Oraxin®

1. **Generic Name**

Cyproheptadine and Tricholine citrate

2. **Qualitative and Quantitative composition**

Each 5ml of Oraxin syrup contains

Cyproheptadine	2mg
Tricholine citrate	275mg

Each ml of Oraxin drops contains

Cyproheptadine	1.5mg
Tricholine citrate	55mg

3. **Dosage form and strength**

Oral Syrup of Cyproheptadine 2mg, Tricholine citrate 275mg

Oral Drops of Cyproheptadine 1.5mg, Tricholine citrate 55mg

4. **Clinical particulars**

4.1 Therapeutic indication

ORAXIN is indicated in the treatment of undernutrition or anorexia in infants and children.

4.2 Posology and method of administration

The recommended doses for Cyproheptadine are 0.25 mg/kg/dose that have to be taken twice or thrice a day. It has been proved to be safe even for children less than 2 years of age. The recommended dose of Oraxin drops should be:

Age	Concentration of drops (mg)	Volume of drops(ml)
Up to 6 months	0.75 mg	0.5 ml
6 – 12 months	1.5 mg	1 ml
1- 2 years	1.5 – 3 mg	1 -2 ml

4.3 Contraindication

Use of ORAXIN is contraindicated in new-born or premature infants. Other contraindications to ORAXIN include hypersensitivity to any ingredient of formulation, angle-closure glaucoma, stenosing peptic ulcer, symptomatic prostatic hypertrophy, bladder neck obstruction and pyloroduodenal obstruction.

4.4 Special warnings and precautions for use

- Cyproheptadine has an atropine-like action therefore, should be used with caution in patients with history of bronchial asthma, increased intraocular pressure, hyperthyroidism, cardiovascular disease and hypertension.
- Antihistamines may diminish mental alertness; conversely, particularly, in the young child, they may occasionally produce excitation.
- Patients should be warned about engaging in activities requiring mental alertness and motor coordination.
- Overdose of antihistamines, particularly in infants and children, may produce hallucinations, central nervous system depression, convulsions and death.
- Antihistamines are more likely to cause dizziness, sedation and hypotension in elderly.

4.5 Drug interactions

- MAO inhibitors prolong and intensify the anticholinergic effects of antihistamines.
- ORAXIN may have additive effects with alcohol and other CNS depressants like, hypnotics, sedatives, tranquilizers and antianxiety agents.

4.6 Use in special population

- Pediatric: Safe in children of age above 1 year.

- Geriatric: Avoid use in elderly because of high incidence of anticholinergic effects; may exacerbate existing lower urinary conditions or benign prostatic hyperplasia; if used, administer at low end of dosage range.
- Liver impairment: Use with caution.
- Renal failure: Use with caution.
- Pregnancy and lactation: Cyproheptadine falls under the FDA's Pregnancy Category B, which means that harm to a developing foetus is unlikely. It's not recommended that breastfeeding mothers take Cyproheptadine. Consultation with doctor is recommended in breastfeeding.

4.7 Effects on ability to drive and use machine

It is advisable not to drive or operate machinery when on treatment with Oraxin

4.8 Undesirable effects

Adverse reactions associated with ORAXIN can be attributed to Cyproheptadine. These may include sedation (often transient), dizziness, disturbed coordination, confusion, restlessness; rash, urticaria; blurred vision, diplopia, vertigo, tinnitus; hypotension, palpitation, tachycardia; dryness of mouth, anorexia, diarrhoea, constipation, urinary retention; dryness of nose and throat and thickening of bronchial secretions.

4.9 Overdose

There is limited experience of overdose with Oraxin. Initiate general symptomatic and supportive measures in all cases of overdosages where necessary.

5. Pharmacological properties

5.1 Mechanism of action

Cyproheptadine competes with free histamine for binding at HA-receptor sites. This antagonizes the effects of histamine on HA-receptors, leading to a reduction of the negative symptoms brought on by histamine HA-receptor binding. Cyproheptadine also competes with serotonin at receptor sites in smooth muscle in the intestines and other locations.

Antagonism of serotonin on the appetite centre of the hypothalamus may account for Cyproheptadine ability to stimulate appetite.

Tricholine citrate contains three molecules of choline. Clinical interest in choline centres on its lipotropic action & its utility in the treatment of fatty infiltration and cirrhosis of liver. Choline converts fat into phospholipids like, lecithin, which is essential to bio membrane structure and its function. Lecithin is also a major component of high density lipoprotein (HDL), and is used to mobilize cholesterol from cell membrane. In patients with fatty liver, increased rate of phospholipid turnover has been observed following administration of choline.

5.2 Pharmacodynamic properties

Cyproheptadine is a piperidine antihistamine. Unlike other antihistamines, this drug also antagonizes serotonin receptors. This action makes Cyproheptadine useful in conditions such as vascular headache and anorexia. Cyproheptadine does not prevent the release of histamine but rather competes with free histamine for binding at HA-receptor sites. Cyproheptadine competitively antagonizes the effects of histamine on HA-receptors in the GI tract, uterus, large blood vessels, and bronchial smooth muscle. Most antihistamines possess significant anticholinergic properties, but Cyproheptadine exerts only weak anticholinergic actions. Blockade of central muscarinic receptors appears to account for Cyproheptadine antiemetic effects, although the exact mechanism is unknown. Cyproheptadine also competes with serotonin at receptor sites in smooth muscle in the intestines and other locations. Antagonism of serotonin on the appetite centre of the hypothalamus may account for Cyproheptadine ability to stimulate appetite. Cyproheptadine also has been used to counter vascular headaches, which many believe are caused by changes in serotonin activity, however it is unclear how Cyproheptadine exerts a beneficial effect on this condition.

5.3 Pharmacokinetic properties

After absorption from the gastrointestinal tract, Cyproheptadine hydrochloride undergoes almost complete metabolism. Metabolites are excreted principally in the urine as conjugates, and also in the faeces.

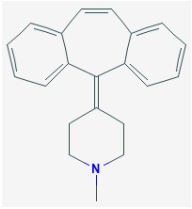
6. Nonclinical properties

6.1 Animal Toxicology or Pharmacology

NA.

7. Description

Cyproheptadine chemical formula is 1-methyl-4-(2-tricyclo[9.4.0.0]pentadeca-1(15),3,5,7,9,11,13-heptaenylidene)piperidine;hydrochloride and its chemical structure is:



Its empirical formula is $C_{21}H_{21}N$ and its molecular weight is 323.9 g/mol.

8. Pharmaceutical particulars

8.1 Incompatibilities

There are no known incompatibilities.

8.2 Shelf-life

Oraxin syrup 36 months

Oraxin drops 24 months

8.3 Packaging Information

Oraxin Syrup in presented in 100 ml / 200 ml bottle

Oraxin Drops in presented in 15 ml bottle with calibrated dropper.

8.4 Storage and handling instructions

Store in cool and dry place.

9. Patient Counselling Information

9.1 Adverse Reactions

Refer part 4.8

9.2 Drug Interactions

Refer part 4.5

9.3 Dosage

Refer part 4.2

9.4 Storage

Refer part 8.4

9.5 Risk Factors

Refer part 4.4

9.6 Self-monitoring information

NA

9.7 Information on when to contact a health care provider or seek emergency help

Patient is advised to be alert for the emergence or worsening of the adverse reactions and contact the prescribing physician.

9.8 Contraindications

Refer part 4.3

10. Manufactured by

CENTAUR PHARMACEUTICALS PVT. LTD., Lab Daffodil and Goa Antibiotics CENTAUR PHARMACEUTICALS PVT. LTD. and Brassica Pharma Pvt. Ltd.

11. Details of permission or license number with date

158(353)/MFG/DFDA/2010/3903 dated. 09.07.2010 for export to Uganda.

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158(80)/MFG/DFDA/94/3601 dated. 21.08.2003 for domestic. 158(80)/MFG/DFDA/94/4069 dated. 24.09.2001 for domestic.(drops)

12. Date of revision:

January 2022