



VCSQI ATRIAL FIBRILLATION PROPHYLAXIS PROTOCOL

I. Context

Atrial fibrillation is a common post-operative complication seen in the cardiac surgical patient population. When this complication occurs, it can be associated with delayed surgical recovery of patients, longer length of stay, and higher hospital costs.

Objective: To design and implement a pre surgical medication protocol that is statistically successful in reducing the incidence of **new** post-operative atrial fibrillation in cardiac surgery patients.

II. Protocol Medications:

The two primary medications in this protocol will be Amiodarone and Lopressor.

Exclusion Criteria for Amiodarone includes Patients with:

- Interstitial Lung Disease or Pulmonary Fibrosis
- Bradycardia with pulse < 55 bpm
- Untreated or uncontrolled Thyroid Disease
- With known Chronic Atrial Fibrillation
- With Allergy to Iodine or Amiodarone

Exclusion Criteria for Lopressor includes patients with:

- Bradycardia with pulse < 55 bpm
- Active Congestive Heart Failure
- Bronchospasm or Asthmatic Pulmonary disease
- Already receiving Beta Blocker Therapy

III. Prevention Medications

- A. Amiodarone - Start 400 mg. p.o. TID if weight > 70 kg or 200 mg p.o. TID if weight < 70 kg. **five days to 24 hours prior** to cardiac surgery unless the patient meets one of the medication exclusion criteria above.
- B. All other patients should receive 400mg if weight > 70 kg or 200 mg. if weight < 200 mg by mouth with sip water only, on the morning of surgery on the day of surgery.
- C. Patients with NO PRE-OP loading dose should receive Amiodarone 1200 mg. PO on the day of surgery **OR alternative intravenous dose as follows:**
- D. Amiodarone 150 mg IV after coming off CPB then Amiodarone 900 mg in 500 cc D5W to infuse at 1 mg/min over 6 hours then 0.5 mg/min until empty.

- E. Post operatively, all patients should receive 200 mg TID via NGT or by mouth until discharge or post-operative day 10, whichever comes first.
- F. If heart rate < 55 bpm, **FIRST Hold Beta Blocker** for 8 -24 hours before holding Amiodarone medication.
- G. Stop Verapamil before starting Amiodarone.

Prevention Medications

- H. Beta blockade- Start Lopressor 25 mg Q 12 hours ***five days to 24 hours*** prior to cardiac surgery for all patients that have normal LV function. unless patient meets one of the medication exclusion criteria above.
- I. Post operatively, give Lopressor 5 mg IV or 25mg PO via NGT Q 6 hours while patient intubated Administer the day of surgery only after hemodynamic stability attained post operatively.
- J. Do not hold beta blocker unless native heart rate is less than 55 bpm.
- K. Continue atrial pacing during the peri-operative period if needed.
- L. After extubation, Lopressor 25 mg by mouth BID.
- M. On the day of discharge, patients should be switched to their preoperative beta blocker or Lopressor 25 mg. BID.

IV. Treatment of Breakthrough Post-Operative Atrial Fibrillation

- A. Follow institution-specific protocols for post-operative atrial fibrillation.
- B. Hold PO Amiodarone when receiving Amiodarone via IV infusion
- C. Discharge medications as outlined by institution specific protocol
- D. If Atrial Fibrillation > 24 hours start Coumadin. Do not start Heparin infusion.
For patients in and out of atrial fibrillation for \geq 48 hours, discuss with surgeon.
- E. Patients, who remain in atrial fibrillation for 24 hours, consider increasing dose of Amiodarone, adding an additional agent, or DC cardioversion. Discuss DC cardioversion vs. anticoagulation and home management of atrial fibrillation.

V. Post Discharge Management of Atrial Fibrillation

- A. Maintain medication management of atrial fibrillation
- B. Maintain beta blocker. Discuss with surgeon appropriate combination therapy.
- C. Continue Coumadin with target level of 2-2.5 INR. Identify physician to manage Anticoagulation and PT/INR levels.