**ANTIARRHYTHMICS**

**Amiodarone**: Amiodarone is used for treatment of atrial fibrillation, Ventricular tachycardia and other arrhythmias. It is mainly used as Rhythm control therapy and tries to change abnormal heart rhythm to normal sinus rhythm and maintains it. This medication must be taken with meals as it is better absorbed with food. It is important to have regular checkups, blood tests including thyroid function tests and liver function tests, chest X-Rays and eye exams before and during treatment with Amiodarone to check for possible side effects. **Brand Names: Cordarone, Pacerone, Aratac, Arycor, Atlansil.**

**Azimilide(stedicor)**: Azimilide is an antiarrhythmic drug that converts and maintains sinus rhythm in patients with atrial arrhythmias and it reduces the frequency and severity of ventricular arrhythmias in patients with implanted cardioverter-defibrillators. Azimilide's most important adverse effect is torsades de pointes, which is a form of ventricular tachycardia.

**Dofetilide**: Dofetilide is used to help keep the heart beating normally in people with certain heart rhythm disorders of the atrium (the upper chambers of the heart that allow blood to flow into the heart). Dofetilide is used in people with atrial fibrillation or atrial flutter. Dofetilide is a potassium channel blocker. You should not use this medication if you have severe kidney disease or a history of "Long QT syndrome." You may need to spend at least 3 days in a hospital setting when you first start taking dofetilide to monitor your heart rhythm and kidney function in case the medication causes serious side effects. It can commonly cause headache and dizziness and rarely life threatening heart rhythm disturbances. **Brand Names: Tikosyn.**

**Dronedarone**: Dronedarone is used to treat certain heart rhythm disorders called atrial fibrillation or atrial flutter. Dronedarone is given to reduce the need for hospitalization due to these heart conditions. Dronedarone should not be taken by patients in Heart failure or who have been recently in hospital for heart failure. Dronedarone comes as a tablet to take by mouth. It is usually taken twice a day, with the morning meal and the evening meal. **Brand Names: Multaq, Sr33589**

**Esmolol**: Esmolol is used to control rapid heartbeats or abnormal heart rhythms. This medicine is also used to treat fast heartbeat and high blood pressure during surgery, after surgery, or during other medical procedures. Esmolol should be administered by a healthcare provider. It is typically administered in a clinical setting where a healthcare provider can monitor vital signs (blood pressure, heart rates) and where an emergency situation can be handled properly.
**Flecainide**: Flecainide is used to prevent or treat irregular heartbeats. Flecainide is also used to prevent life-threatening arrhythmias. It works through impairing sodium ion movement through channels in the cell membrane of heart muscle tissue which will slow the nerve impulses in the heart. This helps keep the heart rhythm normal. You will need to receive your first few doses of flecainide in a hospital setting in case the medication causes serious side effects. Your heart rate will be constantly monitored using an electrocardiograph or ECG. **Brand Names**: Tambacor, Almarytm, Apocard, Ecrinal and Flecaine.

**Ibutilide**: Ibutilide is used for treating irregular heart rhythms like atrial fibrillation and atrial flutter. It acts by blocking certain ionic channels in heart muscle cells and is available only in intravenous form. Ibutilide is very effective in converting new onset atrial fibrillation to normal sinus rhythm. You will have continuous ECG monitoring during the infusion as it can cause arrhythmia in some patients. **Brand Names**: Corvert.

**Procainamide**: Procainamide is used in the treatment of a type of cardiac arrhythmia such as sustained ventricular tachycardia which could be life threatening. Initiation of this drug should be started in a hospital. Procainamide can cause some serious blood disorders; therefore it is reserved for selected patients in whom benefits outweigh the risks involved. It is recommended that complete blood counts including white cell, differential and platelet counts be performed periodically. **Brand Names**: Procan, Pronestyl, Procanbid.

**Propafenone**: Propafenone is an antiarrhythmic which works in the heart to stabilize its action and regulate heartbeat in patients with irregular heart rhythm like atrial fibrillation. Treating an irregular heartbeat can decrease the risk for blood clots, and this effect can reduce your risk of heart attack or stroke. There is a chance that propafenone may cause new or make worse existing heart rhythm problems when it is used. Since it has been shown to cause severe problems in some patients, propafenone is only used to treat serious heart rhythm problems. **Brand Names**: Rhythmol.

**Quinidine**: Quinidine decreases heart muscle cell contractility and prolongs the electrical conduction time in heart muscle. For this property of Quinidine it is used in the treatment of certain types of arrhythmias like paroxysmal supraventricular tachycardia, paroxysmal atrioventricular junctional rhythm, atrial flutter, paroxysmal and chronic atrial fibrillation, and paroxysmal ventricular tachycardia not associated with complete heart block. Drug can cause certain side effects including and not limited to hypotension, headache, confusion, syncope, blurred vision, abdominal pain, nausea/vomiting and certain blood disorders. It is advisable to take the drug along with food if stomach upset occurs. It is also advisable to check pulse prior to each dose and to contact health care provider if rate or rhythm changes and avoid exposure to sunlight and to use sunscreen or wear protective clothing to avoid photosensitivity reaction. **Brand Names**: Quinidex.
**Sotalol**: Oral Betapace (sotalol hydrochloride) is indicated for the treatment of documented ventricular arrhythmias, such as sustained ventricular tachycardia, which could be life threatening. Initiation of Betapace (sotalol) treatment or increasing doses, as with other antiarrhythmic agents used to treat life-threatening arrhythmias, should be carried out in the hospital. Sotalol is also indicated for the maintenance of normal sinus rhythm in patients with symptomatic AFIB/AFL who are currently in sinus rhythm. The response to treatment should then be evaluated by a suitable method (e.g., PES or Holter monitoring) prior to continuing the patient on chronic therapy. Sotalol can cause certain adverse effects like blurred vision, chest pain or discomfort, nausea, vomiting and dizziness more commonly than some other adverse effects. Sotalol may cause heart failure in some patients and can also cause changes in blood sugar levels. It may also block the signs of low blood sugar. **Brand Names**: Betapace, Betapace Af, Sotalex, Sotacor-T.

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**ANTICOAGULANTS**

**Apixaban**: Apixaban is an anti-coagulant with similar action as rivaroxaban. It inhibits the clotting factor Xa. It is used to reduce the risk of stroke and systemic embolism in patients with atrial fibrillation. Adverse events like bleeding are the common complications. Concomitant use of drugs affecting hemostasis such as aspirin, NSAID’S, heparin increase the risk of bleeding. Seek emergency care if you experience any abnormal bruising, pink urine, black tarry stools and coughing or vomiting of blood. **Brand Names**: Eliquis

**Dabigatran**: Dabigatran is an anti-coagulant which is a direct inhibitor of the clotting factor thrombin. It is used to reduce the risk of stroke and systemic embolism in patients with atrial fibrillation. Dabigatran increases the risk of bleeding especially in patients concomitantly using drugs influencing hemostasis like aspirin, heparin, NSAID’s. Seek emergency care if you experience any abnormal bruising, pink urine, black tarry stools and coughing or vomiting of blood. **Brand Name**: Pradaxa

**Heparin**: Heparin is an anticoagulant (blood thinner) that prevents the formation of blood clots. Heparin is used to treat and prevent blood clots in the veins, arteries, or lung. Heparin is used to prevent blood clots from forming in people who have certain medical conditions or who are undergoing certain medical procedures that increase the chance that clots will form. Patients with atrial fibrillation are at increased risk of blood clots or stroke, thus they are on anticoagulants to prevent stroke. Heparin is injected under the skin or into a vein through an intravenous approach. The main side effect of heparin is bleeding. For this reason, it is important that physicians follow blood counts when people are being treated with intravenous
heparin in order to ensure that blood counts remain stable during treatment. Brand Names: Heparin, Lovenox.

**Rivaroxaban:** Rivaroxaban is a blood thinner which interferes with normal blood clotting mechanism. It directly inhibits the clotting factor Xa. It is prescribed in patients with Deep Vein Thrombosis (DVT) and pulmonary embolism. It is also used to prevent stroke in patients with atrial fibrillation. The complications associated with it are bleeding events, muscle pain, jaundice. The effect of this drug cannot be monitored as it can be done with warfarin. Seek emergency care if you experience any abnormal bruising, pink urine, black tarry stools and coughing or vomiting of blood. Drugs such as aspirin, NSAID’s like naproxen, ibuprofen, diclofenac which can increase the bleeding risk should not be taken without the doctor’s advice. **Brand Names:** Xarelto

**Warfarin:** Warfarin is an anticoagulant/blood thinner which interferes with the normal blood clotting or coagulation. Warfarin is prescribed for patients who are at increased risk for developing harmful blood clots. This includes people with a mechanical heart valve, an irregular heart rhythm like atrial fibrillation, and people with certain clotting disorders. The major complication associated with warfarin is bleeding due to excessive anticoagulation. Excessive bleeding, or hemorrhage, can occur from any area of the body. Therefore, the blood's ability to clot must be carefully monitored while a person takes warfarin. The dose of warfarin is adjusted, based on the results of periodic blood tests, to maintain the clotting time within a target range. PT (Prothrombin Time) is a commonly used test to monitor the effect of warfarin on clotting mechanism. INR (International Normalized Ratio) is a standardized way of expressing PT. The target INR for most clinical situations is 2 to 3. Some foods and supplements can interfere with warfarin's effectiveness. After being stabilized on a particular warfarin dose, consult a healthcare provider before making major dietary changes. **Brand Names:** Coumadin, Antoven, Marevan, Waran.

**ANTIPLATELET**

**Aspirin:** Aspirin is an antiplatelet drug with analgesic and anti-inflammatory effects. It can be used in lower doses to treat and prevent cardiovascular disease. Aspirin will reduce risk of stroke in patients with arrhythmias and other cardiovascular diseases and is sometimes preferred over warfarin in low risk patients. Aspirin can increase the risk of bleeding in alcoholics. The most common side effects are nausea, vomiting, GI bleeding, bruising and sometimes tinnitus at
higher doses. Taking aspirin with food can lessen stomach upset. **Brand Names:** Supac, Zorpin, Gelprin, Ascription.

**Clopidogrel:** Clopidogrel is an antiplatelet drug that keeps the platelets in your blood from coagulating (clotting) to prevent unwanted blood clots that can occur with certain heart or blood vessel conditions. Clopidogrel is used to prevent blood clots after a recent heart attack or stroke, and in people with certain disorders of the heart or blood vessels. Because of this drug action, clopidogrel can make it easier for you to bleed, even from a minor injury. It is usually taken once a day with or without food. While you are taking clopidogrel, do not take aspirin or other NSAIDs (non-steroidal anti-inflammatory drugs) without your doctor's advice. NSAIDs include ibuprofen (Advil, Motrin), naproxen (Aleve, Naprosyn, Naprelan, Treximet), celecoxib (Celebrex), diclofenac (Cataflam,Voltaren), indomethacin (Indocin), meloxicam (Mobic), and others. **Brand Names:** Iscover, Plavix, Clopilet, Ceruvin.

**RATE CONTROL**

**Digoxin:** Digoxin is used in the treatment of heart failure. It is also used to treat chronic atrial fibrillation. Treating heart failure may improve the strength of your heart. Treating an irregular heartbeat can decrease the risk for blood clots, an effect that may reduce your risk for a heart attack or stroke. Digoxin belongs to a class of medications called cardiac glycosides. It works by affecting certain minerals (sodium and potassium) inside heart cells. This reduces strain on the heart and helps it maintain a normal, steady, and strong heartbeat. Avoid becoming overheated or dehydrated during exercise, in hot weather, or by not drinking enough fluids. Digoxin overdose can occur more easily if you are dehydrated. Nausea, vomiting, headache, loss of appetite, and diarrhea may occur. **Brand Names:** Digitek (Tablets), Lanoxin (Injection), Lanoxicaps.

**OTHER**

**Atenolol:** Atenolol is a beta blocker commonly used in patients with Hypertension, Angina, Heart failure and Arrhythmia. It works by slowing the heart rate and relaxing the blood vessels so the heart does not have to pump as hard. In patients with arrhythmias it is mainly used as Rate control therapy to lower the heart rate. This drug is effective in reducing the heart rate at rest and during exercise in patients with atrial fibrillation. Atenolol can cause tiredness, dizziness, diarrhea, nausea, difficulty sleeping, numbness or tingling of the fingers and toes, wheezing, difficulty breathing, abnormally slow heart rate or rashes. It should be used with caution in patients with diabetes. **Brand Names:** Temormin (Tablets), Tenormin (I.V Injection).
**Bisoprolol**: Bisoprolol is a beta blocker most commonly used to treat high blood pressure. It works by relaxing blood vessels and slowing heart rate to decrease the blood pressure. Bisoprolol is also sometimes used to treat heart failure. Do not skip doses or stop taking Bisoprolol as stopping the drug abruptly may worsen your existing condition or cause serious heart problems. Bisoprolol can cause side effects that may impair your thinking or reactions. Be careful if you drive or do anything that requires you to be awake and alert. This drug can cause side effects like vomiting, diarrhea, excessive tiredness, muscle aches, runny nose. Avoid drinking alcohol. It can increase some of the side effects of bisoprolol. **Brand Names**: Ziac, Zebeta.

**Diltiazem**: Diltiazem is in a group of drugs called calcium channel blockers. It works by relaxing the muscles of your heart and blood vessels. Diltiazem is used to treat hypertension (high blood pressure), angina (chest pain), and certain heart rhythm disorders. Diltiazem can cause side effects that may impair your thinking or reactions. Be careful if you drive or do anything that requires you to be awake and alert. Do not stop taking this medication without first talking to your doctor. If you stop taking diltiazem suddenly, your condition may become worse. Diltiazem may cause dizziness, headache, hot flushes, slow heart beat, palpitations and tiredness. **Brand Names**: Cardiazem, Diltiazem.

**Verapamil**: Verapamil is used alone or together with other medicines to treat heart rhythm problems, severe chest pain (angina), or high blood pressure (hypertension). Verapamil is a calcium channel blocker. It works by affecting the movement of calcium into the cells of the heart and blood vessels. As a result, verapamil relaxes blood vessels and increases the supply of blood and oxygen to the heart while reducing its workload. It can cause adverse effects like constipation, headache and may cause low blood pressure. Verapamil may impair your thinking or reactions. Be careful if you drive or do anything that requires you to be alert. **Brand Names**: Covera-Hs, Isoptin, Verelan, Calan, And Bosoptin.