

AQUPHARM 9 Ringer's Solution for Infusion

Presentation

Aqupharm No. 9 is a sterile, preservative free, solution for infusion, presented in a flexible pouch with a blue PVC closure, containing:

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|-----------------------------|--------------|
| Sodium Chloride | 0.86% w/v |
| Potassium Chloride | 0.03% w/v |
| Calcium Chloride, dihydrate | 0.03% w/v |
| Ions | |
| Sodium | 147.0 mmol/l |
| Potassium | 4.0 mmol/l |
| Calcium | 2.2 mmol/l |
| Chloride | 156.0 mmol/l |

The approximate ion concentration in millimoles per litre is sodium 147, potassium 4, calcium 2.2, chloride 156.

Indications

Aqupharm No. 9 is an isotonic solution used in dogs and cats for the treatment of dehydration with salt depletion and where there has been some intracellular potassium loss. In cases of persistent vomiting there are substantial losses of both hydrogen and chloride ions, resulting in an excess of intracellular sodium. Renal compensation leads to an increased potassium loss and consequent hypokalaemia. It is indicated for pyometra when associated with severe vomiting.

Dosage and administration

Aqupharm No. 9 should be prewarmed to 37°C to prevent hypothermia. Remove outer bag and protective giving set inlet tab. Push cannula fully into giving set. Prime giving set. Perform venepuncture and immediately attach giving set. Adjust infusion rate as required. Delivery is from a closed circuit, it does not need an air inlet. Giving sets should be changed every 24 hours.

The quantity of fluid and electrolyte for administration will consider existing deficits, maintenance needs and continuing losses. The existing deficit is that which has been lost prior to examination. This must be estimated by evaluating the patient's history, making a physical examination and using laboratory aids. Maintenance therapy is to replace normal losses occurring via urine, faeces, respiratory tract and skin. As a general rule, maintenance therapy requires 50 ml/kg bodyweight/day. Continuing losses during a disease period should be estimated whenever possible, i.e., quantity of vomit, diarrhoea or blood loss.

The clinical response of the animal rather than formulae or equations should be used to guide fluid therapy. The intravenous route of administration is preferred. Indwelling intravenous catheters offer significant advantage in intravenous fluid therapy. Subcutaneous administration may be used for isotonic and non-irritating solutions. The rate of administration should be considered with each individual patient. The aim should be to correct about half of the calculated deficit in the first 1-2 hours. As a general rule the following formula is the maximum satisfactory rate (less where cardiovascular or pulmonary disease exists).

Maximum rate = Body wt (kg) x 90 = ml fluid per hour

This rate should be slowed after the first hour and considerably slowed if no urine flow is established. Signs of over rapid administration include restlessness, moist lung sounds, tachycardia, tachypnoea, nasal discharge, coughing, vomiting and diarrhoea.

Contraindications, warnings etc

Contra-indications:

Sodium overload may occur in cases with myocardial and renal damage. It should also be appreciated that in the period following surgical interference or severe trauma there may be an inability to excrete excessive sodium.

Undesirable effects:

Hypernatraemia (sodium overload) or an inability to excrete excessive sodium. Thrombosis of a chosen vein is always a possibility with intravenous infusion. If infusion is protracted then another vein should be selected after 12-24 hours.

Precautions and warnings:

For animal treatment only.

In evaluating an animal for possible fluid therapy the state of hydration, electrolyte balance, acid-base balance, renal function and caloric balance should be considered. Evaluation will be based on history, physical examination and laboratory testing.

Although Aqupharm No. 9 contains potassium the quantity may be inadequate in the presence of intracellular potassium loss; where such deficiency is known to occur it may be necessary to give oral potassium supplements.

Treatment of overdosage:

Symptoms: Associated signs of hypernatraemia include pronounced thirst, dry mucous membranes, constipation, hyperpyrexia, CNS disturbances, and ultimately convulsions. A plasma Na⁺ concentration of > 150 mEq/l and a urine specific gravity of > 1.030 indicate a hypernatraemic state.

Treatment of overdosage: Injection of a diuretic.

User warning: Wash hands after use.

Pharmaceutical precautions

Do not store above 25°C. Do not freeze.

Store out of the reach of children. This product does not contain an antimicrobial preservative. Single use only; any remaining solution should be discarded.

Interaction with other medicines:

Drugs should not be mixed in infusion containers or through the giving sets unless the components are of known compatibility. The user should refer to the manufacturer's literature for any drug substance which he or she proposes to co-administer, and also to the Appendix of Drug Incompatibilities in the current edition of The Veterinary Formulary. Aqupharm No. 9 is incompatible with Sodium bicarbonate intravenous solution and Noradrenaline acid tartrate.

Dispose of any unused product and empty containers in accordance with guidance from your local waste regulation authority.

Legal category

POM-V

UK authorised veterinary medicinal product.

To be supplied only on veterinary prescription.

Package quantities

500 ml and 1000 ml flexible pouches. Not all pack sizes may be marketed.

Marketing Authorisation Number

Vm 10347/4007

Marketing Authorisation Holder

Animalcare Ltd
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