



Composition:

Tablets: Each Macroctic (250-500) Film Coated Tablet contains 250-500 mg Clarithromycin.

Powder for oral suspension: Each 5 ml Macroctic (125-250) oral suspension contains 125-250 mg Clarithromycin.

Pharmaceutical Group:

Antibiotic (Macrolides).

Mechanism of Action:

Clarithromycin is a macrolide antimicrobial drug; it exerts its antibacterial action by binding to the 50S ribosomal subunit of susceptible bacteria resulting in inhibition of protein synthesis.

Pharmacokinetics:

Absorption: Absolute bioavailability is approximately 50%. Maximum plasma concentrations in the food state in healthy subjects are obtained within 2-3 hours after an oral dose.

Distribution: Clarithromycin and its metabolite are readily distributed in body tissues and fluids.

Metabolism and elimination: The elimination half-life of Clarithromycin was approximately 3-4 hours when a dose of 250 mg was given every 12 hours, but it increased to 5-7 hours when 500 mg was given every 8-12 hours.

Indications:

- Acute Bacterial Exacerbation of Chronic Bronchitis caused by susceptible isolates due to Haemophilus influenzae, Haemophilus parainfluenza, Moraxella catarrhalis, or Streptococcus pneumoniae.
- Acute Maxillary Sinusitis caused by susceptible isolates due to Haemophilus influenzae, Moraxella catarrhalis, or Streptococcus pneumonia.
- Community-Acquired Pneumonia caused by susceptible isolates due to: Haemophilus influenzae (in adults) Haemophilus parainfluenza, Moraxella catarrhalis, Mycoplasma pneumoniae, Streptococcus pneumoniae and Chlamydia pneumoniae.
- Pharyngitis/Tonsillitis caused by susceptible isolates due to Streptococcus pyogenes as an alternative in individuals who cannot use first line therapy.
- Uncomplicated Skin and Skin Structure Infections caused by susceptible isolates due to Staphylococcus aureus, or Streptococcus pyogenes.
- Acute Otitis Media in pediatric patients caused by susceptible isolates due to Haemophilus influenzae, Moraxella catarrhalis, or Streptococcus pneumonia.
- Treatment and prevention of the spread of mycobacterial infections in pediatric patients.
- Helicobacter pylori Infection and Duodenal Ulcer Disease: the Tablets are given in combination with other drugs in adults to eradicate H. pylori.

Contraindications:

- Macroctic is contraindicated in patients with a known hypersensitivity to Clarithromycin, erythromycin, or any of the macrolide antibacterial drugs.
- Clarithromycin is contraindicated in patients with a history of cholestatic jaundice or hepatic dysfunction associated with prior use of Clarithromycin.

Warnings & Precautions:

Acute Hypersensitivity Reactions: such as anaphylaxis, Stevens - Johnson syndrome, discontinue Clarithromycin therapy immediately and institute appropriate treatment.

QT Prolongation: Clarithromycin has been associated with QT prolongation and rare cases of arrhythmias.

Exacerbation of Myasthenia Gravis: Exacerbation of symptoms of myasthenia gravis and new onset of symptoms of myasthenic syndrome has been reported in patients receiving Clarithromycin therapy.

Pregnancy & Lactation:

Pregnancy: Pregnancy category C. Clarithromycin should not be used in pregnant women unless there is no suitable alternative treatment.

Lactation: Clarithromycin and its active metabolite are excreted in breast milk and therefore caution should be exercised when administering Clarithromycin to breastfeeding women.

Drug Interactions:

Concomitant administration of Clarithromycin, known to inhibit CYP3A, may be associated with Clarithromycin, and therefore Clarithromycin should be used with caution in patients taking other drugs known to be CYP3A substrates such as colchicine, HMG-CoA reductase inhibitors (statins), antiarrhythmics (disopyramide, quinidine, dofetilide, amiodarone, Sotalol and procainamide), calcium channel blockers (verapamil and nifedipine), oral hypoglycemic agents (insulin), oral anticoagulants (warfarin), benzodiazepines such as triazolam and midazolam, antiepileptics (carbamazepine), antifungals (itraconazole), ergotamine alkaloids (ergotamine, Dihydroergotamine), phosphodiesterase inhibitors (sildenafil, tadalafil, vardenafil), proton pump inhibitors (omeprazole) and xanthin derivatives (theophylline). Other drugs metabolized by CYP3A such as methylprednisolone, bromocriptine. Other drugs metabolized by CYP450 other than CYP3A such as phenytoin and valproate.

CYP3A enzyme inducers such as nevirapine, rifampicin.

Side Effects:

The most frequent adverse reactions are abdominal pain, Clostridium difficile Associated Diarrhea, nausea, vomiting and dysgeusia. Also reported were dyspepsia, liver function test abnormal, anaphylactic reaction, candidiasis, headache, insomnia, and rash.

Driving & Using Machines:

There are no data on the effect of Clarithromycin on the ability to drive or use machines. The potential for dizziness, vertigo, confusion and disorientation, which may occur with the medication, should be taken into account.

Dosage & Administration:

Macroctic Tablets and Powder for Oral Suspension may be given with or without food.

Adult Dosage: For the treatment of mild to moderate infections in adults.

Tablets		
Infection	Dosage (Every 12 hours)	Duration (days)
Acute bacterial exacerbation of chronic bronchitis	250 to 500 mg (For M. catarrhalis and S. pneumoniae use 250 mg, For H. influenzae and H. parainfluenza, use 500 mg)	7-14 (For H parainfluenza, the duration of therapy is 7 days)
Acute maxillary sinusitis	500 mg	14
Community-acquired pneumonia	250 mg	7-14 For H. influenzae, the duration of therapy is 7 days
Pharyngitis/Tonsillitis	250 mg	10
Uncomplicated skin and skin structure infections	250 mg	7-14

Treatment and prophylaxis of disseminated Mycobacterium avium disease	500 mg Clarithromycin therapy should continue if clinical response is observed. It can be discontinued when the patient is considered at low risk of disseminated infection	-
H. pylori eradication to reduce the risk of duodenal ulcer recurrence with amoxicillin and omeprazole or lansoprazole	500 mg	10-14
H. pylori eradication to reduce the risk of duodenal ulcer recurrence with omeprazole	500 mg every 8 hours	14

Pediatric Dosage: The recommended daily dosage is 15 mg/kg/day divided every 12 hours for 10 days (up to the adult dose). Refer to dosage regimens for mycobacterial infections in pediatric patients for additional dosage information.

Dosage for treatment and prevention of mycobacterial infections:

Adults: The recommended dose is 500 mg every 12 hours.

Children: The recommended dose is 7.5 mg/kg every 12 hours, may be up to 500 mg every 12 hours.

Overdose:

Symptoms: Overdosage of Clarithromycin can cause gastrointestinal symptoms such as abdominal pain, vomiting, nausea, and diarrhea.

Treatment: Treat adverse reactions accompanying overdosage by the prompt elimination of unabsorbed drug and supportive measures. As with other macrolides, Clarithromycin serum concentrations are not expected to be appreciably affected by hemodialysis or peritoneal dialysis.

Preparation of the Suspension:

1. Shake the bottle to release the dry powder.
2. Add half the amount of water depending on the fill line.
3. Shake the bottle well.
4. Fill the volume with water to the fill line, then shake the bottle well again.

Storage:

Keep out of reach of children.

Store below 30° C.

The suspension is stored after preparation at a temperature of 15-30° C.

Discard the remaining amount of suspension 14 days after preparing it.

Packaging:

Tablets: Each Macroctic (250-500) carton box contains 14 Film Coated Tablets in two blister strips.

Powder for oral suspension: Each Macroctic (125-250) carton box contains 60 ml bottle.

