



pet blood bank^{uk}

A charity supported by Vets Now

PACKED RED BLOOD CELLS (PRBC) FOR ANIMAL TREATMENT ONLY

Presentation

A unit of PRBCs is created by centrifuging a unit of fresh whole blood and then separating the red blood cells from the plasma. Each standard collection bag contains 63 ml of CPD anticoagulant and 100 ml of SAG-M red cell preservation solution. Packed red cells post centrifuging are suspended in a small volume of plasma and 100ml SAG-M.

Uses

PRBC are indicated in the treatment of anaemia or other disorders of oxygen transport. PRBC are equivalent to whole blood in this capacity.

PRBC may be used in the treatment of acute blood loss (traumatic or surgical haemorrhage, acute immune mediated haemolytic anaemia (IMHA) and chronic blood loss (parasitism, bone marrow disorders, chronic IMHA).

Dosage and Administration

PRBC are intended for intravenous use only.

Dosage: As a general rule 2 ml/kg of PRBC will raise the PCV by 2 percentage points or the haemoglobin level by 0.6 g/dl. A separate dose calculation form is included with this data sheet for individual patient dosage.

Rate of Administration: The calculated dose should be given over 4 hours to normovolaemic cases. Hypovolaemic patients may tolerate transfusion over 2 hours. Acutely hypovolaemic patients may tolerate a rate of 4-6 ml/minute. Patients with cardiac disease and other patients at risk for circulatory embarrassment should have the dose delivered over 5 hours or more.

Bags should be at room temperature for no more than 4 hours. If the transfusion cannot be completed in this time frame the PRBC should be divided and the unused portion stored in the refrigerator until required. Once opened any product remaining after 24 hrs should be discarded.

Administration: ALWAYS ADMINISTER USING A BLOOD GIVING SET or suitable inline blood filter. Crossmatching is recommended. Carefully and gently pre-warm PRBC to room temperature before administration. Gently resuspend PRBC by inverting the bag, before spiking the bag. To aid flow, PRBC may be diluted or administered concurrently via a 'Y' blood giving set using 0.9% NaCl. Other types of intravenous fluids should not be used. Lactated Ringers Solution or any other solution containing divalent cations must not be administered in the same intravenous or parenteral line. Do not mix other products with PRBC. Use PRBC straight from the bag.

Monitoring: The infusion should be commenced slowly and the patient monitored closely (see adverse reactions). It is recommended that patients be monitored using the standard transfusion record form supplied by Pet Blood Bank Services Limited.

Contra-indications, Precautions and Warnings

Contra-indications: Canine PRBC are for use in puppies and adult dogs only.

Precautions: Inspect the bag before use. If significant haemolysis, colour change compared to the tubing segments, cloudiness or presence of flocculent material is noted, then the bag should not be used. Contact the Pet Blood Bank Services Limited for further advice.

Warning: Care should be taken to avoid volume overload.

Handling Precautions: In case of accidental contact with skin, wash affected areas thoroughly with warm soapy water. Unused product and empty pack should be discarded and disposed of as clinical waste.

Pharmaceutical Precautions:

ADVERSE REACTIONS to PRBC: Anaphylaxis can occur with products of this type. Careful monitoring, especially at the start and throughout the transfusion, therefore, is essential. If tachycardia, increased temperature, hyperventilation, vomiting or trembling occurs, slow the transfusion down or stop altogether. If signs abate within five minutes, then continue transfusing at a slower rate. Consider the administration of dexamethasone (1 mg/kg IV) and chlorpheniramine (0.5 mg/kg IV, SC, IM depending on the preparation) If signs recur, stop the transfusion entirely. If severe or other signs occur such as pyrexia, cardiac arrhythmias, urticaria and collapse, stop the transfusion. If necessary, administer adrenalin (0.01 mg/kg IV), corticosteroids and intravenous saline. These emergency drugs should always be on hand.

DELAYED ADVERSE REACTIONS can include jaundice, haemoglobinuria, anuria, disseminated intravascular coagulation, acute renal failure and, in extreme cases, death. Delayed haemolytic reactions can occur days to weeks post transfusion. The direct Coombs test is positive in these patients.

Package Quantities

One Standard Unit approximately 250 ml of Packed Red Blood Cells in 100 ml of SAG-M

Half unit approximately 125ml of Packed Red Blood Cells in 50ml of SAG-M

Further Information

STORAGE: PRBC should be stored at normal refrigerator temperature (1-6°C). Blood bags should be stored in a vertical (upright) position with adequate space between units to allow breathing. Ideally the bags should hang to allow full air contact. The refrigerated blood bags should be mixed by gentle inversion several times each week during the storage period to ensure even exposure of the PRBC to the nutrient solution. Temperature stability is very important. Pet Blood Bank Services Limited recommend the use of a maximum/minimum thermometer that is checked daily and temperatures recorded to ensure products are stored within appropriate temperature ranges. PRBC should not be stored in a refrigerator that is opened frequently. PRBC breathe and therefore should not be kept in a refrigerator that is used for the storage of food or other possible contaminants.

SHELF LIFE: PRBC stored in SAG-M have a shelf life of 42 days.

WARMING: PRBC removed from refrigeration will warm quite rapidly. Where active warming is required, do NOT use a microwave oven. Immerse the bag in warm water at not more than 37°C. A water bath such as a sink full of domestic warm water is ideal. The PRBC should be warmed inside the provided zip lock bag to avoid contaminating ports while in the water bath.

Avoid hot water, as it will damage the proteins and haemolyse the PRBC. The unit of PRBC should be brought slowly to no more than 37°C temperature before use. Room temperature is preferable.

LEAKAGE: If leakage becomes apparent the entire contents must be discarded.

Non-Food Animal Blood Bank Authorisation: No. 30549/8000

Products are supplied by Pet Blood Bank Services Limited the trading subsidiary of Pet Blood Bank UK. The purchaser of this product has no contract with Pet Blood Bank UK or Vets Now Limited and they accept no duty of care.

Product Data Sheet



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BCP0003 CANINE PACKED RED BLOOD CELLS - DEA 1.1 POSITIVE
BCP0004 CANINE PACKED RED BLOOD CELLS - DEA 1.1 NEGATIVE

Who donates our blood?

Our donor dogs are volunteers whose owners appreciate the important, and lifesaving role their companion can play in veterinary medicine. They are typical household pets and working dogs, such as police dogs.

Before becoming a donor there are certain criteria that each donor has to meet. They must be:

- Healthy and Friendly
- Aged between 1-8 years
- Weigh over 25kg in bodyweight
- Current with vaccinations – Parvovirus, Distemper, Infectious Canine Hepatitis, Leptospirosis and Parainfluenza
- Only be receiving preventative flea and worming treatment

What do we test the blood for?

To ensure the integrity and quality of our blood products all dogs have an in-depth history taken to ensure they are healthy along side a full physical examination before entering the donor programme.

It is our standard procedure to:

- Blood type all our donors for DEA 1.1 –ve/+ve
- Pre-screen to check PCV and TP before every donation
- Undertake full haematology and biochemistry screening on an annual basis for all donors. This is carried out by our approved laboratory
- Ensure all our donors are micro-chipped to provide traceability of our products and donors (we use tattoo numbers where available)
- Test 10% of our donors for infectious disease Babesia, Anaplasma, Ehrlichia Genus, Leishmania and Mycoplasma
- Exclude dogs with a history of travel outside of the UK
- 10% of our products are screened for microbiology