- AMINO ACID INJFUSION -

AMIPAREN® Infusion

< 10% Amino Acid Infusion >

Designated Drug, Prescription Drug
Caution: Use only as directed by a physician.

Storage
Store at a temperature not exceeding 30c.

Expiration date
Do not use after the expiration date indicated on the container.

CONTRAINDICATIONS (AMIPAREN Infusion is contraindicated in the following patients.)

(1) Patients with hepatic coma or a risk of hepatic coma
[Because of inadequate amino acid metabolism, the patient's clinical condition may be worsened.]

(2) Patients with severe renal disorder or azotemia
[The amount of water tends to be excessive and the patient's clinical condition may be worsened. Urea and other amino acid metabolites may be retained, which may worsen the patient's clinical condition.]

(3) Patients with abnormal amino acid metabolism
[Since the infused amino acids are not adequately metabolized, the patient's clinical condition may be worsened.]

DESCRIPTION

1. Composition

Each 100 ml of Amiparen contains the following ingredients.

Ingredient	100 mL
L-Leucine	1.40 g
L-Isoleucine	0.80 g
L-Valine	0.80 g
L-Lysine acetate (L-Lysine equivalent)	1.48 g (1.05 g)
L-Threonine	0.57 g
L-Tryptophan	0.20 g
L-Methionine	0.39 g
L-Cysteine	0.10 g
L-Phenylalanine	0.70 g
L-Tyrosine	0.05 g
L-Arginine	1.05 g
L-Histidine	0.50 g
L-Alanine	0.80 g
L-Proline	0.50 g
L-Serine	0.30 g
Glycine	0.59 g
L-Aspartic acid	0.10 g
L-Glutamic acid	0.10 g
Total free amino acids	10.00 g
Essential amino acids (E)	5.91 g
Nonessential amino acids (N)	4.09 g
E/N ratio	1.44
Branched chain amino acids	30.0% (w/w)
Total nitrogen	1.56 g approx.
Na	Approx. 0.2 mEq
Cl	– –
Acetate	Approx. 12 mEq

Glacial acetic acid is used as a pH adjuster.

2. Product Description

AMIPAREN Injection is a clear and colorless solution for infusion.

pH: Approx. 6.9 (mean value obtained immediately after manufacture) and 6.5–7.5 (specification value)

Osmotic pressure ratio (relative to physiological saline): Approx. 3

3. Description of Containers
Polyethylene bottles of 250 ml and 500 ml with rubber cap and outer label

INDICATIONS
Provision of amino acids in the following instances: hypoproteinemia, malnutrition, and before and after surgery.

DOSAGE AND ADMINISTRATION
1. Infusion via central vein
The usual adult dosage of AMIPAREN Infusion is 400–800 mL per day, infused via a central vein. The dosage may be adjusted according to the patient's age, symptoms, and body weight.

2. Infusion via peripheral vein
The usual adult dose of AMIPAREN Infusion is 200–400 mL per dose, infused via a peripheral vein. The infusion rate may be adjusted to provide about 10 g of amino acids over 60 minutes in order to achieve optimal utilization of amino acids. The standard infusion rate in adults is 100 mL over 60 minutes (approx. 25 drops per minute). The rate should be slowed in children, the elderly, and severely ill patients. Dosage may be adjusted according to patient's age, symptoms, and body weight.
A combination of AMIPAREN Infusion with a carbohydrate solution is highly recommended for more efficient utilization of amino acids.

PRECAUTIONS
1. Careful Administration (AMIPAREN Infusion should be administered with care in the following patients.)
(1) Patients with severe acidosis
[The patient's clinical condition may be worsened.]
(2) Patients with congestive cardiac failure
[An increase in the circulating blood volume may increase the workload on the heart, which may worsen the patient's clinical condition.]
(3) Patients with hyponatremia
[The patient's clinical condition may be worsened.]

2. Adverse Reactions
Reported incidences are based on 3 973 patients, and a total of 35 (0.88%) patients experienced 39 adverse reactions including abnormal laboratory values (data at the time of reexamination, 1993, Japan).
If adverse reactions are observed, discontinue the administration and institute appropriate treatment.

Reactions	Frequency		
	Unknown	0.1% –<5%	<0.1%
Hypersensitivity	[Rash etc.]		
Gastrointestinal		Nausea, vomiting, etc.	
Cardiovascular	[Chest discomfort, palpitation, etc.]		
Hepatic		Increases in AST (GOT) or ALT (GPT)	Increase in total bilirubin
Renal		Increase in blood urea nitrogen	
Large dose and rapid administration	[Acidosis]		
Others	[Chills, fever, feeling of warmth, headache]		Vascular pain

[ ]: common adverse reactions in amino acid injections (Drug Efficacy Reevaluation, Part 15, 1979, Japan)

3. Use in the Elderly
Since elderly patients often have reduced physiological function, it is advisable to take such measures as reducing the dose by decreasing the infusion rate.

4. Pediatric Use
The safety of AMIPAREN Infusion in preterm neonates, term neonates, infants, and children has not been established (insufficient clinical data).

5. Precautions Concerning Use
(1) Before administration
1) To prevent associated infection, carry out all procedures under aseptic conditions.
2) Use the solution after warming to near body temperature during cold environmental conditions.
3) Use the solution immediately after opening the container. After use, discard all unused solution.
(2) During administration
1) The solution contains about 120 mEq/L of acetate. A large dose or concomitant use with an electrolyte solution requires careful monitoring of electrolyte balance.
2) Administer slowly via a vein.
3) When vascular pain occurs, use an alternate site or discontinue the administration.

PHARMACOKINETICS
(Reference data in rats):
^{14}Carbon-labeled amino acids formulated in AMIPAREN Infusion were readily distributed to plasma protein fractions after intravenous infusion in normal rats at 3, 7, and 57 weeks of age. The radioactivity was high in the protein fractions of the pancreas, liver, and kidneys and distributed rapidly in the muscles. The excretion of radioactivity into expired air over

72 hours post dosing accounted for 37.1% to 44.2% of the infused dose. The recovery rates in the urine and feces accounted for 3.9%–5.2% and 1.2%–3.1% of the infused dose, respectively. Urinary amino acid fractions contained only 1.1%–1.5% of the infused dose. The total retention of amino acids in the body amounted to more than 98.5% of the infused dose.[1)]

CLINICAL STUDIES

Clinical studies of AMIPAREN Infusion were conducted in a total of 546 surgical patients, mainly those who underwent gastrointestinal surgery. AMIPAREN Infusion was administered via the central vein (total parenteral nutrition) or via the peripheral vein (peripheral parenteral nutrition) after surgery. The results showed the high clinical value of AMIPAREN Infusion as a source of amino acids in terms of major protein metabolism-related parameters, including nitrogen balance, serum total protein and albumin levels, rapid protein turnover, and urinary excretion of 3-methylhistidine.[2–4)]

PHARMACOLOGY

The effect of AMIPAREN Infusion as a source of amino acids in total parenteral nutrition was assessed using normal rats[5)] and surgically stressed rats.[6–8)]

(1) AMIPAREN Infusion readily corrected and favorably maintained nitrogen balance, demonstrating a favorable nitrogen sparing effect in these animal models.[6, 7)]

(2) AMIPAREN Infusion increased synthesis of plasma total protein and albumin.[5, 6)]

(3) The urinary 3-methylhistidine/creatinine ratio as an indicator of protein catabolism in the muscle under stressed condition was low after AMIPAREN was infused, indicating a potent inhibitory effect on muscular protein breakdown.[7, 8)]

(4) Plasma concentrations of free amino acids, including branched-chain amino acids, showed only minor fluctuation during AMIPAREN infusion, and amino acid metabolism was thought to be stable during AMIPAREN therapy.[5–7)]

PRECAUTIONS FOR HANDLING

(1) Since an oxygen absorbent is enclosed between the bag and the outer wrap to maintain stability of the solution , do not remove the outer wrap until use.

(2) A crystalline precipitate may form due to temperature changes during storage. Shake the solution to dissolve the precipitate before use.

(3) Do not use the product if the outer wrap covering the product has been damaged, the solution is discolored, or a precipitate that cannot be dissolved by shaking has formed.

(4) Do not use the solution if droplets are present inside the outer wrap or if the solution is cloudy.

(5) Volume markings on the container may not be accurate. Use only as a rough guide.

PACKAGING

250 mL, 500 mL in polyethelene bottles

REFERENCES

1) Nabeshima A et al. Iyakuhin Kenkyu (Drug Res) 1984;15(6):985–1002 (in Japanese).

2) Nagayama M et al. JJPEN 1986;8(4):501–510 (in Japanese).

3) Hayashida K et al. Yakuri to Chiryo (Jpn Pharmacol Ther) 1986;14(6): 4277–4294 (in Japanese).

4) Muto T et al. Yakuri to Chiryo (Jpn Pharmacol Ther) 1986;14 (Suppl. 3):403–459 (in Japanese).

5) Yokoyama H et al. Kiso to Rinsho (Clin Rep) 1986;20(1):5339–5347 (in Japanese).

6) Yokoyama H et al. Kiso to Rinsho (Clin Rep) 1986;20(1):5349–5354 (in Japanese).

7) Yokoyama H et al. Kiso to Rinsho (Clin Rep) 1986;20(1):5355–5361 (in Japanese).

8) Yokoyama H et al. Kiso to Rinsho (Clin Rep) 1986;20(1):5363–5368 (in Japanese).

Manufactured and Packaged by Egypt Otsuka Pharmaceutical Co.,S.A.E
UNDER LICENCE of OTSUKA Pharmaceutical Co.-JAPAN

ستيكر لاصق على العبوة موضح به السعر الجبرى كما جاء فى إخطار التسعيرة وذلك طبقاً لقرار اللجنة الفنية
ستها فى ٢٠١٥/١٠/٢٢

Otsuka

Sterile
Non-Pyrogenic

M.O.H. Reg. No.:26819/2019

Amiparen ®10%

(Branched Chain Amino Acid And Acetate)

SOLUTION FOR I.V. INFUSION

500 ml

أميبارين ١٠٪

محلول للتنقيط الوريدي

٥٠٠ مل

رقم التسجيل بوزارة الصحة: ٢٦٨١٩ / ٢٠١٩

Each 100 ml solution Contains:

L-leucine	1.4gm	L-Arginine	1.05 gm
L-Isoleucine	0.80 gm	L-Histidine	0.5gm
L-Valine	0.80 gm	L-Alanine	0.8 gm
L-Lysine acetate (Eq.to L-Lysine 1.05 gm)	1.48 gm	L-Proline	0.5 gm
		L-Serine	0.3 gm
L-Threonine	0.57 gm	Glycine	0.59 gm
L-Tryptophan	0.20 gm	L-Aspartic acid	0.1 gm
L-Methionine	0.39 gm	L-Glutamic acid	0.1 gm
L-Cysteine	0.1 gm	Acetate	120mEq/L
L-Phenyl Alani ne	0.7 gm	Sodium	2mEq/L
L-Tyrosine	0.05 gm	Total osmolality	963mEq/L
Water for injection	QS		

- Do not use if the solution is not clear or container is damaged
- Donot use in case the indicator tablet color changes from pink to purple
- Donot use if the solution color changed
- One single dose, Discard remaining quantity in case the container not used completely
- Store at temperature not exceeding 30°C,away from direct sun light .
- Keep out of reach of children
- Do Not puncture for ventilation during Use
- For indication and use, see the enclosed pamphlet

- لا يستخدم إذا كان بالمحلول شوائب أو العبوة غير سليمة
- لا يستخدم في حال تغير لون القرص المرفق من اللون الوردي الي اللون البنفسجي
- لا يستخدم في حال تغير لون المحلول
- العبوة جرعة واحدة، إذا لم تستخدم بالكامل يجب التخلص من الكمية المتبقية
- يحفظ في درجة حرارة لا تزيد عن ٣٠° م. بعيدا عن ضوء الشمس المباشر
- يحفظ بعيدا عن متناول الأطفال
- لا تثقب للتهوية أثناء الأستخدام
- لدواعي الاستعمال والجرعة انظر النشرة الداخلية

Manufactured by:
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Tel:+20554500097 Fax: +20554500064

Lot. :

Mfg. :

Exp. :

وزارة الصحة
الإدارة المركزية للشئون الصيدلية
قسم الإسعاد والبطاقات
مراقبة

مع استيكر لاصق على العبوة موضح به السعر الجبرى كما جاء فى إخطار التسعيرة وذلك طبقاً لقرار اللجنة الفنية
بجلستها فى ٢٠١٥/١٠/٢٢

Otsuka

Sterile
Non-Pyrogenic

M.O.H. Reg. No.:26819/2019

Amiparen ®10%

(Branched Chain Amino Acid And Acetate)

SOLUTION FOR I.V. INFUSION **250 ml**

أميبارين ١٠٪

محلول للتنقيط الوريدي ٢٥٠ مل

رقم التسجيل بوزارة الصحة: ٢٦٨١٩ / ٢٠١٩

Each 100 ml solution Contains:

L-leucine	1.4gm	L-Arginine	1.05 gm
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L-Valine	0.80 gm	L-Alanine	0.8 gm
L-Lysine acetate	1.48 gm	L-Proline	0.5 gm
(Eq.to L-Lysine 1.05 gm)		L-Serine	0.3 gm
L-Threonine	0.57 gm	Glycine	0.59 gm
L-Tryptophan	0.20 gm	L-Aspartic acid	0.1 gm
L-Methionine	0.39 gm	L-Glutamic acid	0.1 gm
L-Cysteine	0.1 gm	Acetate	120mEq/L
L-Phenyl Alani ne	0.7 gm	Sodium	2mEq/L
L-Tyrosine	0.05 gm	Total osmolality	963mEq/L
Water for injection	QS		

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Lot. :

Mfg. :

Exp. :

وزارة الصحة
الإدارة المركزية للشئون الصيدلية
قسم الإسماء والبطاقات
موافقة
٢٠١٧/٤/١٨