Flucloxacillin (Floxapen) Dosage and MOA, Side Effects...

Flucloxacillin is a semisynthetic antibiotic of a class penicillinase-resistant penicillin. It is isoxazolyl penicillin and is bactericidal in action. This drug, flucloxacillin is resistant to penicillinase produced by staphylococci bacteria.

The antibacterial spectrum of flucloxacillin includes:

Penicillinase producing staphylococci and Non-penicillinase-producing staphylococci.

It is also active against S.pneumonia and s.pyogenes.

Clinical Pharmacology

Flucloxacillin has a nearly identical spectrum of activity and can be considered therapeutically equivalent when comparing in vitro activity. These penicillinase-resistant penicillins have are a narrow spectrum of activity than natural penicillins.

It is completely absorbed from the gastrointestinal tract after oral administration and food further reduce absorption. Flucloxacillin should be taken in an empty stomach preferably 30 minutes before meals.

After oral administration, peak plasma concentrations are reached in 1-2 hours in fasting subjects.

When administered as an intramuscular injection, peak plasma levels are reached after 30 minutes, doubling the dose doubles plasma concentration.

About 90% of flucloxacillin is bound to plasma proteins. The plasma half-life is about 0.5 to an hour.

Therapeutic concentrations are achieved in pleural fluid, synovial fluid, and bone.

In cerebrospinal fluid when meninges are inflamed like in meningitis, flucloxacillin crosses the placenta and is excreted in breast milk.

Flucloxacillin undergoes limited metabolism and the active drug metabolites are excreted via kidneys by glomerular filtration and tubular secretion.

Indications and uses.

Flucloxacillin antimicrobial efficacy is aimed against penicillinase-producing strains of gram-positive cocci particularly staphylococcal species. They are sometimes called antistaphylococcal penicillins.

There are documented strains of staphylococcus that are resistant to these drugs so-called methicillin-resistant staphylococcus.

This drug is used in the treatment of:

Infections caused by penicillinase-producing staphylococci.

Respiratory tract infections such as pneumonia, lung abscess, sinusitis, pharyngitis, otitis media, and otitis externa and tonsillitis.

Skin and soft tissue infections, such as; cellulitis, burns, abscesses, infected skin conditions protection for skin grafts, furunculosis, and infected wounds.

Disseminated infections caused by pneumococci, group A beta-hemolytic streptococci and penicillin G sensitive staphylococci.

Contraindications

Flucloxacillin should not be used to patients with a history of penicillin allergies or administered to neonates born of mothers who are hypersensitive to penicillins.

Patients allergic to cephalosporins may also be allergic to penicillins.

Flucloxacillin is incompatible with aminoglycosides, tetracyclines, erythromycin, and polymyxin B.

Dosage

The dose usually depends on the age of the patient, body weight, renal function of the patient and the severity of the infection.

The usual dosage of flucloxacillin is 250mg to 500mg taken four times a day. In pediatrics, the dose may be lower.

As mentioned above, it is best to take the drug on an empty stomach meaning you should take it 30 to 60 minutes before a meal or snack, or at least 2 hours after.