Hepa-Merz®

L-Ornithine-L-Aspartate

Infusion concentrate as a supplement to i.v. slow drip infusion

Instructions for use, please read carefully !

COMPOSITION
Each mL of infusion contains:
L-Ornithine-L-Aspartate 0.5 g

PHARMACOLOGICAL PROPERTIES
Pharmacodynamic properties
Pharmacotherapeutic group : Liver therapy,
ATC code: A05BA
In vivo, L-ornithine L-aspartate acts on two key ammonia detoxification pathways – urea synthesis and glutamine synthesis – via the amino acids ornithine and aspartate.
Urea synthesis takes place in the periportal hepatocytes, in which ornithine serves both as an activator of the two enzymes ornithine carbamoyl transferase and carbamoyl phosphate synthetase and as a substrate for urea synthesis.
Glutamine synthesis is localised in the perivenous hepatocytes. Under pathological conditions in particular, aspartate and other dicarboxylates – including metabolic products of ornithine – are taken up into the cells where they are used in the form of glutamine to bind ammonia.
Both physiologically and pathophysiologically glutamate serves as an ammonia-binding amino acid. The resulting amino acid glutamine not only provides a non-toxic form for the excretion of ammonia but also activates the important urea cycle (intercellular glutamine exchange).
Under physiological conditions ornithine and aspartate are not limiting for urea synthesis.
Experimental studies in animals point to increased glutamine synthesis as a mechanism of the ammonia-lowering effect. Some clinical studies have shown an improvement in the ratio of branched-chain to aromatic amino acids.

Pharmacokinetic properties
Ornithine and aspartate have a short elimination half-life of 0.3 - 0.4 hours. Some of the aspartate is excreted unchanged in the urine.

Preclinical safety data
Based on pharmacological safety studies, preclinical data show that with correct use there is no particular risk of toxicity following repeated administration or mutagenicity in humans.
No studies on carcinogenic potential have been carried out.
In a dose discovery study, L-ornithine L-aspartate was investigated for reproduction toxicity only to a limited extent.

INDICATION
For reducing plasma ammonia level in condition of hyperammonemia as a result of acute and chronic liver disease such as liver cirrhosis, fatty liver, hepatitis; especially in the treatment of incipient disturbances of consciousness (pre-coma) or neurological complications (hepatic enchelophalopathy).

CONTRAINDICATION
Hypersensitivity to L-ornithine L-aspartate.
Severely impaired renal function (renal insufficiency). A serum creatinine value over 3 mg/100 ml can be used as a guidance value.

SPECIAL WARNINGS AND PRECAUTIONS FOR USE
At high doses of Hepa-Merz infusion concentrate, serum and urine urea levels should be monitored.
If liver function is substantially impaired, the infusion rate must be adjusted to the individual patient in order to prevent nausea and vomiting.
No data are so far available on the use of the drug in children.

INTERACTION WITH OTHER MEDICINAL PRODUCTS AND OTHER FORMS OF INTERACTION
No interaction studies have been performed. Up to now interactions are not known.

PREGNANCY AND LACTATION
There are no clinical data available on the use of Hepa-Merz Infusion Concentrate in pregnancy. L-ornithine L-aspartate has been investigated for reproduction toxicity only to a limited extent in experimental animal studies. The administration of Hepa-Merz Infusion Concentrate in pregnancy should therefore be avoided. If treatment with Hepa-Merz is nevertheless thought to be necessary, the benefits and risks should be carefully assessed.
It is not known whether L-ornithine L-aspartate passes into breast milk. Administration of Hepa-Merz should therefore be avoided during lactation. If treatment with Hepa-Merz is nevertheless thought to be necessary, the benefits and risks should be carefully assessed.

EFFECTS ON ABILITY TO DRIVE AND USE MACHINES
Depending on the underlying disease, the ability to drive and operate machines may also be impaired on treatment with L-ornithine L-aspartate.

UNDESIRABLE EFFECTS
Very common : (>1/10)
Common : (>1/100, <1/10)
Uncommon : (>1/1000, <1/100)
Rare : (>1/10000, <1/1000)
Very rare : (<1/10000)
Not known : cannot be estimated from the available data

561/12615420/0222

MN XXXXX, MC 306, HM Inf. ID

Instructions for use, please read carefully!

Hepa-Merz®

L-Ornithine-L-Aspartate
Infusion concentrate
as a supplement to
i.v. slow drip infusion

MERZ

Approval for Printing
B|BRAUN Melsungen AG
Approved for Printing ☐
Approved for Printing when corrected ☐
New draft required ☐
Date Signature
Name in capital letters

black (20%, 100%)

Format = 210 x 298 mm
2 Seiten

Lätus 306

AM-46619

Merz Pharma
561/12615420/0222
GIF [ID]
B (L03)

Font size: 9,0 pt.

W220686

DISETUJUI OLEH BPOM : 06/10/2022

ID : EREG100193VR12200168

Immune system disorders
Not known : Hypersensitivity, anaphylactic reaction
Gastrointestinal disorders
Uncommon : Nausea
Rare : Vomiting, sensation of heat and palpitation
Generally, however, these gastrointestinal symptoms are transient, and do not necessitate discontinuation of treatment with this medicinal product. They disappear on reduction of the dose or infusion rate.

OVERDOSE
So far signs of intoxication have not been observed following an overdose of L-ornithine L-aspartate. Cases of overdose require symptomatic treatment.

POSOLOGY AND METHOD OF ADMINISTRATION
Unless otherwise indicated, patients may be given up to 4 ampoules per day.
With incipient clouding of consciousness (precoma) or clouding of consciousness (coma), up to 8 ampoules may be given in 24 hours, depending on the severity of the condition.
The ampoules are added to an infusion solution before use, and infused in this form.
Hepa-Merz infusion concentrate can be mixed with the usual infusion solutions. So far no peculiarities have been observed with regard to miscibility. However, the ampoules should be admixed to the infusion solution only immediately before application. For venous tolerability, however, no more than 6 ampoules should be dissolved per 500 ml infusion.
The maximum infusion rate is 5 g L-ornithine L-aspartate (corresponding to the content of 1 ampoule) per hour.
Hepa-Merz infusion concentrate must not be administered into an artery.
Experience in children is limited (see section Special warnings and precautions for use).

STORAGE
Do not store above 30^{o}C

SHELF LIFE
The shelf life is 3 years
Do not use the medicinal product after the expiry date.

PACKAGING
Box, 5 ampoules of 10 mL
Reg. No. DKI0591300149A1

KEEP ALL DRUGS OUT OF THE REACH OF CHILDREN
ON MEDICAL PRESCRIPTION ONLY
HARUS DENGAN RESEP DOKTER

MERZ

Manufactured by:
B. Braun Melsungen AG, Germany
For:
Merz Pharmaceutical GmbH, Germany
Imported by:
PT Pyridam Farma Tbk, Jakarta, Indonesia