ibutilide (eye-bye-o-ti-lide)

**Covert**

**Classification**

Therapeutic: antiarrhythmics (class III)

Pregnancy Category C

**Indications**

Rapid conversion of recent-onset atrial flutter or fibrillation to normal sinus rhythm, including management of atrial flutter or fibrillation occurring within 1 wk of coronary artery bypass or cardiac valve surgery.

**Action**

Activates slow inward current of sodium in cardiac tissue, resulting in delayed repolarization, prolonged action potential duration, and increased refractoriness. Mildly slows atrioventricular conduction. 

**Therapeutic Effects:**

Conversion to normal sinus rhythm.

**Pharmacokinetics**

**Absorption:** IV administration results in complete bioavailability.

**Distribution:** Unknown.

**Metabolism and Excretion:** Highly metabolized by the liver, one metabolite is active; metabolites excreted by kidneys.

**Half-life:** 6 hr (2–12 hr).

**TIME/ACTION PROFILE (antiarrhythmic effect)**

**ROUTE ONSET PEAK DURATION**

IV within 30–90 min unknown up to 24 hr

**Contraindications/Precautions**

Contraindicated in:

- Hypersensitivity.

Use Cautiously in:

- HF or left ventricular dysfunction (risk of more serious arrhythmias during infusion);
- OB, Lactation, Pedi: Pregnancy, lactation, or children >18 yr (safety not established).

**Adverse Reactions/Side Effects**

**CNS:** headache.

**CV:** arrhythmias.

**GI:** nausea.

**Interactions**

**Drug-Drug:** Amiodarone, disopyramide, procainamide, quinidine, and lidocaine should not be given concurrently or within 4 hr because of additive effects on refractoriness. Proarrhythmic effects may be by phenothiazines, tricyclic and tetracyclic antidepressants, some antihistamines, and beta-blockers. Ritroperoxime may be used. 

**Route/Dosage**

**Atrial Fibrillation/Flutter**

**IV (Adults <60 kg):** 1 mg infusion; may be repeated 10 min after end of first infusion.

**IV (Adults >60 kg):** 0.01 mg/kg infusion; may be repeated 10 min after end of first infusion.

**Atrial Fibrillation/Flutter After Cardiac Surgery**

**IV (Adults <60 kg):** 0.5 mg infusion, may be repeated once.

**IV (Adults >60 kg):** 0.005 mg/kg infusion, may be repeated once.

**NURSING IMPLICATIONS**

**Assessment**

- Monitor ECG continuously throughout and for 4 hr after infusion or until QT interval normalizes. Discontinue if arrhythmia terminates or if sustained ventricular tachycardia, prolonged QRS, or QT develops. Ibutilide may have proarrhythmic effects. These arrhythmias may be serious and potentially life threatening. Clinicians trained to treat ventricular arrhythmias, medications, and equipment (defibrillator, cardiac monitor) should be available during therapy and monitoring of patient.

**Potential Nursing Diagnoses**

- Decreased cardiac output (Indications)

**Implementation**

- Oral antiarrhythmic therapy may be continued 4 hr after ibutilide infusion.

**IV Administration**

- **pH:** 4.6.

- **Infusion Incompatibility:** Diluent: May be administered undiluted or diluted in 50 mL of 0.9% NaCl or DSW. Diluted solution is stable for 24 hr at room temperature.

- **Interactions:**

  - **Cardiovascular:** 

  - **Respiratory:** 

  - **Gastrointestinal:** 

  - **Other:** 

**Discontinued**

- **Cardiovascular:**

- **Respiratory:**

- **Gastrointestinal:**

- **Other:**
Ibutilide

Diluted: 0.017 mg/mL.

Rate: Administer over 10 min.

Additive Incompatibility: Information unavailable; do not admix with other solutions or medications.

Patient/Family Teaching

Inform patient of the purpose of ibutilide.

Evaluation/Desired Outcomes

Conversion of recent-onset atrial flutter or fibrillation to normal sinus rhythm.

Why was this drug prescribed for your patient?