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**Series of Review**







## Main pathophysiological theories

- Atrial structural alterations
- Pericardial effusion and inflammation
- Gap junction uncoupling
- Peri-atrial adipose tissue metabolic activity
- Myocardial ischemia
- Ion channels modifications





**CHADS2: IT IS A Clinical Scoring system to determine the stroke risk in valvular AF. It is composed of *congestive heart failure, Hypertension, Age > 75 years, Diabetes mellitus, and previous Stroke*. Each item gets a point except previous stroke which takes 2 points. The strongest item is prior stroke. The annual risk of stroke is between 1.9 to 18.2 in scores between 0 and score 6. (CHADS2.Six)**





**CHADS2 VASC included *female gender, age 65 years and more and vascular disease. Age 75 years and more get 2 points. Presence of aortic plaque(s) carries the same weight as peripheral vascular disease. Scores are 0-9. (CHADS2Vasc.9)***





## Affirm trial

**The Atrial Fibrillation Follow-up Investigation of Rhythm Management (AFFIRM) trial sought to compare total mortality between two treatment strategies for Atrial Fibrillation: maintenance of sinus rhythm, or ventricular response rate control.**



# EAST-AFNET 4 TRIAL

Kirchhof P. et al. Early Rhythm-Control Therapy in Patients With Atrial Fibrillation. N Engl J Med 2020;383:1305-16..



## OBJECTIVE

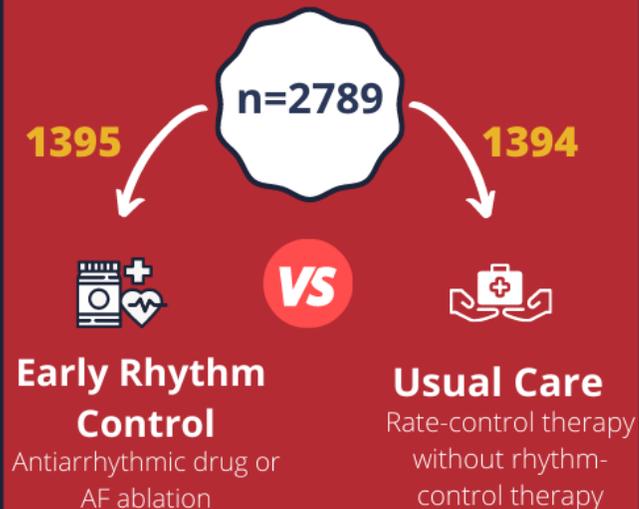
Is Early Rhythm-Control Therapy associated with lower risk of CV Outcomes in patients with early AFIB?

Rhythm control strategies: antiarrhythmic drugs or ablation and/or cardioversion of persistent AF

Both groups were in their first year of AFib diagnosis with at least two CV conditions

## METHODS

Parallel-group, open, blinded-outcome trial



## RESULTS

Early Rhythm Control

Usual Care

3.9

CV death    Stroke

5.8

Hospitalization with worsening HF/ACS

Incidence/100 person-yrs; P=.0005

5.0

# of nights in hospital/year

5.1

Incidence/100 person-yrs; P=.23

Safety outcome: Serious adverse events related to rhythm-control therapy occurred in 4.9% vs 1.4% of the patients assigned to usual care

**Conclusion: Early rhythm control was associated with a lower risk of CV outcomes than usual care among patients with early AF and CV conditions**





## **The Factors favouring rhythm control are:**

- 1. Patient preference**
- 2. Severe symptoms in an active patient.**
- 3. Difficult or failed rate control**
- 4. Early or paroxysmal AF**
- 5. LV dysfunction.**
- 6. Acute AF**
- 7. LA is not hugely dilated.**



