National Agency for Food & Drug Administration & Control (NAFDAC)

Registration & Regulatory Affairs (R & R) Directorate

SUMMARY OF PRODUCT CHARACTERISTICS (SmPC)

1. NAME OF THE MEDICINAL PRODUCT

VOATHERM (α-β ARTEETHER INJECTION 150MG/2ML)

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Composition
Each 2 ml contains:
α, β Arteether 150 mg
Arachis Oil BP Q.S.
Excipients Q.S.

Batch size: 170 litter

SR. NO.	L.C. per Ampoule (mg)	O.A. (%)	INGREDIENTS	PHARMA-COPIAL STATUS	UNIT	A.Q.R/B In Kg.
1.	150.00	2%	α, β Arteether	IHS	kg	*13.005
2.	83.5	-	Benzyl alcohol	BP	kg	7.099
3.	15.95	-	Arachis Oil	BP	kg	135.575
4.	Q.S	-	Tocopheryl Acetate	BP	kg	Q.S

***** Quantity to be changed based on potency of API.
BP = British Pharmacopoeia
IHS= In-house Specification

A.Q.R/B = Actual Quantity Required Per Batch
O.A. % = Overages in %.
L.C. per ml = Label Claim per ml

3. PHARMACEUTICAL FORM
A light yellow colored, clear solution.

4. CLINICAL PARTICULARS
4.1 Therapeutic indications
Severe malaria including cerebral malaria and as a second line drug in chloroquine resistant malaria cases only.

Adult – 150 mg i.e. 1 ampoule of α, β arteether once daily for 3 consecutive days.
Children - 3mg/Kg per day administered by intramuscular injection over a 3-day period
The injection must be given under aseptic conditions, deep intramuscularly in the upper lateral quadrant of the buttock. No other drug should be mixed in the same syringe.

4.2 Posology and method of administration
α, β arteether is for intramuscular use only.
Children - 3mg/Kg per day administered by intramuscular injection over a 3-day period

The injection must be given under aseptic conditions, deep intramuscularly in the upper lateral quadrant of the buttock. No other drug should be mixed in the same syringe

Method of Administration
For oral administration

4.3 Contraindications
α, β arteether injection is contraindicated in patients hypersensitive to artemisinin derivatives.

4.4 Special warnings and precautions for use
When treating children, particular care should be taken to ensure the correct doses are given and retained.

4.5 Interaction with other medicinal products and other forms of interaction

TERATOGENICITY
Adequate studies regarding safe use of artemisinin derivatives during pregnancy are not available. Artemisinin derivatives should not be used in pregnancy as primary drugs for uncomplicated malaria cases but these can be used for treatment of severe or complicated P. falciparum malaria infection in patients of multiple drug resistance, if the potential benefit justifies the potential risk to the fetus.

As per information available from World Health Organisation, little experience has been gained with the use of this drug in pregnancy but it should not be withheld if it is considered life-saving to the mother.
Artemisinin and its derivatives can be used for treatment of uncomplicated malaria during the second and third trimester of pregnancy in areas of multidrug resistance. Owing to lack of data, use in the first trimester of pregnancy is not recommended.
Artemisinin and its derivatives have not been measured in the milk to nursing mothers. It is very likely that these are present in milk and nursing mothers should not be given artemisinin if they are suffering from uncomplicated malaria either in multidrug resistance or drug sensitive situations. If the nursing mother is suffering from complicated and serious malaria induced by multidrug-resistant P. falciparum and artemisinin is indicated, breast-feeding should be stopped.

4.6 Pregnancy and lactation

Pregnancy: Adequate studies regarding safe use of artemisinin derivatives during pregnancy are not available. Artemisinin derivatives should not be used in pregnancy as primary drugs for uncomplicated malaria cases but these can be used for treatment of severe or complicated P. Falciparum malaria infection in patients of multiple drug resistance, if the potential benefit justifies the potential risk to the fetus.
Lactation: It is not known whether α-ß Arteether is secreted in human milk. Caution should be exercised when a-ß Arteether injection used in lactating mother.

4.7 Effects on ability to drive and use machines
There have been no studies to investigate the effect of α -ß Arteether on driving performance or the ability to operate machinery.

4.8 Undesirable effects
While neurotoxicity has been reported in experimental animals, there is no evidence of neurotoxicity in human beings with artemisinin derivatives. α -β Arteether is usually well

tolerated. However, nausea, dizziness and depressed GIT activity can occur. Clinical, neurological, electrocardiographic and biochemical monitoring did not reveal significant toxicity. Apart from some increase in eosinophil numbers, no haematological abnormality was seen.

4.9 Overdose
There is no experience with over dosage with arteether. There is no specific antidote known for the artemisinin derivatives.
However, experimental toxicological results obtained with large doses of artemisinin on the cardiovascular system and the CNS should be considered. Overdosage could bring on cardiac irregularities. An ECG should be taken before initiating treatment in cardiac patients. Irregularities in the pulse should be looked for and cardiac monitoring carried out if necessary. The animal results on the CNS suggest that overdose could result in changes in brain stem function. Clinicians treating cases of overdosage should look for changes in gait, loss of balance, or changes in ocular movements and reflexes.

5. PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamics properties
α-ß Arteether is a fast acting blood schizonticidal agent for P. falciparum malaria at the erythrocytic stage.
α-ß Arteether is concentrated in parasitized erythrocytes. The functional group responsible for antimalarial activity of a-b Arteether is endoperoxide bridge. Iron from the digested haemoglobin of the parasite's victim reduces this bridge, releasing a highly reactive free radical iron species which causes lysis of the parasitic cell. It is also proposed that α-ß Arteether inhibits the protein synthesis and alters the ribosomal organization and endoplasmic reticulum.

5.2 Pharmacokinetic properties
α-ß Arteether is transformed into dihydroartemisinin. It has a half life of 20 hours. It is eliminated by hepatic metabolism. The elimination is much slower compared to other artemisinin compounds.

5.3 Preclinical safety data
Not Applicable

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients
Not applicable

6.2 Incompatibilities
None

6.3 Shelf life
36 months

6.4 Special precautions for storage
Keep in cool & Dry place, below 30°C. Protect from light.
KEEP OUT OF REACH OF CHILDREN.

6.5 Nature and contents of container
3 x 2 ml Ampoule one monopack.

6.6 Special precautions for disposal and other handling
KEEP OUT OF THE REACH AND SIGHT OF CHILDREN.

7. APPLICANT/MANUFACTURER

Applicant:
VISKO PHARMACY LTD.,
9/26, Udi Road, Asata, ENUGU, NIGERIA

Manufactured by:
FARBE FIRMA PVT. LTD.
Plot number 1508, GIDC Estate,
Ankleshwar-393002, GUJARAT,
INDIA

Exported by:
ROENTGEN IMPEX
NO. 2063/A, RABARI VAS, KHORAJ VILLAGE,
DIST. GANDHINAGAR-382735, GUJARAT, INDIA