

Physical properties :-

- Quinine sulfate is fine white needle-like crystals, usually lusterless, making a lustrous and readily compressible mass.
- It is odorless and has a persistent bitter taste.
- When exposed to light, it acquires a brown tint.

Uses:-

- Quinidine should be used only after alternative measures have been found to be inadequate.
- Quinidine is used to treat and prevent atrial fibrillation or flutter and ventricular arrhythmias.
- Quinidine is also used to treat short QT syndrome.
- Quinidine is an intra-erythrocytic schizonticide, used to treat malaria.

PROCAINAMIDE HYDROCHLORIDE

- Procainamide is a class 1a (voltage-gated Na⁺ channel blockers) and it is the amide bio- isostere of local
- Because of its amide structure, procainamide is chemical hydrolysis.
- It is orally active.

Physical properties:-

- White or yellowish crystalline powder.
- Odourless and bitter in taste
- Soluble in water.

VERAPAMIL

- Verapamil is in a class of medications called calcium-channel blockers.
- It works by relaxing the blood vessels so the heart does not have to pump as hard.
- It also increases the supply of blood and oxygen to the heart and slows electrical activity in the heart to control the heart rate.

CHEMISTRY :-

4-amino-N-2-(diethylamino)ethyl-benzamide (also known as para-amino-N-2-(diethylamino)ethyl-benzamide because the amino substituent is attached to the para-position, Arene substitution patterns of the benzene ring) is a synthetic organic compound with the chemical formula C₁₃H₂₁N₃O