



Azithromycin (dihydrate) 250, 500mg film coated tablets

Composition:

Each film Coated tablet contains Azithromycin dihydrate eq. to 250 or 500 mg or Azithromycin.

excipients:

Dibasic calcium phosphate anhydrous, pregelatinized starch, sodium croscarmellose, magnesium stearate, sodium laurylsulfate
Film: hydroxypropyl methyl cellulose, titanium dioxide, lactose and triacetin, Yellow colorant (250mg), red colorant (600mg).

Mechanism of action:

Azithromycin is a macrolide antibiotic belonging to the azalide group. The mechanism of action of azithromycin is based upon the suppression of bacterial protein synthesis by means of binding to the ribosomal 50s sub-unit and inhibition of peptide translocation.

-Commonly susceptible species:

Aerobic Gram-positive microorganisms :
Staphylococcus aureus Methicillin-susceptible
Streptococcus pneumoniae Penicillin-susceptible
Streptococcus pyogenes (Group A)

-Aerobic Gram-negative microorganisms:

Haemophilus influenzae ,Haemophilus parainfluenzae ,Legionella pneumophila ,Moraxella catarrhalis
Neisseria gonorrhoeae ,Pasteurella multocida .

-Anaerobic microorganisms:

Clostridium perfringens ,Fusobacterium spp. ,Prevotella spp. ,Porphyromonas spp.

-Other microorganisms:

Chlamydia trachomatis

Pharmacokinetic properties:

-Absorption:

Bioavailability after oral administration is approximately 37%. Peak plasma concentrations are attained 2-3 hours after taking the product.

-Distribution:

Orally administered azithromycin is widely distributed throughout the body. In pharmacokinetic studies it has been demonstrated that the concentrations of azithromycin measured in tissues are noticeably higher (as much as 50 times) than those measured in plasma, which indicates that the agent strongly binds to tissues.

Binding to serum proteins varies according to plasma concentration and ranges from 12% at 0.5 microgram/ml up to 52% at 0.05 microgram azithromycin/ml serum. The mean volume of distribution at steady state (Vss) has been calculated to be 31.1 l/kg.

-Elimination:

The terminal plasma elimination half-life closely reflects the elimination half-life from tissues of 2-4 hours.

Approximately 12% of an intravenously administered dose of azithromycin is excreted unchanged in urine within the following three days. Particularly high concentrations of unchanged azithromycin have been found in human bile. Also in bile, ten metabolites were detected.

Indications:

-Adult Patients:

- Acute bacterial exacerbations of chronic bronchitis.
- Acute bacterial sinusitis.
- Community-acquired pneumonia.
- Pharyngitis/tonsillitis.
- Uncomplicated skin and skin structure infections.
- Urethritis and cervicitis.
- Genital ulcer disease in men due to Haemophilus ducreyi (chancroid).

-Pediatric Patients:

- Acute otitis media (>6 months of age) caused by Haemophilus influenzae, Moraxella catarrhalis, or Streptococcus pneumoniae.
- Community-acquired pneumonia (>6 months of age) due to Chlamydia pneumoniae, Haemophilus influenzae, Mycoplasma pneumoniae, or Streptococcus pneumoniae in patients appropriate for oral therapy.
- Pharyngitis/tonsillitis (>2 years of age) caused by Streptococcus pyogenes as an alternative to first line therapy in individuals who cannot use first-line therapy.

-Limitations of Use:

Azithromycin should not be used in patients with pneumonia who are judged to be inappropriate for oral therapy because of moderate to severe illness or risk factors such as any of the following: patients with cystic fibrosis, patients with nosocomial infections, patients with known or suspected bacteremia, patients requiring hospitalization, elderly or debilitated patients, or patients with significant underlying health problems that may compromise their ability to respond to their illness (including immunodeficiency or functional asplenia).

Contraindications:

Azithromycin is contra-indicated in patients with a known hypersensitivity to azithromycin or any of the macrolide or ketolide antibiotics, erythromycin, or to any excipients.

warnings and precautions:

-Hypersensitivity:

As with erythromycin and other macrolides, rare serious allergic reactions including angioneurotic oedema and anaphylaxis (rarely fatal), have been reported. Some of these reactions with azithromycin have resulted in recurrent symptoms and required a longer period of observation and treatment.

-Hepatotoxicity:

Since the liver is the principal route of elimination for azithromycin, the use of azithromycin should be undertaken with caution in patients with significant hepatic disease. Cases of fulminant hepatitis potentially leading to life-threatening liver failure have been reported with azithromycin. Some patients may have had pre-existing hepatic disease or may have been taking other hepatotoxic medicinal products.

In case of signs and symptoms of liver dysfunction, such as rapid developing asthenia associated with jaundice, dark urine, bleeding tendency or hepatic encephalopathy, liver function tests/ investigations should be performed immediately. Azithromycin administration should be stopped if liver dysfunction has emerged.

-Ergot derivatives:

In patients receiving ergot derivatives, ergotism has been precipitated by co-administration of some macrolide antibiotics. There are no data concerning the possibility of an interaction between ergot and azithromycin. However, because of the theoretical possibility of ergotism, azithromycin and ergot derivatives should not be co-administered.

-Prolongation of the QT interval:

Prolonged cardiac repolarisation and QT interval, imparting a risk of developing cardiac arrhythmia and torsades de pointes, have been seen in treatment with other macrolides. A similar effect with azithromycin cannot be completely ruled out in patients at increased risk for prolonged cardiac repolarisation; therefore caution is required when treating patients:

- With congenital or documented QT prolongation
- Currently receiving treatment with other active substance known to prolong QT interval such as antiarrhythmics of classes Ia and III, cisapride and terfenadine
- With electrolyte disturbance, particularly in case of hypokalaemia and hypomagnesaemia
- With clinically relevant bradycardia, cardiac arrhythmia or severe cardiac insufficiency.

-Superinfection:

As with any antibiotic preparation, observation for signs of superinfection with non-susceptible organisms including fungi is recommended.

-Clostridium difficile associated diarrhea:

Clostridium difficile associated diarrhoea (CDAD) has been reported with use of nearly all antibacterial agents, including azithromycin, and may range in severity from mild diarrhoea to fatal colitis. Strains of C. difficile producing hypotoxin A and B contribute to the development of

CDAD. Hypertoxin producing strains of C. difficile cause increased morbidity and mortality, as these infections can be refractory to antimicrobial therapy and may require colectomy. Therefore, CDAD must be considered in patients who present with diarrhoea during or subsequent to the administration of any antibiotics. Careful medical history is necessary since CDAD has been reported to occur over two months after the administration of antibacterial agents. Discontinuation of therapy with azithromycin and the administration of specific treatment for C. difficile should be considered.

-Streptococcal infections:

Penicillin is the first choice for treatment of pharyngitis/tonsillitis due to Streptococcus pyogenes and also for prophylaxis of acute rheumatic fever. Azithromycin is in general effective against streptococcus in the oropharynx, but no data are available that demonstrate the efficacy of azithromycin in preventing acute rheumatic fever.

-Renal impairment:

In patients with severe renal impairment (GFR <10 ml/min) a 33% increase in systemic exposure to azithromycin was observed

-Myasthenia gravis:

Exacerbations of the symptoms of myasthenia gravis and new onset of myasthenia syndrome have been reported in patients receiving azithromycin therapy

Drug Interactions:

-Antacids: In a pharmacokinetic study investigating the effects of simultaneous administration of antacid with azithromycin, no effect on overall bioavailability was seen, although peak serum concentrations were reduced by approximately 24%. In patients receiving both azithromycin and antacids, the drugs should not be taken simultaneously.

-Digoxin: Some of the macrolide antibiotics have been reported to impair the microbial metabolism of digoxin in the gut in some patients. In patients receiving concomitant azithromycin and digoxin the possibility of raised digoxin levels should be borne in mind.

-Zidovudine: administration of azithromycin increased the concentrations of phosphorylated zidovudine, the clinically active metabolite, in peripheral blood mononuclear cells.

-Ergot derivatives: Due to the theoretical possibility of ergotism, the concurrent use of azithromycin with ergot derivatives is not recommended.

-Coumarin-Type Oral Anticoagulants: Although a causal relationship has not been established, consideration should be given to the frequency of monitoring prothrombin time when azithromycin is used in patients receiving coumarin-type oral anticoagulants.

-Ciclosporin: If co-administration of these drugs is necessary, ciclosporin levels should be monitored and the dose adjusted accordingly.

Pregnancy:

There are no adequate and well-controlled studies in pregnant women, therefore azithromycin should be used during pregnancy only if clearly needed.

Breast-feeding:

Azithromycin should not be used in the treatment of a lactating woman unless the potential benefits justify the potential risks to the infant.

Side effects:

Candidiasis, oral candidiasis, vaginal infection ,Leukopenia, neutropenia, Angioedema, hypersensitivity ,Anorexia ,Nervousness ,Dizziness, headache, paraesthesia, dysgeusia ,Hypoaesthesia, somnolence, insomnia ,Visual impairment, Deafness ,Hearing impaired, timulus ,Palpitations ,Diarrhoea, abdominal pain, nausea, flatulence, Vomiting, dyspepsia, Gastritis, constipation, Hepatitis, Pruritus, rash, Stevens-Johnson syndrome, photosensitivity reaction, urticaria, Arthralgia, Fatigue, Chest pain, oedema, malaise, asthenia, Lymphocyte count decreased, eosinophil count increased, blood bicarbonate decreased, Aspartate aminotransferase increased, alanine aminotransferase increased, blood bilirubin increased, blood urea increased, blood creatinine increased, blood potassium abnormal.

Dosage and administration:

-Adult Patients:

Infection	Recommended Dose/Duration of Therapy
Community-acquired pneumonia (mild severity) Pharyngitis/tonsillitis (second-line therapy) Skin/skin structure (uncomplicated)	500 mg as a single dose on Day 1, followed by 250 mg once daily on Days 2 through 5.
Acute bacterial exacerbations of chronic bronchitis (mild to moderate)	500 mg as a single dose on Day 1, followed by 250 mg once daily on Days 2 through 5 or 500 mg once daily for 3 days.
Acute bacterial sinusitis	500 mg once daily for 3 days.
Genital ulcer disease (chancroid)	
Non-gonococcal urethritis and cervicitis	One single 1 gram dose.
Gonococcal urethritis and cervicitis	One single 2 gram dose.

Overdose:

Adverse events experienced in higher than recommended doses were similar to those seen at normal doses. The typical symptoms of an overdose with macrolide antibiotics include reversible loss of hearing, severe nausea, vomiting and diarrhoea. In the event of overdose, the administration of medicinal charcoal and general symptomatic treatment and supportive measures are indicated as required.

Storage Condition :

Store below 25° C, protect from light.

Packaging :

A carton box contains one PVDC/Alu blister strip containing 6 tablets (250 mg) or 3 tablets (500mg)

THIS IS A MEDICAMENT

- A medicament is a product but unlike any other products.
- A medicament is a product which affects your health, and its consumption contrary to instructions is dangerous for you.
- Follow strictly the physician's prescription, the method of use and the instructions of the pharmacist who sold the medicament. The physician and the pharmacist are experts in medicine, its benefits and risks.
- Do not by yourself interrupt the period of treatment prescribed for you.
- Do not repeat the same prescription without consulting your physician.

KEEP THE MEDICAMENTS OUT OF REACH OF CHILDREN

Council of Arab Health Ministers & Union of Arab Pharmacists



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