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CIN NO: U24231GJ1992PLC018237

# SUMMARY OF PRODUCT CHARACTERISTICS (SmPC)

**Summary of product characteristics (SMPC)**

## 1. NAME OF THE MEDICINAL PRODUCT

CFPOXIME – CLV (Cefpodoxime Proxetil and Potassium Clavulanate Tablets**)**

## 2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each film coated tablet contains:

Cefpodoxime Proxetil USP

Eq. to Cefpodoxime 200 mg

Potassium clavulanate Diluted BP

Eq. to Clavulanic Acid 125 mg

Excipients q.s.

Colour: Lake of Sunset yellow and Titanium dioxide BP

For a full list of excipients, see section 6.1

## 3. PHARMACEUTICAL FORM

**Dosage Form:** Solid Oral Dosage Form- Tablet

**Visual & Physical characteristics of the product:** An orange coloured, capsule shape, biconvex, film coated tablets having “CHCL” on one side and “CHANRAI” symbol on other side of the tablet.

## 4. CLINICAL PARTICULARS

### 4.1. Therapeutic Indications:

This combination is useful in treatment of:

- Upper and lower respiratory tract infections
- Skin and soft tissue infections
- Urinary tract infections
- Gonorrhea
- Acute community acquired Pneumonia
- Pharyngitis, tonsillitis

### 4.2 Posology and Method of Administration:

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Always dose as advised by your healthcare professional. Do not self-medicate, and never alter your dose without the advice of a healthcare professional. It is normally for a patient to dose twice a day, with 12-hour intervals. Dosing should usually be done with a meal of snack of some kind to aid absorption. Always finish your full course of medication even if your infection appears cured. Infections can return stronger and more resistant to medication if they are not completely eliminated the first time, and will be harder to treat effectively. Cefpodoxime and Clavulanic acid should be used only to treat or prevent infections that are proven or strongly suspected to be caused by bacteria susceptible to the combination. CFPOXIME CLV should be taken with food to enhance absorption of the drug. The recommended dosages of Cefpodoxime, duration of treatment and applicable patient population are as described in the following chart

**Adults and Adolescents (age 12 years and older)**

| Type of Infection | Total daily dose* of Cefpodoxime | Dose Frequency | Duration |
|---|---|---|---|
| Acute community acquired Pneumonia | 400mg | 200mg every 12 hours | 14 days |
| Acute bacterial exacerbations of chronic bronchitis | 400mg | 200mg every 12 hours | 10 days |
| Acute maxillary sinusitis | 400mg | 200mg every 12 hours | 10 days |
| Pharyngitis / Tonsillitis | 200mg | 100mg every 12 hours | 5-10 days |
| SSTI | 800mg | 400mg every 12 hours | 7 to 14 days |
| Uncomplicated urinary tract infections | 200mg | 100mg every 12 hours | 7 days |
| *Dose of Cfpoxime is based on Cefpodoxime component | | | |

**Pediatrics (age: 3 months to 11 years)**

| Type of Infection | Total daily dose* of Cefpodoxime | Dose Frequency | Duration |
|---|---|---|---|
| Acute Otitis Media | 10mg/kg Q 12 h (Max 400mg/dose) | 5mg/kg Q 12 h (Max 200mg/dose) | 5 Days |
| Acute maxillary sinusitis | 10mg/kg Q 12 h (Max 200mg/dose) | 5mg/kg Q 12 h (Max 100mg/dose) | 5-10 Days |
| Pharyngitis / Tonsillitis | 10mg/kg Q 12 h (Max 400mg/dose) | 5mg/kg Q 12 h (Max 200mg/dose) | 10 Days |
| *Dose of Cfpoxime is based on Cefpodoxime component | | | |

**4.3 Contraindications:**

Cefpodoxime Proxetil is contra-indicated in patients who are allergic to the cephalosporin group of antibiotics & any of the component of the formation. Safety of Cefpodoxime Proxetil for use in pregnancy and lactation has not been established.

**4.4 Special Warnings and Precautions for use:**

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Before initiating therapy with cephalosporin, careful enquiry should be made concerning previous hypersensitivity reactions to penicillin and other beta-lactam antibiotics. Cephalosporin cross reactivity has been observed in patients with a documented history of beta-lactam allergy. Extreme caution and strict medical supervision is recommended when cephalosporin are administered to patients with a history of' beta-lactam anaphylaxis since serious occasionally fatal anaphylaxis may also occur after cephalosporin administration. If an allergic reaction occurs, treatment should be stopped immediately.

**Carcinogenesis, Mutagenesis, Impairment of Fertility:** Long-term animal carcinogenesis studies of Cefpodoxime Proxetil have not been performed. Mutagenesis studies of Cefpodoxime, including the Ames test both with and without metabolic activation, the chromosome aberration test, the unscheduled DNA synthesis assay, mitotic recombination and gene conversion, the forward gene mutation assay and the in vivo micronucleus test, were all negative. No untoward effects on fertility or reproduction were noted when 100 mg/kg/day or less (2 times the human dose based on mg/m2) was administered orally to rats.

**4.5. Interaction with other medicinal products and other forms of interaction:**

**Antacids:** Concomitant administration of high doses of antacids (sodium bicarbonate and aluminum hydroxide) or H2 blockers reduces peak plasma levels by 24% to 42% and the extent of absorption by 27% to 32%, respectively. The rate of absorption is not altered by these concomitant medications. Oral anti-cholinergic (e.g., propantheline) delay peak plasma levels (47% increase in Tmax), but do not affect the extent of absorption (AUC).

**Probenecid:** As with other beta-lactam antibiotics, renal excretion of Cefpodoxime was inhibited by probenecid and resulted in an approximately 31 % increase in AUC and 20% increase in peak Cefpodoxime plasma levels.

**Nephrotoxic drugs**: Although nephrotoxicity has not been noted when Cefpodoxime Proxetil was given alone, close monitoring of renal function is advised when Cefpodoxime Proxetil is administered concomitantly with compounds of known nephrotoxic potential.

**Drug/Laboratory Test Interactions:** Cephalosporin's, including Cefpodoxime Proxetil, are known to occasionally induce a positive direct Combs' test.

**4.6. Pregnancy, Lactation and Fertility**

**Pregnancy and Teratogenic Effects: Pregnancy Category B**

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Cefpodoxime Proxetil was neither teratogenic nor embryocidal when administered to rats during organogenesis at doses up to I 00 mg/kg/day (2 times the human dose based on mg/m2) Orto rabbits at doses up to 30 mg/kg/day (1-2 times the human dose based on mg/m2). There are, however, no adequate and well-controlled studies of Cefpodoxime Proxetil use in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed. The reproductive and developmental toxicity studies on Clavulanic acid are available following oral administration; one generation in rat; teratogenic effect in rat; teratogenic effect in mouse and peri-and post-natal development in the rat. However, no adequate and well-controlled studies with Cefpodoxime and clavulanate potassium in pregnant women.

**Labor and Delivery:** Cefpodoxime Proxetil has not been studied for use during labor and delivery. Treatment should only be given if clearly needed.

**Lactation:** Cefpodoxime is excreted in human milk. In a study of 3 lactating women, levels of Cefpodoxime in human milk were 0%, 2% and 6% of concomitant serum levels at 4 hours following a 200 mg oral dose of Cefpodoxime Proxetil. At 6 hours post-dosing, levels were 0%, 9% and 16% of concomitant serum levels. Because of the potential for serious reactions in nursing infants, a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother.

**4.7. Effects on Ability to Drive and Use Machines:**

No studies on the effects on the ability to drive and use machines have been performed.

**4.8. Undesirable Effects:**

The following adverse effects may be experienced by patients taking this medication. If any persist or worsen, inform your health care provider as soon as possible.

- Upset stomach
  -Nausea
  -Diarrhoea
- Gassiness
- Indigestion
- Irritation
- Headaches

- Throat infection or soreness

**4.9. Overdose:**

The toxic symptoms following an overdose of beta-lactam antibiotics may include nausea, vomiting, epigastric distress, and diarrhea. There is no specific antidote for Cefpodoxime Proxetil. Gastric lavage and other appropriate supportive treatment should be employed. Convulsions and other signs of CNS toxicity have been associated with high doses, especially in patients with severe renal impairment. Treatment is symptomatic and supportive.

## 5. PHARMACOLOGICAL PROPERTIES

**5.1. Pharmacodynamic Properties:**

**Pharmacotherapeutic Group:** Cefpodoxime and beta-lactamase inhibitor

**ATC Code:** J01DD64

**Mechanism of action:** Cefpodoxime Proxetil is a semi-synthetic beta-lactam antibiotic belonging to the third-generation oral cephalosporin group. Cefpodoxime Proxetil is the prodrug of the bactericidal antibiotic Cefpodoxime. The antibacterial action of Cefpodoxime is through inhibition of bacterial cell wall synthesis probably by acylation of membrane bound trans peptidase enzymes; this prevents cross linkage of peptidoglycan chains, which is necessary for bacterial cell wall strength and rigidity. In vitro studies have demonstrated the susceptibility of most strains of the following micro-organisms to Cefpodoxime Proxetil. However, such in vitro activity does not necessarily imply in vivo efficacy.

**Gram-positive organisms:** Streptococcus pneumoniae, S. pyogenes, S. agalactiae, S. mitis, S. sanguis and S. salivarius; Propionibacterium acnes; Corynebacterium diphtheria; methicillin-sensitive penicillinase and non-penicillinase producing strains of S. aureus.

**Gram negative organisms:** Beta-lactamase and non-beta-lactamase producing strains of Haemophilus influenza, Haemophilus para-influenza, Moraxella catarrhal is (Branhamella atarrhalis) and Neisseria gonorrhoea; Escherichia coli; Klebsiella pneumoniae; Klebsiella oxytoca; Proteus mirabilis.

**The following organisms are not sensitive:** Group D streptococci, Methicillin-resistant staphylococci (S. aureus and S. epidermidis), Staphylococcus saprophyticus, Corynebacterium,

groups J and K, Listeria monocytogenes, Pseudomonas aeruginosa and Pseudomonas spp., Acinetobacter baumanii, Clostridium difficile, Bacteroides fragilis and related species.

**5.2. Pharmacokinetic Properties:**

**Absorption:** Cefpodoxime Proxetil is absorbed orally and rapidly hydrolyzed by non-specific esterase in the gastro - intestinal wall to Cefpodoxime, the active acid. Absorption is decreased in conditions of low gastric acidity.

**Distribution:** After oral administration of a single dose of 200 mg of Cefpodoxime, the maximum plasma concentration (Cmax) obtained is 2.23 mg/L. After oral administration of a single 5 mg/kg (200 mg maximum) dose of Cefpodoxime Proxetil suspension in children, the maximum plasma concentration (Cmax) obtained is on average 2 to 6 mg/L. With Cefpodoxime Proxetil tablets the time taken to reach the maximum concentration (Tmax) is about 2 to 7 hours. With the suspension the time taken to reach the maximum concentration (Tmax) is about 2 to 4 hours. The drug diffuses well into respiratory tissues. The serum half-life is about 2.46 hours. About 27% of Cefpodoxime in the plasma is bound to plasma proteins.

**Elimination:** The volume of distribution is about 0.46 L/kg and the clearance is around 2.4 mL/min/kg. About 81 % of unchanged Cefpodoxime is excreted in the urine.

**5.3. Preclinical Safety Data**

Not Known

## 6. PHARMACEUTICAL PARTICULARS:

**6.1 List of Excipients:**

- Microcrystalline cellulose
- Cross-povidone
- Kyron –T -314 (Polacrilin potassium)
- Sodium lauryl Sulphate
- Colloidal silicone dioxide
- Magnesium Stearate
- Purified talc
- Low substituted Hydroxy propyl cellulose
- Mannitol

- Col. Opadry white
- Col. Sunset yellow lake
- Col. EL-MBS-1094 Orange (Elegance coat)

**6.2 Incompatibilities:**

Not applicable.

**6.3 Shelf Life:**

2 Years

**6.4 Special Precautions for Storage:**

Store in a cool (below 25° C) and dry place. Protect from light and moisture. Keep out of reach children.

**6.5 Nature and Contents of Container:**

**Primary Packing:** 10 tablets are packed in ALU-ALU blister.

**Secondary Packing:** Each blister packed in printed mono carton along with package insert.

**6.6 Special Precautions for Disposal:**

No special requirements.

## 7. APPLICANT/ MANUFACTURER:

**APPLICANT:**

| | | |
|---|---|---|
| **Name** | **:** | **CHANRAI HEALTH CARE LIMITED** |
| **Address** | **:** | Plot 122-132, Oshodi Apapa Expressway, Isolo, Lagos, Nigeria. |

**MANUFACTURER:**

| | | |
|---|---|---|
| **Name** | **:** | **BHARAT PARENTERALS LTD.** |
| **Address** | **:** | Survey No. 144-A, Jarod-Samlaya Road, Vill.: Haripura, Tal. Savli, Dist. Vadodara -391520, Gujarat, India |
| **Telephone Number** | **:** | 9909984235 |
| **E-mail** | **:** | bplbrd@bplindia.in. |