

1. What is the best treatment to prevent AF recurrence?

Question submitted by: Dr. Gavino Perez, Hamilton, Ontario.

There is no single best treatment to prevent atrial fibrillation (AF) recurrence. First, the physician has to carefully evaluate whether the strategy of "rhythm control" (*i.e.*, antiarrhythmic drugs to prevent AF) is indicated for the particular patient, as opposed to the strategy of rate control. Recent large clinical trials have not confirmed the superiority of the rhythm-control approach.

Next, any potentially reversible factors contributing to AF should be evaluated and treated if possible. These factors include excess alcohol consumption, hyperthyroidism, and hypertension. If hypertension is present, it should be treated very aggressively, probably with angiotensin-converting enzyme (ACE) inhibitors or angiotensin receptor blockers. These treatments may have direct effects on preventing AF recurrence.

If rhythm control with antiarrhythmic drugs is desirable, the choices include drugs with class I action, including propafenone and flecainide, sotalol (a beta blocker with direct antiarrhythmic class III action), or amiodarone.

Although there are no absolute guidelines as to which antiarrhythmic drug should be

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used first, most experts would begin therapy with either propafenone or flecainide, provided the patient does not have coronary artery disease (CAD), left ventricular dysfunction, ventricular scarring, or left ventricular hypertrophy. Sotalol is a useful second-line agent, especially in patients with CAD or hypertension. Most physicians would reserve amiodarone (proba-

bly the most effective drug, but one frequently associated with complex adverse effects) as a second-line agent. Drugs such as quinidine, procainamide, and disopyramide are used rarely, if at all.

Patient symptoms and quality of life are very important end points for measuring

success of therapy, and antiarrhythmic therapy should only be continued if treatment is effective and there are no adverse effects.

Answered by:

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2. Is there any role for glycoprotein IIb/IIIa inhibitors in patients who are not going to the catheterization lab?

Question submitted by: Dr. Ross Berringer, Vancouver, British Columbia.

Many controlled trials have shown that glycoprotein (Gp) IIb/IIIa antagonists can be beneficial in patients with unstable coronary syndrome in the setting of percutaneous coronary intervention (PCI). However, in patients who are not having PCI, the use of Gp IIb/IIIa antagonists is debatable. Three Phase III clinical trials, **CAPTURE**, **PURSUIT**, and **PRISM-PLUS**, tested different Gp IIb/IIIa inhibitors against a conventional therapy in patients with unstable coronary syndromes who were either undergoing PCI or not. These studies showed that early, aggressive therapy with PCI leads to better outcomes.¹


The **GUSTO IV** trial recruited more than 7,000 patients with high-risk features for cardiac events.² PCI was performed in < 2% of patients within 48 hours. Compared to placebo, patients who received abciximab for 24 hours did not do significantly better in the combined end points of death and myocardial infarction at 30 days.

Patients who were on 48-hour infusion did worse, with a trend towards increased adverse events.

In a pooled analysis of six trials by Boersma et al., the authors concluded that in patients with acute coronary syndrome not routinely scheduled for early revascularization and at high risk for thrombotic complications, treatment with Gp IIb/IIIa might be considered.³

Current American College of Cardiology and American Heart Association recommendations are:

- **Class I:** A platelet Gp IIb/IIIa antagonist should be administered, in addition to acetylsalicylic acid (ASA) and heparin, to patients in whom catheterization and PCI are planned. The Gp IIb/IIIa antagonist may also be administered just prior to PCI.
- **Class IIa:** Eptifibatid or tirofiban should be administered, in addition to ASA and

low-molecular-weight heparin or unfractionated heparin, to patients with continuing ischemia, an elevated troponin, or with other high-risk features in whom an invasive management strategy is not planned. 

References

1. Boersma E, Akkerhuis K, Théroux P, et al: Platelet glycoprotein IIb/IIIa receptor inhibition in non-ST-elevation acute coronary syndromes: Early benefit during medical treatment only, with additional protection during percutaneous coronary intervention. *Circulation* 2000; 100(20):2045-8.
2. The GUSTO-IV ACS Investigators. Effect of glycoprotein IIb/IIIa receptor blocker abciximab on outcome in patients with acute coronary syndromes without early coronary revascularisation: The GUSTO IV-ACS randomised trial. *Lancet* 2001; 357(9272):1915-24.
3. Boersma E, Harrington R, Moliterno D, et al: Platelet glycoprotein IIb/IIIa inhibitors in acute coronary syndromes: A meta-analysis of all major randomised clinical trials. *Lancet* 2002; 359(9302):189-98.

Answered by:

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