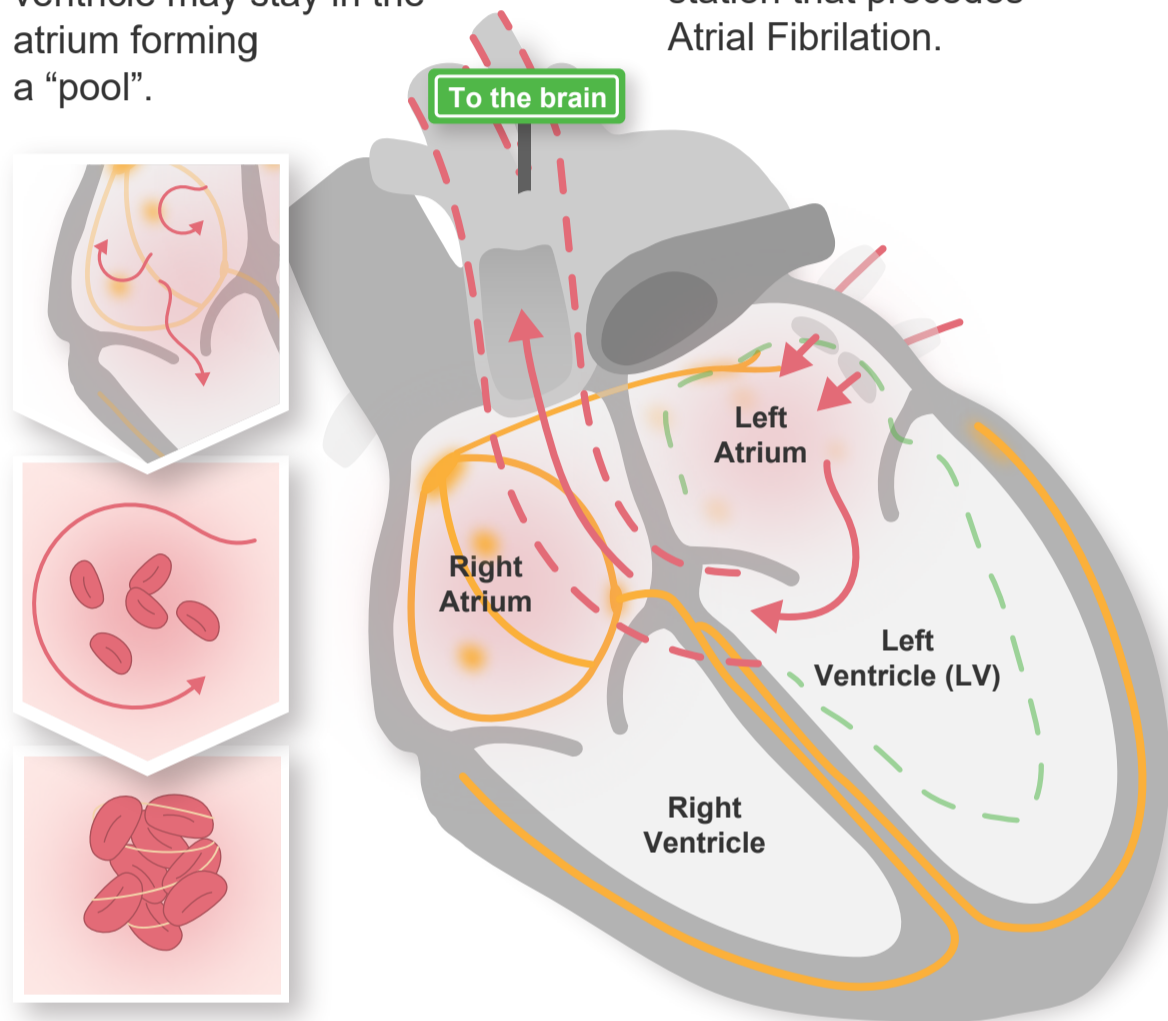
Why does AF increase the likelihood of stroke?

Pooling

Because AF causes irregular atrial contraction blood that would normally move into the ventricle may stay in the atrium forming a “pool”.

Left Atrial (LA) Dysfunction

LA dysfunction may represent a transient station that precedes Atrial Fibrillation.



Normal ECG



AF ECG

Current Challenges:

- Ensure appropriate dosing,
- Contraindications,
- Assessment of special populations (renal failure, elderly, weight <60 kg)

Issue:

Patients with AF anticoagulated are more likely to have stroke due to additional stroke mechanisms.

Key Management:



Offer participation in integrated care approaches to enhance patients adherence



Optimize management of other CV risk factors

Key

--- LA /LV size before enlargement

— Blood flow through heart

— Conduction pathway

“ABC” Treatment

A

Avoid Stroke

- **Anticoagulants**
 - Vitamin K Antagonists
 - Warfarin
 - DOACs
 - Dabigatran
 - Rivaroxaban
 - Apixaban
 - Edoxaban
- **LA Appendage Exclusion**
 - Surgical Percutaneous

B

Better Symptoms

- **Heart rate control**
 - Beta Blockers
 - CCBs
 - Digoxin
- **Heart Rhythm Control**
 - Cardioversion
 - Antiarrhythmics
 - Amiodarone, etc.
 - Ablation Surgical

C

Comorbidity Management

- **Obesity management**
- **Blood pressure control**
- **Diabetes control**
- **Alcohol avoidance or reduction**
- **Moderate physical activity**
- **Heart failure control**
- **CAD management**
- **CPAP for sleep apnea**