SUMMARY OF PRODUCT CHARACTERISTICS

1. **Name of the medicinal product**

   CACHMAX-200(Cefixime Tablets USP 200mg)

2. Qualitative and quantitative composition

Each film-coated tablet contains 223.8 mg of Cefixime trihydrate equivalent to 200 mg of Cefixime (anhydrous)

For a full list of excipients, see section 6.1.

3. Pharmaceutical form:

Film coated tablet

Visualdescriptionoffinishedproduct: Light Yellow coloured, capsule shaped, standard biconvex, film coated tablet with a break line on one side

4. Clinical particulars:

4.1 Therapeutic indications:

CACHMAX-200 is an orally active cephalosporin antibiotic which has marked in vitro bactericidal activity against a wide variety of Gram-positive and Gram-negative organisms.

It is indicated for the treatment of the following acute infections when caused by susceptible micro-organisms:

Upper Respiratory Tract Infections (URTI): e.g. otitis media; and other URTI where the causative organism is known or suspected to be resistant to other commonly used antibiotics, or where treatment failure may carry significant risk.

Lower Respiratory Tract Infection: e.g. bronchitis.

Urinary Tract Infections: e.g. cystitis, cystourethritis, uncomplicated pyelonephritis.

Clinical efficacy has been demonstrated in infections caused by commonly occuring pathogens including Streptococcus pneumoniae, Streptococcus pyogenes, Escherichia coli, Proteus mirabilis, Kliebsiella species, Haemophilus influenzae (beta-lactamase positive and negative), Branhamella catarrhalis (beta- lactamase positive and negative) and Enterobacter species. **CACHMAX-200** is highly stable in the presence of beta-lactamase enzymes.

Most strains of enterococci (Streptococcus faecalis, group D Streptococci) and Staphylococci (including coagulase positive and negative strains and meticillin- resistant strains) are resistant to **CACHMAX-200**. In addition, most strains of Pseudomonas, Bacteriodes fragalis, Listeria monocytogenes and Clostridia are resistant to **CACHMAX-200.**

4.2 Posology and method of administration:

The usual course of treatment is 7 days. This may be continued for up to 14 days if required.

Posology

Adults and Children over 10 Years or weighing more than 50 kg:

The recommended adult dosage is 200-400 mg daily according to the severity of infection, given either as a single dose or in two divided doses.

Elderly:

Elderly patients may be given the same dose as recommended for adults. Renal function should be assessed and dosage should be adjusted in severe renal impairment.

Children under 10 Years:

CACHMAX-200are not recommended for use in children under 10 years old.

The safety and efficacy of cefixime has not been established in children less than 6 months.

Renal Impairment:

CACHMAX-200 may be administered in the presence of impaired renal function. Normal dose and schedule may be given in patients with creatinine clearances of 20 ml/min or greater. In patients whose creatinine clearance is less than 20 ml/min, it is recommended that a dose of 200 mg once daily should not be exceeded. The dose and regimen for patients who are maintained on chronic ambulatory peritoneal dialysis or haemodialysis should follow the same recommendation as that for patients with creatinine clearances of less than 20 ml/min.

Method for administration

For oral administration.

Absorption of **CACHMAX-200** is not significantly modified by the presence of food.

4.3 Contraindications

Cefixime Tabletsare contraindicated in patients with known allergy to the cephalosporin group of antibiotics or to any of its excipients.

4.4 Special warnings and precautions for use

Encephalopathy

Beta-lactams, including cefixime, predispose the patient to encephalopathy risk (which may include convulsions, confusion, impairment of consciousness, movement disorders), particularly in case of overdose or renal impairment.

Severe cutaneous adverse reactions

Severe cutaneous adverse reactions such as toxic epidermal necrolysis, Stevens- Johnson syndrome and drug rash with eosinophilia and systemic symptoms (DRESS) have been reported in some patients on cefixime. When severe cutaneous adverse reactions occur, cefixime should be discontinued and appropriate therapy and/or measures should be taken.

CACHMAX-200should be given with caution to patients who have shown hypersensitivity to other drugs.

Hypersensitivity to penicillins

As with other cephalosporins, cefixime should be given with caution to patients with a history of hypersensitivity to penicillin, as there is some evidence of partial cross-allergenicity between the penicillins and cephalosporins.

Patients have had severe reactions (including anaphylaxis) to both classes of drugs. If an allergic effect occurs with **CACHMAX-200**, the drug should be discontinued and the patient treated with appropriate agents if necessary.

Haemolytic anaemia

Drug-induced haemolytic anaemia, including severe cases with a fatal outcome, has been described for cephalosporins (as a class). The recurrence of haemolytic anaemia after re-administration of cephalosporins in a patient with a history of cephalosporin (including cefixime) –associated haemolytic anaemia has also been reported.

Acute renal failure

As with other cephalosporins, cefixime may cause acute renal failure including tubulointerstitial nephritis as an underlying pathological condition. When acute renal failure occurs, cefixime should be discontinued and appropriate therapy and/or measures should be taken.

Renal impairment

CACHMAX-200should be administered with caution in patients with markedly impaired renal function.

Paediatric use

Safety of cefixime in premature or newborn infant has not been established.

Treatment with broad spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by *Clostridium difficile* is a primary cause of antibiotic-associated diarrhoea.

Pseudomembranous colitis is associated with the use of broad-spectrum antibiotics (including macrolides, semi-synthetic penicillins, lincosamides and cephalosporins); it is therefore important to consider its diagnosis in patients who develop diarrhoea in association with the use of antibiotics. Symptoms of pseudomembranous colitis may occur during or after antibiotic treatment.

Management of pseudomembranous colitis should include sigmoidoscopy, appropriate bacteriologic studies, fluids, electrolytes and protein supplementation. If the colitis does not improve after the drug has been discontinued, or if the symptoms are severe, oral vancomycin is the drug of choice for antibiotic- associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be excluded

4.5 Interaction with other medicinal products and other forms of interaction

Anticoagulants

In common with other cephalosporins, increases in prothrombin times have been noted in a few patients. Care should therefore be taken in patients receiving anticoagulation therapy.

Cefixime should be administered with caution to patients receiving coumarin-type anticoagulants, e.g. warfarin potassium. Since cefixime may enhance effects of the anticoagulants, prolonged prothrombin time with or without bleeding may occur.

Other forms of interaction

A false positive reaction for glucose in the urine may occur with Benedict's or Fehling's solutions or with copper sulphate test tablets, but not with tests based on enzymatic glucose oxidase reactions.

A false positive direct Coombs test has been reported during treatment with cephalosporin antibiotics, therefore it should be recognised that a positive Coombs test may be due to the drug.

4.6 Fertility, pregnancy and lactation

There are no adequate and well-controlled studies in pregnant women. Cefixime should therefore not be used in pregnancy or in nursing mothers unless considered essential by the physician.

4.7 Effects on ability to drive and use machines

In the case of side effects such as encephalopathy (which may include convulsion, confusion, impairment of consciousness, movement disorders), the patient should not operate machines or drive a vehicle.

4.8 Undesirable effects

The following adverse reactions may occur: *Gastrointestinal*: Diarrhea, loose stools, abdominal pain, dyspepsia, nausea, and vomiting.

Hypersensitivity Reactions: Anaphylactic/ anaphylactoid reactions, skin rashes, urticaria, pruritus, angioedema. *Hepatic:* Transient elevations in SGPT, SGOT, alkaline phosphatase.

Renal: Transient elevations in BUN or creatinine.

Central Nervous System: Headaches, dizziness.

Hemic and Lymphatic Systems: Transient thrombocytopenia, leukopenia, eosinophilia. Prolongation in prothrombin time was seen rarely.

Abnormal Laboratory Tests: Hyperbilirubinemia.

Other: Genital pruritus, vaginitis, candidiasis.

4.9 Overdose

Gastric lavage may be indicated; otherwise, no specific antidote exists. Cefixime is not removed in significant quantities from the circulation by hemodialysis or peritoneal dialysis. Adverse reactions in small numbers of healthy adult volunteers receiving single doses up to 2 g of cefixime did not differ from the profile seen in patients treated at the recommended doses.

5. Pharmacological properties

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: third generation cephalosporin, ATC code: J01DD08

Cefixime is a semi synthetic, broad spectrum, third generation cephalosporin which has marked in vitro bactericidal activity against a wide variety of gram positive and gram negative organisms.

As with other cephalosporin, bactericidal action of Cefixime results from inhibition of cell wall synthesis. Cefixime is stable in presence of beta lactamase enzymes.

Cefixime has been shown to be active against following gram positive and gram negative organisms.

Gram Positive

a) Streptococcus pneumonia.
b) Streptococcus pyogenes.

Gram Negative

a) Haemophilus influenza (beta lactamase positive and negative).
b) Proteus mirabilis.
c) Branhamella catarrhalis (beta Lactamase positive and negative).
d) Escherichia Coli

Most strains of enterococci (Streptococcus faecalis, group D Streptococci) and Staphylococci (including coagulase positive and negative strains and meticillin-resistant strains) are resistant to cefixime. In addition, most strains of Pseudomonas, Bacteroides fragilis, Listeria monocytogenes and Clostridia are resistant to cefixime.

5.2 Pharmacokinetic properties

Only 40 to 50% of an oral dose of cefixime is absorbed from the gastrointestinal tract, whether taken before or after meals, although the rate of absorption may be decreased in the presence of food. Cefixime is better absorbed from oral suspension than from tablets. Absorption is fairly slow, peak plasma concentrations of 2 to 3 micrograms/mL and 3.7 to 4.6 micrograms/mL have been reported between 2 and 6 hours after single doses of 200 and 400 mg, respectively. The plasma half life is usually about 3 to 4 hrs and may be prolonged when there is renal impairment. About 65% of cefixime is bound to plasma proteins.

Information on the distribution of cefixime in body tissues and fluids is limited. It crosses the placenta. Relatively high concentrations may be achieved in bile and urine. About 20% of an oral dose (or 50% of an absorbed dose) is excreted unchanged in the urine within 24 hrs. Up to 60% may be eliminated by non renal mechanisms; there is no evidence of metabolism but some is probably excreted into the faeces from bile. It is not substantially removed by dialysis.

5.3 Preclinical safety data

There are no pre-clinical data of relevance

6. Pharmaceutical particulars

6.1 List of excipients:

Microcrystalline Cellulose

Sodium Starch Glycolate

Colloidal Silicon Dioxide

Talc

Magnesium Stearate

Opadry White

Quinoline Yellow Lake

6.2 Incompatibilities

Not Applicable

6.3 Shelf life

36 months

6.4 Special precautions for storage

Store in dry place, below 30° C. Protect from light. Keep out of reach of children.

6.5 Nature and contents of container

10 tablets packed in Alu-Alu Blister and such 1 blister packed in a monocarton with pack insert.

6.6 Special precautions for disposal and other handling

Not Applicable

7. Marketing authorization holder

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8. Marketing Authorisation number(s)

06815/08522/NMR/2020

9. Date of first Authorisation/renewal of the Authorisation

Date of First Authorisation: 24/11/2021

10. Date of revision of the text

01/07/2023