Aminosin

Amino Acid, D-Sorbitol and Electrolytes

Composition

Each 100 ml IV Infusion contains

Essential Amino Acids	**Specification**	**Quantity**
L-Isoleucine	USP	0.352 g
L-Leucine	USP	0.490 g
L-Lysine Hydrochloride	USP	0.430 g
L-Methionine	USP	0.225 g
L-Phenylalanine	USP	0.533 g
L- Threonine	USP	0.250 g
L-Tryptophan	USP	0.090 g
L-Valine	USP	0.360 g
L-Histidine	USP	0.250 g
L-Tyrosine	USP	0.025 g
Non-Essential Amino Acids		
L-Arginine	USP	0.500 g
L-Aspartic Acid	USP	0.250 g
L-Glutamic Acid	BP	0.075 g
L-Alanine	USP	0.200 g
L-Cysteine	BP	0.010 g
Glycine	USP	0.760 g
L-Proline	USP	0.100 g
L-Serine	USP	0.100 g
Carbohydrate		
D-Sorbitol	BP	5.000 g
Electrolytes (mmol/L)		
Sodium (Na+)		35.5
Potassium (K+)		25.0
Magnesium (Mg++)		2.5
Chloride (Cl-)		53.4
Acetate (CH3COO-)		25.0

Description

Aminosin is a sterile aqueous solution of crystalline Amino Acids and D-Sorbitol with electrolytes, which is necessary as the nitrogen sources for parenteral nutrition. Nitrogen is provided in the form of essential and non-essential amino acids. The solution is clear, colorless, having a pH lying in the range of 5.7 to 7.0.

Clinical Pharmacology

Aminosin contains all 18 essential and non-essential amino acid needed for protein synthesis. The amino acid composition is such that positive nitrogen balance can be achieved in the postoperative period and during extended periods of intravenous nutrition.

Indication

Aminosin is indicated as a source of amino acids for protein synthesis in patients needing intravenous nutrition. Aminosin is particularly suitable for patients with basal amino acid requirements. Aminosin is also indicated in faster recovery in surgery, burns, renal insufficiency, hepatic insufficiency and effective management of cancer.

Dosage

Adult: The nitrogen requirement for maintenance of body protein mass depends on the patient's condition (nutritional state and degree of metabolic stress). The requirements are 0.10-0.15g nitrogen/kg/day (no or minor metabolic stress and normal nutritional state), 0.15-0.20g nitrogen/kg/day (moderate metabolic stress with or without malnutrition) and up to 0.20-0.25g nitrogen/kg/day (severe catabolism as in burns, sepsis and trauma). The dosage range 0.10-0.25g nitrogen/kg/day corresponds to 15-35 ml Aminosin/kg/day. In obese patients, the dose should be based on the estimated ideal weight. Depending upon patients requirements, 1000-2000 ml Aminosin may be infused intravenously per 24 hours. Aminosin should be infused slowly, at rates 1.4-2.8 ml (30-60 drops) per minute.

Infant and children:

In children and infants, the rate of infusion is 28-35 ml/kg body weight per day is recommended, with a step wise increase in the rate of administration during the first week.

Adverse Effect

Aminosin is usually well tolerated. Nausea Occurs rarely. Vomiting, flushing and sweating have been observed during infusion of Aminosin at rates exceeding the recommended maximal rate. Transient increases liver test during intravenous nutrition have been reported. The reasons are at present unclear. The underlying disease and the components and their amount in the intravenous feeding regimens have been suggested. Hypersensitivity reactions have been reported. As with all hypertonic infusion solution, thrombophlebitis may occur when peripheral veins are used. The Incidence may be reduced by the simultaneous infusion of 10% fat emulsion. If given to severely ill, premature infants, hyperphenylalaninemia may occur.

Contraindication

Aminosin is contraindicated in patients with inborn errors of amino acids metabolism, irreversible liver damage and severe uremia when dialysis facilities are not available.

Use in Pregnancy

Successful and safe administration of amino acid solutions during pregnancy in the human has been reported. Animal reproduction studies have not been carried out with Aminosin.

Drug Interaction

At the recommended dosage the amino acid in Aminosin solutions have no pharmacological effects and is not expected to interact with other medicaments.

Compatibility

Aminosin containing amino acids should not be mixed with other preparations because of the increased risk of microbial contamination and incompatibility.

Precaution

Hyperphenylalaninemia has been noted in severely ill, premature infants. In these patients, monitoring of the phenylalanine levels is recommended and the infusion rate is adjusted as needed. Do not use if the solution is turbid or contains particles. Discard any unused portion.

Pharmaceutical Precaution

Protect from light and store between 15^{o}C to 25^{o}C temperature. Avoid freezing. Keep out of the reach of children.

Presentation

Aminosin is available in 500 ml glass bottle.

Manufactured by:

IBN SINA

The IBN SINA Pharmaceutical Industry Ltd.
Shafipur, Gazipur, Bangladesh.