Only for the use of Medical Professionals

Coavlon®

Artemether and Lumefantrine

Description

Coavlon® is a combined preparation of artemether and lumefantrine which contains a fixed ratio of 1:6 parts of artemether and lumefantrine respectively. Artemether is a sesquiterpene lactone derived from artemisinin. Lumefantrine is a synthetic aryl-amino alcohol family like other anti-malarials (e.g. Quinine, mafloquine, halofantrine). The site of antiparasitic action of both components of the combination is the food vacuole of the malarial parasite, where they are thought to interfere with the conversion of haem, a toxic intermediate produced during haemoglobin breakdown, to the non-toxic haemozoin, malaria pigment. Artemether is concentrated in the food vacuole. It then splits its endoperoxide bridge as it interacts with haem, blocking conversion to haemozoin, destroying existing haemozoin and releasing haem and a cluster of free radicals into the parasite. Lumefantrine is thought to interfere with the haem polymerisation process, a critical detoxifying pathway for the malaria parasite. Both artemether and lumefantrine have a secondary action involving inhibition of nucleic acid and protein synthesis within the malarial parasite.

Indications

Coavlon® tablet is indicated for the treatment of acute uncomplicated Plasmodium falciparum malaria in adult and children weighing at least five kilograms. It is also indicated for the treatment of Plasmodium falciparum malaria cases resistant to both chloroquine and sulphadoxine pyrimethamine combination. The combination is not recommended for first line treatment of malaria.

Dosage and administration

Coavlon® tablet should be taken with food or milky drinks to increase absorption and the following dosage schedule should be followed:

Body Weight (kg)	Day 1		Day 2		Day 3	
	0 Hrs	8 Hrs after	Morning	Evening	Morning	Evening
Adults & children 35kg & above	4 tablets	4 tablets	4 tablets	4 tablets	4 tablets	4 tablets
25kg to <35kg	3 tablets	3 tablets	3 tablets	3 tablets	3 tablets	3 tablets
15kg to <25kg	2 tablets	2 tablets	2 tablets	2 tablets	2 tablets	2 tablets
5kg to <15kg	1 tablet	1 tablet	1 tablet	1 tablet	1 tablet	1 tablet

N.B. Patients who vomit within 1 hour of taking the medication should repeat the dose.

Elderly patients
No special precautions or dosage adjustments are considered necessary in such patients.
Patients with renal or hepatic impairment
Caution is advised when administering artemether and lumefantrine to patients with severe renal or hepatic problems. In these patients, ECG and blood potassium monitoring is advised.

Use in pregnancy and lactation
Artemether and lumefantrine are contraindicated during the first trimester of pregnancy. During the second and third trimester, treatment should only be considered if the expected benefit to the mother outweighs the risk to the foetus. Breast-feeding women should not take artemether and lumefantrine. Due to the long elimination half-life of lumefantrine (4 to 6 days), it is recommended that breast-feeding should not resume before day 28 after discontinuation of artemether and lumefantrine combination unless potential benefits to mother and child outweigh the risk of the combination treatment.

Side effects
Artemether and lumefantrine are well tolerated by children and adults, with most adverse events being of mild to moderate severity and duration. Common adverse events reported with artemether and lumefantrine included headache, dizziness, sleep disorder, abdominal pain, anorexia, diarrhea, vomiting, nausea, palpitation, cough, arthralgia, myalgia, pruritus, rash, asthenia and fatigue. Rare adverse event included hypersensitivity.

Contraindications
Artemether and lumefantrine are contraindicated in hypersensitivity to any of the ingredients or recipients. It is also contraindicated in patients with severe malaria , patients with a family history of congenital prolongation of the QTc interval or sudden death or with any other clinical condition known to prolong the QTc interval such as patients with a history of symptomatic cardiac arrythmias with clinically relevant bradycardia or with severe cardiac disease; patients with known disturbance of electrolyte balance e.g. hypokalaemia or hypomagnesemia; patients taking any drug which is metabolized by the cytochrome enzyme CYP2D6 (e.g. flecainide, metoprolol, imipramine, amitriptyline, clomipramine).

Precautions
Artemether and lumefantrine are not indicated for prophylaxis. It is also not indicated for and has not been evaluated in, the treatment of malaria due to Plasmodium vivax, Plasmodium malariae or Plasmodium ovale.
Patients who remain averse to food during treatment should be closely monitored as the risk of recrudescence may be greater.

Drug interactions
The sequential oral administration of Mefloquine prior to artemether and lumefantrine had no effect on plasma concentrations of artemether, but there was a significant reduction in plasma levels of lumefantrine. Such patients should therefore be encouraged to eat at dosing times to compensate for this decrease in bioavailability.

The inherent risk of QTc-prolongation associated with I.V. quinine was enhanced by prior administration of artemether and lumefantrine. Co-administration of artemether and lumefantrine with drugs that are metabolized by CYP2D6 iso-enzyme (e.g. neuroleptics and tricyclic antidepressants) is contraindicated.

Over dosage
In cases of suspected over dosage, symptomatic and supportive therapy should be given as appropriate. ECG and blood potassium level should be monitored.

Pharmaceutical precautions
Store in a cool & dry place. Protect from light.

Presentation
Coavlon® Tablet : Each coated tablet contains Artemether INN 20 mg and Lumefantrine INN 120 mg.

Packaging Quantities
Coavlon® Tablet : Carton of 24 tablets in blister pack.

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