1.3.1 SUMMARY OF PRODUCT CHARACTERISTICS

1. Name of the medicinal product

Chloroquine Phosphate Injection 40 mg/ml

2. Composition

Each ml contains:

S. No	Constituent	Reference	Function	Unit Formula (per ml) (mg/ml)
1	Chloroquine Phosphate BP 64.5 mg eq. to Chloroquine base	BP	Chloroquine Phosphate	40.00
2	Benzyl Alcohol	BP	Preservative	2.0%

3. Pharmaceutical form

IM (Small Volume Parenteral)

4. Clinical particulars

4.1 Therapeutic indications

It is indicated for extraintestinal amoebiasis,giardiasis,rheumatoid arthritis, discoid lupus Erthematosus,lepra reactions ,photogenic reactions and infectious mononucleosis.

4.2 Posology and method of administration

In adult patients not able to tolerate oral therapy, from 4 mL to 5 mL (160 mg to 200 mg chloroquine base) may be injected daily for 10 to 12 days. Oral administration should be substituted or resumed as soon as possible.

Parenteral drug products should be inspected visually for particulate matter and discoloration prior to administration.

In vitro studies with trophozoites of Entamoeba histolytica have demonstrated that chloroquine also possesses amebicidal activity comparable to that of emetine.

4.3 Contraindications

Use of this drug is contraindicated in the presence of retinal or visual field changes either attributable to 4-aminoquinoline compounds or to any other etiology, and in patients with known hypersensitivity to 4-aminoquinoline compounds

4.4 Special warnings and precautions for use

Children and infants are extremely susceptible to adverse effects from an overdose of parenteral Chloroquine Phosphate and sudden deaths have been recorded after such administration. In no instance should the single dose of parenteral Chloroquine phosphate administered to infants or children exceed 5 mg base per kg.

complete blood cell counts should be made periodically if patients are given prolonged therapy. If any severe blood disorder appears which is not attributable to the disease under treatment, discontinuance of the drug should be considered.

Patients with history of epilepsy should be advised about the risk of chloroquine provoking seizures.

Since this drug is known to concentrate in the liver, it should be used with caution in patients with hepatic disease or alcoholism or in conjunction with know hepatotoxic drugs.

Irreversible retinal damage has been observed in some patients who had received longterm or high-dosage 4-aminoquinoline therapy. Retinopathy has been reported to be dose related.

Use of Chloroquine Phosphate in patients with psoriasis may precipitate a severe attack of psoriasis.

When used in patients with porphyria the condition may be exacerbated. The drug should not be used in these conditions unless in the judgment of the physician the benefit to the patient outweighs the potential risks.

4.5 Interaction with other medicinal products and other forms of interaction

Antacids and kaolin: Antacids and kaolin can reduce absorption of chloroquine; an interval of at least 4 hours between intake of these agents and chloroquine should be observed.

Cimetidine: Cimetidine can inhibit the metabolism of chloroquine, increasing its plasma level. Concomitant use of cimetidine should be avoided.

ampicillin: In a study of healthy volunteers, chloroquine significantly reduced the bioavailability of ampicillin. An interval of at least two hours between intake of this agent and chloroquine should be observed.

Cyclosporin: After introduction of chloroquine (oral form), a sudden increase in serum cyclosporin level has been reported. Therefore, close monitoring of serum cyclosporin level is recommended and, if necessary, chloroquine should be discontinued.

4.6 Fertility, pregnancy and lactation

If you are pregnant or may become pregnant, talk to a doctor or pharmacist:

before you take Chloroquine Phosphate Injection 40 mg/mL,

Lactation

• If you are breast-feeding, talk to a doctor or pharmacist before taking Chloroquine Phosphate Injection 40 mg/mL.

Radioactively tagged chloroquine administered intraveneously to pregnant pigmented CBA mice passed rapidly across the placenta and accumulated selectively in the melanin structures of the fetal eyes. It was retained in the ocular tissues for five months after the drug had been eliminated from the rest of the body. . There are no adequate and well controlled studies evaluating the safety and efficacy of chloroquine in pregnant women.

4.7 Effects on ability to drive and use machines

Sometimes Chloroquine Phosphate Injection 40 m g/mL, causes blurred eyesight or makes it difficult to focus your eyes. If this happens to you, do not drive or use any tools or machines

4.8 Undesirable effects

Administration must be monitored as cardiovascular collapse with or without cardiac arrhythmia may occur especially after intravenous administration and even after the conventional mode of administration. Pruritus is a common side-effect; headache and visual and gastrointestinal disturbances occasionally arise, but disappear on discontinuation of treatment. Blood dyscrasias have occasionally been reported.

4.9 Overdose

Headache, drowsiness, respiratory and cardi ovascular depression, ar rhythmias, shock,visual disturbances, convulsions, respiratory and cardiac arrest. Overdosage is more likely in children and with intravenous administration. Treatment of over dosage is symptomatic and supportive.

5. Pharmacological properties

5.1 Pharmacodynamic properties

Chloroquine inhibits the action of heme polymerase, which causes the buildup of toxic heme in Plasmodium species. It has a long duration of action as the half life is 20-60 days.10 Patients should be counselled regarding the risk of retinopathy with long term usage or high dosage, muscle weakness, and toxicity in children.

Chloroquine passively diffuses through cell membranes and into endosomes, lysosomes, and Golgi vesicles; where it becomes protonated, trapping the chloroquine in the organelle and raising the surrounding pH.10,13 The raised pH in endosomes, prevent virus particles from utilizing their activity for fusion and entry into the cell.14

Chloroquine does not affect the level of ACE2 expression on cell surfaces, but inhibits terminal glycosylation of ACE2, the receptor that SARS-CoV and SARS-CoV-2 target for cell entry.13,14 ACE2 that is not in the glycosylated state may less efficiently interact with the SARS-CoV-2 spike protein, further inhibiting viral entry.

5.2 Pharmacokinetic properties

Chloroquine is rapidly and almost completely absorbed from the gastrointestinal tract,

nd only a small proportion of the administered dose found in the stools. Approximately 55% of the drug in the plasma is bound to nondiffusible plasma constituents. Excretion of chloroquine is quite slow, but is increased by acidification of the urine. Chloroquine is deposited in the tissues

n considerable amounts. In animals, from 200 to 700 times the plasma concentration may be found in the liver, spleen, kidney, and lung; leukocytes also concentrate the drug. The brain and spinal cord, in contrast, contain only 10 to 30 times the amount present in plasma.

hloroquine undergoes appreciable degradation in the body. The main metabolite is desethylchloroquine, which accounts for one fourth of the total material appearing in the urine;bisdesethylchloroquine, a carboxylic acid derivative, and other metabolic products as yet uncharacterized are found in small amounts. Slightly more than half of the urinary drug products can be accounted for as unchanged chloroquine.

5.3 Preclinical safety data

Not applicable

6. Pharmaceutical particulars

6.1 List of excipients

Benzyl alcohol

6.2 Incompatibilities

Not known

6.3 Shelf life

36 months

6.4 Special precautions for storage

Store in a Cool & dry place. Below 30°C Temperature. Protect from direct sunlight.

6.5 Nature and contents of container

Amber colour glass vial duly sealed with rubber closer & aluminium seal., packed in a primary carton along with the Pack Insert.

6.6 Special precautions for disposal and other handling

Not applicable.

7. Marketing authorisation holder

NCI Pharmchem Ind. Ltd.

8. Marketing authorisation number(s)

Yet to receive

9. Date of first authorisation/renewal of the authorisation

Not Applicable

10. Date of revision of the text

Not Applicable